

**PSYCHOLOGICAL PROBLEMS IN SAUDI ARABIAN PRIMARY
CARE PATIENTS: A PRELIMINARY EXPLORATION OF
BARRIERS TO EFFECTIVE TREATMENT**

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Abstract

The importance of primary care in treating Psychological Disorder (PD) has repeatedly been emphasized. Many patients with psychological needs may find several barriers to receiving benefit from their GP. Unfortunately, there is no study within Saudi Arabian (SA) primary care about the prevalence of PD and the process of dealing with it. Therefore, this thesis reports the results of four studies. The first three quantitative studies and the fourth, qualitative, study attempted to explore PD and relevant barriers to receiving help from the GP.

Study One was conducted in Saudi primary care (N=224 patients) in one specific area (Assir Area). It contains two chapters: in the first chapter assessment included prevalence of PD, prevalence of medically unexplained symptoms (MUS), and GPs' ability to detect PD. Findings from this chapter suggest that PD is high using GHQ-12 and GHQ-28. Only about 15 percent of the sample was MUS. GPs were likely to misdiagnose PD. In the second chapter assessment included patients' aetiological beliefs, reasons for delay in seeking help, sources of help consulted, stigma, satisfaction, and patient intentions. There were significant differences between cases and non-cases related to their beliefs, stigma, and patient intentions. Cases reported more psychological and cultural beliefs than non-cases did. Women reported more stigmatization than men.

Study Two (N=104 patients) had the specific aim of comparing the two methods of wording format for answering the GHQ-12: the Arabic method of wording vs. the Goldberg method of wording. The Arabic HADS was used as a gold standard criterion. Findings from this study suggest that the Arabic answering format works in almost the same as the Goldberg answering format.

Study Three (N=606 patients) was conducted in primary care in different geographical areas of Saudi Arabia. This study contains four chapters: prevalence of PD and MUS, patients' beliefs, patients' intentions, and GPs' diagnoses and treatment decisions. Prevalence of PD and MUS were compared with Study One, and were almost the same. Two scoring methods of the GHQ-12 were tested vs. the HADS. GPs were again likely to misdiagnose PD. Cases reported more psychological and cultural beliefs than non-cases did. Cases' beliefs changed after consultation to be more physical. Cases showed more need for emotional support from their GP than non-cases. GPs' assessments of patients' intentions were significantly different from what patients requested. There was no clear evidence that the GPs' decisions for cases were different from non-cases.

Study Four was qualitative (N=27 patients). This study examined the ways in which psychological, physical and cultural factors interacted in patients' beliefs about their symptoms and what patients want from their GPs and how they respond to GPs. Patients with beliefs that psychological factors are involved in their problems also report more beliefs in cultural reasons for their symptoms and they believe more in cultural sources of help. Patients reported that they consulted their GPs for more than medication and drugs alone.

This thesis concludes that Saudi primary care patients with psychological disorders encounter several barriers which need to be overcome if they are to receive proper help. Primary care providers need to educate patients, train GPs and provide help for psychological disorders presented in cultural ways, especially for women and for those patients with cultural needs.

Preface

During my work as a psychologist in my own country, the Kingdom of Saudi Arabia, I met a number of patients with depression, anxiety, somatization, and some other psychological disorders. Some of them wanted to have psychological help but they did not know where they should go to seek help and from whom. Some other patients denied having psychological disorders due to barriers yet to be explained. As a result, my interest in psychological disorder and seeking help from professionals has grown over time. In fact, I am keen to explore barriers that have contributed to preventing patients from seeking help from their GPs. Because of the influence of cultural factors within Saudi communities, I am particularly interested in the impact of cultural concepts on health and illness. It has been a unique opportunity to follow these issues in my study at the department of Clinical Psychology in the University of Liverpool.

My own aim was, and remains, to help my own community. In particular, I aim to help those patients who suffer from psychological disorder, and to help develop a successful treatment approach in Saudi primary care. The knowledge gained from my thesis will help me as a researcher and psychologist to work more effectively with those patients with psychological disorders.

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CHAPTER 1: Psychological disorders in primary care in Western and non-Arabic countries

1.1 Psychological disorders in the community

1.1.1 Introduction

In 1946, the World Health Organization (WHO) defined health as "the complete state of physical, mental, and social well-being and not merely the absence of disease" (Stroebe, 2000). This definition heralded a growing concern with linking mind and body in medical research in the fifty-five years since, resulting in an increased understanding of the interrelationship between physical and mental health.

Primary care is the ideal setting for the identification of psychological disorders since the majority of people seek their mental health care in these settings. Psychological conditions such as depression, anxiety and sleep problems are both prevalent and amenable to treatment in primary care, especially when they are identified early. For patients of all ages, early detection, assessment, and access to treatment and support can prevent psychological disorders from escalating and poor life outcomes ensuing. Early intervention can have a significant impact on the lives of patients who experience psychological disorders, but they often remain undetected or inadequately treated.

To date, research has concentrated on describing the perceived failure of patients to seek help or the failure of general practitioners to recognise and treat psychological disorder, paying less attention to the reasons for these failures; i.e. the barriers to presenting and recognising psychological disorder. Studying barriers leads us to ask questions around why patients may be unwilling to seek help from their general practitioners, why patients disclose or do not disclose symptoms to their general

practitioners and why some patients may manifest or present physical symptoms rather than psychological symptoms. On the other hand, we should also ask why general practitioners might be unwilling to deal with such patients or such symptoms and how the general practitioner's response influences the patient's perception of their problems. As a starting point, to improve the detection and treatment of psychological disorders among primary care, it is important to have detailed knowledge about the barriers to their diagnosis and treatment.

Some concepts of the current study are new for Arabic literature. Indeed there is a little Arabic literature which addresses the problems that are the subject of the current study. Therefore this chapter reviews non-Arabic literature first. It was considered important to clarify the research concepts beforehand by reviewing such literature. It will then be possible to benefit from the extensive research in Western and other cultures, taking into account that many phenomena and concepts are common in different cultures and are likely also to be relevant in Arabic cultures.

This chapter is the first of three chapters covering aspects of psychological disorders and their treatment. The intention of this chapter is to explore the concept of psychological disorder within primary care in the non-Arabic literature in general and the barriers to seeking help in particular. Existing research relating to beliefs about psychological disorder will also be explored in order to set the research project in context. As the literature on this subject is extensive, this chapter will be limited to those issues directly related to this study, namely those issues concerning psychological disorders within primary care, in particular their nature and prevalence and the barriers to seeking help.

Terminology

Different terms are used in this field, including psychological disorder, mental problems, mental distress or psychological complaints, depending on the frame of reference of the person using them. These different terms reflect different ways of thinking about the problems. Thus, the problems with which this thesis is concerned are difficult to reduce to a simple operational definition, and are best defined cautiously. Although there have been notable attempts to define psychiatric illness on theoretical grounds, there is a sense in which psychiatric illnesses are defined as those disorders that occur among the clients of psychiatrists. However, psychiatrists did not define psychiatric illness; they described it, according to Goldberg and Huxley (1980). Goldberg (1978) recognised psychological disorders pragmatically as defined by a high score on a screening measure such as the General Health Questionnaire (GHQ). In the current study psychological disorders (i.e. cases) were defined in this way. The validity of this definition emerges from the fact that it is understood, applied and linked directly to a research instrument. The term “psychological disorders” was used through this thesis in order to avoid confusion. This term is widely used and describes the “caseness” in the present work.

Several questionnaires or interviews have been used in different studies to detect psychological disorders. To detect psychological disorder in the current thesis, the GHQ was used, as explained in Chapter Three the GHQ (Goldberg, 1978) is an internationally used psychiatric screening instrument, designed to detect psychological disorders. There are several versions of the GHQ. The 12-item and the 28-item versions are the most extensively used ones (Kitamura et al, 1989). The GHQ-12 and GHQ-28 have been translated into many languages including Arabic. Chapter Three will address the difference between questionnaires and interviews and

the advantages of using the GHQ as the main tool to detect psychological disorders in this thesis.

1.1.2 Prevalence of psychological disorder

To review the literature about the prevalence of psychological disorder among primary care attenders, electronic databases have been searched: PUBMED; ISI Web of Knowledge; and Science Direct. Search terms included “psychological disorder”, “emotional problems”, “emotional disorder”; “mental health”; “depressive disorder”, or “depression”; combined with “prevalence” or “diagnosis”. Of 112 articles identified, all abstracts were checked. These were reviewed to identify studies that met the following selection criteria. Study samples had to have been composed of patients attending a primary care clinic or general practitioner (GP). Studies were excluded if they selected patients with specific medical conditions (such as diabetes) or with specific demographic characteristics for example, if they were immigrants in a particular ethnic group, of a particular age or specific gender. Studies were excluded if the full text of the study was not in English. Twenty five studies were deemed potentially relevant. The full texts for all these studies were checked.

Before summarizing the general finding of the prevalence of psychological disorders according to Table 1.1, several limitations need to be acknowledged: 1) to estimate the general prevalence of psychological disorders in primary care according to literature available several studies were included which varied with regard to: diagnostic procedures; field work techniques; sampling size; sampling methods; and overall statistical analysis. 2) Another important limitation is that some studies looked at psychological disorders in general whereas others studied, for example, depression alone or anxiety alone. Such focused studies were excluded in order to

avoid reliability and validity problems with regard to the definition of psychological disorders in the current study which is according to the GHQ. 3) Although most of the studies reported a prevalence of psychological disorders in their studies, it was unfortunately not possible in many studies to extract important details such as prevalence of psychological disorders according to gender.

The most thorough large-scale study of psychological disorders in primary care (see Table 1.1) is that of Sartorius and colleagues for the World Health Organization (1996b). Over 25000 consecutive adults were screened at 15 sites in 14 countries. Over 5000 were further assessed with detailed psychiatric interviews. A quarter had a recognisable psychological disorder, the commonest being a depressive disorder 11.7% or an anxiety disorder 10.5%, with 4.6% having both. The WHO data of the study of Sartorius et al (1996b) was subjected to further analysis by Goldberg et al (1998) and more details were presented. Prevalence of ICD diagnoses of psychological disorders in primary care attenders ranged from 6.4% in Shanghai to 44.7% in Santiago.

Table 1.1: Prevalence of psychological disorders among Western countries primary care

Reference	Country	Sample size	Instrument ■	Prevalence (%)
Achberger et al (1999)	German	400	GHQ-12 and CIDI	Psychological disorders 40.0%
Anseau et al (2004)	Belgium	2316	PRIME-MD	Psychological disorders 42.5%; depressive disorder 31.0%; anxiety 19.0%; somatoform 18.0%
Araya et al (1994)	Santiago	163	CIS	Psychological disorders 53%
Bell et al (2005)	UK: Wales	7357	GHQ-12	Psychological disorders 15.7%
Berardi et al (1999)	Italy	1647	CIDI-PHC; GHQ-12	Psychological disorders 18%
Comino et al (2001)	Australia	4753	GHQ-12	Psychological disorders 36.0%
Fink et al (1995)	Scandinavian countries	1221	SCL-25	Psychological disorders 26%
Goldberg et al (1998)	15 countries	25000	CIDI and GHQ-12	Psychological disorders ranged from 6.4 - 44.7%
Kljakovic et al (2005)	New Zealand	3414	GHQ-12	Psychological disorders 22%
Leon et al (1995)	Iceland	937	Structured Clinical Interview for DSM-III-R	Any psychological disorders 22%; anxiety disorder 2.8%; depressive disorder 14.1%; obsessive disorder 2.2%
Linzer et al (1996)	USA	1000	PRIME-MD	Psychological disorders: among Females 43%; among Males 33%
Lynge et al (2004)	Greenland	376	GHQ-12	Psychological disorders was 49.3%; anxiety 23.2%; somatoform 22.3%; dysthymia 16.2%
Maginn et al (2004)	UK: South London	1211	GHQ-12	Psychological disorders: White English 40%; Black Caribbean 35.1%; Black Africans 20.1%
Mental Health Research Group (2004)	New Zealand	3414	GHQ-12	Psychological disorders 30%
Olfson et al (1997)	USA	1001	DSM-IV	Psychological disorders 19.8%
Olfson et al (2000)	USA (Urban)	1007	DSM-IV; PRIME-MD; PHQ	Major depression 18.9%; anxiety 14.8%; panic 8.3%. 36.3% have more than one disorders
Philbrick et al (1996)	USA (rural)	350	PRIME-MD	Psychological disorders 34%; Mood disorders 21.7%; anxiety 12.3%; somatoform 11.1%
Pini et al (1999)	Italy	1555	CIDI	Psychological disorders 14.2%
Richards et al (2004)	Canada	1055	GHQ-28	Psychological disorders 50.5%
Sartorius et al (1996b)	15 countries	25000	CIDI and GHQ-12	Psychological disorders ranged from 11.7 - 10.5%
Schmitz et al (2001)	German	720	GHQ-12 + SCL-90-R	Psychological disorders 36.8%
Stirling et al (2001)	UK: Scotland	1075	GHQ-12	Psychological disorders 44.7%
Toft et al (2005)	Denmark	1785	SCL-90; Whately index. And SCAN	Any psychological disorders 50%; somatoform 35.9%; anxiety 16.4%; mood 13.5%
Vazquez-Barquero et al (1997)	Spain	535	GHQ-28	Psychological disorders 33.2%
Verhaak and Tjihuis (1992)	Netherlands	800	GHQ-30	Psychological problem 45%

■ All the instruments' abbreviations are detailed in Chapter Three.

Table 1.1 lists 15 countries (except for the two studies of the WHO). Overall the table indicates that some countries have been more active than others, for example, USA (4 studies); UK (3 studies). Sample sizes vary considerably between studies from N=162 to N=25000. Age ranges are fairly consistent and range from 16- 70 or more. The most frequently used detection instrument across all studies is the GHQ (see Chapter Three). The most frequently studied diagnostic psychological disorders are depressive disorders; various forms of anxiety disorders; somatoform disorders; and alcohol dependence. Except for the two studies of the WHO, the prevalence of the psychological disorders ranged from about 14 % to 50 %.

This prevalence of psychological disorder in non-Arabic countries will be compared with the prevalence in Arabic countries in Chapter Two.

1.2 Barriers to care for psychological disorders

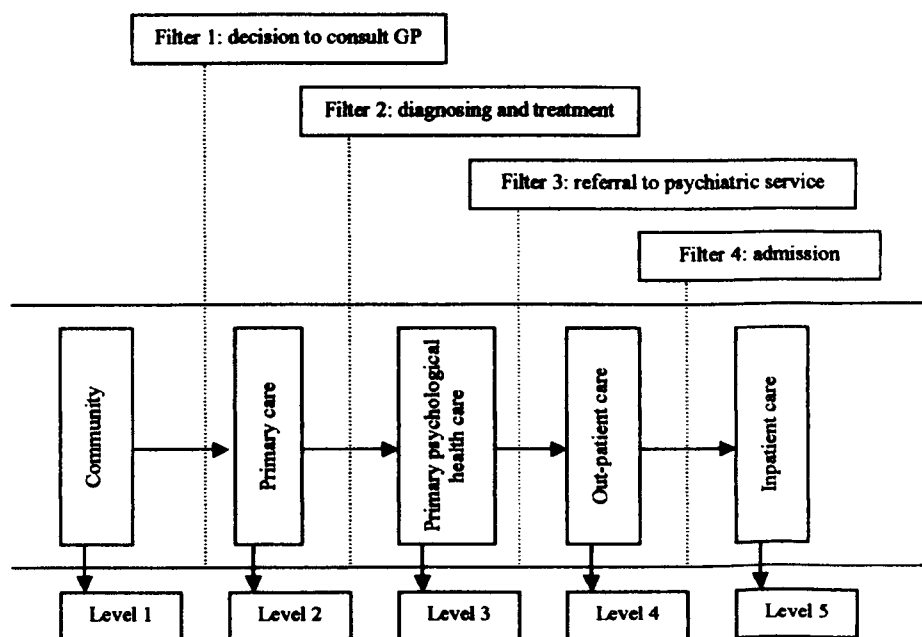
1.2.1 Goldberg's model of filters

Research interest in the attitudes and opinions of individuals towards their own health problems and their treatment has developed in recent years, and a variety of models linking health perception to illness behaviours have been extensively researched. Such research is of great importance to those clinical areas where client behaviour is regarded as problematic, and this is particularly the case in the field of psychological disorders where there is often an unwillingness to seek help. Indeed, approximately half the people with psychological problems either do not seek help or do not clearly present their symptoms to a general practitioner (Goldberg and Huxley, 1980).

The Goldberg-Huxley (1980) model describes a framework of several levels and filters (see Chapter Twelve) along the pathway from health-need to care-utilization

and has stimulated extensive psychiatric health services research. According to the model, the framework consists of five levels, each one corresponding to a stage on the pathway to psychiatric care (see Figure 1.1). A set of four filters is hypothesized between these five levels. The authors explain the pathway to care as a series of decisions. Level 1 includes all psychiatric illness in the community; level 2 is all psychiatric patients seeking help for their distress in primary medical care; level 3 refers to those recognized by general practitioners as having psychiatric morbidity; level 4 is the total morbidity in the psychiatric services; and level 5 includes those patients reaching the level of inpatient psychiatric care.

Figure 1.1: Goldberg and Huxley's model (1980).



Correspondingly, Filter 1 is the decision to consult includes the perception of psychological disorders and their treatment among patients or in the community; filter 2 is the recognition and treatment of psychological illness in primary care by the GP; filter 3 is the GP's decision to refer to the psychiatric services; and filter 4 is the decision by the psychiatrist to admit. The most striking feature of the model is that the

first filter is more permeable than the others. The predicted prevalence of disorder among attendees is only slightly smaller than the predicted prevalence in the population at large, leading one to suppose that the majority of psychologically disordered individuals do consult their doctors (Goldberg and Huxley 1980).

This model has been extremely useful, not only in understanding epidemiological findings and pathways into psychiatric care, but also as the starting point for evaluating the needs of patients with psychological illness (Bhui and Bhugra, 2002). However, several works have been done to modify this model such as Commander et al (1997), Moodley and Perkins (1991), and Henderson (2000). The limitation of this model is that it concludes only in treatment by psychiatrists. But there are never enough psychiatrists to treat all these cases, especially in developing countries (see Chapter Two). Furthermore, there are now better approaches to treatment of psychological disorders in primary care, by increasing the skills of the GPs or including additional staff.

Goldberg and Huxley's model, however, will not be tested in this thesis. This is not the aim of this work. Instead, this thesis will use Goldberg and Huxley's model as a framework to investigate the barriers to receiving psychological help from professionals in Saudi Arabia primary care. This will be addressed in Chapter Two.

The next sections continue to explain some important barriers in the patient's path to being recognised by the GP as having a problem and receiving relevant help.

1.2.2 Patient's presentation as a barrier

Different patients have very different presentations when they consult their doctors, even if the core of their problems is emotional. When psychological disorder is

present, somatic complaints often dominate the clinical picture, preventing the discussion of psychological complaints and hence masking the psychological disorder and preventing its diagnosis (Tylee and Gandhi, 2005). Complaints of physical symptoms such as back pain or headache can be an integral part of psychological distress. Therefore, one barrier to the diagnosis of psychological disorders is how a patient manifests his symptoms. In particular, a fundamental barrier to accurate diagnosis of depression is the presentation of emotional distress as somatic complaints (Richards et al, 2004). The phenomenon of seeking physical treatment in the absence of physical pathology is often described as somatization.

Lipowski (1988) defines somatization as “the tendency to experience and communicate somatic distress and symptoms unaccounted for by pathological findings, to attribute them to physical illness, and to seek medical help for them”. The term is sometimes narrowed to refer to physical symptoms in the absence of physical pathology, but in the presence of emotional problems.

Somatizers may have a more limited vocabulary for defining their problems psychologically, and thus, refer to more easily identifiable feelings such as somatic symptoms (Katon et al, 1982). Alternatively, somatic symptoms may present a more socially acceptable way of communicating distress than to use emotional words.

Both classificatory systems in international use, DSM-IV and ICD-10 include a category of somatoform disorders (SD). The term “somatoform disorders” was introduced in the third edition of the Diagnostic and Statistical Manual of Mental Disorders (DSM-III) (American Psychiatric Association, 1980) to describe a new class of psychiatric syndrome, the essential feature of which is physical symptoms (see Table 1.2 and 1.3). This suggests a physical disorder for which there are no

demonstrable organic findings or known physiological mechanisms and for which there is positive evidence, or a strong presumption, that the symptoms are linked to psychological factors or conflicts. These diagnoses encompass what has previously been called hysteria or abnormal illness behaviour (Bass 1990).

Table 1.2: Symptoms of somatization disorder according the DSM-IV

Abdominal pain	Painful menstruation
Joint pain	Pain in genital area
Chest pain	Pain during intercourse
Pain on urination	Sexual indifference
Nausea	Other pain (not headaches)
Vomiting spells	Bloating (gassy)
Diarrhoea	Intolerance of a variety of foods
Difficulty swallowing	Urinary retention or difficulty urinating
Shortness of breath	Trouble walking
Loss of voice	Paralysis
Blindness	Deafness
Double vision	Excessive menstrual bleeding
Blurred vision	Muscle weakness
Memory loss	Loss of consciousness or fainting
Palpitations	Pain in extremities
Back pain	Belief that he/she has been sickly for a good part of life
Menstrual irregularity	Lack of pleasure during intercourse
Seizures or convulsions	Severe vomiting throughout pregnancy or causing hospitalisation during pregnancy
Dizziness	

In the 1988 International Classification of Diseases (ICD-10), the World Health Organization (WHO) followed the DSM-III-R category of somatoform disorders. The ICD-10 definition is similar. There are, however, differences between the two concepts of somatoform disorder. The ICD-10 has combined somatoform disorders with “stress-related” and “neurotic” disorders to form a single overall group. Also conversion disorders are excluded from the ICD-10 group of somatoform disorders. Moreover, the ICD-10 includes “psychogenic autonomic dysfunction” as a form of somatoform disorder. One other minor difference between DSM-III-R and ICD-10 is

the absence of a specific category of 'body dysmorphic disorder' from the ICD-10 (Bass et al, 2001).

Table 1.3: Characteristics of the different concepts related to somatization (De Gucht and Fischler, 2002)

Concept	Number of symptoms	Duration of the symptoms
DSM-III	12 (M), 14 (F)	Beginning before age 30
DSM-III-R	13	Beginning before age 30
DSM-IV	8	Beginning before age 30
ICD-10	6	2 years
SSI*	4 (M), 6 (F)	Beginning before age 30

*SSI= Somatic Symptom Index.(Robins et al, 1984).

By contrast with the medical definition of somatization, psychiatry and psychology have their own criteria to determine somatization. Patients presenting unexplained symptoms have been identified as somatizers in different ways, as summarized in Table 1.4.

Table 1.4: Ways of detecting Somatization

Criteria	Patient has physical problem	Which cannot be explained by recognizable physical disease	Which have been present for at least three months	which causes the patients clinically significant distress or impairment	Patient has been detected as a case of emotional disorder	Assumption of a causal relation between somatic symptoms and psychiatric problems	Patient was resistant to psychological attributions for their symptoms	The symptoms were judged likely to improve if the psychiatric disorders was successfully treated
Psychiatric1	<input checked="" type="checkbox"/>				<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Psychiatric2	<input checked="" type="checkbox"/>				<input checked="" type="checkbox"/>		<input checked="" type="checkbox"/>	
Psychology1	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>				
Psychology2	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>						

Psychiatric1= Bridges and Goldberg (1985); Psychiatric2= Kirmayer and Robbins (1991); Psychology1= Peveler et al (1997); Psychology2= Ring et al, (2005).

These patients are also recognizable in the literature on frequent attenders (Dowrick et al, 2000). In the past two decades, somatization has been the focus of much research

since the medical community began to recognize it as a costly phenomenon, because these patients consume large amounts of physical health care (Kato and Mann, 1996). In terms of the impact of culture, several studies have indicated that socio-cultural factors profoundly influence virtually every aspect of psychological disorder in general and patients' presentation in particular. The patient's choice to present symptoms somatically rather than psychologically is repeatedly culturally reinforced in many cultures, including Western ones (Zola, 1966). However, it is clear that different cultures have different ways in which they 'encode' emotional problems in physical terms, and any study of emotional disorder in primary care needs to consider how emotional distress might be encoded physically in the culture that is being studied (Kirmayer, 2001).

These definitions clearly differ in the assumptions that they include. For a study which seeks to investigate whether psychological problems might be presented as physical symptoms, the more inclusive definitions are more useful. It is then possible to show whether or not psychological distress is associated with physical presentation rather than assuming that it is.

The problem facing professionals in recognising psychological disorders in somatizing patients is addressed later, at the end of this chapter.

1.2.3 Patients' perceptions of psychological disorders as a barrier

It is now appropriate to turn to a second fundamental barrier to patients receiving care for emotional problems. This concerns what patients believe about their symptoms. Research into perceptions of psychological disorders has been ongoing in health psychology, medical sociology and social science for several decades, and different

approaches to dealing with this issue and a variety of terms have been used, for example, studying attitudes to, or beliefs about, psychological disorders, conceptions of psychological disorders, stigma, and knowledge and awareness about psychological disorders and their treatments.

Patient perceptions have to be recognized in health care planning to make the psychological services more acceptable to the consumer and their social network (Angermeyer et al, 1999). Thus, one of the activities of the 1992 Defeat Depression Campaign in the UK was a survey of public attitudes in order to discover those attitudes that needed to be changed. Some findings suggest that more attention could usefully be paid to exploring people's perception of their symptoms and their views about psychological disorders and their treatment within primary care in order to understand or change their behaviour in consultations with their general practitioners.

It seems that UK patients do not distinguish psychological disorders from physical problems as clearly as is sometimes assumed. Salmon et al (1996) developed an instrument to test how beliefs about physical symptoms influence illness behavior. Woloshynowych et al (1998) applied this questionnaire to describe beliefs about aetiology of symptoms in primary health care attenders. Factors related to stress and lifestyle were the most common beliefs about causes of their symptoms. Therefore, patients seem to attribute a range of physical symptoms to emotional and social problems.

Beliefs differ according to demographic characteristics. Angermeyer and Matschinger (1999) investigated the lay public's attitudes in Germany toward psychological disorders. They found that women, younger people, and the better educated appeared to be more "psychologically minded". Women often explained the causes of the

disorder as within the family such as broken home. By contrast, in the oldest age group and among the less well educated, the idea that the disorder might be caused by biological factors and should be treated using biological methods was more popular than in other groups. Among those patients over 65 years of age, the explanation that the occurrence of the disorder might be Gold's will was more common.

Cultural factors also influence what patients believe about their problems. For the clinician, it is very important to understand the lay beliefs held by people from various ethnic backgrounds. Each culture has developed its own understanding of health and illness (Marks et al, 2000). A variety of studies have shown that psychological experiences are interpreted differently according to the cultural environment. Although these interpretations may not accord with biomedical theory, they can provide meaning to distress and can direct the way of seeking help (Kirmayer et al, 2004). In a Greek study, Madianos et al (1987) suggested that folk beliefs rooted in the Greek rural culture, depicting psychological illness as being possessed by demons, generate a public rejection and a fearful attitude towards mental patients. In an Indonesian study, Kurihara et al (2000) found that most Balinese believe that psychological disorders are caused by invisible and abstract elements, supernatural power or black magic. In another Indonesian study, Fosu (1995) reported that if patients' psychological disorders were regarded as being caused by witches, sorcerers or ancestors, the problem was usually dealt with by traditional healers. In Western populations, few sufferers blame supernatural reasons for their emotional problems. For example, Angermeyer and Matschinger (1999) found that very few of their German sample thought that supernatural powers might play a part in the psychological disorders. The results reported a tendency among the lay public (in both

the West and the East of Germany) to consider psychosocial stress as responsible for the development of depression.

Nevertheless, supernatural beliefs may be particularly important in Muslim populations. In a qualitative unstructured interview study, Cinnirella and Loewenthal (1999) studied religious and ethnic groups' beliefs about psychological disorders in the UK. They interviewed 52 females from five religious groups - White Christian, Pakistani Muslim, Indian Hindu, Orthodox Jewish and Afro-Caribbean. Of all participants, about one third felt that religion could actually play a causal role in depression, the participants coming mostly from the Muslim subgroup. Muslims believed that depression might partly be caused by lack of faith and failure to pray frequently. In Chapter Two Muslims' beliefs will be considered in detail.

1.2.4 Beliefs about sources of help as a barrier

As well as beliefs about the causes of their problems, patients have varying understandings about the solutions, and these can also be barriers to their care. The lack of knowledge regarding where to go for appropriate psychological treatment was cited in several studies as a main barrier. For example, Williams et al (2001) describe the status of health beliefs among primary care patients who are in the process of receiving a diagnosis in North Wales. Results revealed that there was a striking lack of knowledge about forms of help for psychological disorders and the authors suggested that this lack was an important barrier to getting treatment. For example, half of the sample did not know that psychiatrists are medically qualified. In a study of Cinnirella and Loewenthal (1999), although they found that 41% of the sample believed that a psychiatrist could provide useful help, there was little understanding of the differences between psychiatrists, psychotherapists and psychologists.

Jorm and his colleagues (1997) investigated the Australian public's perception of psychological disorders and beliefs about the effectiveness of various treatments. When respondents were asked about the helpfulness of various professional helpers to treat depression by saying whether each would be helpful or harmful, the following results appeared: the general practitioner was the professional rated as helpful by most patients (83%), followed by counsellors (74%), whereas only half the respondents thought that a psychiatrist or psychologist would be helpful for the person suffering from depression (51% and 49%, respectively).

The general practitioner was perceived as an essential source of help for psychological disorders in other studies, too. Highet and his colleagues' (2002) study of awareness and attitudes toward depression and its treatment in an Australian community sample. They found that family (45%), then the general practitioners (28%) and then friends (15%) were identified as the preferred point of first contact in the event of having psychological problems.

In their UK study Priest et al (1996) found that the majority of responses considered people with depression should not be given antidepressants, and expressed the opinion that drug treatments only dulled the symptoms and that such treatments were addictive. Nevertheless, a study by Cinnirella and Loewenthal (1999) which indicated that respondents felt that although they would probably approach their own GP for help, the GP would do little more than either refer them on to someone else or prescribe them some kind of drug. Respondents felt that GPs were likely to rely on prescription drugs as a treatment for psychological disorders. In the same study respondents believed that GPs have very little time to talk through patients' problems

with them and seemed not to be someone to refer to if all that one wanted was a good listener.

Cultural factors also play an important role in the understanding of help-seeking behaviour and the kind of medical intervention needed. Understanding cultural beliefs can help in understanding why some patients resist diagnosis as emotionally distressed and avoid treatment. The offer of pharmacological or psychological treatment which is not consistent with cultural beliefs is unlikely to be accepted.

Research has made it clear that aetiological beliefs are frequently linked with ways of seeking help. In a cross-cultural study, Shweder et al (1997) describe seven general types of beliefs about the reason for being ill (Table 1.6). They contrasted Indian and American cultures and showed that different beliefs about causes were related to different beliefs about what would help.

Table 1.6: aetiological beliefs about illness and about ways of seeking help (Shweder et al, 1997)

Illness	Aetiological beliefs ■	Therapy
Biomedical	Western: genetic defects, hormone imbalances, organ pathologies, physiological impairments	Direct or indirect ingestion of special substances, herbs and roots, vitamins, chemical compounds
	Non-western: humours, bodily fluids, juices	Direct or indirect mechanical repair (e.g. surgery, massage, emetics) of damaged fibres or organs
Interpersonal	Western: harassment, abuse, exploitation	Avoidance or repair of negative interpersonal relations
	Non-western: sorcery, evil eye, black magic	Talismans, magic
Sociopolitical	Oppression, political domination, adverse economic or family conditions	Social reform
Psychological	Unfulfilled desires and frustrated intentions, forms of fear	Intrapsychic and psychosocial interventions, e.g. meditation, therapy
Astrophysical	Arrangement of planets, moon or stars	Wait with optimism for change
Ecological	Stress, environmental risks	Reduction of stress and environmental hazards
Moral	Transgressions of obligation or duty, ethical failure	Unloading one's sins, confession, reparation

■ Western/non-Western distinctions are presented where the study reported differences.

Several studies have shown that seeking help and treatment for psychological disorders are influenced by culture. For example, Neighbors and Jackson (1987) used data from the National Survey of African-Americans, showing that African-Americans with emotional problems are more likely to use informal help only or to avoid professional help completely. It seems that psychological treatment is not accepted within these patients' culture. The African-Americans patients commented that the idea of professional help for psychological disorders was not culturally acceptable among their family members (Cooper-Patrick et al, 1997). It is likely that each culture has its own cultural views about sources of help for psychological disorders. Beliefs about the various sources of help among Arab countries are discussed separately in Chapter Two.

However, there are several reasons for not seeking help from professional. Sussman et al (1987) studied the reasons for not seeking help which were cited by patients with psychological disorder, in a comparison study between African-Americans and Whites in the USA. African-Americans most frequently cited the lack of time; fear of being hospitalized; and expense to be the barriers to seek help. Whites most frequently cited the expense; lack of time; and the belief that no-one could help.

1.2.5 Alternative and traditional medicine as a barrier to receiving formal medical help

1.2.5.1 Types of alternative and traditional medicine

Several types of alternative sources of help have been developed in each culture to treat patients' symptoms. This section will examine how these alternative sources of help might be potential barriers to receiving formal medical help.

The use of alternative medicine has increased dramatically during the last decade and may be a further barrier to seeking help from formal health care professionals by offering an alternative source of help. In 2001 alone, Americans spent \$4.2 billion on herbal and other botanical remedies (Kelly et al, 2005). In all societies, there is a wide range of help options available for the alleviation and prevention of physical problems or psychological disorders. Different societies have different patterns of help-seeking, and some countries involve traditional healers in their health care systems (Goldberg, 1999). There is reason to believe that the use of alternative therapies is more common among people with psychological problems than the rest of the population because fatigue, insomnia, chronic pain, anxiety, and depression are among the most commonly reported reasons for the use of alternative therapies in community surveys (Eisenberg et al, 1993).

In a pioneering study of sources of help that patients consulted before seeing their GP, English medical student Elliott-Binns (1973) sat in a general practitioner's office and interviewed 1,000 patients who came in with new problems. Patients were asked whether they had previously received any advice or treatment for their symptoms, or used self-care before coming to see the doctor. Ninety-six percent answered yes to one or both questions. Eighty-eight percent said they had received advice and 52 percent had used at least one form of self-treatment. In addition, 16 percent had sought information in books, magazines or other media. The participants frequently received advice from multiple sources. One patient, a boy with acne, had received advice from 11 different sources. This demonstrates that people try out sources of help widely before deciding to see their GP. Although Elliot-Binns did not ask about alternative medicine, it is likely that, if the study were repeated now, many patients would reveal that they had tried remedies other than those of conventional medicine.

The apparent failure of biomedicine to solve prominent medical problems – whether cancer or chronic fatigue – has led to an increased cynicism and a turn to alternative health systems (Marks et al, 2000). In the USA, Eisenberg et al (1993) found that more visits were made to providers of non-conventional therapy than to primary care physicians. The use of alternative sources of help extends across cultures. Suryani (1992) found that 76% of Balinese patients in Indonesia who consulted psychiatrists had been examined by traditional healers prior to referral (Kurihara et al, 2000). Even those patients with psychological problems who seek help from professionals may come after trying alternative therapies or do so through personal recommendation. In a study by Dew et al (1991), service utilization for depression in a white collar cohort was investigated and it was reported that those who utilized a service were more likely to have turned to professional advice upon the recommendation of others. However, in the case of psychological disorders, one barrier to seeking help from family and friends is the greater reluctance to disclose such problems than physical problems (Regier et al, 1988).

Vincent and Furnham (1996), in a survey of users of complementary medicine in Britain, found five main reasons for their usage: 1) The belief that complementary medicine would be effective, 2) the perceived ineffectiveness of orthodox medicine, 3) concern about the adverse effects of orthodox medicine, 4) concerns about problems of communication with doctors and, of less importance, 5) the ready availability of complementary medicine.

1.2.5.2 Religion and spirituality

The importance of spirituality in the perception of psychological disorders depends on the culture. Cooper-Patrick et al (1997) applied a group discussion method to identify attitudes that influence patient's help-seeking and to determine the perceived barriers to mental health care in an academic medical centre. Eight black patients and eight white patients with depression were involved. They reported that patients in general perceived the impact of spirituality more than professionals. Cooper et al (1998) pointed out that patient attitudes regarding the importance of various aspects of depression care were similar for African Americans and whites, except for the importance of spirituality. African-American patients in this study were more likely than whites to rate spirituality as an extremely important aspect of care for depression. The relevance of religious leaders in addressing psychological disorders in Western countries is probably small. A German community survey (Angermeyer et al, 1999) found that the role of priest's support in the treatment process for psychological disorders was not considered helpful.

However, spirituality and religion in several cultures play an essential role in coping with emotional disorder. For example a range of studies indicated that patients want their physicians to address issues of faith and spirituality in the course of their treatment. In Cinnirella and Loewenthal's (1999) study mentioned above, over two-thirds of UK participants (participants were chosen from several ethnic groups) believed that religious beliefs and practices could play a useful role in the treatment of depression. However, the proportion differed greatly between different religious or cultural groups. 92.3% of the Muslim subgroup felt that religion could help, participants believing that Allah would listen to requests for help in their prayers and act upon them. Afro-Caribbean participants showed very high levels of confidence

that prayer would work and that God or Jesus would always listen. There was a theme that prayer can be helpful because it offers an opportunity to off-load responsibility for dealing with one's troubles onto God. Private prayer was highlighted as useful because it also allows one to keep any psychological problems hidden from the community or family. Prayer was seen as a means of obtaining better inner knowledge about oneself and was perceived as less inhibiting than talking to friends or professionals. Respondents believed that they could say whatever they wanted and whenever they liked. Across the sample as a whole, half of all participants believed that it would be useful to see a holy person if suffering from depression. Muslims in particular thought that consulting a religious leader might be more effective compared with members of other religious groups.

Although spirituality and religion are integral to self-treatment for many people, and have implications for psychiatric or medical treatment, they are also a major barrier to patients receiving formal care in many cultures and in the developing countries in particular. Cinnirella and Loewenthal (1999) mentioned that some traditional families among two Asian communities in the UK might force the family member to see a holy person instead of a formal health professional because this in itself is less associated with stigma than seeking help from a GP or psychologist.

The content of individuals' religious beliefs may act as a barrier in the seeking of professional help. Cinnirella and Loewenthal (1999) gave some example of religious beliefs which may complement or conflict with those of orthodox medicine and psychiatry: 1) depression may be believed to be impossible in the devout religious person, and thus denied if it occurs; 2) some religious sources state that the individual should not consult a psychologist or any similar professional because this could lead

the individual to irreligious ideas and practices; 3) patients may use a range of religiously endorsed coping strategies and beliefs alongside orthodox psychological help without telling professional helpers because of fear of being misunderstood or being labelled as superstitious.

1.2.6 Stigma as a barrier

When stigma is defined, it is often in terms of Goffman's description of stigma as an "attribute that is deeply discrediting" and that reduces the bearer "from a whole and usual person to a tainted, discounted one". Other authors have offered alternative definitions. For example, Stafford and Scott (1986) define stigma as "a characteristic of persons that is contrary to a norm of a social unit" where a "norm" is defined as a "shared belief that a person ought to behave in a certain way at a certain time".

The influence of stigma in psychologically disordered individuals has become well accepted in recent years as a major barrier to seeking help from professionals. Indeed, one of the most common reasons for unwillingness to seek treatment is social stigma. In fact, there is evidence that psychological patients who perceive stigmatization or rejection by society have a worse outcome (Jrom et al, 1999).

Stigma and negative attitudes influence the perception of seeking help and treatment. In a USA study, Rost et al (1993) examined the relationship between stigma and patients' help-seeking. Two hundred participants from urban and adjacent rural counties rated one of four randomly selected vignettes using 14-point semantic differential scales. Participants were presented with vignettes about a person with depression. Participants used the scale to show how other people would label the character in the vignette. They found that stigma in psychologically ill people was an

important barrier to seeking help in rural, but not in urban, areas. The authors attributed the specific effect in rural areas to reduced anonymity and consequently the greater probability that someone who seeks care will be labelled “crazy” by the community. This result is consistent with a study by Priest et al (1996) who studied community samples from around the UK. They found a majority of the public reported that they would be embarrassed to consult a GP for depression, primarily because they thought that the GP would see them as unbalanced or neurotic.

It is clear that culture shapes stigma. In the study by Cooper-Patrick et al (1997) mentioned above they reported that black patients had more fears relating to treatment for psychological disorders compared with white patients. Black patients perceived stigma as a particularly important barrier to getting treatment. In the UK study by Cinnirella and Loewenthal (1999) mentioned previously, one of the primary causes of stigma about psychological disorders in the Muslim community in the UK is the belief that good Muslims do not slip into deep depression, implying that the psychologically ill may be seen as “bad” Muslims. However, some participants felt that their Muslim faith held the answer. They believe that “it is God’s will” meaning that the individual is suffering from psychological disorders for some (albeit spiritual) reason.

The evidence of the importance of stigma in Muslim populations in the West suggests that it will be particularly important to examine the impact of stigma in Arab countries, where attitudes related to Islam would be expected to be much more prevalent and influential. This is addressed in Chapter Two.

1.2.7 Patients' intentions as a barrier

1.2.7.1 Introduction

In the growing amount of research into doctor-patient relationships, patients have become regarded as active consumers rather than passive recipients of health care (Lazare et al, 1975; Salmon and Quine, 1989; Salmon et al, 1994). This is particularly true of primary care where it is the patient's own decision to consult and where it is thought that most of those who attend are keen to continue to be involved in the decision process surrounding their treatment (Good et al, 1983).

Although the importance of patients' intentions has been recognized for a long time there has been little attempt to study it. This could be the result of absence of a suitable way of measuring intention (Salmon and Quine, 1989) or due to the inherently ambiguous nature of the concept of intention (Valori et. al., 1996). In the literature, there are several terms which have been used to describe patients' intentions, such as patients' expectations, requests, needs, desires, and demands. Reflecting passive anticipation of the doctor's actions, in some studies patients were asked the following question: "What do you expect from your doctor?" Others have focused on what patients "desire" from their consultation. In others, the term has been ambiguous. Commonly, the reader is left to guess whether patients' 'expectations' are things that they think *should* happen; *might* hopefully happen; or things that patients think *will* happen (Thorsen et al, 2001). In a series of studies Salmon and his colleagues investigated primary care patients' intentions. In these studies the term "patients' intention" described what patients actively seek or desire rather than what they expect to be given.

1.2.7.2 Recognizing or mistaking patients' intentions

There is a discrepancy between what patients want from GPs and what GPs are trained to provide. In general, patients who consult general practitioners mainly desire support and explanation or reassurance, but their GPs are trained to provide medical intervention (Salmon, 2000a). Moreover, research suggests that there is an assumption among GPs that patients seek primarily medical investigation and treatment. Salmon et al (1994) found that GPs perceived the majority of their patients to be seeking medical treatment.

On the whole, the specific nature of physical symptoms that patients present to their GP was found to be unrelated to the main types of intention that patients had (Salmon et al, 1994). However, patients' emotional distress correlated with their desire for emotional support. Emotional distress was not associated with how much patients wanted medical treatment or explanation and reassurance (Salmon et al, 1994).

It is important to consider whether patients receive what they are looking for from the consultation process. Therefore, in the course of their study, Salmon et al (1994) examined the accuracy with which GPs were able to perceive patients' intentions for consultation. GP ratings of what patients sought were compared with patients' own intentions. In general, accuracy was very low. The only intention to which GPs were found to be sensitive at more than chance level was the seeking of Investigation and treatment. Misperception of patients' intentions can have two serious consequences (Salmon, 2000a): 1) patients' important needs will be unmet; 2) where patients present physical symptoms associated with emotional problems, an inappropriate process of medical intervention could begin to feed the patients' concern and

dependency, thereby creating problems that are iatrogenic, that is, products of health care itself rather than a result of patient need.

Patients' intentions have implications, not just for what they want from the GP, but for the kinds of specialist help that they think might be useful. Salmon and Quine (1989) investigated the relationship between patients' intentions and the types of helper which they imagined to be of use in a sample of consecutive patients consulting their GP. A questionnaire listing 11 sources of specialist medical care was used to ask patients the following question "How much help do you think they would give with your problem?" The intention to seek explanation and reassurance failed to correlate with expectation of help from any of the sources, and the authors suggested that patients do not look to any specific individual beyond the GP for explanation. Desire for support correlated most highly with rating of the potential value of a counsellor, psychiatrist or clinical psychologist. Desire for medical treatment had more extensive correlations, the highest with medical specialist and physiotherapist. Desire for information-seeking correlated generally the highest with psychiatrist and occupational therapist.

To the researcher's knowledge there is no information about the impact of culture on patients' intentions.

1.2.8 Satisfaction with consultation as a barrier

The World Health Organization (2000) reported that patient satisfaction has become a standard outcome in the evaluation of health care systems. Defining patient satisfaction is not, however, straightforward. Linder-Pelz (1982) said that patient satisfaction involves the expression of an attitude and evaluation in relation to health

care. It is an attitude that follows a process of judgement or evaluation upon experiences of the service (Baker, 1993). This definition of satisfaction will include different objects of patient satisfaction such as humaneness, overall quality, competence, cost, facilities, attention to psychosocial problems etc. That is, patient satisfaction is a multidimensional construct (Fitzpatrick, 1993).

The relevance of satisfaction to this thesis is that the majority of dissatisfied patients tend to avoid using the same health care institution again (Ovretveit, 1996). Dissatisfied patients also tend to tell other clients about the unsatisfactory services that they experienced and these clients, also, are thereby more likely to choose another service (Miseviciene and Milasauskiene, 2003). This process could even turn the patient away from formal health care to alternative medicine, as discussed above.

1.2.9 GPs' management as a barrier

1.2.9.1 Attitudes to psychological disorders and GPs' competence in dealing with psychological disorders

We know very little about how people in a certain community develop their beliefs about psychological disorders. It is likely that personal experiences from family and friends are an important source. Professionals such as psychologists, psychiatrists, and general practitioners are a part of this community and could be affected by these experiences also (Marzillier, 1987).

Predictably, attitudes of psychologically-oriented professionals towards psychological disorders are more positive than others. In a study of Roth et al (2000) staff employed at a large American university medical centre completed a questionnaire designed to assess specific attitudes toward medical students with emotional problems. They

reported that psychiatric health professionals were more tolerant toward psychological disorders than either non-psychiatric physicians or support staff. There are different attitudes between different psychologically-oriented professions. In 1999, Jrom et al found that clinical psychologists had more favourable attitudes towards psychological disorders than did, not just GPs, but also psychiatrists, particularly towards people with depression. Clinical psychologists were also more optimistic about the prognosis of treated depression.

In earlier work in the UK, Marks et al (1979) reported that GPs who had better potential attitudes towards psychological disorders produced a more accurate diagnosis of the patient with psychological disorders. This finding has been confirmed in a more recent study (Richards et al, 2004). Dowrick et al (2000a) examined a range of ways in which GPs' attitudes to depression might influence their recognition and management of psychological disorders. Forty UK GPs completed the Depression Attitude Questionnaire (DAQ) to indicate their attitudes to depression. Patients attending those GPs completed the General Health Questionnaire 12-Items. After consultation, the GP rated each patient on the severity of their psychological disturbance using a 5-point Likert scale. The study showed no association between DAQ and the GPs' ability to recognise psychological patients. The ability of the GP was assessed by three factors: accuracy, which refers to a GP's ability to make decisions that fit with the patients' symptoms; bias, which refers to a GP's tendency to avoid making psychological diagnoses; and identification index, which refers to a GP's ability to identify possible cases of psychological disorder. However, in the same study Dowrick et al (2000a) found that GPs who were more accurate in detecting disorder were those with a greater preference for psychotherapy, greater belief in the potential for successful treatment of psychological disorder and a greater

belief in the ease of managing depression. GPs with the greatest preference for antidepressants over psychotherapy did not prescribe more antidepressants overall, although they were more likely to prescribe a specific type of antidepressant: SSRIs, such as Prozac.

GP education and prior training in assessment and treatment of psychological disorders have been confirmed to lead to positive attitudes about psychological patients and lead to accurate diagnosis (Richards et al, 2004).

1.2.9.2 GPs' detection and treatment of psychological disorders as a barrier

In the UK, there have been concerns that patients do not receive treatment for the depressive illnesses from which they suffer, apparently for two main reasons. Firstly, about 50% of people with depressive illness do not consult their family doctor. Secondly, however, general practitioners do not always recognise depression when depressed patients do consult (Priest et al, 1996).

It has been reported that depressive symptoms are not recognised in UK general practice in about half of attending patients with depressive disorders, ascertained by research diagnostic interview (Dowrick and Buchan, 1995). Unrecognised major depression is likely to be associated with poor treatment outcomes. Similarly, in the WHO study (1996b) previously mentioned Sartorius and colleagues found that only half of psychological disorders were recognised by the primary care physician. Lydiard (2000) found that about 20% to 40% of patients seen in general medical settings had significant anxiety or depression, but only about half of these psychological disorders were diagnosed.

The problems facing GPs in diagnosing psychological disorders within a consultation are considerable and are made more difficult where patients are reluctant to disclose the problem or present physical symptoms instead. As mentioned before, doctors are trained to expect physical symptoms to signify physical disease, and are anxious about the possibility of misdiagnosis. They typically engage in an exhaustive search before reaching the conclusion that no physical disease is present to explain the symptoms (Peveler et al, 1997). Therefore many patients' psychological problems remain unrecognised. Weich et al (1995) showed that general practitioners detected about 20% of cases of psychological disorders where patients with those disorders presented only physical symptoms, 53% of cases where patients presented both emotional and physical symptoms, and 100% of those who complained of emotional problems. Some studies suggest that using screening instruments in primary care for psychological disorders has minimal impact on their detection (Gilbody et al, 2005), whereas others suggest that using brief screening does improve detection (Hickie et al, 2001; Pignone et al, 2002).

Once GPs detect psychological disorder, further barriers are possible. Only a small minority of patients can be seen by psychiatric, psychological and counselling services, so it is important that those patients with greatest need, and who might benefit most, are referred to those services. Psychotropic drug treatment may be necessary for some patients, although many might benefit from support and counselling from the GP. In the WHO study (1996b) previously mentioned Sartorius and colleagues found among those patients in whom the GP recognised mental disorder, half received drug treatment.

Kerr et al (1995) found that those GPs who reported use of low antidepressant doses believed more in psychotherapy and were less likely to believe that antidepressants were useful in primary care and that depression has a biomedical basis. This result links with the study of Dowrick et al (2000a) which has been mentioned above. Those GPs who have a preference for psychotherapy rather than antidepressant treatment also appear more accurate in diagnosing psychological disorders. In a more recent study Richards et al (2004) found that those GPs who have been trained with any form of psychological training reported that they more often used non-pharmacological treatments for treating psychological disorders.

1.3 Conclusion

This chapter has revealed extensive research in western and some non-Arabic cultures which has investigated psychological disorders in primary care and the barriers to patients with these disorders receiving the help that they need. The chapter has shown that barriers to patients seeking formal health care for psychological disorders exist at several levels, from those influencing whether patients consult and what they seek when they do, to those that influence whether their GPs recognise their problems and how they respond to them. Although very little research has yet addressed these issues in Arabic cultures, the barriers reviewed in the present chapter provide a framework for examining the evidence that is available, and for designing research studies to begin to explore barriers to health care for psychological disorders in Saudi Arabia.

CHAPTER 2: Psychological disorders in Arab countries

2.1 Introduction

This chapter is the second of three chapters covering aspects of psychological disorders and their treatment. The purpose of this chapter is to review research on the topics of psychological disorders, cultural beliefs, barriers, diagnosis and treatment of psychological disorders in Arab countries. The chapter thus provides an introduction to the general issues involved in understanding psychological disorders within Arab culture.

It is remarkable how little systematic research and public discussion exists on issues relating to psychological disorders in Arab countries. Public understanding of psychological disorder issues might be considerably improved if efforts are made to give more prominence to psychological disorders in both academic and public arenas. This chapter will review previous Arabic studies which have investigated the perception of psychological disorder and its treatment.

2.2 Prevalence of psychological disorders in Arab General Practice and their detection by GPs

2.2.1 Results of literature search

The previous chapter explored the prevalence of psychological disorder among non-Arabic countries. The purpose of this section is to review the Arabic literature about the prevalence of psychological disorder among primary care attenders. First, the electronic databases: PUBMED; ISI Web of Knowledge; and Science Direct have been searched. Search keywords included “Saudi Arabia”, “Arab patient”, “psychological disorder”, “emotional problems”, “emotional disorder”; “mental

health”; “depressive disorder”, or “depression”; combined with “prevalence” or “diagnosis”, “ Primary care”. Next, the ArabPsyNet electronic database was manually searched by the previous keywords. ArabPsyNet is a freely available electronic database including publications in Arabic, English and French in the field of mental health. Afterwards, PsiTri electronic database was searched. PsiTri was searched manually for the name of the every Arab country in the “country of origin field”. PsiTri is a freely available electronic database published in the field of mental health. It is also a reliable database matching each country of origin. For all the previous databases, articles published in Arabic or English were included.

The indexes of the Saudi Medical Journal and Annals of Saudi Medicine were also hand-searched for relevant articles, as they had no full electronic databases until late 2005. Both databases have publications only in English in the field of Medicine. The current researcher spent more than two weeks at the Liverpool School of Tropical Medicine library, to do initial hand-searches in these journals. In late 2005 they released an electronic list of the journal contents with brief abstracts, so another electronic search was done. It has been noted, for all the previous databases, that publication in Arab countries did not necessarily imply Arabic authors. Likewise, publications in Arab journals did not necessarily mean that the research was undertaken in Arab countries. Finally, during the first and the second field-work, the current researcher searched the Arabic books and journals in the libraries in Saudi Arabia.

All abstracts were checked. These were reviewed to identify studies that met the following selection criteria. Study samples had to have been composed of patients attending a primary care clinic or general practitioner (GP) in Arabic countries.

Studies were excluded if they had selected patients with specific medical conditions (such as diabetes) or with specific demographic characteristics for example, if they were immigrants in a particular ethnic group; a certain age; or specific gender. Eleven studies were deemed potentially relevant. The list of these studies is presented in Table 2.1

According to Table 2.1, several limitations need to be acknowledged: 1) To estimate the general prevalence of psychological disorders in primary care according to literature available several studies were included which varied with regard to: diagnostic procedures; field work techniques; sampling size; sampling methods; and overall statistical analysis. 2) Some studies looked at psychological disorders in general whereas others studies were restricted to depression and somatization alone. In contrast with the process of reviewing literature in Chapter One, such focused studies were included due to, on the one hand, a lack of studies which applied the general concept of psychological disorders among Arab countries and on the other hand, because these studies are so relevant to the current work. 3) Similar to the literature in Chapter One, though most of the studies reported a prevalence of psychological disorders in their studies, it was unfortunately not possible in many studies to extract important details such as prevalence of psychological disorders according to gender.

Table 2.1: Prevalence of psychological disorders in Arabic primary care

Reference	Country	Sample information	Measurement instrument #	Prevalence (%)
Al-Fares et al (1992)	Saudi Arabia	114 patients in Riyadh (academic primary care)	GHQ-28	Psychological distress 46.0%
Alhaj (1998)	Saudi Arabia	200 patients of primary care, Armed Forces Hospital (military primary care)	GHQ-12	Psychological distress 47.8%
Becker et al (2002)	Saudi Arabia	431 patients of primary care, University Hospital. (academic primary care)	PHQ	Psychological distress 33.4%; somatization 19.3%; depression 20%; 13.5 anxiety.
Becker (2004)	Saudi Arabia	431 patients of primary care, University Hospital. (academic primary care)	PHQ	Somatization 19.3%; depression 20%
Al-Khathami and Ogbeide (2002)	Saudi Arabia	609 patients of primary care, Armed Forces Hospital. (military primary care)	Anxiety-Depression Scale	Psychological distress 18.2%
El-Rufaie et al (1999)	Arab Emirates	652 patients of primary care	GHQ-12	Psychological distress 42%
Al-Lawati et al (2000)	Oman	100 patients of primary care	RSQ and BSI	Psychiatric disorders 32.0%; somatization 17.0%
El-Rufaie and Daradkeh (1996)	Arab Emirates	157 patients of primary care	Fulfilling two of: 1) CIS; 2) five-point scale of psychiatric disorder; 3) Psychiatric assessment.	Psychological distress 19%
El-Rufaie and Absood (1993)	Arab Emirates	235 patients of primary care	CIS	Psychological distress 27.6%; depression 55%; anxiety-depressive 13.3%; anxiety 11.7%
Al-Haddad et al (1999)	Bahrain	149 patients of primary care	HADS; GHQ-28	Psychological distress 45.1% by GHQ and 44.4% by HADS
Al-Jaddou and Malkawi (1997)	Jordan	794 patients of primary care	GHQ-28	Psychological distress 61%

Overall, the table indicates that some countries have been more active than others for example, Saudi Arabia (5 studies); Arab Emirates (3 studies). However, none of the five Saudi studies was conducted in a community primary care. Instead, they were conducted in restricted areas of primary care with selected populations (see below). Sample sizes vary considerably between studies from N= 100 to N=794. This is lower

than the range of sample size in the Western literature (see Chapter One). Age ranges are fairly consistent and range from 12- 70 or more. The minimum age in the Arab studies (i.e., 12 years) seems to be less than that of the western literature. Including such an early age incurs some risk. For example, most instruments have been designed to screen psychological disorders in adult patients and could be inappropriate for younger patients. As in the Western literature (see Chapter One), the most frequently used detection instrument across all studies is the GHQ. The prevalence of the psychological disorders ranged from about 18 % to 61 %. This prevalence of the psychological disorders seems to be higher than that reported in Western countries (see Chapter One). Several studies suggested explanations for the apparently high rate of psychological disorders among Arabic populations:

1. It was attributed to the social controls forced on individuals in Arabic societies (Dwairy, 1998).
2. Some studies suggested that the high morbidity in Saudi Arabia and the Gulf states is associated with socio-cultural changes (Dwairy, 1998; Ghubash et al, 2001b).
3. Masalha (1999) suggested the same explanation, emphasizing the role of political repression in creating distress.
4. Some studies theorized that the petroleum economy changed the lifestyle of the Saudi society rapidly. The rapidity of this development did not leave time for individuals to adapt to the demands and forces of such a modern way of life. The discovery of oil in Saudi Arabia in 1938 has turned a traditional society into a very wealthy one in less than a generation. This fast change has exposed Saudi people to the modern Western lifestyle. Consequently, stress

and lifestyle has led to psychological disorder (Ghubash et al, 1994; Ghubash et al, 2001b).

2.2.2 Psychological disorders in Saudi samples

Few formal studies have reported the prevalence of psychiatric morbidity within Saudi primary health care. The study of (El-Rufaie, 1988) was the first Saudi study within primary care. The sample in this study is not an ordinary sample; therefore it has not been included in the Table above (Table 2.1). In El-Rufaie, 1988, only those patients who were referred by GPs to the psychiatric clinic were involved. Two hundred patients attending a psychiatric clinic in a private primary care setting were assessed for a range of psychological disorders. All cases were seen by the psychiatrist for standardized clinical interview. The Clinical Interview Schedule (CIS) was administered by the psychiatrist and the identified cases were assigned diagnoses according to the ICD-9 classification. Given the nature of the study's sample it is not surprising to have a high rate of psychological disorder. About 54% were diagnosed as having neurotic disorders.

Another early Saudi study by Al-Fares et al (1992) was intended to assess the prevalence of psychological disorders among patients attending an academic primary care centre in Riyadh (the capital city of Saudi Arabia). The prevalence of psychological disorders was calculated using two methods. The first method required positive assessment by both a GP and a psychiatrist. The second method required a GHQ-28 score of 5 or above, and a positive psychiatrics assessment. The study sample included patients (114) of either sex over 12 years of age attending the clinic of one academic primary care during one month. Two GPs were involved per week. The GP rated the psychiatric severity of each patient according to a 5-point rating scale (0= no psychiatric problems; 4= psychiatric patient). Categories 2, 3 and 4 were considered as cases. There is insufficient information about the validity of this scale. The same scale was also part of the Clinical Interview Schedule (CIS) and filled in by the psychiatrist. Every third patient was selected to be interviewed by the psychiatrist using the CIS. The study found that the prevalence of psychological disorders according to the first method was 47%, whereas the prevalence of psychological disorders using the second method was 46%. The study found that the prevalence of psychological disorders among females was higher than males. However, the study participants were relatively young, the mean age was 28.8.

Alhaj (1998) assessed the prevalence of psychological disorders among two hundred patients attending a military primary care centre in Assir area. The General Health Questionnaire (GHQ-12) with cut-off of 3/4 was applied with sensitivity 86% and specificity 82% compared with the Clinical Interview Schedule (CIS) (see Chapter Four). The prevalence of psychological distress was 47.8%. However, the CIS did not provide prevalence figures in this study.

Becker et al's study (2002) utilized the Patient Health Questionnaire (PHQ) which includes three subscales to measure the prevalence of somatization, depression, and anxiety. The study was in Saudi Arabian academic primary care patients (n= 431: male 45.9% and female 54.1) at the King Khalid University Hospital, the teaching hospital of King Saud University. For purposes of validating the PHQ in the Saudi sample, they tested the ability of the PHQ to detect psychological disorders using independent psychiatric assessment. Structured Clinical Interview (SCID-R) was used in a subset of 173 (40%) patients, the first 173 that were interviewed. The agreement between psychiatric assessment and the screening instrument were modest ($k = 0.65$) for both subscales somatization and depression and poor ($k = 0.37; 0.48$); for both anxiety and panic disorder. The prevalence of somatization was 19.3 %, the prevalence of depression was 20%, and anxiety was 13.5 %. The prevalence of any disorder overall was 33.4%. However, the most striking result is that the prevalence of any disorder was about 33% with females comprising 70% of that group. Females were more likely than males to be somatizing, depressed and anxious. Within the group of patients with somatization, 40% had depression, 16.5% had anxiety. However, it was not clear which definition of somatisation they were using of those described in Chapter One (Table: 1.4). Nevertheless, the Patient Health Questionnaire (PHQ) which was used in this study implies a definition closer to Kirmayer and Robbins' definition for somatization (Psychiatric2; see Chapter One).

In a follow up study, Becker (2004) investigated the ability of GPs to detect and diagnose somatization and depression in Saudi Arabian patients accurately. The study was conducted at the King Khalid University Hospital primary care clinics. Four hundred and thirty one adult patients within primary care in Riyadh were selected. Patients were screened for somatization and depression using the Patient Health

Questionnaire (PHQ). According to the Becker et al's study (2002) the anxiety scale of the PHQ in this study was not used because it was found to be invalid in the Saudi population. The prevalence of psychological disorders according to the PHQ was 20% for depression and 19% for somatization.

In another recent study, Al-Khathami and Ogbeide (2002) studied the prevalence of psychological disorders in military Saudi primary care attenders. In this study, 609 patients were screened using a structured Arabic questionnaire called Rahim Anxiety-Depression (RAD), which screens for minor psychiatric morbidity (anxiety, depression, and somatization). This questionnaire has been used in other Arabic countries and has a sensitivity of 94% and 84% specificity (Rhim, 1973). The prevalence of psychological disorders was about 30% (two third of the cases were women). The authors observed that they found less psychological disorder than in other Arab studies, and proposed that their choice of questionnaire might explain this lower rate. They suggested that future studies use the General Health Questionnaire (GHQ-28).

The prevalence of psychological disorders in Saudi primary care is not clear. The previous studies have some methodological problems. The most obvious is that none of them were conducted in a real community primary care setting. Al-Fares et al (1992) conducted their study at an academic primary care centre in Riyadh. Studies by Becker et al (2002) and Becker (2004) were conducted in primary care patients at the King Khalid University Hospital, the teaching hospital of King Saud University. Al-Khathami and Ogbeide (2002) conducted their study in military primary care. Few Saudi citizens are eligible for treatment in these primary care centres. These primary care centres could be called "secondary primary care centres" which are open for

referrals from community primary care centres. Researchers frequently avoid conducting their studies in community primary care, due to the difficulty in obtaining permission to access community primary care.

Therefore, there is a need to study psychological disorders among Saudi primary care in the current study.

2.2.3 GPs' detection and treatment of psychological disorders

To the best of the current researcher's knowledge, there are only two studies concerning GPs' detection of psychological disorders in all of the Arab countries. In a Palestine study Afana et al (2002) investigated the ability of the GP to detect psychological disorder in primary care. Patients (n= 661) were assessed with respect to psychological disorders by the Hopkins Symptom Checklist (HSCL-25). After consultation the GPs (n=32) were independently asked to fill in the Goldberg checklist II to assess the patient. The Goldberg II scale is an instrument designed to identify and measure psychological disorders in community settings. Results showed that the GPs detected only 11.6% of patients with psychological disorders according to the HSCL-25 score and that the GPs' assessment was not significantly associated with the HSCL-25 score. This means that the majority (88.4%) of psychological disorders among primary care patients were undetected by GPs. Results also revealed that the GPs were most able to detect psychological disorders among those aged 25-34 years compared to the younger age (16-24 year), and in female patients. Moreover, female GPs were more able to detect psychological disorders than male GPs. The authors suggested that the females GPs were better listeners and more sympathetic to emotional disorders than male GPs.

The second study is a Saudi study. Becker (2004) investigated the agreement of psychological morbidity between the Patient Health Questionnaire (PHQ) and the GP assessment. After screening patients by the PHQ, GPs independently assessed these same patients while blinded to the results of the PHQ. Agreement between GPs observations and the screening instrument was modest ($k = 0.40$) for depression and poor ($k = 0.27$) for somatization. GPs identified 35.7% of the sample with somatization as contrasted with 19% identified by PHQ and they identified depression in 18 % of the sample while the PHQ identified depression in 20%. Female GPs had higher agreement with PHQ scores than their male colleagues.

2.3 Historical and cultural background

2.3.1 Mind and body

In the past, medical approaches in the West were holistic. Physical and psychological problems were seen to be mind-body problems, often caused by supernatural factors. In the 17th century, René Descartes distinguished the mind from the body. During this time, Western society also moved toward a capitalistic and socio-political system that allowed for the appearance of individualism. The "self" appeared as an independent unit and attention was given to the psychological aspects of personal problems, such as emotions, needs, and behaviours. Consequently, psychological problems such as stress, depression, and anxiety have become conceptualised as psychological disorders related to psychological constructs (such as the self or ego) or to psychological processes (such as repression), distinct from the physical aspects of the body. Historical and cultural developments in the West contributed to the psychologization of mind-body problems. It seems a logical approach to make a

comparison between these developments and the concept of mental health in Arab countries.

2.3.2 Concept of mind and body in Quran and Hadeeth

The aim of this section is to illustrate how Moslems uniquely view themselves as psycho-physical beings. According to the Islamic view, the human being is made up of body and soul. It is a psycho-physical composite, a body formed from the earth and a soul made of a superior component. Each of the two components, i.e. body and soul, has a state of health and illness, and yet they share a united state of health reflected by the balance between them. An individual should learn how to care not only for his body but also for his soul, which is basically the reality of his being and for which the body is only a mediator. Each of these two components of being human has its inner needs. The body has its inner needs that should be satisfied in order that the individual can live and the human species can survive. By contrast, the soul also has its inner needs that express themselves in believing in God (Allah) and worshiping Him. Satisfaction of these spiritual needs is reflected in feelings of security and happiness. Islam teaches a purposeful method that can establish a balance between the body and soul components of the person in order to nurture a normal person who can enjoy mental health and happiness. The Islamic method of education has two approaches; one is to strengthen the spiritual component in the individual by inviting him to believe in one God and to worship Him. The other approach is to ask the individual to control his material component by directing his emotions and sensual desires. Through these two approaches, Islam teaches people to achieve balance between the material and spiritual components of their personalities.

2.3.3 Cultural and religious beliefs about aetiology of psychological disorders

In Goldberg and Huxley's model which has been mentioned in Chapter One, they argued that patients' beliefs about illnesses are essential to the way that patients respond to decisions to seek help and to the way of presenting their symptoms to their GP.

Therefore, this section aims to cover the common aetiological beliefs about psychological disorder, which are very important for the GP and for the other professionals in Saudi Arabia to understand. Dubovsky (1983) reported that the doctor may feel constrained culturally in his approach to his patient, given the strength of traditional beliefs about the causes of psychological disorders among the Saudi public.

Many Muslims view Allah as the originator of all actions. This belief is likely to influence their view of illness or disease. Disease may be seen, therefore, as the will of God, as a test of faith, or as a punishment for sins committed. In turn, a Muslim patient believes that healing only occurs through God's will. Many Muslims will not make definite statements about the future without including the phrase "*In sha Allah*" which means "God willing" (Alqahtani, 1995).

Within the major part of Arab society, all illness is believed to be caused by Allah's will. For example, a study by Al-Krenawi et al (2000) found males and females with psychological disorders explained their aetiologies as having origins in God's will and God's hands. An individual learns to believe that life events are determined by this external power, and that there is destiny (*Qadha'a wa Qadar*), that is, life events are organized by this supernatural power (Dwairy, 1998).

The individual believes that illness caused by Allah is a punishment or test from Him, but could also be a gift from Allah because Allah will reward the one who succeeds in this test by wiping out his sins (Al Muwatta, 1989).

Prophet Mohammed (peace be upon him) entered upon a sick bedouin whom he went to visit and said to him, "Don't worry, your illness will be a means of cleansing of your sins" (Bukhari 9.562).

Those who really succeed in this test are those who can reconcile the material and the spiritual components of their personalities (i.e., mind and body) and can establish the greatest amount of balance between them (Najaty, 1985) (see the previous section on the concept of mind and body in Quran and Hadeeth) .

It seems that aetiological beliefs frequently include supernatural forces , particularly: when the problem is a psychological disorder; when modern medicine has failed to provide an explanation; or when the source of the symptoms is ambiguous. Supernatural forces in Arabic society include malevolent forces such as jinn. In Islam, jinns are supernatural creatures, which are not necessarily a demon or evil spirit, and are lower than the angels. Jinns were created from a smokeless flame of fire. The Noble Quran says:

He created man Adam from sounding clay like the clay of pottery. And the jinns did He create from a smokeless flame of fire (Al- Quran, Ar-Rahmaan, 15).

Some jinn are believers, listen to the Quran and help humans (Dwairy, 1998; Okasha, 1999). To undo the effects of being possessed by jinn, ceremonies can be performed such as performing prayers, reading Quran or seeking help from religious healers. In a

study by Al-Krenawi et al (1996), the following example from one of the religious healers illustrates a patient who was accompanied by his family. The religious healers explained the patient's behaviour as having been caused by supernatural power:

The son's problems are caused by the Jinn and as the Quran states the Jinn are very strong and violent. This is why the patient has become very strong and violent too.

Many Arabs believe that evil thoughts could be transferred to another person through witchcraft or directly through the eye. Al-Krenawi et al (2000) found that sorcery and/or evil eye were commonly blamed as the source of a patient's mental health, particularly among women (see Table 2.2). Patients with psychological disorder frequently linked their disorders with the evil eye or with being possessed by jinn (Dwairy, 1998).

Table 2.2: list and definition of the most supernatural illness in Arab countries

Evil eye	The evil eye is called in arabic "ain or hasad". A look or stare (from a human) is believed to cause injury to someone. The evil eye basically happens when someone envies another person for the wealth, wisdom etc, that he/she possesses and hopes that this person loses that gift.
Devil eye	Devil is a spirit that can defy nature. Devil Eye is a look or stare from a supernatural creature (not from a human). This look or stare causes injury to someone.
Jinn possession	The Arabic word "Jinn" comes from the verb "janna" which means to hide or conceal. Jinn are real creatures that Allah created from fire; though they see us, they cannot be seen. They are capable of causing physical and psychological harm to human beings. The Jinn can take the forms of some animals such as cats, or can look human. Jinn possession can cause a person to have attacks and to speak in an incomprehensible language. The possessed is unable to think or speak from his/her own will. In this case, this patient called <i>Markob</i> .
Magic/sorcery	Muslims believe that two Angels taught sorcery to mankind. Magic or sorcery are terms referring to the alleged influencing of events and physical phenomena by supernatural, mystical, or paranormal means. Sorcery means getting power from association with evil spirits

While supernatural causes are common in views of illness in general in Arab society, they are believed to be particularly important in psychological disorder. Regardless of gender, educational level, or occupational status, most psychologically ill patients within the Arab community believed in supernatural involvement in the source of their psychological problems (Al-Krenawi et al, 2000) even to the extent of believing that psychological disorder is the result of being possessed by supernatural powers (Shahin and Daly, 1999).

2.3.4 Traditional and religious source of help

2.3.4.1 Introduction

The previous section sought to investigate the Arabic perspective on the aetiology of psychological disorder. The purpose of the present section is to explore traditional and religious ways of treatment within Arab society. As discussed in Chapter One, the relevance of “traditional and religious source of help” to this thesis is that all alternative sources of help might be potential barriers to receiving formal help from medical services. For example, if a patient believes that traditional medicine may alleviate his problem, he may delay seeking professional help.

Traditional and religious beliefs are major determinants that not only colour the definition of psychological disorders, but also colour the disease and determine when and where help is sought (Dwairy, 1999; Okasha, 1999). Several types of traditional treatment are used in Saudi Arabia, including olive oil, honey, onion seed, herbal medicine, skin cauterisation and blood extraction/blood letting. Among Arabs there is a general impression that traditional medicine is the proper source of help to alleviate psychological disorders. Hasan et al (2000) claimed that medical students and general practitioners believe that traditional medicine is the proper treatment among patients,

but without evidence. However, there is no previous study among primary care patients which examines their beliefs toward traditional medicine.

Despite progress made in Saudi Arabia in the medical field, many patients remain dissatisfied with services provided (Khan, 1999). Eighty-nine percent of Saudi patients are reported to have had a first contact with traditional healers before being admitted to psychiatric hospital (Shahin and Daly, 1999). Seeing a psychiatrist or psychologist is seen as a last option (Okasha, 1999). In the past, illiteracy and ignorance were blamed for the continuation of traditional medicine. But among Arabic primary care patients, there is no evidence to explain why patients seek help from traditional sources.

2.3.4.2 Medicine of the Prophet

It should be emphasized that the influence of Islam and the impact of Arabic culture are deeply rooted in the history of Saudi Arabian society and they shape its unique and conservative nature. It is an obvious influence when one considers the fact that the land on which Saudi Arabia is located has a special place in the heart of Muslims around the world because it contains two important cities, Makkah and Al-Madinah.

Medicine of the Prophet is a combination of religious and medical information and practice, derived mainly from the advice and the actions of the Prophet (*peace be upon him*) (Al-Jawziyya, 1998). Among the types of the medicine which have been used widely are olive oil, honey and onion seed, which are used as non-specific tonics or as medicine in diverse conditions. Although this type of treatment appears to consist of herbal medication, it is coloured by Islamic belief, as all of these medications were recommended by Prophet Mohammed (*peace be upon him*). Herbal

medicine is therefore one of the most common types of alternative medication in Saudi Arabia. It is used mostly to improve sexual performance (Khan, 1999).

Cauterization or (*Al-Kowie*) is another type of medicine from the prophet which is considered to be one of the oldest ways of treatment in the Arabian Peninsula in general and in Saudi Arabia in particular. Dubovsky (1983) reported that cauterization is usually used in Saudi Arabia to cure chronic medical problems and often was used to treat psychiatric problems. Cauterization is mentioned in all early books and documents. According to Prophet Mohammed's (*peace be upon him*) recommendation, it is discouraged and should only be used as the last option, for example when patients believe that modern medicine has failed to treat their disease. The method is usually preformed by using a red-hot iron bar. The iron bar comes in different shapes – round, linear, crossed-shaped, etc. - which make different patterns of cauterization over the patient's body (see the appendix; figures3). In small infants, the healer may use small pieces of burning wood. It is not uncommon to see a child with more than 50 cauterization marks which will mark his body forever (Rathi et al, 1993).

Another type of native medical treatment used in Saudi Arabia and which was recommended by Prophet Mohammed (*peace be upon him*) is the copping therapy called *Al-Hejama*. It is mostly used to treat unexplained physical pain by blood extracting. About fifteen to twenty small linear cuts are made in the skin in the area below the back of the head, at the top of the head, on the back of the shoulder or on the back. The blood is withdrawn by applying the wider open end of a sheep's or cow's horn and sucking from a small opening at the pointed end. This procedure is repeated until around 10-50ml of blood has been removed (Khan, 1999). However,

nowadays blood is withdrawn by modern instruments, which can be seen inside *A-Hejama* clinics.

It is worth mentioning that there is a strange type of native medical treatment used to treat patients with psychiatric problems. Dubovsky (1983) reported that religious healers beat the psychotic patient to make sure that the patient's body becomes inhospitable to the evil spirit.

2.3.4.3 Religious healers

Religious healers are mainly influenced by Islamic sheikhs who first came to teach people the principles of Islam. Later, they became actively involved in traditional healing, also. Religious and traditional healers play a major role in primary care in Arab countries. They especially deal with minor neurotic, psychosomatic, and transitory psychotic states using religious and group methods (Dwairy, 1998; Okasha, 1999).

The medical treatment they use can be divided into two subclasses: The first group uses only Quranic treatment, derived from certain verses. This involves reading and listening to the Quran with the active participation of the patient. The success of treatment is thought to depend on the experience of the healer and the degree of his belief. At the same time the success of treatment probably depends on the belief of the patient and his belief in the Quran as a source of treatment. It is worth mentioning that the Quran is considered to be the ultimate treatment for psychosocial disorders because, as has been mentioned above, all religious healers consider psychological disorders to be caused by supernatural power, whether acting alone or on behalf of God as punishment for sins (Al-Krenawi et al, 1996). The second uses a combination

of both Quran and a *Talasim* called “*Tawiza*” or “*Hajjab*” (Ahmed et al, 1999). The *Tawiza* or *Hajjab* is an amulet, usually given by a spiritual healer, which contains verses of the Holy Quran written on a piece of paper. *Tawiza/Hajjab* are worn on the body to ward off evil spirits (Al-Krenawi et al, 1996). Healers in this subgroup are influential on individual and family views of illness /health decisions (Ahmed et al, 1999), by using ceremonies and terminologies that are familiar to Arab society. In general, healers represent the culture, and reinforce cultural explanations that emphasize external control, such as evil eye and possession by jinn rather than Western concepts of psychopathology (Al-Krenawi et al, 2000).

According to the Quran, men and women are equal and should be treated as such (ICQ, 1996). Nevertheless, women in Arab society experience many barriers to treatment, and evidence suggests that they utilize services less than men when they have psychological disorders. Women are encouraged more to seek a traditional healer than are men (Zaidan et al, 2000). In a Jordanian study Al-Krenawi and his colleagues (2000) found that 85% of women who visited psychological health services had consulted traditional healers, and an additional 15% had consulted a religious leader before and during their psychiatric treatment. In contrast, 30% of men before and during treatment saw traditional healers. It may be that women consult traditional healers more than men because traditional medicine is less stigmatised.

2.3.4.4 How religious healers classify patients' symptoms

The religious healers classify the patients with psychological disorders into two categories according to presenting symptoms:

The first includes those patients who have been attacked by supernatural forces or the evil eye which remains inside the patient: this patient has been called *Markob* which means attack from evil spirits inhabiting the earth. Symptoms of this category include violence and considerable energy or strength (Al-Krenawi et al, 1996).

The second category includes patients who have been given problems by God and patients who suffer from the spirits' deeds, but where the spirits do not actually occupy the patient's body. The spirits create various somatic symptoms such as pain in different parts of the body, fatigue, anxiety, and various phobias. Also the spirits may create psychosocial disorder such as inability to work effectively or marital discord (Al-Krenawi et al, 1996).

2.3.5 Stigma about psychological disorder

Arab society places a much greater stigma on the psychologically ill patient and therapy (Masalha, 1999) than the physically ill patient. In general, there is a stigma attached to approaching psychotherapy. As mentioned earlier, patients seek psychological help after years of delay or after seeking help from traditional healers.

Shahin and Daly (1999) studied the attitude of Saudi psychological patients who were hospitalized in a governmental hospital for two weeks or longer and receiving psychotropic drugs. They found that about 96% of the patients were reluctant to have others know they were taking medication for a psychological illness, reflecting the social stigma attached to psychological illness.

It seems that women may be more vulnerable than men to the stigma of psychotherapy. For example, the family does its best to hide the problems, and manage at home. They may even consider some disorders normal, such as anxiety and

depression. In a study by Al-Krenawi et al, (2000) in which they showed that women with psychological disorder sought treatment from non-psychological biomedical practitioners, such as general practitioners, rather than psychological health services, they found that the stigma of psychological treatment among unmarried women was perceived to potentially damage marital prospects. Similarly, for married women, the label of psychological illness could be used by the husband or his family as power for his remarriage. They found that women may also delay in order to maintain their family's reputation.

Similar results appeared in a study by Zaidan et al (2000), who reported that the stigma attached to psychological disorders can affect the women's chances of getting married; therefore women try to hide their problems (Zaidan et al, 2000). Men, on the other hand, could not be hidden at home like women. They are therefore referred more easily.

The previous chapter and the present one are complementary in the sense that together they provide a conceptual context which describes the framework of several barriers along the pathway from health-need to care-utilization and the way in which it could be tested within Arabic society. This will be addressed in the next sections.

2.4 The patient and doctor in Arab society: the clinical relationship as a source of barriers to care

2.4.1 Psychological health services

The concept of barriers to seeking help for psychological treatment and Goldberg-Huxley's (1980) model were described in detail in Chapter One. This section looks at the barrier model again, but among Arab countries. It begins by

looking at what is called the patient's role in the consultation. However, a brief background about the psychological health services in Saudi Arabia is appropriate here to establish whether or not there is enough service provision for those patients who need psychological help.

Until 1983, psychological health care in the country was mainly provided by only one main hospital called Taif psychiatric hospital. The hospital accommodated about 250 patients but served a far larger number (for example, in 1978, there were 1800 patients). Patients had to travel long distances to obtain psychological health care, often contributing to delays in seeking care.

Since 1983, a shift occurred in the form of the setting-up of smaller-sized (20-120 beds) hospitals throughout the country along with outpatient clinics. Beside Taif Hospital which now has 570 beds, there are 14 other psychiatric hospitals with an average bed capacity of 30-120 beds in other parts of the country, isolated from the general hospitals and working independently. Psychiatric clinics attached to general hospitals total 61 in number, having 20-30 beds each. There are three Amal Hospitals with 280 beds each under the joint administration of the Ministries of Health and Interior for treatment of persons with alcohol and drug addiction. There are, in addition, 165 beds for psychiatric inpatients in other governmental health sectors, such as military, National Guard and university hospitals.

According to a report by the Ministry of Health (2004) in Saudi Arabia, there are 498 psychiatrists in the country; of them 78 are Saudi. There are 108 psychologists working in Ministry of Health facilities without the proper training as all of them have been graduated from the education departments with minimal graduate training in clinical psychology. There are 183 social workers working in psychological hospitals,

but unfortunately they are also with minimal graduate training in psychiatric social work. Saudi Arabia, with a population of over 23 million, has a very low number of psychiatrists or psychologists. Only one psychiatrist or psychologist serves approximately 37,953 citizens.

In Saudi Arabia, the Ministry of Health is the government agency with overall responsibility for health care including primary care, which provides care to all Saudi citizens. The primary care centres provide basic health services to most patients, enabling the hospitals to concentrate on those cases needing more specialized curative services. However, it is very important to clarify that the primary care centres' patients are usually from the middle and the lower socioeconomic class. Wealthier patients always visit a private doctor or go to the private health sector. Despite the fact that private primary care in Saudi Arabia is under the control of the Ministry of Health, it is not part of the national system of health care. Private primary care cannot refer patients to governmental hospitals or even to any health centre.

2.4.2 Somatization as barrier

With reference to somatic symptoms, Helman (1994) said that in some cultures there are certain special forms of unexplained symptom. Most patients with unexplained symptoms can provide cultural explanations for their own symptoms (Kirmayer et al, 2004).

Among Arab societies, there are claims that due to the holistic cultural attitude toward mind and body, patients with psychological disorders are likely to express somatic symptoms (El-Rufaie et al, 1999; Dwairy, 1997). The study of Bazzoui (1970) reported that feelings of guilt were almost absent among depressed patients. Suicidal

thoughts and attempts were rare. Physical symptoms were the most outstanding features of depression in 65.5% of the cases; whereas fear of breaking cultural rules or shaming themselves and their families was much more dominant than feelings of individual responsibility and guilt. Bazzoui suggested that doctors could diagnose Arab patients with depression even without the presence of the psychological symptoms that would feature in depression in the West.

Several studies reported that psychological disorders are expressed in somatic terms in developing countries (Farooq et al, 1995; Dwairy, 1998). Some Arab researchers claimed that Arab patients with psychological disorders tend to translate or channel their feelings into body language (Al-Shammari et al, 1994; Okasha, 1999). They rarely complain of depression and, when they do, it is manifested in somatic symptoms (Good et al, 1985). One of the earliest works on the nature of psychological disorders in Arab countries is the study by Bazzoui (1970) which applied structured interviews to psychiatric patients. The study found that Iraqi depressed patients manifested their distress in different ways. Patients sometimes manifested their symptoms physically, in absence of any report of mood changes. Mood changes were found in only (34%) of depressed patients.

Okasha and his colleagues (1981) found that Arab males showed more somatic manifestations than females, explaining that males in Arab culture tend to somatize their psychological symptoms because of the belief that “real men” should not have psychological symptoms (Okasha, 1999). In agreement with this result, in Palestine, men were more likely to express their psychological disorder by physical symptoms, whereas women tended to express their feelings of anxiety, fear, and depression directly (Dwairy, 1998). However, without evidence, there is another opinion which

states that women tend to somatize their problems more than men (Racy, 1980; El-Rufaie, 1988; Al-Fares, et al 1992; Al-Khathami and Ogbeide, 2002).

Finally, for Arab patients headache, backache, abdominal pain, pain in the upper and lower limbs, fatigue and chest pain were the most frequent somatic presentation among the patient with unexplained medical symptoms (Al-Arfaj et al, 2003; El-Rufaie et al, 1999). In El-Rufaie et al (1999), mentioned above, the most frequent somatic presentation among patients with unexplained symptoms was headache (45%). Backache was 35% and abdominal pain was 30%. Al-Faris (1995) reported that headache, tiredness and back pain were frequently reported by GPs.

The presentation of psychological disorders as somatic complaints among Arab patients will be summarized as follows:

1. Such presentation may be because the patient is unaware of his mood and emotions (Bazzoui, 1970).
2. Physical illness and somatic manifestations become better understood and more acceptable rather than a vague complaint of psychological symptoms that can be ignored by doctors (Alhaj, 1998).
3. There is social acceptance for physical complaints rather than psychological complaints, which are either not taken seriously or are believed to recover with some rest or extra praying (Okasha, 1999).
4. There is social stigma attached to psychological disorders and, in this way, somatization may hide psychological disorders by emphasizing a sick role that is socially acceptable in the culture (Becker, 2004).

2.4.3 The patient role as barrier

Psychological health services in Arab countries are not well understood by the population. Many Arab patients have limited familiarity with psychiatric treatment (Al-Krenawi et al, 2000). A patient in the West may share personal experiences with the doctor and is sometimes able to describe his problem in psychological terms. They may also use certain terms that psychological theories have developed, such as the self and repression, or stress. Some may even use diagnostic categories, such as depression and anxiety to describe their case (Dwairy, 1997). Arab patients, in turn, are less psychologized and tend to describe their complaints with personal abstract language. Their answers are also often vague and unspecific (Dwairy and Van Sickle 1996; Dwairy, 1997). They refer to depression, for example, as “problems of the heart” (Kaiser et al, 1998). They may use phrases such as “darkness overshadows my heart” or “my heart is dead”. These descriptions are often misunderstood by doctors and lead to difficulties in communication (Bazzoui, 1970; Dwairy, 1997). Therefore, doctors may ask the patient for a translation into direct descriptive language, which in fact could be one of the most difficult barriers for Arab patients who could fail to describe their problem in psychological terms. When doctors ask their patients how they feel about some specific experience, an Arab patient typically responds by stating: “I felt nothing” or “I feel as I normally do”.

West (1987) argued that Saudi patients do not assume responsibility for their pathological actions. They place the responsibility for change on the doctors. Consequently, they often appear silent, expecting the doctor to do all of the work. They become uncommunicative when asked in-depth questions. The same result comes from a Saudi study by Racy (1980) where she found that the patient expects to be examined and prescribed medication. Using their observations in a psychiatric

clinic, Dwairy and Van Sickle (1996) claimed that when Arab patients come to the general practitioner seeking help or advice, they expect that they will be passive and that the general practitioner will take a directive approach, similar to that of the father. This behaviour is more obvious when the cause of the problem is psychological. Dubovsky (1983) reported that patients appear to be passive and unwilling to do anything to improve their condition, they required "spoon feeding" medication instead of sharing the discussion with the doctors. These cultural behaviours are frequently misinterpreted by Western doctors or researchers who consider such behaviour as resistance (Dwairy, 1998).

There are some difficulties in dealing with Muslim women in particular, compared with men. It seems that men seek help more than women who are often "helped" at home until they have severely deteriorated and are referred to hospitals (Dwairy, 1998). When she seeks help from professionals, the female is required to be covered from head to ankles. Only her face, hands and feet may be exposed. The Quran clearly defines this and also details the family members in front of whom she may appear without her cover, although one may find various levels of adherence to this dress code, depending on the individual. There is a further problem of access to psychological health care for women, since they are not permitted to drive and the primary care doctor may serve as the only contact with psychological health care for a woman brought to the doctor by her husband (Becker, 2004).

Racy described the situation of female patients in Saudi Arabia, stating that women typically would come to primary care veiled and accompanied by a male member or several members of the family. They would limp in, leaning on the arms of a male relative. Dropping heavily into a chair, they would remain quiet and veiled until

was weak. Authors explained these results by the assumption that people in Saudi Arabia are usually reluctant to complain about services, or maybe because Saudis accept lower standards of health care. Therefore, the study concluded that it is not enough to rely on patients' satisfaction to assess quality of services due to the fact that people in Saudi Arabia are usually very polite and are unwilling to complain about services and are accepting of low standards of care.

In a detailed study, Saeed et al, (2001) studied patient satisfaction in 540 patients attending the primary health care centres in Riyadh. Satisfaction was, again, generally high, but lowest for what they called "physicians' services". Physicians' services include attentive listening to patients' complaints; clear explanation; and information which should be provided to patients in the consultation. Patients' evaluation of doctors' communication was the main predictor of overall satisfaction. Patients in this study complained of the reluctance of the doctor to refer them to hospital, to provide laboratory tests, and to give a follow-up appointment. The authors explained these results by suggesting that Saudi patients insist on referral to hospital because they think that the care is much better. Saeed et al, (2001) found no significant differences according to the socio-demographic variables.

However, the results on satisfaction among Arab countries should be considered carefully. In Arab countries, sometimes dissatisfaction with health care equals dissatisfaction with the government, which makes it more difficult to report honestly. Most patients, therefore, reported their high satisfaction despite the poor quality. There is no comparison study between satisfaction in Arab countries and the West. Nevertheless, it seems that dissatisfaction in Saudi Arabia may play less of a role as a barrier than in the West.

spoken to. Initially, they would say nothing and refer the question to the accompanying relative. Shoulders were frequently shrugged and "I don't know" was a common answer. They would answer only when pressed.

2.4.4 Patient satisfaction as a barrier

The study of patient satisfaction is very difficult conceptually and practically (Williams, 1994). Studies carried out in developing countries have consistently shown a good level of patient satisfaction in spite of poor services (Al-Krenawi et al, 2000), and it is not clear that patients act in the discriminating consumerist way that is implied by the concept of satisfaction (Williams, 1994).

However, patient satisfaction has become increasingly important in health services and there has been a drive for client satisfaction in Arab countries in general and in Saudi Arabia in particular, recently (Qatari and Haran, 1999). A Saudi study (Mansour and Al-Osimy, 1996) investigated patient satisfaction and evaluated the resources available in three large primary care centres in Riyadh, the capital city of Saudi Arabia. Two instruments were used to collect information for this study. The first instrument was a sheet to assess the resources of the primary health care centres. It consisted of three parts. Part one examined the number of qualified workers in the centre such as GPs and nurses. Part two assessed the quality of the equipment, such as emergency room and immunization. Part three assessed the facilities, such as waiting area and reception. The second instrument was the satisfaction questionnaire. The data obtained were compared with the Saudi Ministry of Health data. The score obtained regarding the equipment available in three centres was judged adequate. The scores obtained regarding the qualified workers part and the facilities parts were judged inadequate. However, patients were generally satisfied, although the service

2.4.5 Professionals' beliefs as a barrier

Denial of the role of emotions in physical health is common not only among patients, but among general practitioner as well (Dwairy, 1998). Al-Faris (1998) suggested that the majority of general practitioners in the Arab world have been trained physically to think of the human being as having physical health only, and in their diagnostic hypotheses are usually limited to physical-organic causes; the possibility of psychological disorder is either not considered, or made later after excluding the probable organic causes (Al-Faris, 1998). In another words, general practitioners made their diagnosis by exclusion.

Similarly, Becker (2004) reported that the biomedical approach is the preferred approach in Arab medical training which focuses on physical organic causes of illness and minimizes the significant role of psychological distress in the health of patients. However, in the study of Afana et al (2002) 62% of the GPs agreed that psychological problems are important to their patients' health status. If GPs do not, nevertheless, diagnose psychological disorders, this does not automatically mean that they are unaware of psychological distress in their patients. GPs feel that labelling and treatment do more harm than good (Afana et al, 2002). Afana et al (2002) highlighted problems arising from both the patients' and the GPs' beliefs towards psychological disorders. They thought that because the social stigma attached to psychological disorders is high, perhaps both patients and GPs would be reluctant to reveal such problems. Afana et al (2002) also suggested one other possible reason why GPs might not diagnose psychological disorders. GPs may consider psychological symptoms as a "normal" reaction to an exceptional social and political situation, rather than an expression of psychological disorders.

In most Arab countries, psychologists who are trained in any form of psychotherapy are rare (Dwairy, 1998). By contrast, psychiatrists rely on drugs in their treatment rather than psychotherapy (Ibrahim and Ibrahim, 1993). All patients, in turn, expected medication from their psychiatrist (Al-Krenawi et al, 2000).

Interestingly, although heavily influenced by Western medicine, many Saudi Arabian doctors believe in the potential usefulness of religious medicine such as *Al-Hejama* and *Al-Kowi*, especially in cases where modern medicine cannot provide a cure (Hasan et al, 2000). There are numerous documented cases of psychiatrists referring patients who do not respond to western therapy to traditional healers (Al-Krenawi et al, 1996).

2.5 Conclusion and aim of the thesis

2.5.1 Understanding barriers to receiving help for psychological disorders from GPs in Arab societies

It is not clear what the prevalence of psychological disorders among Saudi primary care centers is. Also, it is not clear if the GPs in Saudi primary care recognise psychological disorders accurately or not. It is clear that that there are several barriers in the patient's way to receiving help for psychological disorders, and as a result it must be expected that few of those who need treatment get it.

The reasons behind the failure to diagnose many cases of psychological disorders in primary care are complex and poorly understood, despite a number of studies and reviews addressing this issue in Western research (see Chapter One). Chapter One introduced the concept of "barriers" that need to be overcome on the path from being ill to receiving treatment. The present chapter has shown that, in Arab societies and,

in particular, Saudi Arabia, certain of these barriers are likely to be particularly important:

1. Patients may understand their symptoms according to cultural ideas. For example, patients may explain their psychological disorders according to aetiological beliefs which are religious rather than medical. Patients need to overcome this barrier if they are to access formal health care.
2. While patients recognise that some sources of treatment can help, others may be seen as unhelpful. Which sources are seen in which way can reflect cultural and religious beliefs rather than an understanding of the efficacy of each. Patients' preference for traditional or religious care might therefore present a barrier to their seeking medical care.
3. Patients recognise that psychological disorder is stigmatised, which will be a barrier to their presenting problems and seeking and accepting help.
4. GPs may face a barrier to understanding what patients seek, even if patients disclose their intention.
5. GPs may fail to detect psychological disorders, reflecting reluctance to address issues that normally remain private in Arab society.
6. Patients probably often seek help from the GP with physical presentations associated with psychological disorder; that is, they may somatise their presentation. Somatizing the symptoms creates two barriers. The first barrier prevents patients from understanding their symptoms clearly. The second barrier prevents doctors from diagnosing the symptoms correctly.

All of these barriers need to be investigated in order to determine the potential barriers which prevent patients from receiving help. Such investigation will draw a clearer

picture than is available at present about understanding the problem of dealing with psychological disorders in primary care in Saudi Arabia.

2.5.2 Implications for future research

Among Arab countries, there have been fewer attempts than in the west to examine the prevalence of psychological disorders in primary care. Although Arabic literature attempts to investigate this issue in the community primary care, it has not been done in Saudi community primary care. Indeed all of the Saudi studies were conducted in 'secondary primary care' or in closed primary care (i.e., primary care not open to all of the community and restricted for certain categories of the population) such as academic primary or military primary care.

There have been very few attempts to identify the barriers in the patient's path to receiving help from professionals. Previous Arabic literatures about the difficulties of dealing with Arab patients were based on clinical observation only. There is no evidence to identify the barriers.

The results could lead to more precise identification of barriers to the presentation, recognition and treatment of psychological disorders and thereby contribute to improved quality of GPs' management of psychological disorders and improved outcomes of psychological disorders in primary care in Saudi Arabia.

2.6 Conclusion

This chapter and the previous chapter have looked at aspects of psychological disorders and the concept of "barriers" from western and Arabic perspectives. The purpose of the chapter was to establish the context in which the fieldwork for the

study was conducted. Insight into these barriers should pave the way for action to address them. The fieldwork involved a series of studies. The First Study will attempt to identify the general pattern of psychological disorders in primary care in Saudi Arabia and to begin to explore barriers. As a check on results of this study, Study Two will compare different methods of wording of the GHQ. The Third Study will examine barriers more closely, based on the findings of Study One. The fourth study will be a qualitative study which will try to answer questions arising from the quantitative studies. Before those are presented, it is necessary to look at issues that arise in choosing the research methodology for this research. This is the subject of the next chapter.

CHAPTER 3: Methodological considerations

3.1 Introduction

The detection and measurement of emotional problems raises important methodological issues, even in Western studies. In studies in other cultures the problems are even greater because the instruments and procedures that are available are almost invariably produced in the West. Rendering them applicable in non-Western cultures, and confirming that they are valid in those cultures, is challenging. The studies to be described in this thesis will require the use of instruments and procedures developed in Western research. This chapter reviews the instruments and procedures that are available for detection of psychological disorders, from which the choice must be made of which to use in this thesis. Then it reviews the approaches that can be taken to ensuring the validity of those procedures in the population to be studied in this thesis. Finally, it describes how current ideas of how this should be done were implemented for the research in this thesis.

3.2 Detection of psychological problems

3.2.1 Interview methods

3.2.1.1 Background

Structured interviews have become the most widely accepted procedure for gathering epidemiological data on the prevalence of various psychological disorders (Nietzel et al, 1998). Although costly (see Table 3.1), personal interviews allow researchers to gain more control over how the survey is administered.

Table 3.1: Interviews' advantages and disadvantages (Coolican, 1999)

Advantages	Disadvantages
Leads to accurate assessment of patient's problems and thinking	Some interviews are non-standardised methods
Interviewer can vary questions in order to check patient's understanding	Researcher's theoretical attitude can influence questions asked and interpretations made of what patient understands
Information gained can be rich	Difficulty in comparing one interview with another
Interviewee can be relaxed	Difficulty in surveying a big sample
	Costly in applying in terms of money and time

The concept of "interview" is a face- to-face verbal exchange in which the interviewer attempts to elicit information or expressions of opinion or belief from a client (see Table 3.2). Coolican (1999) identified the clinical interview as a method using structured questions to be asked but authorizing tailoring of later questions to the individual's responses.

Table 3.2: Interviews frequently used in adult psychiatric epidemiology

Name of interview	Abbreviation	Reference	Purpose
Anxiety Disorders Interview Schedule, Revised	ADIS-R	Douglas et al, 2000	Designed to assess differential diagnosis among the anxiety disorders according to DSM-IV criteria
The Cambridge Examination for Mental Disorders of the Elderly	CAMDEX-R	Roth and Tym, 1999	To diagnose different from of common psychological disorders
International Diagnostic Interview-Revised	CIDI	Robins et al, 1988	Screen for psychological disorder. Designed to be administered by lay interviewers with no clinical training
Diagnostic Interview Schedule	DIS	Kessler and Üstün, 2004	Used by non-professionals in large-scale epidemiological studies of mental disorder
Present State Examination	PSE	Trikas et al, 1999	It is a semi-structured interview for diagnosing psychiatric symptoms
Schedule for Clinical Assessment in Neuropsychiatry	SCAN	Wing et al, 1990	Semi-structured clinical diagnostic interviews in assessing psychiatric disorders in adult. It can be used for clinical, research- and training purposes
Clinical Interview Schedule	CIS	Goldberg et al, 1970	It is a semi-structured interview for diagnosing psychiatric symptoms in community and general practice
Structured Clinical Interview for DSM-IV Dissociative Disorders	SCID	Kashner et al, 2003	The SCID is a scale directly targeted at DSM diagnoses of psychological disorders
Structured Interview of Reported Symptoms	SIRS	Rogers, 1999	Assess malingering and feigning of psychiatric symptoms
The Schedule for Affective Disorders and Schizophrenia	SADS	Endicott and Spitzer , 1978	Designed to assess and diagnostic psychological disorders including schizophrenia according to the DSM-IV

3.2.1.2 Reliability and validity of interview

Patients, interviewer, and situational factors may affect the degree to which patients give the same information to different interviewers (reliability) and the degree to which that information is accurate (validity). Some researchers have studied interview

reliability by looking at the degree to which different judges agree on the decisions (ratings or diagnoses) that they draw from interviews. To study the reliability of interview information, researchers examine the consistency of patients' responses across repeated interview occasions by the same or different interviewers. As expected, test-retest reliability tends to be highest when adult patients are asked for general information such as age and other demographic data and when the interval between interviews is short. Lower reliability coefficients tend to appear when test-retest intervals are long, when patients are young children, and when interviewers explore sensitive topics such as illegal drug use, sexual practices, or traumatic experiences.

Regarding validity, psychiatrists' and psychologists' faith in the validity of structured interviews is reflected in the fact that the results of such interviews are often used as criteria for evaluating other psychological tests or other assessment methods. Thus, the validity of a test for depression, for example, will be seen as supported if patients' scores on the test correlate strongly with what they say about depression during a structured interview (Nietzel et al, 1998). Despite this, it is important to remember that the accuracy of interview responses can be affected by a number of factors. For example, the phrasing of questions in semi-structured interviews can be important.

As this chapter will show, the process of translating questionnaires is not an easy task. So what about translation of interviews? (see Chapter Eleven). This data is more likely to be distorted by the personal translations which mostly were done by the researchers themselves. The clinical interview which includes deep emotional issues is so sensitive that accuracy is likely to be affected by the ability of the translator. This issue will be addressed in Chapter Eleven.

Having looked at interview methods, it is now appropriate to consider some issues relating to questionnaire methods.

3.2.2 Questionnaire methods

3.2.2.1 Background

Questionnaires are widely used in epidemiology, and generally provide a low-cost method to obtain information about a range of factors. In general, the questionnaire is considered as an economical way of obtaining data relating to a particular problem or issue from a wide audience (Nisbet and Entwistle, 1974; Bell, 1993). Most survey research therefore relies on questionnaires (Shaughnessy et al, 2000). Several questionnaires have been developed to be used in primary care settings. Once an appropriate cut-off score has been chosen, the questionnaires can be used as screening devices for the detection of psychological disorder (Schmitz et al, 1999). A large number of screening instruments for assessing psychological disorder exist. Table 3.3 details some of those questionnaires which commonly have been used to detect psychological disorders in primary care. However, after reviewing some general principles regarding the use of questionnaires, the main ones will be compared below.

Table 3.3: Questionnaires that have been used to detect psychological disorders in primary care

Instrument	Reference	Scope	Items	References of Arabic versions if available
Beck Depression Inventory (BDI)	Beck et al 1961	Inventory to measure characteristic attitudes and symptoms of depression	21	Abdel-Khalek, 1998
Beck Depression Inventory (BDI-PC)	Beck et al, 1997	Intended to assess the severity of current depressive symptomatology in a psychiatric population	21	Abdallah, 1997
Center for Epidemiologic Studies Depression Scale (CES-D)	Radloff, 1977	Intended to measure symptoms in general population and psychiatric population	20	
General Health Questionnaire (GHQ)	Goldberg, 1978	Detection of psychological disorders (Several versions)	60, 30, 28, 12	GHQ-12: Alhaj, 2000; El-Rufaie and Daradkeh, 1996. GHQ-28: Al-Fareset al, 1992; Al-Haddad et al, 1999. GHQ-30: El-Rufaie and Daradkeh, 1997b
Geriatric Depression Scale (GDS-15)	D'Ath et al, 1994	Intended to detect depression. (specific geriatric depression)	15	
Hopkins Symptom Checklist (HSCL)	Derogatis et al, 1974	Intended to measure various psychological symptoms in psychiatric populations	58	
Hospital Anxiety Depression Scale (HADS)	Zigmond and Snaith, 1983	To screen depression and anxiety	14	El-Rufaie and Absood, 1987
Patient Health Questionnaire (PHQ)	Spitzer et al, 1999	Intended to detect mental disorders in primary care	26	Becker et al, 2002
Self-Reporting Questionnaire (SRQ)	Harding et al, 1980	Originally developed by the WHO to detect psychiatric morbidity across cultures	24	Al-Subaie et al, 1998; El-Rufaie and Absood, 1994
Single-question(SQ)	Watkins et al, 2001	Intended to detect depression	1	
Duke ANXIETY and Depression Scale (DADS)	Williams et al, 2002	To screen depression and anxiety	7	
Brief Symptom Inventory (BSI)	Derogatis and Melsavados, 1983	Intended to measure psychological distress and symptom patterns of psychiatric and medical patients	53	
Zung self-rating depression scale (SDS)	Zung, 1965	Designed for assessing depression in patients whose primary diagnoses were that of a depressive disorder	20	Kirkby et al, 2005

3.2.2.2 Concepts and terminology in the evaluation of questionnaires

In evaluating and comparing questionnaires, several different properties need to be considered.

1. **Sensitivity:** The ability of a screening test to identify those who have a condition, calculated as the percentage of all cases with the condition who were judged by the test to have the condition: the true positive rate. In other words, sensitivity is the probability that a true 'case' will be correctly identified by the test. In the current study, sensitivity refers to the proportion of people having a psychological disorder who score above the cut-off score on a questionnaire.

2. **Specificity:** The ability of a measurement to correctly identify those who do not have the condition in question. That is to say, the specificity is the probability that a true 'normal' will be correctly identified. In the current study, specificity refers to the proportion of people without a psychological disorder who score below the cut-off score on a questionnaire.

3. **Cut-point:** The optimal cut-off point is the score which gives the best combination of sensitivity and specificity. Choosing measures with high sensitivity as well as high specificity can help to identify probable psychological disorders while limiting the over-diagnosis of patients who are not likely to have a disorder. However, it has been recommended to use a low specificity to ensure that sensitivity is protected (Goldberg et al, 1998).

3.2.3 Screening for psychological disorders in Saudi Arabian primary care: the GHQ and the HADS

3.2.3.1 *The General Health Questionnaire*

3.2.3.1.1 Versions of the General Health Questionnaire

The General Health Questionnaire (GHQ) (Goldberg, 1978) is an internationally known psychiatric screening scale (see Table 3.4). It was constructed for psychiatric screening in the primary health sector. The questionnaire is filled out by the patient. Several versions with slightly different psychometric properties exist (Goldberg, 1978; Goldberg et al., 1997). The full scale consists of 60 items, while shorter versions consist variously of 30, 28, 20 and 12 items. However, the 12-item and the 28-item versions are the most extensively used ones (Kitamura et al, 1989).

The General Health Questionnaire 12-item (GHQ-12) is a brief way to detect psychiatric disorders among respondents in community settings and non-psychiatric clinical settings (Farrell, 1998; Schmitz et al, 1999). It provides a single score that indicates the likelihood that emotional disorder is present. The GHQ-28, by contrast, provides four scores, measuring somatic complaints, social dysfunction, anxiety, and depression. The GHQ-28 is intended for studies in which an investigator requires more information than is provided by a single severity score (Sapsford and Jupp, 1996). The GHQ-28 was recommended to investigate the different components of psychological disorders of the sample (Goldberg et al, 1997). Because the current study is an explorative study and because there was no previous study about psychological disorders in Saudi primary care, it was reasonable to collect additional details about psychological disorders using the GHQ-28. This point will be detailed in Chapter Four. However, the GHQ-12 and GHQ-28 have been translated into many languages (see table W above) and have been used in many different settings.

Table 3.4: Studies which have translated the General Health Questionnaire (GHQ) and the Hospital Anxiety and Depression Scale (HADS) into non-English languages

languages	Studies	
	GHQ	HADS
Arabic	Alhaj, 2000	El-Rufaie and Absood, 1987
Cambodian	Cheung and Spears 1994	---
Chinese	Chan, 1993	Leung et al, 1993
Dutch	Hodiamont et al, 2005	Spinhoven et al, 1997
French	Bolognini et al, 1989	Savard et al, 1998
German	Elton et al, 1988	Kulich et al, 2003
Greek	Garyfallos et al, 1991	Mystakidou et al, 2004
Indian	Sriram et al, 1989	Button et al, 1998
Italian	Piccinelli et al, 1993	Costantini et al, 1999
Japanese	Kitamura et al, 1989	Matsubayashi et al, 2004
Nigerian	Oduwole and Ogunyemi, 1989	Akinlade et at, 1996
Russian	Golimbet an Trubnikov, 2001	--
Spanish	Lobo et al, 1986	Herrero et al, 2003
Turkish	Kilic et al, 1997	Atesci et al, 2004
Urdu	--	Mumford et al, 1991

As it can be seen from Table 3.4, the GHQ and the HADS have been most widely used in the developing countries. The GHQ has been widely used in Western countries (see Chapter One: Table 1.1). Therefore, they were used in this thesis. Although the GHQ and the HADS have been translated into Arabic, there is no clear detail about the process of these translations. This issue will be addressed below. More details about reasons for choosing the GHQ to be the main instrument to detect psychological disorders in the current thesis will be addressed in Chapter Four.

3.2.3.1.2 Choosing a cut- off score for the GHQ-12 and scoring methods

As has been mentioned earlier, sensitivity and specificity are important factors to consider when establishing appropriate cut-off scores for psychological screening measures. When the questionnaire is compared to a clinical interview, the cut-off scores have been found to vary between populations (Sapsford and Jupp, 1996). In a

study of Goldberg et al (1997), compared to the Composite International Diagnostic Instrument (CIDI-PC), they reported that the best cut-off of the GHQ-12 in 15 different cities in different countries varied. For many cities, a low cut-off of 1/2 was judged best, but others needed higher cut-offs. Manchester, for example, required high cut-offs with 3/4. Bangalore reported a cut-off of 6/7. In a follow-up study, Goldberg et al (1998) tried to show why the GHQ cut-off varies from one place to another throughout 15 different cities.

The traditional scoring method of the GHQ is a binary method. For each item, respondents to the GHQ choose one of four response categories. Each item is scored "1 or 0" and summed over the items. This can be characterized as the (0,0,1,1) method, giving a total score ranging from 0 to 12. However, there were other controversies about the best scoring methods of the 12-item General Health Questionnaire (GHQ-12). There are three different scoring methods which have been used widely. The traditional scoring method of the GHQ is the first scoring methods. In addition to the traditional scoring method, the GHQ can also be scored using a four-point Likert scale where scores of (0,1,2,3) are allocated to each item, giving a total score ranging from 0 to 36. The third scoring method was invented by Goodchild and Duncan-Jones (1985). This scoring method called C-GHQ. Goodchild and Duncan-Jones pointed out that traditional scoring method of the GHQ did not take into account the chronicity of the symptoms, and hence, chronic patients would not be detected by the traditional scoring method of GHQ. They claimed that the revised scoring method (C-GHQ) would perform better than the traditional scoring method of the GHQ in chronic cases. According to this method, positive items are scored in the traditional binary method (0,0,1,1), but the negative items are scored (0,1,1,1).

Higher scores indicate an increased likelihood of psychological disorders (Duncan-Jones, 1985).

The scoring methods of the GHQ have not yet been investigated among Arab countries. Therefore Chapter Four will address the different scoring systems and cut-offs for the Arabic GHQ.

3.2.3.2 HADS

The Hospital Anxiety and Depression Scale (HADS) is one of the most widely used questionnaires to screen for psychological morbidity across different groups of non-psychiatric hospital patients (Zigmond and Snaith, 1983). The HADS has been found to perform well in measuring anxiety disorders and depression in both somatic and psychiatric patients and in primary care patients and the general population (Snaith, 2003). This performance was assessed by comparison with, for example, a gold-standard diagnostic tool, such as the Primary Care Evaluation of Mental Disorders (PRIME-MD) scale (Bambauer et al, 2005), or the Structured Clinical Interview for DSM-IV (SCID) as the criterion standard (Lowe et al, 2004).

The HADS consists of 14 items. Seven items measure anxiety, and seven items measure depression. Items representing symptoms of severe mood disorder or bodily symptoms likely to occur in physical illness are not included in the HADS scale. A feature of the HADS which contrasts with most forms of the GHQ is that anxiety and depression are separated. Patients are instructed to rate themselves using a four-point response scale 0-3 or 3-0, according to the item wording. Like the GHQ, the HADS has been translated into many languages (see Table 3.4) and has been used in many different settings.

Similar to the GHQ, generally, there is no single accepted cut-off score for the HADS. In the original study Zigmond and Snaith (1983) reported in their manual three cut-off scores for both subscales (i.e. anxiety and depression): 7/8 for “mild”; 10/11 for “moderate”; and 14/15 for “severe” anxiety or depression.

3.2.4 Questionnaires vs interviews

For the research to be described in this thesis, it is necessary to consider whether interview or questionnaire should be used to detect psychological disorders. Although interviews have often been regarded as ‘gold standards’ there are several difficulties in conducting interviews in the present research. As in Western studies, they would be more time-consuming and therefore costly in terms of resources. They would be intrusive, which would reduce participation. In addition, and as mentioned above, there are difficulties in translating the interviews (see Chapter Eleven). Furthermore, there are some problems that arise specifically in Arabic cultures.

1. As described previously, Arab patients have great difficulties in describing their problems, especially if they are asked to describe their normally private emotions. Simply, they may say nothing in an interview, especially if they are meeting the interviewer for the first time. Patients in Arab countries may be unable or unwilling to express their feelings or convey them to other people. By contrast, Arab patients may be more likely to provide information and participate in answering a questionnaire because it offers anonymity.

2. According to cultural rules, it is forbidden for men to interview women for the purpose of collecting data. Interviews with women must be conducted by a female interviewer or sometimes by a male interviewer on condition that one of the patient’s

relatives attends; mostly this would be the husband or the father. The presence of dominating relatives would clearly compromise the validity of the information obtained.

3. Apart from cultural rules, women often refuse to be interviewed alone, and do not like to be examined by males (Butt et al, 2004). Most Saudi families would not allow their female members to be interviewed unless the father or the husband, for example, have a chance to be present and speak on her behalf.

4. Permission to tape-record interviews would almost certainly be refused because respondents would be tense at being recorded, which is an unfamiliar experience in Saudi Arabian society and would be regarded as threatening.

For the above reasons, interviews about emotional problems are less practicable and less likely to provide valid information in Saudi Arabia than in Western studies, particularly given the resource constraints of this study, which preclude access to female interviewers. In the present study, questionnaires should therefore be used to identify and understand psychological disorders in primary care patients in Saudi Arabia.

3.2.5 Principles in comparing, choosing and modifying questionnaires

The present study needed questionnaires which would be capable of eliciting a wide variety of information about the prevalence and nature of patients' psychological problems. Therefore, one of the first considerations of the researcher was to choose and, where necessary, develop questionnaires which would be appropriate for using in the Arab world, and specifically, in Saudi Arabia.

Given the absence of questionnaires developed specifically, the first issue is whether to use translated instruments from Western research, or to develop entirely new ones. Epidemiological research in Arab countries has used both 'etic' and 'emic' questionnaires. Etic questionnaires are those which have been developed in a culture foreign to the study area; examples of such questionnaires used in Saudi Arabia are the GHQ and HADS. Emic questionnaires, on the other hand, are developed locally and are usually derived from symptoms and experiences commonly presented by patients in the study area. Taking into consideration that many phenomena and concepts are common in different cultures, it would be irrational to ignore well-established instruments from other cultures. In addition, using entirely new locally-developed instruments would severely limit comparison of local findings with other worldwide research results (El-Rufaie and Daradkeh, 1997). Therefore, an etic approach was applied as far as possible and the questionnaires were based largely on existing instruments. Therefore, most of those questionnaires that used in the current studies were developed in Western cultures. For the purpose of the current study, two main approaches were used to amend these questionnaires.

1. **Adding new items:** The questionnaire must be able to cover all the relevant issues in the Saudi Arabian population. Therefore, where appropriate, new items were created to represent any issues that would be important in Saudi Arabia, but were not represented in the original questionnaire. For example, in adopting a questionnaire about aetiological beliefs, some cultural beliefs in Saudi Arabia would not be represented and would require new items.
2. **Modifying items:** Every item in each questionnaire must to be acceptable culturally. For example, when asking about culturally sensitive issues such as

stigma, there are likely to be items that would be unacceptable for the Saudi culture and therefore have to be modified.

3. Finally, there are complex issues in relation to translation, which are described in the following sections.

The reasons for choosing the current study's instruments will be addressed in Chapter Four.

3.3 Issues in translation of questionnaires

3.3.1 Introduction: the need for translation

Preferably, the method of measurement of any psychological phenomenon should be developed from the viewpoint of the culture under investigation (Marsella, 1978). However, the resources and time required to have representative researchers from all cultures involved generally makes this unfeasible. Often the ideal choice is to find and translate a questionnaire for measuring the concept of interest, which has been developed in another country – typically a Western one. Researchers who attempt to apply translated questionnaires need to be familiar with problems that are inherent in this process.

Establishing translation equivalence is an expensive and intensive task. A literal word-by-word translation can result in awkward sentence structure and, often, incomprehensible meaning in the target-language version (Carlson, 2000). The difference in meaning between "translation" and "adaptation" reflects the difference between a literal and conceptual transformation of an instrument.

3.3.2 Approach to translation

A good translation will provide language that is equivalent both in its meaning and in the use of idioms between the original and the translated versions of a questionnaire. 'Equivalent translation' is a form of validity that refers to the agreement between two measures of the same construct (Chang et al 1999). However, the process of translating concepts developed in one culture for use in another is fraught with problems of semantics (Chang et al 1999). Despite its importance, this issue has not yet been solved by establishing a standardized methodology for translation of questionnaires. Therefore, the current researcher explored the literature concerning where questionnaires have been translated, and reviewed literature which discussed or recommended ways to translate questionnaires. The findings are summarized in a table of guidelines (Table 3.5) for procedures for ensuring the equivalence between the translated and original versions of a questionnaire. In the current study, however, the final guideline (see Table 3.5) to translation has been drawn from many sources (Behling and Low, 2000; Brislin et al, 1973; Carlson, 2000; Marsella et al, 1979; Twinn, 1997).

Table 3.5: Guidelines for translation of questionnaires

Main instructions
<ul style="list-style-type: none"> ■ A bilingual individual who translates questionnaire into the target language should be involved in the translation process. Translators should have a high degree of familiarity with both languages, preferably having lived for extended periods in both cultures. ■ Use of more than one translator in the initial translation phase is recommended. Independently translated questionnaires can later be combined, eliminating weak or inaccurate renderings. ■ After the questionnaire has been translated into the target language, it is desirable to employ a back translation procedure to detect items or concepts that are poorly translated. ■ The back translation should be done by different bilingual persons with no knowledge of the content of the original source language instrument. ■ The original and back-translated source language versions are compared ■ If substantial differences exist between the two source language documents, changes designed to eliminate the discrepancies are made in the wording of the source language instrument, the target language instrument, or both. ■ This process is repeated using other translators until identical or near identical source and target language versions are obtained. ■ A field pre-test of the translated questionnaire (i.e. pilot study for checking the translation only) is recommended after the translation and back translation are completed. ■ The field pre-test may incorporate inquiries with subjects to determine if any problems emerge with the translated questionnaire. It is desirable to conduct the field test on samples from the full range of subjects to be included in the study. ■ Study of the translation itself is desirable before the translated questionnaire is accepted. Several methods of evaluation have been developed to determine the adequacy of translated questionnaires, including: giving bilingual persons both language versions and comparing their responses; determining and comparing endorsement percentages of subjects from normative populations in each language; determining whether the factor structures of the various language versions are comparable. ■ Researchers usually report the results of one or more of three kinds of tests of reliability: parallel forms, test-retest, and internal consistency. ■ In the case of translated tests, validity and reliability should be demonstrated for the target language version. ■ It may be desirable to provide a translator's guide for the questionnaire so that other researchers using the questionnaire would be aware of the original translator's decision processes.
Issues to be avoided
<ul style="list-style-type: none"> □ Making grammatical errors. At the same time avoid the use of very formal language which could be unreadable. □ Problems of syntax and awkward wording of translated psychological questionnaire. □ Word by word translation. □ Abstract expressions (Use concrete rather than abstract) . □ Translating idiomatic expressions (explanation may add clarity). □ Metaphor and colloquialisms. Avoid the subjunctive tense, e.g., verb forms with could or would. Also, avoid possessive forms when possible. □ Double negatives. □ Error in the scoring direction. For example, if item-meaning direction is changed from negative to positive or the opposite, the scoring direction should reflect this change. □ Culturally unacceptable items.

3.3.3 Selection of Translators

Successful translation depends greatly on the knowledge and experience of the translators (Carlson, 2000). Experts agree that translators must not only be fluent in both languages but also be intimately familiar with both cultures. Marín and Marín (1991) strongly recommended that a translator should be a person who learned both languages at different times and in different cultures rather than a person who learned the languages within the same culture, to ensure a more accurate perception of the individual cultures.

3.3.4 Translation methods

When translating questionnaires, three translation methods are available: simple direct translation or one-way translation; translation by committee; back-translation method.

3.3.4.1 Forward-translation (Simple Direct Translation)

In simple direct translation (see Table 3.5), a bilingual person translates the questionnaire from the original language into the target language. This method provides results which can be obtained quickly and cheaply. It generates no objective information about the quality of the translation or specific problems with it. Since the quality of the target language version depends strictly upon a lone translator's skill and judgment, confidence in the translated version is low. Consistent with this, studies have shown that forward-translation results in lower validity and reliability of the new questionnaire (Carlson, 2000). Nevertheless, one-way translation continues to be the most frequently used method of questionnaire translation (Erkut et al, 1999).

3.3 .4.2 Back-Translation Method

The back-translation method has been considered the best method of obtaining a translation equivalent to the original questionnaire (Marín and Marín, 1991; Erkut et al, 1999; Carlson, 2000). The back-translation process needs a minimum of two independent translators (see Table 3.5). The first translator translates the target version from the original. The second translator translates the target-language version to the original language. Each translator works separately and no consultation among them is allowed (Carlson, 2000).

In practice, back-translation is a cyclical process which involves, as a minimum, the following steps:

1. A bilingual person translates the original language questionnaire into the target language.
2. A second bilingual person with no knowledge of the wording of the original language questionnaire translates this draft back into the original language.
3. The original and back-translated versions are compared.
4. If substantial differences exist between the two versions of the questionnaire, the cycle is repeated to eliminate the discrepancies. The cycle is repeated until the two versions are identical or contain only minor differences.

While this procedure (i.e., back-translation) has been considered the optimal method of translating an existing questionnaire into another language, limitations still exist (Marín and Marín, 1991). For example, the two translators may share a common world view due to similar backgrounds and develop identical versions but the meaning of the original version has been lost in the translated version (Marín and Marín, 1991). Another limitation of the back-translation method is that in trying to

keep the grammatical forms of the two versions similar, the translated version may be confusing and difficultly phrased (Erkut et al, 1999) (see Table 3.5). Nevertheless, back-translation is the best method to obtain an equivalent copy from the original questionnaire. Therefore, this thesis applied a back-translation method.

3.3.4.3 Translation by committee

Translation by committee involves two or more bilingual persons in translating the questionnaire from the original language into the target language, working either separately or in collaboration (Carlson, 2000) (see Table 3.5). While less time-consuming than back translation, this method has serious limitations. Committee members may be influenced to agree with specific translations because of social processes rather than for linguistic reasons (Marín and Marín, 1991).

3.3.5 The translation pilot study

The pilot study is a test before the main investigation (see Table 3.5), intended to assess the adequacy of the questionnaires in the research design. Probing the new instruments is essential, whether interviews or questionnaires are used. The pilot study does not attempt to produce definitive results about the subject being measured by the questionnaire. Instead, it tests any difficulties in the questionnaire or in applying it to the target population. There are several practical questions that need to be answered before conducting the main investigation, which the pilot study can answer:

1. Does the questionnaire take too long to complete?
2. Do the respondents understand the questions?

3.4 The adaptation and translation of questionnaires for the current research

The aim of this section is to describe and explain the processes adopted for translation of the questionnaires used in the research in this thesis. The immediate purpose is to allow the research to investigate the barriers and related issues identified in Chapters One and Two. However, an additional purpose is to provide questionnaires that could be used in future research in Arab countries. A third aim is to develop a high quality approach for translation which could be used as a guide by the future researchers in Arab countries, since such researchers frequently apply Western questionnaires with insufficient quality of translation. Indeed, and to the best of the current researcher's knowledge, this is the first attempt to develop guidelines for the translation process for Arab countries.

Although the authors of the Arabic GHQ and the Arabic HADS reported that they used back-translation method in their translation, unfortunately, there are no documented studies which explain in detail the process of these translations. Therefore, the GHQ and HADS were also translated for the present research as a check on the published translations and in order to help choose which of the available translations should be used. All other questionnaires had not previously been translated. Therefore they were newly translated for this thesis.

The current researcher followed the advice on translation provided in the literature in order to balance optimal accuracy and appropriateness of the Arabic translation with the need to protect the reliability and validity of the original instruments. The guidelines followed were as set out in Table 3.5. The translation process passed through two main stages (see Figure 3.1), each stage includes several process as

explained below. The procedures were based on those of back-translation, but included elements also of committee-translation, in the use of multiple translators.

3.4.1 Stage One

1- **Forward-translation:** Two independent bilingual translators (Translator 1 and Translator 2) translated the original questionnaire (forward-translation) from English into the Arabic language. Both translators are native Arabic-speakers who had a high degree of familiarity with English and had lived for a period of time in both cultures, English and Arab. Translator 1 was a postdoctoral researcher in the Liverpool School of Tropical Medicine. Translator 2 was a paediatrician who has worked in the Ministry of Health in Saudi Arabia for 17 years. Each translator worked independently. After finishing translation, they met together with the current researcher to discuss their translations and the two copies were compared with the first version to modify the form if necessary. The current researcher worked with the two translators to evaluate their translation in terms of:

- **Conceptual equivalence:** Are the original concepts reflected in the translation?
- **Linguistic performance:** Dose the translation involve common language?
- **Clarity:** Is it brief, familiar and straightforward?

Afterwards, the agreed common version was produced. At this stage, one of the major problems was in finding an exact Arabic equivalent to several English words under translation. For example, in one of the items of the Hopkins Symptoms Checklist (HSCL) - "Numbness or tingling in parts of your body" - translators spent much time in trying to find an exact Arabic word for

“numbness”. At the beginning it was translated as “unconsciousness”. Afterwards it was translated as “lack of feeling” which could lead the Arabic reader to the meaning of “insensitive”. However, translators decided to use the meaning of “numbness” in the Oxford Dictionary: “lacking the power to feel”.

2- **Back- translation:** The agreed upon Arabic questionnaire was back-translated into English by two independent bilingual translators (Translator 3 and Translator 4) who were not familiar with the English version. Both translators were female Arabic-speakers who worked in UK NHS services. Translator 3 had worked as a Midwife at Liverpool Women’s Hospital for more than 10 years. Translator 4 worked as a translator for those Arabic patients in Liverpool Women Hospital who cannot speak English. Both these translators had an education to professional level, and England was their place of birth.

Independently, they worked to produce two English back-translations. To assess the level of agreement, the two translators (Translator 3 and 4) met together with the current researcher. A copy of the original questionnaires and the translated questionnaires were then compared by the two translators: one from the forward-translation stage and one from the back- translation stage (Translator 1 and 4). There were generally some minor differences. Therefore one of the original translators (Translator 4) was again called in to share the discussion and the retranslation was performed together.

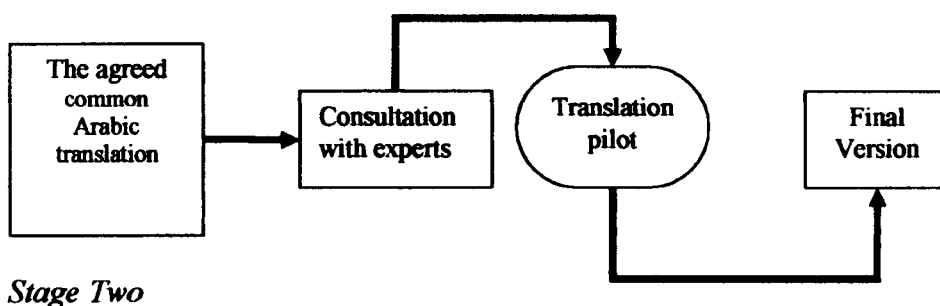
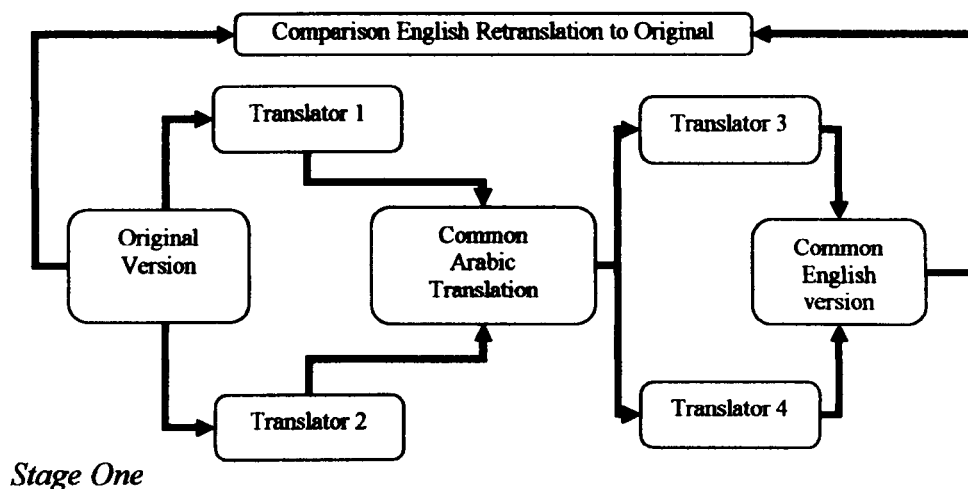
3.4.2 Stage Two

Consultation with experts: During the process of translation it was essential to take into consideration the socio-cultural background of the Saudi Arabian population for which the questionnaires were intended. Therefore, copies of the

final, questionnaires i.e. Arabic versions, were sent to 7 academic staff in the Department of Psychology at King Khalid University, as well as to three general practitioners in Saudi Arabia to review them. The 7 academic staff worked separately and provided their comments before meeting together (after one of the official monthly meetings of the department), where they were asked whether the translated version was applicable, comprehensive for, and comprehensible to the Saudi patients to be included in studies measuring psychological problems in primary care. It is worth mentioning that the judgments of the experts were used to confirm the validity of the current study instruments. This point will be referred to in the following chapters. However, the main comment of the experts was that some words should be changed from standard Arabic to the everyday-spoken language to ensure clarity and understanding. The most appropriate replacement words were then selected. In addition, all the experts were asked to referee the questionnaires and to delete or suggest new items as they thought appropriate. Changes that arose in Stage 2 are detailed where the questionnaires are introduced in the following chapters.

Translation pilot: The main aim was to pinpoint any ambiguities in the questions using participants from the actual target population. A translation pilot was therefore conducted in July 2003 in 2 primary health care centres in Jeddah city in Saudi Arabia. The pilot study was limited to this city for several reasons: 1) expense and time, 2) ease of access and contact, as Jeddah city is a modern city and people there are familiar with answering questionnaires, 3) Jeddah is a big and open city and was thought to be capable of reflecting Saudi patients throughout the kingdom of Saudi Arabia.

Figure 3.1: The translation process (Stage One and Stage Two)



The researcher attended one single primary care and asked patients aged 17 years or above who said that they were attending to see their GP for current physical or emotional symptoms to take part. Of 44 approached, 39 agreed, and were asked individually to read and answer the questionnaires item by item in a private space at the clinic. The researcher discussed with the participants any problems that emerged with the translation. At this stage, patients were encouraged to ask about any ambiguities and make their comments on the questionnaires.

In general, all patients in the pilot study reported that the questionnaires were clear in their instructions. They also reported that they clearly understood almost all of the

questionnaire items. The results of the pilot study showed that the time needed to complete the questionnaires for Study 1 (see chapters 4 and 5) ranged from 20 to 60 minutes. Every comment, which reflected the patient's difficulty in understanding, instructions or items, was noted and the questionnaires were modified accordingly. The main modification was about the position of individual questionnaires in the whole sequence of questionnaires. For example, the GHQ had originally been placed immediately after the demographic information. The modification was to put the questionnaire about beliefs first, before the GHQ, because patients found the beliefs questionnaire more straightforward to answer. After minor corrections for Arabic layout, the questionnaires were ready to be photocopied and distributed and ready to be applied in the main investigation.

3.4.3 GHQ and HADS

Regarding the checking of the translation of the Arabic GHQ-12, the translation made in the current study was nearly identical to the Alhaj (2000) translation, but differed in some respects from that of El-Rufaie and Daradkeh (1996). Therefore, the version of Allhaj was used. By contrast, the translation of the HADS in the current study was almost the same as the Arabic version of El-Rufaie and Absood, (1987). This version was therefore used

3.5 Qualitative and quantitative methods

Quantitative methods have been widely used on the assumption that variables of interest can be defined and measured. The strengths of quantitative methods are that they produce factual, reliable data that are usually generalizable to some larger population (Steckler et al, 1992). However, the nature, consequences and impact of

illness cannot be satisfactorily answered by quantitative research alone. In such situations, qualitative methods take a holistic perspective preserving the complexities of human behaviour by addressing the "why" and "how" questions. The strengths of qualitative methods are that they generate rich, detailed data (Steckler et al, 1992). By qualitative methods, the researcher attempts to develop understandings of the phenomena under study that go beyond the quantitative measures used. The value that qualitative methods can contribute to questions not easily answered by quantitative methods has been advocated for many years in medical research (Green and Britten, 1998), and has a particular role in representing and understanding the actions and experiences of people as they engage, encounter, and live through illness and medical care (Elliott et al, 1999).

Sometimes qualitative studies apply strenuous techniques such as purposive sampling, multiple coding and respondent validation. However, regarded purely as techniques, each of these can degrade rather than improve research (Barbour, 2001). While it is therefore important to be disciplined in the application of methods, it is also necessary not to be too subject to arbitrary methodological rules and to choose methods that are appropriate to the research question and setting (Salmon, 2003).

Combining qualitative and quantitative methods has been advocated as leading to a type of validity which has been called triangulation (Stiles, 1993). Triangulation in this sense is defined as the use of multiple methods for the collection and interpretation of data in order to obtain an accurate view of reality (Polit and Hungler, 2003; Barbour, 2001). However, in this point (i.e., applying more than one method) there is a question that needs to be asked as to whether or not the methods can be given equal weight. One view believes that this is not a problem, claiming that

research is a craft and that as long as each method is well performed the result will be good science (Howe, 1988).

There are different theoretical models for how to use triangulation methodology. Qualitative methods can be used to supply hypotheses for quantitative work, or to compare with quantitative findings. The approach that will be valuable in this thesis is that qualitative findings can be understood as adding “spice” to the “real” quantitative results and helping to explain them (Foss and Ellefsen, 2002), or to produce new ways to think about such problems (see Chapter Eleven) and provide meaning for the statistical findings (Strauss and Corbin, 1990).

3.6 Conclusion

The result of this extensive process was that, as intended, a set of questionnaires was available to address the questions about barriers to care of psychological problems in Saudi Arabian primary care attenders that were to be the subject of this thesis. In addition, the researcher has produced questionnaires, which will be described in later chapters, that measure aspects of patients experience, beliefs and intentions that have been neglected in previous work in Arabic countries. By making these questionnaires freely available, Arabic researchers without the time or resources to engage in the lengthy translation processes will be enabled to carry out such research. In addition, the procedure adopted here could serve as a guide to others who wish to translate further questionnaires for use in Arab cultures.

Chapter 4: Study One: Prevalence and detection of psychological disorders

4.1 Introduction

The present chapter is the first of two chapters which present the findings from the first fieldwork conducted for this study. The present chapter deals in detail with the findings from questionnaires which were used to detect psychological disorders within primary care Centres in Saudi Arabia.

As reported in Chapter One, studies conducted over recent decades have indicated that psychological disorder within primary care is high in non-Arabic countries. In Saudi Arabia, psychological disorders in primary care have been estimated at 30-49 % (see Chapter Two). However, the validity of these conclusions can be questioned because there is a paucity of truly scientific studies. All the studies conducted in Saudi Arabia were hampered by methodological difficulties. None of them was conducted in real community primary care settings (see Chapter Two). Also some studies used ineffective instruments.

In Chapter Two, some Arabic studies blame the enormous economic development of the Arabic oil producing countries for the high prevalence of psychological disorders, arguing that they stem from the rapid changes in an individual's life as he becomes more open toward the Western lifestyle (Al-Shammari et al 1997). However, there are some areas of Saudi Arabia which are still considered to be closed areas or rather less open towards the West. Arabic authors reported their suggestions based on their clinical observation without evidence. They maintain that an individual in an area less open to the West will face less stress and less lifestyle pressure, and hence, they may report less prevalence of psychological disorders. Assir is a semi-urban area and their

community is less open toward the West than other parts of the country. This study has been conducted in the Assir area to investigate the prevalence of psychological disorders in an area that is not greatly affected by Western influence.

It is helpful also to have information about the components of psychological disorder. Therefore assessment methods will be used that can provide information regarding different components of psychological disorders in Saudi primary care, as well as reporting prevalence of disorders in general.

In Saudi primary care centres, there is an assumption that patients may express psychological disorders in somatic terms. The prevalence of somatization in primary care in Arab countries was estimated at around 19% (see Chapter Two). For the same reasons mentioned above, this assumption can be questioned. As mentioned in Chapter Two, frequently literatures reported that Arabic women somatize their psychological disorders more than men. Also for the same reasons mentioned above, this assumption can be questioned.

Western studies also report that GPs frequently do not detect psychological disorders (see Chapter One). The majority of these disorders therefore often pass undetected. In their pioneering work, Goldberg and Huxley (1980) indicated that around 50% of primary care patients with psychological disorders are correctly diagnosed by the GPs as having such disorders. However, there is no Saudi study which investigates the ability of the GPs to detect psychological disorders among the community primary care centres. Saudi GPs would be even less accurate than UK ones because of training and because Saudi GPs prefer to use a biomedical approach (see Chapter Two). Therefore it was expected they could miss the presence of psychological disorders in more than half of psychological patients.

4.2 Aims and hypothesis

The present study aims and hypotheses are as follows.

Aim 1: the main aim addressed in this chapter is to investigate the prevalence of psychological disorders and their detection in primary care in Saudi Arabia's Assir area. Investigating the components of psychological disorder in Saudi primary care will be part of this aim.

Aim 2: in addressing *Aim 1*, it will also look at the prevalence of psychologically disordered patients who present physical symptoms and will identify the common physical symptoms associated with psychological cases, compared with non-cases.

Aim 3: to investigate the ability of the GPs to detect psychological disorders.

Hypothesis 1: prevalence of psychological disorder in the Assir area will be less than that cited in Arabic literature because the Assir area is a semi-urban area, and hence, stress associated with exposure to western lifestyle will have less of an effect.

Hypothesis 2: Saudi women will display higher levels of somatization than men because they are more reluctant to display emotion.

Hypothesis 3: GPs will detect fewer than 50% of psychological disorders in the Assir area.

4.3 Method

4.3.1 Participants

The study sample is drawn from the population who are inhabitants in one specific area in the south of Saudi Arabia which is called the Assir area, and who visited a primary health care centre during the study period. In order to obtain results that are representative of this population, eight Primary Health Care Centres PHCCs were selected geographically to represent the population of this area. The Ministry of Health's map (branch Assir) was used to select the main primary health care centre from each geographical area within the Assir area. Due to official legislation at the time of conducting this study, it was possible to obtain permission to access those primary care centres located in the inner-city area, but it was not permitted to access any PHCC out of that area, such as the suburbs. The sample consisted of 28 patients chosen systematically from those attending each centre (see below). Of 227 patients who were approached, a total of 224 patients agreed to participate in this study. All male and female patients who were aged 17 or over, were invited to participate in this study. Those patients under the age of 17 years were excluded. Sixteen patients (7%) were illiterate; four of them were males and 12 were females. The questionnaires were read out to them by the current researcher if the patient was male. If the patient was female, her male company (mostly the father or the husband) read out the questionnaire.

In accordance with the country's traditions, in cases where patients were female, recruitment was carried out in the presence of the patient's male companion. Regarding the GPs, all those who were asked to take a part in the current study were willing to participate. Their ages ranged from 29 to 41 and their experience as a GP ranged from 2 years up to 9 years. Table 4.1 details more information about the GPs'

characteristics. None of them were Saudi citizens. None of them were graduates of the Saudi faculty of medicine. None of them were trained in Saudi primary care centre before starting work in it.

Table 4.1: Socio-demographic characteristics of the GPs of Study One ($n=13$)

GPs' characteristics		n	%
Gender	Males	7	53.85
	Females	5	38.46
Range age	≤ 35 years	8	61.54
	≥ 36 years	5	38.46
Range of GP experience	≤ 4 years	10	76.92
	≥ 5 years	3	23.08
Where trained	Egypt	6	46.15
	Jordan	3	23.08
	Pakistan	3	23.08
	Tunisia	1	7.69

4.3.2 Refusals and exclusions

As explained above, 3 patients refused to participate. Two of these were female patients who refused to participate due to cultural reasons, as they did not want contact with the current researcher in the absence of their husbands. Those patients attending for reasons other than health complaints, for example, vaccination, driver's licence examinations and reports, were excluded.

It was easy for the researcher to obtain data from almost all patients who were asked to take part, for two reasons:

- 1- In the normal working day, patients wait to be seen by a doctor in a crowded waiting-room for at least 60 minutes. In contrast, participants in the current study answered the questionnaires (see below) in comfort in a private air-conditioned room which offered privacy and confidentiality as well.

Furthermore, all those participants went immediately to their consultation as soon as they completed the questionnaires. Indeed this was the biggest factor that encouraged patients to participate, see Al-Mandhari et al (2004).

- 2- In some cases, female patients were accompanied by a male relative, usually the husband, who would be happy to sit together with his wife until her consultation was due. Usually, female patients are required to sit separately in the women's waiting-room. Those female patients who agreed to participate were able to be together with their husbands in a private room.

4.3.3 Procedure and ethics

4.3.3.1 Procedure

The study was conducted in the hometown of the current researcher where he was able to make personal contact with the Head of the Ministry of Health (branch Assir) and obtain help from him. A special arrangement was made with the administration of each primary care centre to allow those patients who were participating to go along to their GP after completing the study's questionnaires without needing to return to wait for a long time in the waiting room until the time of their consultation (see below). In this part of Saudi Arabia (i.e. Assir area) they are not familiar with the practice of conducting research, so this arrangement was to encourage patients to participate.

The study was carried out over three months starting from September 15th 2003. During the official working hours (7.00-12.00 and 16.00-20.30) the work was undertaken 6 days a week from Saturday until Thursday; the weekend being Friday in Saudi Arabia. The daily procedure followed was to identify randomly one GP at each session every day, either male or female. Then each patient was asked, upon arrival, to participate in the study. Those who agreed were given the set of questionnaires to

complete in a private air-conditioned room, which offered privacy. This continued until at least 28 patients had been screened per primary care centre. Different doctors were involved on different days where there were two or more GPs in one primary care centre. Each selected GP on every working day was omitted from the random selection for the following days until all of the GPs in the primary care were included. During the morning working hours (7.00-12.00) the researcher switched recruitment between the female and male clinics which meant that they saw patients of one gender only. However, in the evening working hours (16.00-20.30) it was possible to see both genders at one GP's clinic. During the morning hours there is a usually long queue of patients on the GP's list and the waiting rooms are crowded by patients so there was an arrangement in the primary care centres to separate males from females, with separate male and female clinics in different locations within the same primary care building. In accordance with Saudi Arabia's culture (see Chapter Two), in cases where patients were female, applying the questionnaires was carried out in the presence of the patient's male companion (mostly the father or the husband). However, it should be emphasised here that such condition did not violate the confidentiality, as responses were not seen by the males.

Individually and under the direct supervision of the researcher, consenting patients were asked to complete the questionnaires while waiting for their consultation and after. Participants were given pens or pencils by the researcher and were given the opportunity to change or clarify what they had written.

4.3.3.2 Ethical issues

In Saudi Arabia, the permission of the Health Ministry is required instead of Ethics Committee approval (see appendix). Before distributing the questionnaires, an official

letter of permission was issued by the branch of the Ministry of Health in Abha to allow the researcher's work at primary care centres. In order to obtain this, the researcher was requested to provide two letters, one from the Saudi Cultural Bureau in London, and another letter from the researcher's supervisor, which explained the research topic and the researcher's need to conduct fieldwork in Saudi Arabia (See Appendix). The Saudi Cultural Bureau in London forwarded these letters to the Ministry of Health in Saudi Arabia, and the research was approved. Then the researcher went to see the superintendents of the primary health care centres and gave them information about the research and the researcher. A letter was sent from the superintendent to the doctor's coordinators, introducing the researcher and giving him authorization to administer questionnaires, to view the primary care record book and to view the GPs' diagnosis book in each of the selected primary care centres.

At recruitment, patients were asked if they would participate by filling out the study questionnaires. The nature of the study was explained to each patient and their oral consent taken. Patients were informed that participation or non- participation in filling out the questionnaires would not affect their treatment, and they were assured that the data collected would be used only for the stated research purposes, and they were asked not to write their name on the questionnaire. They were informed that they could withdraw from the study at any time. Patients were identified on questionnaires and on the GP ratings by a code number only.

4.3.4 Instruments

4.3.4.1 *The Arabic version of the GHQ-12 and GHQ-28*

4.3.4.1.1 Background

The GHQ12 was used to provide an index of caseness. The GHQ-28 was used to provide further information about the components of psychological disorders and to provide a further view of caseness. The value of the GHQ-28 was explained in Chapter Three.

Among Arab countries, the performance of the GHQ has been found to be significantly better than that of any other Arabic scale to measure psychological distress. Among several studies the Arabic GHQ-12 was remarkably strong, achieving the highest sensitivity and specificity of all Arabic questionnaires (Alhaj, 2000; El-Rufaie, 1997; El-Rufaie and Daradkeh 1997b). Ghubash et al (2001) tested the ability of the Arabic GHQ-12 to screen ICD-10 psychiatric disorders in an Arab community, using the Composite International Diagnostic Interview (CIDI) for comparison. They concluded that the Arabic version of the GHQ is a valid screening instrument in an Arab community. El-Rufaie and Daradkeh (1996) investigated the validity of the GHQ-12 in a sample of primary health care attenders (n=157), using the Clinical Interview Schedule (CIS) (see Chapter Three). They concluded that the GHQ-12 is a valid psychiatric screening instrument with a sensitivity of 0.83 and specificity of 0.80. The total discriminatory power was approximately 86%. The reliability of the Arabic GHQ-28 has also been proven in several studies Al-Fares et al, 1992). Al-Fares et al (1992) test the validity of the GHQ-28 in a Saudi sample of primary health care attenders (n=144), using the Clinical Interview Schedule (CIS). They concluded that the GHQ-28 is a valid psychiatric screening instrument with a sensitivity of 0.80 and specificity of 0.76. They reported also alpha values for the GHQ-28 sub-scales:

social dysfunction, anxiety, depression, and somatic complaints to be 0.77, 0.84, 0.83, and 0.86, respectively.

However, in Arab literature, there are two versions of the GHQ-12, which have been translated by two separate authors, Alhaj (2000) and El-Rufaie and Daradkeh (1996). There are two main differences between these two versions of GHQ-12. Alhaj (2000) applied the traditional scoring methods of the GHQ-12 (0,0,1,1) in Saudi Arabia whereas the Likert scoring method (0,1,2,3) was applied in the United Arab Emirates by El-Rufaie and Daradkeh (1996). Another difference between these two versions relates to the text of the translation itself. Alhaj (2000) translated the 12 items in statements as they are in the original versions. For example, the item “felt capable of making decisions about things” was translated to be the same as the original English version. El-Rufaie and Daradkeh (1996), by contrast, changed the translation of items to form questions instead of statements. For example item of “felt capable of making decisions about things” was translated to be “are you able to make decisions about things?” In the current study, the Arabic GHQ-12 (Alhaj 2000) was used because it has the same wording as the original English version. However, because it is the backbone of the current study, the current researcher conducted a separate study to explore the accuracy of the GHQ. This is addressed in Chapter Six.

4.3.4.1.2 The reasons for choosing the GHQ in current study

Chapter Three detailed the general principles of choosing questionnaires. There were several reasons to use the GHQ-12 as the main instrument to detect cases in the current study, and there were further reasons for using an additional instrument, namely the GHQ-28.

In the WHO study mentioned above, Goldberg et al (1997) compared the GHQ-12 with the longer, scaled GHQ-28 in 15 cities around the world with 10 languages other than English. They found that there was no tendency for the GHQ to work less efficiently in developing countries. The study concluded that, compared to the Composite International Diagnostic Instrument-primary care version (CIDI-PC), the GHQ-12 is remarkably robust and works as well as the GHQ-28. They reported that the GHQ-12 is a convenient tool, which works successfully in busy clinical settings, as well as in places where some patients may be illiterate and require the questionnaire to be read out to them (Goldberg et al, 1997). Therefore, it was an ideal instrument to collect the data from places, in the present study, which were expected to be busy clinical settings with less educated people.

The researcher needed additional details regarding different components of psychological disorder in Saudi primary care. The GHQ-28 is ideal for this purpose (Goldberg et al, 1997).

4.3.4.1.3 The Arabic GHQ-12 Cut-off

As mentioned in Chapter Three, the appropriate cut-off score of the GHQ varies from one culture to another. In the Arab literature, the cut-off is also different according to the scoring method. In a study by Alhaj (2000) who applied the traditional scoring method (0,0,1,1) the cut-off which best balances sensitivity (0.86) and specificity (0.82) by comparison with the Clinical Interview Schedule (CIS) is >3 . On the other hand, when the Likert scoring method (0,1,2,3) was used, and validated by comparison with the Clinical Interview Schedule (CIS), the best cut-off was >13 (El-Rufaie and Daradkeh, 1996; Daradkeh et al, 2001) yielding sensitivity and specificity 0.88 and 0.84, respectively. Because the current study used the Arabic version of the

GHQ (Alhaj, 2000), the cut-off (>3) which was used by Alhaj (2000) with the scoring method (0,0,1,1) was adopted.

4.3.4.1.4 The Arabic GHQ-28 Cut- off

The usual scoring method (0,0,1,1) was applied as Goldberg (1978) recommended. Regarding the GHQ-28, the cut-off recommended for the Arabic version is 4/5 (Al-Haddad et al, 1999). According to previous Arabic studies the cut-off of 4/5 applied to the total score balances sensitivity and specificity which ranged from 0.78 to 0.80; and from 0.81 to 0.83, respectively (Al-Bedaiwi, 2001; Al-Fares et al, 1992). The Likert scoring method was applied to calculate subscale scores. as recommended by Goldberg (1978). The recommended cut-off for all the subscales in the Arabic version is 9/8 (Al-Haddad et al, 1999).

4.3.4.2 GPs' detection of psychological disorders

A simple questionnaire was needed in the current study to collect data from GPs about their judgments of the presence of psychological disorders in patients. Several previous studies (Marks et al, 1979; Boardman, 1987; Maginn et al, 2004) used single-question scales to do this. For example, in study of Maginn et al (2004) the GP was asked to rate the patient's level of psychological problem. GP answered this question using a Likert scale of 0 (no psychological problem) to 5 (severe psychological problem) with a cut-off of 2 or more representing the GP cases. This kind of question (i.e., the level of psychological problem) implies psychological distress only and does not include physical problems which are affected by psychological disorders such as somatization. It is likely that the Arabic GP will detect few patients if they answer this question.

Therefore, in the current study a slightly different question (Salmon et al, 1988) was answered by GPs in order to ascertain the general practitioner's judgement of the relevance of psychological factors to the presenting problem. The question "How relevant are the psychological factors to the presenting problem?" was followed by a four-point type response scale" not at all, slightly, quite, and highly". Those patients for whom the GP answered "quite" and "highly" were classified as GP-detected. However, the GP rating did not ask about caseness but, instead, asked about their view of the role of psychological factors in the patient's symptoms.

However, the appropriate cut-off for this scale is not clear. Therefore different cut-offs were compared: (1) Those patients for whom the GP answered "quite" and "highly" were classified as GP-detected (cut-off 1); (2) Those patients for whom the GP answered "highly" were classified as GP-detected (cut-off 2); (3) Those patients for whom the GP answered "slightly"; "quite"; and "highly" were classified as GP-detected (cut-off 3).

4.3.4.3 GP checklist for detecting medically unexplained symptoms

To test hypotheses about the extent to which patients with emotional disorders present physical symptoms instead of emotional symptoms, it was necessary to identify those patients presenting physical symptoms that were not explained by physical disease. Therefore a checklist (see Chapter One) for detecting unexplained symptoms (Ring et al, 2005) was used. This scale was based on that reported by Peveler et al (1997). It aims to identify patients that are presenting physical symptoms that are unexplained from the viewpoint of the GPs. After each consultation, the GP completed this scale to indicate whether or not the patient: 1) had come today about physical problems; 2) Which cannot be explained by recognisable physical disease Patients for whom both

questions were answered with a 'yes' were regarded as presenting unexplained symptoms. The face validity of this scale emerges from the fact that it is readily understood and applied by GPs (Ring et al, 2005). Patients who were identified in this way as presenting unexplained symptoms, and who were identified by the GHQ-12 as having psychological disorder could be regarded as somatising. This strategy is similar to a study of Peveler et al (1997) where they reported the relationship between the rating of patients according to the Brief Symptom Inventory (BSI) and the rating by the GP regarding presence/absence of unexplained symptoms.

4.3.4.4 The Hopkins Symptoms Checklist (HSCL) somatization items

In order to assess somatization from patients' point of view, the Hopkins Symptom Checklist (HSCL) somatization subscale was used. The HSCL is a self-report inventory of physical symptoms that are often associated with emotional distress and have therefore been regarded as ways in which emotional distress is presented somatically. An early form of HSCL was defined at the time as a discomfort scale by Parloff et al (1954). The HSCL was first utilized as an outcome measure in psychotropic drug trials by Colle, Park and Richels in 1965 (Derogatis et al, 1974). The HSCL has been utilized primarily as a symptom measure with psychiatric in- and out-patients study groups, but inpatient studies have also shown it to be a sensitive measure of treatment response (Søgaard et al, 2003). The entire HSCL comprises 58 items. Only the somatization sub-scale was used in the current study. This is short, easy to complete, and comprises 12 items that reflect distress arising from perceptions of bodily dysfunction. Reliability of HSCL somatization items range from 0.73 to 0.87 (Derogatis, 1974). In the current study alpha was 0.79.

Patients answered the question, “How have you felt during the past seven days including today?” For each symptom, respondents ticked the answer which best described how much it had bothered them during the past seven days. Patients rated themselves using a four-point scale of distress, with “not at all” being scored as 1 and a score of 4 representing “extreme” distress.

4.3.5 Statistical Analysis

Variables were first screened to identify those that were reasonably normally distributed and therefore suitable for parametric statistics, and those that required non-parametric techniques. In general, scores on individual questionnaire items and, to a lesser extent, the total score of each questionnaire were skewed and therefore non-parametric statistics were used.

Data were analysed using the Statistical Package for the Social Sciences (SPSS12). In view of the large number of tests to be carried out, only those exceeding the significance criterion of $p < .01$ were considered, so as to reduce the Type I error.

4.3.5.1 Sample characteristics

Descriptive statistics were used to summarise sample characteristics.

4.3.5.2 The prevalence of psychological disorders

Descriptive statistics were used to describe frequencies of psychological cases according to the GHQ-12.

4.3.5.3 GPs' detection of psychological disorders

Cross-tabulations and Chi-square were used to compare between GPs' detection of psychological disorders and caseness identified by the GHQ.

4.3.5.4 Somatization

Descriptive statistics were used to analyse GPs' detection of unexplained symptoms. Cross-tabulations and chi-square were used to compare between GPs' detection of unexplained symptoms and GHQ caseness. Descriptive statistics were used to summarise patients' somatization symptoms according to the HSCL, and the Mann-Whitney test was used to compare between the two diagnostic groups in symptoms reported according to the HSCL.

4.4 Results

4.4.1 Sample characteristics

The total sample was 224 patients, containing 104 males and 120 females. The age range of the patients was 17 - 68 years old. The mean age was 36.7 years, reflecting the population in Saudi Arabia. The patient sample is described in detail in Table 4.2.

Table 4.2: Socio-demographic characteristics of the sample of Study One. Chi square tests the associations between the diagnostic group (cases and non-cases; see later) and each sample characteristic.

Demographic characteristics			n	%	χ^2	P
Sex	Male		104	46.40	0.45	.500
	Female		120	53.60		
Age	(Mean age +SD) 36.71 + 15.48	17-30	95	42.41	2.76	.096
		31 & over	129	57.59		
Marital state	Married		165	73.66	5.92	.083
	Others		59	26.34		
Education	Lower educated		125	55.80	5.08	.024
	More educated		99	44.20		
Occupation	Employed and Student		129	57.60	1.53	.215
	Not employed and Retired		95	42.51		

◇ Standard deviation

Males were slightly fewer than women in this study. Most patients were married, 6% of female respondents were in polygamous marriages, and 3% of male respondents had more than one wife. More than half of the sample were lower educated (i.e. had finished intermediate school or less). There was no significant difference in sex, age, marital state or occupation between cases and non-cases (for this distinction, see later). A tendency for a significant difference was found in education level; less educated patients were more likely to be psychologically disordered ($p < 0.01$).

4.4.2 The prevalence of psychological disorders detected by GHQ-12

The prevalence of psychological disorders among the whole sample was 43% ($n= 98$) using the GHQ-12 and cut-off of > 3 and the scoring method was (0,0,1,1) (Alhaj, 2000).

4.4.3 The prevalence of psychological disorders detected by GHQ-28

Table 4.3 Prevalence of psychological disorders detected by GHQ-28.

Components	<i>n</i>	%
Somatic Symptoms	37	16.50
Anxiety	57	25.42
Social Dysfunction	21	9.40
Depression	61	27.21
One or more	119	53.75

As shown above in Table 4.3, the prevalence of psychological disorders among the whole sample was about 53%, using the GHQ-28 and cut-off of 4/5. The scoring method was 0,0,1,1. The prevalence of psychological disorders was therefore higher

than with the GHQ-12. The most prevalent psychological morbidities were depression followed by Anxiety and Somatic Symptoms, using the subscale cut-off of 8/9 and Likert scoring method. The prevalence of Social Dysfunction was less than the other three problems.

When the sociodemographic characteristics was tested against the GHQ-28 in order to test the second hypothesis “women will display higher levels of somatization than men”, women were more vulnerable to somatic symptoms than men ($\chi^2= 13.43$; $p < 0.001$). For the other sociodemographic characteristic no significant difference was found.

4.4.4 GPs’ detection of psychological disorders

As explained previously, patients for whom GPs answered “quite” and “highly” on the question of “How relevant are psychological factors to the patients’ symptoms?” were regarded as having psychological disorders, according to the GP.

Table 4.4: Frequencies and chi-square for the agreement between the presence of psychological disorders indicated by GPs’ judgement and the GHQ.

		GHQ			df	χ^2	P
		Non-Cases	Cases	Total of GP (%)			
GP judgment	Non-Cases	95	57	152 (67.86)	1	7.51	< .001
	Cases	31	41	72 (32.14)			
	Total of GHQ (%)	126 (56.25)	98 (43.75)				

Only about 32% of the patients were classified as positive on the GPs' judgements (see Table 4.4), whereas about 43% were classified as cases on the GHQ. However, the Chi-square between the two methods of classification was highly significant showing that GPs detected 'cases' much better than chance. Nevertheless, more than half of the cases (58%) were not detected by GPs.

No significant difference was found when sociodemographic characteristics were tested against the GPs' judgement.

4.4.5 Somatization

4.5.5.1 Medically unexplained symptoms and their relationship to GHQ

As shown in Table 4.5, about 14% of the patients were classified as having medically unexplained symptoms by the GP. More than half of these were also classified as cases on the GHQ and the association between caseness and unexplained symptoms was highly significant.

Table 4.5: Cross-tabulations of GP perception of medically unexplained symptoms (MUS) and the GHQ. Chi-square, was used to compare between the two groups.

		GHQ			df	χ^2	P
		Non-Cases	Cases	Total of GP (%)			
GP judgement	Non-MUS	111	80	191 (85.27)	1	5.19	< .001
	MUS	15	18	33 (14.73)			
	Total of GHQ (%)	126 (56.25)	98 (43.75)				

4.4.5.2 The Hopkins Symptoms Checklist (HSCL) somatization items

As shown in Table 4.6, cases and non-cases reported their symptoms according to the HSCL differently. Cases were generally more likely to report somatization symptoms and therefore had a higher total score on this scale. There were some differences also in the pattern of symptoms in the two groups. Cases were most likely to report Headache. Non-Cases, on the other hand, were most likely to report: Feeling low in energy or lethargic.

Table 4.6: Means, median, SD and Mann-Whitney for analyses of HSCL somatization scale. Values shown are for the two diagnostic groups: Non-Cases and Cases according to the GHQ. Results were ranked according to numbers of non-cases identifying each (scores: strongly disagree=1, disagree =2, agree =3, strongly agree=4.)

Items	Non-Cases (n=126)			Cases (n=98)			U
	Mean	Median	SD	Mean	Median	SD	
Feeling low in energy or showed down	2.6	3.0	1.2	3.2	4.0	1.0	4423.0**
Pains in the lower part of your back	2.6	3.0	1.3	2.6	3.0	1.3	5777.5
Headaches	2.5	2.0	1.2	3.1	4.0	1.1	4692.5**
Soreness of your muscles	2.3	2.0	1.2	2.5	3.0	1.1	5666.5
Hot or cold spells	2.3	2.0	1.3	2.5	3.0	1.3	5790.5
Trouble getting your breath	2.0	1.0	1.2	2.3	2.0	1.3	5525.0
Numbness or tingling in parts of your body	1.9	1.0	1.2	2.0	1.0	1.2	5736.0
Faintness or dizziness	1.8	1.0	1.1	2.1	2.0	1.1	5443.0
Pains in the heart or chest	1.8	1.0	1.1	2.3	2.0	1.3	5010.0*
Heavy feelings in your arms or legs	1.8	1.0	1.1	2.0	1.0	1.2	5763.0
Weakness in parts of your body	1.6	1.0	0.9	2.1	2.0	1.1	4621.0**
A lump in your throat	1.5	1.0	1.0	2.3	2.0	1.3	4335.0**
Overall score: (high score indicates high level of somatization)	25.2	24.0	6.97	29.2	29.5	6.62	4124.0***

In order to test the second hypothesis “women will display higher levels of somatization than men”, sociodemographic characteristics were tested against the total score of the HSCCL somatization scale. Women were more vulnerable to somatic symptoms than men ($\chi^2= 118.44$; $p= <0.001$). For the other sociodemographic characteristic no significant difference was found.

4.5 Discussion

4.5.1 Strengths of the study

The current study is the first to explore psychological disorders among consecutive Saudi primary care attenders and the first to examine the ability of GPs to detect psychologically ill patients. This point is discussed in more detail in Chapter Two. Furthermore, the study examined the importance of unexplained physical symptoms as a way in which psychological disorders were presented.

4.5.2 Main findings

4.5.2.1 Method and sample

The very high level of participation means that this sample is representative of the day-to-day activity in the primary health care centres in the area in which the study was conducted. However, the generalisability of the results needs to be considered with caution in some respects. This is addressed in considering the limitations of this study below.

The current sample is in accordance with expected societal characteristics of Assir area at the time of conducting this research. There was a slight preponderance of women among Saudi primary cares. This finding is similar to the finding of previous studies in Saudi Arabia (Al-Fares et al, 1992; Al-Khathami and Ogbeide, 2002;

Becker et al, 2002; Becker, 2004). This finding may not reflect the reality of the morbidity among Saudi women. Since women are not permitted to drive and, according to protocol, need to attend the GPs' clinic with a male relative, this study may underestimate the true level of illness in women in the community in Saudi Arabia.

It is frequently reported that Arabic women in general and Saudi women in particular are more vulnerable to psychological disorders than men (see Chapter Two). The present study did not confirm this. This finding is therefore discordant with various studies conducted in the developing countries or among their communities. In a comparison study between Punjabi and English women, Bhui et al (2004) concluded that Punjabi women were more likely to be depressed than the English women. Also they found that Punjabi women were more likely to be depressed than Punjabi men. However, for the reasons explained above, the numbers of women attending Saudi Arabian primary care with psychological disorders probably greatly underestimate the numbers with disorders in the community. It is also possible that the characteristics of women in the current study may differ women elsewhere in Saudi Arabia. The sample of this study was selected completely from Assir area which was not exposed to western cultural influences greatly. Further study is needed to extend the sample to include other areas and cities of Saudi Arabia.

More than half of the sample were 'less educated', meaning a level just beyond elementary. This could be related to the semi-urban and rural nature of the Assir area. It is not clear why lower educated patients tended to show more psychological disorders than those who had higher education. That this finding was not significant at the criterion used here agrees with previous Saudi studies (Al-Khathami and Ogbeide,

2002; Becker et al, 2002) where the educational level was not significantly related to psychological disorder. Both of these studies were conducted in Riyadh (the capital city) which is more exposed to western cultural influences and their people are more educated than Assir area people. The tendency to an effect in Assir may reflect the lower level of education in this area. The relationship of psychological morbidity to low levels of education in Riyadh or similar areas needs to be tested again using a larger sample.

In some Western studies, the low level of education was linked with the tendency to report psychological disorders. Stuart and Laraia (2001) reported that the higher the education level, the lower the incidence of psychological disorders. Greater education may protect people from the economic or social problems that might contribute to psychological disorder. Conversely, the absence of psychological disorder might make it easier for people to progress to higher levels of education, or both low education and high levels of disorder might result from a third factor, such as lower socioeconomic status. However, this result needs to be tested again using large sample.

More than one third of the sample was unemployed. Initially this result is misleading as 93% of the unemployed were women. In fact, many Saudi Arabian women are not employed, but this tendency is more obvious in Assir area for the reasons mentioned above. The sample was young, consistent with the general population of Saudi Arabia. It is worth noting that the primary care centres' patients in this study were usually from a lower socioeconomic class and this is in accordance with expected societal characteristics of Assir area.

Regarding those GPs who participated in the current study, none of them was a Saudi citizen, none was trained or graduated into Saudi faculty of medicine, and 23% were non-Arabic. This result reflects the characteristics of primary care in Saudi Arabia. It is rare to find Saudi doctor working in primary care. There are two reasons for this. The first is the shortage of Saudi doctors in general. The second reason is that Saudi doctors prefer to work in hospitals where the burden of the work seems to be less than that one in the primary care, or in the private sector where more money can be earned.

4.5.2.2 Prevalence of psychological disorders

The overall prevalence of psychological disorders according to the GHQ-12 is 43%. This is slightly less than reported by Al-Fares et al (1992) in which the prevalence of psychological disorders was 47% using the GHQ-28, although they conducted their study in Riyadh (the capital city) which is more exposed to western cultural influences. However, the current study finding was higher than that of Al-Khathami and Ogbeide (2002), in which psychological disorders were detected in 18% of their sample, and Becker et al (2002), in which psychological disorders affected 33%. Both of these studies were conducted in Riyadh city. The reasons for these differences may be methodological in origin. Al-Khathami and Ogbeide (2002) used a questionnaire developed in Arab countries called Rahmim Anxiety-Depression (RAD). In their study, they concluded that future studies were needed, and suggested using the General Health Questionnaire which has a higher sensitivity and specificity than the Rahim Anxiety-Depression questionnaire. Becker et al (2002) used the PHQ with modest or poor performance among Saudi primary care centers as mentioned before. Therefore there is no clear support for the first hypothesis of the current study which was that the prevalence of psychological disorders will be less in Assir primary care

centers than that reported previously in the Arabic literature. This hypothesis was based on that assumption that Assir area is less exposed to western cultural influences, and hence, less vulnerable to the stress of the modern lifestyle. Therefore it will be valuable to obtain prevalence information using the methods of the present study from a more westernised area of Saudi Arabia.

Unlike other forms of the GHQ, the GHQ-28 is a scale which is capable of providing single score and subscales scores. For the single score, the recommended scoring method is 0,0,1,1, while the recommended scoring method for the subscale is Likert scoring method 0,1,2,3 (Goldberg, 1978). Accordingly, there were two scoring methods used with the GHQ-28. Also this scale provided two separate scores, the single score and the subscale scores. The prevalence using the single score was 53%. It seems to be higher than that using the GHQ-12 (43 %). Higher prevalence of psychological disorders by the GHQ-28 was reported also in a Canadian primary care study (Rosenberg et al, 2002). This high rate by the GHQ-28 could be explained by the fact that the GHQ-28 includes the subscale of somatisation which is not measured by the GHQ-12. Some of the somatizing patients could be reported by the GHQ-28 and missed by the GHQ-12; therefore the result of the GHQ-28 mostly will be higher than the GHQ-12 one. Some Arabic studies compared the two results of the GHQ-28 and the GHQ-12 without mentioning this difference. The information on somatisation according to the GHQ-28 is detailed below.

Regarding further information provided by the GHQ-28, depression was the most prevalent psychological morbidity followed by anxiety and somatic symptoms. This result is in accordance with Becker et al (2002) who reported depression to be the most common of psychological morbidities in Saudi primary care. Although Al-Fares

et al (1992) applied the GHQ-28, they used the single score only, so no information could be compared with their study.

It has been reported in some previous studies that patients from developing countries or from their communities reported higher prevalence of depression than some other patients from Western countries. For example, in a study of Bhui et al (2004) conducted in south east London and among European and Asian patients, Punjabi patients reported higher depression rates than English patients.

This finding is useful for the service provider in Saudi primary care and for the GPs as well. They could use such result in building their strategy to provide for and manage depression (Tylee and Jones, 2005) and other psychological disorders.

4.5.2.3 Prevalence of somatization

The second aim of the present study was to investigate the prevalence of somatization in Assir area. It is often reported that Arab patients are more susceptible to somatization because they manifest their symptoms physically (see Chapter Two). However, this was not the result of this study which found the prevalence of somatization to be similar to those reported in non-Arabic countries. The current study had two indicators of somatization. The prevalence of somatization detected by the somatization subscale of the GHQ-28 was 16%. Despite the fact that the GHQ-28 has been recommended to be used in primary care (Gureje, 2002), in several studies that were available for the current researcher, the GHQ-28 was used to provide one single score. Therefore, there was no opportunity to compare the current result with other studies.

The prevalence of somatization indicated by the GPs' rating of unexplained symptoms was 14%. A similar result has been reported in some Western studies. For example, unexplained symptoms indicated by the opinion of GPs was 19% in a study of Peveler et al (1997) and 16% in a study of Ring et al (2005).

A further hypothesis of the present study (i.e., hypothesis 2) was that women reporting psychological disorders would display higher levels of somatization than men. It is frequently reported that Arabic women in general and Saudi women in particular somatize their psychological disorders more than men (see Chapter Two). This was consistent with the current study, in which women reported significantly more somatization symptoms.

As expected, cases as detected by the GHQ-12 were generally more likely to report somatization symptoms than non-cases. The association between caseness according to the GHQ-12 and somatization was highly significant. As expected also, cases were generally more likely to report somatization symptoms than non-cases as measured by the HSCL. The most common symptom which was presented by cases was "Headache", which was reported also by El-Rufaie et al (1999). Somatization does not necessarily indicate psychological disorder. Somatization seems to represent only a small group and does not seem to be a predominant way in which psychological disorders present.

4.5.2.4 GPs' detection of psychological factors

Against the GHQ-12 the sensitivity and the specificity of the GP cut-off 1 were 57% and 63%, respectively. The sensitivity and the specificity of the GP cut-off 2 were 43% and 71%, respectively. The sensitivity and the specificity of the GP cut-off 3

were 64% and 41%, respectively. It is very important to choose the best cut-off which balances the sensitivity and specificity. Therefore, GP cut-off 1 will be used in this study.

As mentioned above, the current researcher was aware that the GP rating did not ask about caseness but, instead, asked about their view of the role of psychological factors in the patient's symptoms. This could underestimate their view of the prevalence of psychological problems if they recognise that such problems are present but if they do not consider that they are involved in the patient's symptoms. However, the GPs' scale (i.e., the role of psychological factors; Salmon et al, 1988) was similar to that used in several studies (Marks et al, 1979; Boardman, 1987; Maginn et al, 2004).

The present result tends to report similar results to those studies reported in previous western research (see Chapter One) as more than half of the cases (58%) were not detected by GPs. This result is in accordance with hypothesis 3. Although the present study therefore demonstrated only modest agreement between the GPs' assessment and the GHQ, it was better than the result of Afana et al (2002) conducted in Gaza territory. Afana et al (2002) found that the GPs demonstrated poor diagnostic agreement about psychological disorders with the Hopkins Symptom Checklist (HSCL-25) with only 11% of patients with psychological disorders being correctly diagnosed. This difference could be explained by the poor situation of the health services in Gaza. The services in primary care and the quality and the ability of the GPs in Saudi Arabia are probably superior to those in Gaza.

However, in the study of Becker (2004) which is a Saudi study, the ability of the GP to detect psychological disorder was also less than the current study. This could be explained by the fact that the instrument used in the current study is the GHQ-12

which manifests very good performance. By contrast, the Patient Health Questionnaire (PHQ) was used in the study of Becker (2004). The PHQ reported weak performance among Saudi primary care (see Chapter Two) and this study could therefore have underestimated GPs' ability to detect psychological disorder. Al-Faris (1998) reported that, despite the large proportion of primary care patients with psychological disorders, GPs rarely made any psychiatric diagnoses. Al-Faris et al (1995) estimated that more than 90% of cases later identified by questionnaires were initially missed by GPs. Therefore, the current study suggests the potential value of professionals in primary care applying the GHQ-12 routinely to help detect cases. This suggestion has been recommended before, for example, by Goldberg (1986), Goldberg and Williams (1988) and was also confirmed by several recent studies such as Bell et al (2005). However, this thesis is not the place to answer the question as to whether all those patients with raised scores on the GHQ or on any equivalent questionnaires do have significant psychological disorders. Some have argued that a substantial number of those with high scores have transient self limiting psychological disorders or represent false-positive results (Heath, 1999). Nevertheless, the goal here is that the results of these questionnaires will be incorporated into the care of patients in order to improve GPs' recognition of patients who do need help (Goldberg and Williams, 1988).

However, overall, this low rate of detection of psychological disorder by GPs, against a background of a high prevalence of these disorders, highlights the challenge facing Saudi primary care. Before being confident about clinical recommendations for how the challenges should be addressed across Saudi Arabia, further study is necessary that includes a larger sample and other areas of Saudi Arabia.

4.5.3 Limitations of the study

The sample of this study represents the societal characteristics of the population in Assir area, but not the Saudi population in general. The restricted area (semi-urban) of the participating primary care centres is a limitation of the current study. It is possible that the pattern of results would change if other areas of Saudi Arabia were studied. It is also potentially important that the primary care centres' patients in this study were usually from a lower socioeconomic class. All the big companies, especially the petroleum companies and the big services companies are located in the other areas of the kingdom of Saudi Arabia, but not in Assir area. The economy of Assir area depends on two main sectors, the agriculture and the animal husbandry. Generally, people who work in these sectors are less educated and in lower-income brackets. However, patients from other classes always visit a private doctor, or go to the private health sector. The sample, although large by the standards of previous studies, is still small by the standards of epidemiological studies. Therefore, it is possible that it is atypical of the area under study. Moreover, it is too small to describe the interrelationships between different variables with confidence.

Another point should be noted here. The Arabic GHQ-12 which was applied in this study is the Arabic version of Alhaj (2000). Alhaj (2000) devised a non-standard wording format for his version of GHQ-12. This format is different from the original version of the GHQ. It is important to confirm that this difference does not account for the high prevalence in the current study. In the same manner, it was very important to point out here that there are two scoring methods (i.e., Likert method and GHQ method) for the GHQ-12 which have been used among the Arab studies. Until applying this study, it has not been tested which scoring method is the most

appropriate scoring method for using the GHQ-12 in Saudi Arabia. This difference may also account for the high prevalence in the current study.

A further limitation of the current study is not knowing the treatment decisions of the GPs, or how they recorded their patients' psychological problems in their own records. These responses might indicate better recognition of caseness than the formal questionnaires did. To do this, a further study is needed in which the GPs' decisions are investigated.

If the low rate of detection of psychological disorders is confirmed, it will result in patients not receiving proper treatment and therefore seeking help from alternative sources. The design of the current study was unable to investigate the consequence of GP's failure to detect those patients with psychological disorders.

4.5.4 Clinical implications

The results from this study highlight a number of key points for the clinical management of psychological disorders among Saudi's primary care centres. The results highlight the potential value of screening for psychological disorders using a simple instrument such as the GHQ-12. However, GPs and all other health practitioners should know that Saudi female patients have to be administered any questionnaires in the presence of the patient's male companion. This is in accordance with Saudi Arabia's culture (see Chapter Two). Responses to a questionnaire, which would be written, and therefore private, rather than verbalised might provide a more private and confidential way for women to describe their symptoms to a GP.

Contrary to expectation, somatic symptoms do not seem to be a major way in which psychological cases present. Nevertheless, headache is the most common symptom

which was presented by cases. This could be used initially by the GPs as a sign to focus upon the psychological disorders.

4.5.5 Implications for future research

The findings from the present study highlight the importance of the following research aims:

1. To investigate the prevalence of psychological disorders and their detection in primary care in other parts of the Kingdom of Saudi Arab that present different social characteristics of the population than those in Assir area.
2. To investigate the effect of the Arabic wording format of the GHQ-12 and to see whether or not it leads to different prevalence of psychological disorders.
3. To investigate which scoring methods of the Arabic GHQ-12 (i.e., Likert method and GHQ method) is the most appropriate scoring method for using the GHQ-12 in Saudi Arabia.

Chapter 5: Study One: Patients' beliefs and intentions

5.1 Introduction

The present chapter is the second of two chapters which present the findings from the first study. The previous chapter was about the prevalence and recognition of psychological disorders within Saudi primary care. The present chapter addresses factors in the patient that might provide barriers to psychological problems being adequately addressed in primary care. Specifically, it deals in detail with patients' beliefs and intentions and the relationship of these to their psychological status.

Goldberg and Huxley (1980) reported that approximately one half of people with psychological disorders either do not seek help or do not clearly present their symptoms to a general practitioner. Who and where patients consult, and the sort of help they seek, depend on factors beyond the nature and severity of symptoms themselves (Lydeard and Jones, 1989). One of these factors is what patients believe about the aetiology of their symptoms (Salmon et al, 1996). Whether patients who are distressed consult, and whether they then tell the GP about their distress is therefore likely to depend on what they believe about their symptoms and their distress. Therefore, Goldberg and Huxley's (1980) explanation of their model of barriers to care included the impact of socio-cultural factors and, particularly, patients' beliefs in creating such barriers.

Beliefs do not just influence whether and how people present their problems to a GP. They also influence how they respond to what the GP says. In particular, patients can reject GPs' explanations where these do not fit well with what the patient already believes, or with what other people tell the patient. Because GPs have been educated very differently from most of their patients, and may come from a different social and

cultural group, they may not know the kinds of beliefs that their patients have about their symptoms. Therefore, knowing the kinds of beliefs that patients have will also help in designing education programmes for Arab GPs about how to work with patients.

Attitudes and belief systems prevalent in society have a major impact on help-seeking behaviour, reflected in the individual's own beliefs when deciding to seek help (Angermeyer et al, 1999) and when seeking help. Despite extensive studies into the beliefs of Western patients when they consult, among Arab studies in particular, very little is known about patients' behaviour when deciding when and where to seek help. This information is needed in order to understand the barriers to consultation and disclosure of psychological problems in Arab cultures. However, to quantify patients' beliefs, a questionnaire is needed with adequate psychometric properties.

Patients' beliefs regarding suitable help for psychosocial problems have also been cited as potential barriers to appropriate treatment specifically of psychological disorders. These barriers were explored in Pill et al's (2001) study. They concluded that there were two main reasons why patients often fail to consult their GP for emotional problems. First, patients remained unsure as to whether the symptoms of emotional distress constituted 'illnesses' that GPs would consider it legitimate to present. Second, even in those instances where emotional problems were recognized as illness, they remained unconvinced that the GPs could deal with the problem in an appropriate manner. Many Arabs tend to believe that native healers or religious healers are the proper alleviators of emotional distress and see a psychiatrist or psychologist as a 'last option' (Okasha, 1999). However, among Arabic studies not much is known about patient beliefs about treatment.

A positive attitude towards psychologically ill patients is a requirement for proper community care and treatment of such patients. Stigmatizing labelling has a negative impact on patients economically and psychologically (Link et al, 1989). As mentioned previously in Chapter Two, there is a frequent assumption that the impact of stigma among Arabic communities is more than the stigma in western communities. Surprisingly, there is no study which has investigated the impact of stigma in patients with psychological disorders within Saudi primary care. Furthermore, chapter Two reported that women may be more vulnerable than men to the stigma of psychological disorders. This assumption led to further assumptions that were discussed in Chapter Four and which indicated that women could display higher levels of somatization than men because they are more reluctant to display psychological disorders and hence become stigmatized. The relationship of gender to stigmatisation needs to be tested here.

In the growing amount of research into doctor-patient relationships, patients have become regarded as active consumers rather than passive recipients of health care (Lazare et al, 1975). This is particularly true of primary care where it is the patient's own decision to attend, and where it has been suggested that most of those who attend are keen to continue to be involved in making decisions about their treatment (Good et al, 1983). Previous evidence (Salmon et. al., 1994) suggests that psychological distress leads people to want more emotional support from the doctor. However, although the importance of patients' intentions has been recognized in Western research, nothing is known about whether emotionally distressed Arabic patients have different intentions from those who are not distressed. If, for example, distressed patients sought more medical care, this could be a barrier to their receiving

appropriate psychological care. If they seek more emotional support, it would be important to go on to examine whether their GPs recognise this need.

The ability to quantify the major dimensions' of patients' intentions, using the Patient Request Form (Salmon and Quine, 1989; Valori et al, 1996) has enabled quantitative investigation of factors influencing what Western patients want from their GP (Valori et. al., 1996). However, as explained in Chapter Three, it cannot be assumed that the dimensional structure of this questionnaire would be the same in Arabic cultures as in the UK samples in which it was devised. Therefore, before using it to examine the above questions, it is important to subject this questionnaire to a high level of statistical analysis to test its competence in primary care in Saudi Arabia and to compare its dimensional structure with that in the UK.

Patients' satisfaction with consultations is also important to examine in the present context because dissatisfaction can be a barrier to improvement in symptoms. It is likely that, if patients' psychological problems and needs are not being recognised by Saudi GPs, patients with psychological problems will be less satisfied with their consultation. There is no study into psychological patients' satisfaction with GP consultations among Arab countries.

The present study therefore examined several patient factors that, although they have been shown in Western research to be potential barriers to patients receiving and benefiting from treatment of psychological problems, have not yet been examined in an Arabic country.

5.2 Aims and hypothesis

A formal statement of the present study aims and hypotheses are as follows:

Aim 1: to investigate patients' beliefs about the psychological or physical basis of their symptoms, and to investigate whether the two diagnostic groups differ or not.

Aim 2: to identify the factor structure of the Arabic version of the aetiological belief scale, and to use this to investigate patients' aetiological beliefs, comparing them between cases and non-cases, specifically testing the prediction that cases will have more psychological beliefs.

Aim 3: to investigate patients' reasons for not seeking help from professionals previously, and to identify whether cases have specific reasons that differ from those of non-cases.

Aim 4: to investigate patients' beliefs about sources of help, and to compare these beliefs between cases and non-cases.

Aim 5: to examine patients perceptions of stigma, and to test the prediction that psychological cases experience more stigma associated with their symptoms than non-cases. Attached to this aim there is an objective to test the prediction that women experience more stigma than men.

Aim 7: to examine patient satisfaction and to test the hypotheses that cases will be less satisfied because their psychological needs are probably not recognised or met.

Aim 8: to identify the factor structure of the Arabic version of the Patient Request Form and to investigate patients' intentions, comparing these between cases and non-cases.

5.3 Method

5.3.1 Participants, procedure and ethics

These are detailed in chapter Four.

5.3.2 Instruments

5.3.2.1 Patients' views of the psychological or physical basis of their symptoms

Patients' view of their symptoms was measured by a scale reported previously (Rosenberg, et al. 2002). Patients were asked to give their views on the role of psychological and physical factors in their symptoms, by answering the following multiple-choice item "My symptom is: a) Strictly physical; b) Physical, but it has affected my mood; c) Physical, but symptoms vary with my emotions; d) Primarily psychological". Patients chose one of the previous choices to answer the question.

The questionnaire was translated into Arabic for the purpose of this study. The questionnaire went through the complete procedure of translation, as described in Chapter Three. This questionnaire was translated (forward/ backward translation) without any modification from the original English and patients answered it before seeing their doctor. Also it was sent to a committee of 10 experts to referee it (see Chapter 3). They generally agreed the questionnaire to be applicable within primary care in Saudi Arabia. At this stage the questionnaire was tested in a pilot study (see Chapter Three). In the current study, this was completed before consultation.

Regarding validity and reliability, in a study of Rosenberg, et al (2002) they tested this scale against GPs' ratings and the relationship was highly significant (<0.0001). In the current study, the judgments of the experts (see Chapter Three) have been used to confirm the validity of this scale in Saudi primary care. The face validity of this

scale arises from the fact that it is readily understood and applied by patients. The reliability which came from the present data was 0.87 by Alpha

5.3.2.2 The aetiological beliefs questionnaire

Several studies have tried to investigate patients' beliefs about the aetiology of their symptoms. In the study of Salmon et al (1996) they tried to develop an instrument that could measure the aetiological beliefs about symptoms of patients attending primary care. The questionnaire is intended to test how beliefs respond to medical intervention and how beliefs influence illness behavior. Fifty items loading at 0.40 or above emerged after applying a principal components analysis, which yielded eight components: stress; wearing out environment; internal structural; internal functional; concern; life-style; weak constitution. These components explained 46.2% of the variance in the analysis of the total sample. The questionnaire was used also to tabulate the frequencies of individual beliefs in primary care patients (Woloshynowych et al. 1998).

In the present study, the questionnaire about aetiological beliefs was based on that reported by Salmon et al. (1996). After translating (forward/ backward translation) the original version (50 items) of this questionnaire from English to Arabic, it was sent to a committee of 10 experts to referee it (see Chapter Three). They generally suggested that patients are more likely to cooperate when a questionnaire is kept short, especially where more than one questionnaire needs to be filled in. Therefore, of the committee, the 7 academic staff suggested shortening the questionnaire. When agreed in their final meeting (see Chapter Three) thirty four items remained which indicated the most common aetiological beliefs about symptoms in the Arab society. The other 3 experts of the committee (three GPs) separately suggested including four additional

items which reflected cultural beliefs: devil, evil eye, sorcery/magic and punishment from Allah (see Chapter Two). These yielded 38 items which could be regarded as indicating patients' beliefs about aetiology of symptoms in Saudi Arabia. At this stage the translation committee decided that this questionnaire is applicable within primary care in Saudi Arabia, and hence a pilot study was conducted (see Chapter Three). Each item was rated on a 3-point scale in response to the item. Items were answered in response to the question "whether you think it probably has or probably has not helped to cause the symptoms you have come to see your doctor about today" (responses: probably does; uncertain; probably does not). This was completed before consultation.

Further to the factor analyses detailed below, the judgments of the experts (see Chapter Three) have been used to confirm the validity of this scale in Saudi primary care. The reliability which came from the present data was tested by Alpha. For the subscales weak constitution; invasion; emotion; serious disease; digestion; supernatural; lifestyle, alpha were 0.96, 0.92, 0.94, 0.76, 0.76, 0.60, 0.65 respectively.

5.3.2.3 Reasons for delay in seeking help

A questionnaire described previously (Sussman et al, 1987) was used (see Chapter One) to investigate reasons which may have delayed patients from seeking formal help. Initially patients were asked to answer the following question "Do you think that you should have come to see your doctor before?" If they answered yes, they were then asked the following question "Which of this list of possible reasons played a part in your decision not to see a doctor or professional?" Patients were given a list of 15 possible reasons. Each reason was rated on a 3-point scale (Probably does; Uncertain; Probably does not). This questionnaire was translated (forward/ backward translation)

into Arabic for the purpose of this study. The questionnaire went through the whole procedure of translation, including consultation with experts (i.e., committee of translation) followed by the conducting of a pilot study (see Chapter Three). According to the committee's suggestion, no modification was made during the translation process. This questionnaire was completed before consultation. In study of Sussman et al (1987) there was no information about the validity and the reliability of this scale. However, in the current study, the judgment of the experts (see Chapter Three) was used to confirm the validity of this scale. The reliability which came from the present data was 0.87 by Alpha.

5.3.2.4 The sources of help questionnaire

An inventory of those people who might provide help was drawn up to find how helpful patients would expect several different sources of help that might be used to deal with their problem. This questionnaire was based on Helman 35-item table (1994), Salmon and Quine's (1989) 11-item questionnaire, and some additional items concerning Arabic alternative or traditional medicine. After eliminating repeated items, 31 sources of help were listed in the initial questionnaire, which was sent to the committee of experts (see Chapter 3). Their comment was to delete about half of those sources of help because they were rarely used among Arab society. Fifteen sources of help were listed, divided equally between formal and informal sources of help. Patients were asked "Here are some sources of treatment that might help with the symptoms you are seeing your doctor about today". They were asked to tick each one that might be seen as useful to deal with their current problem. Patients answered (Yes) if they agreed or (No) if they disagreed. The questionnaire went through the procedure of translation described previously. In Stage One, the questionnaire was put

through forward/ backward translation. In Stage Two, the questionnaire was tested in a pilot study after consulting the experts (see Chapter Three). According to the committee's suggestion, no modification was made during the translation process. The judgment of the experts was used to confirm the validity of this instrument. It is important to know that this instrument has been viewed in this thesis as a collected instrument rather than real scale which requires to be tested to confirm validity and reliability. This was completed before consultation.

5.3.2.5 The stigma questionnaire

A previously published questionnaire about stigma (Link et al. 1989) was used. This questionnaire consists of 12 six-point Likert items (i.e. strongly agree=1; to strongly disagree=6). High scores indicate a belief that psychological patients will be stigmatized. This questionnaire was further developed by Link et al. (1997). They added 3 more items and changed from the original six-point scales to a four point scale (strongly agree; agree; disagree; and strongly disagree). Kurihara et al. (2000) used the Likert version (12-items) with a four-point scale in a cross-cultural study to compare stigmatisation between Japan and Indonesia.

In the present study, the stigma questionnaire was based on that reported by Link et al.(1989) and modified as reported by Kurihara et al.(2000). However, after translating this questionnaire (forward/ backward translation), it was sent to the committee of experts (see Chapter Three). They suggested modifying the item "Most young women would be reluctant to date a man who has been hospitalised for a serious mental disorder". In fact this item had been modified before in Link et al. (1997) to be as following "Most women would not marry a man who has been hospitalised for a serious mental disorder". This alteration was made because the

former item would not be acceptable in Saudi culture (see Chapter Three). At this stage the questionnaire was tested in a pilot study (see Chapter Two). Twelve items with a four-point scale (strongly agree=1 to strongly disagree =4) were used. A high score indicates a belief that there is stigma against people with psychological disorders. This questionnaire was completed before consultation.

Regarding the validity and reliability, in studies of Link et al.(1989) and Kurihara et al.(2000) the reliability were (Alpha=0.79) and (Alpha=0.76) respectively. However, in the current study, the judgments of the experts (see Chapter Three) have been used to confirm the validity of this scale in Saudi primary care. The reliability which came from the present data was 0.75 by Alpha.

5.3.2.6 Patients' satisfaction questionnaire

The Consultation Satisfaction Questionnaire (CSQ), developed by Baker (1990), was used. This focuses on general practice and on the patient's satisfaction with the consultation rather than on opinions on the practice as a whole. The CSQ contains 18 items divided into four subscales: general satisfaction (3 questions); professional care (7 questions); depth of relationship (5 questions); perceived length of consultation (3 questions). A five-point scale (strongly agree – strongly disagree) was used to answer all the questions. A higher score means greater satisfaction. The questionnaire was translated into Arabic for the purpose of this study. The questionnaire went through the procedure of translation. In Stage One, the questionnaire was put through forward/backward translation. In Stage Two, the questionnaire was tested in a pilot study after consulting the experts who suggested conducting this questionnaire without making any modification. They concluded that this questionnaire is applicable within primary

care in Saudi Arabia (see Chapter Three). In the present study, immediately after finishing their consultation, patient satisfaction was measured.

Regarding the validity and reliability, in studies of Baker (1990) and Baker (1993) tested the reliability of this questionnaire and in both these studies high reliability was reported. In the latest study Baker (1993) reported Alpha to be 0.91 for the whole scale and 0.87, 0.83, 0.82, 0.67 for professional care, depth of relationship, perceived time and general satisfaction. However, in the current study, the judgments of the experts (see Chapter Three) have been used to confirm the validity of this scale in Saudi primary care. The reliability was tested by Alpha. For the whole scale Alpha values which came from the present data were 0.87 and 0.88, 0.72, 0.87, 0.89 for professional care, depth of relationship, perceived time and general satisfaction.

5.3.2.7 Patient Requests Form (PRF).

The Patient Requests Form (PRF-24) Salmon and Quine (1989) was used. Salmon and Quine (1989) conducted a preliminary study into the dimensions of patients' intentions in a UK primary care sample. The Patient Requests Form (PRF) questionnaires were developed from preliminary interviews with general practice patients and also from an American study (Good et al, 1983) conducted in a primary care setting. Analysis identified four general components of patient requests in primary care: explanation and understanding, support, medical treatment and information-seeking. These components were modified in a follow-up study (Valori et al, 1996), in which three types of patients' requests emerged. The first, explanation and reassurance concerned a desire for information that could be given immediately by the GP rather than by referral for further investigation. The second, emotional support reflected a desire for empathy and counselling and included support for both

emotional disorders and for emotional needs associated with physical problems. Third, investigation and treatment identified a demand for technical services such as drugs, investigation, and referral to specialist services. In this study, a larger sample was drawn from general practice in contrasting populations, with the aim of confirming the validity of the PRF. The PRF was designed to allow quantitative researchers to study individual requests by primary care patients from their GP. This tool was used in Salmon et al's (1994) study into associations between physical or psychological symptoms and patients' intentions in primary care. Patients in the current study were asked to rate themselves on each question using a 3-point scale (Agree; Uncertain; Disagree). The PRF went through the procedure of translation (see Chapter Three). In Stage One, the questionnaire was put through forward/backward translation. In Stage Two, the questionnaire was tested in a pilot study after consulting the committee of the translation who decided that this questionnaire is applicable within primary care in Saudi Arabia, and did not require any modifications. This questionnaire was applied before consultation.

Further to the factor analyses detailed below, the judgment of the experts (see Chapter Three) was used to confirm the validity of this scale in Saudi primary care. The reliability was tested by Alpha. Alpha values which came from the present data were 0.88, 0.76, and 0.65 for emotional support, explanation/reassurance, and investigation/treatment respectively.

5.3.3 Statistical Analysis

First, variables were screened to identify those that were reasonably normally distributed and therefore suitable for parametric statistics, and those that required non-parametric techniques. However, scores on individual questionnaire items and the

total score were generally skewed and hence non-parametric statistics were used for all the analysis. Data were analysed using the Statistical Package for the Social Sciences (SPSS12). In view of the large number of tests to be carried out, only those exceeding the significance criterion of $p < .01$ were considered, so as to reduce the Type I error.

5.3.3.1 Patients' views about the psychological and physical basis of their symptom

Descriptive statistics were used to summarise patients' views. Then, the Mann-Whitney test was used to examine the differences between the two diagnostic groups.

5.3.3.2 Aetiological beliefs

Descriptive statistics were used to summarise patients' beliefs, and the Mann-Whitney test was used to compare the individual beliefs between the two diagnostic groups. Principal components analysis was used to describe the structure of the questionnaire. A scree test decided the number of components to retain before Varimax rotation. Items loading at more than 0.40 were used to define the components. Items with lower loadings were ignored. Subscale scores were calculated by summing the items loading on each component. Once again Mann-Whitney test then used these scores to compare between diagnostic groups.

5.3.3.3 Reasons for delay in seeking help

Descriptive statistics were used to summarise patients' reasons for a delay in seeking help. Then, the Mann-Whitney test was used to examine the differences between the two diagnostic groups.

5.3.3.4 Beliefs about help

Descriptive statistics were used to summarise patients' beliefs about help. Then, the Mann-Whitey test was used to compare the specific beliefs of the two diagnostic groups.

5.3.3.5 Beliefs about stigma

Descriptive statistics were used to summarise patients' beliefs about stigma. Then, the Mann-Whitey test was used to compare the specific beliefs of the two diagnostic groups.

5.3.3.6 Patients' satisfaction

Descriptive statistics were used to summarise patients' satisfaction. Mann-Whitey tests compared diagnostic groups. Subscale scores were calculated by summing the items loading on each component. Once again Mann-Whitey test then used these scores to compare between diagnostic groups.

5.3.3.7 Patients Request Form

An initial principal components analysis using the correlation matrix was used to suggest a factor structure. A scree test helped to decide the number of components to retain for Varimax rotation. Loadings exceeding 0.40 were used to interpret components. Mann-Whitey tests were used to describe and test the difference between cases and non-cases on scale scores.

5.4 Results

5.4.1 Sample characteristics

These are described in Chapter Four.

5.4.2 Patients' view about the psychological or physical basis of their symptoms

As shown in Table 5.1, 24.6% of the non-cases believed that their problem had some relationship to mood or emotional factors; 54.1% of the cases believed the same, although only a few of the cases viewed their problem as caused by psychological factors. Mann-Whitney test confirmed that cases were much more psychological in their views than were non-cases.

Table 5.1: Patients' views of the basis of their symptoms.

View	Non-cases				Cases				df	U (P)
	Frequency	%	Mean	Med	Frequency	%	Mean	Med		
Physical	94	75.4	1.27	1.00	45	45.9	1.81	2.00	3	4100.5 (.000)
Physical/mood	28	22.2			32	32.7				
Physical/ emotion	3	2.4			16	16.3				
Psychological	0	0			5	5.1				
Total	126				98					

5.4.3 Aetiological beliefs

5.4.3.1 Factor structure of the scale

A principal components analysis was used (see Table 5.2). A seven components structure was found to be the most appropriate explanation for the data and accounted for 61.5% of the total variance. On the basis of items loading at 0.40 or above, only one item loaded on more than one component. Four components, labelled Weak constitution, Invasion, Serious disease, and Digestion represented views of physical causes. Two components, labelled Emotion and Lifestyle, represented a view of psychological or behavioural influences. One component, labelled Supernatural

power, represented a view of the influence of religious and cultural demands. For the present, these results provide a way of measuring the aetiological beliefs of individual patients in the present sample which allows us to go on to use the scale scores to examine how beliefs differ between cases and non-cases and which types of beliefs were associated with expectation of help from particular sources of help. Principal components analysis yielded seven components: weak constitution; invasion; emotion; serious disease; digestion; supernatural; lifestyle.

Table 5.2: Principal components analysis of responses to the Aetiological Beliefs Questionnaire. Item loadings on components at 0.40 or above are shown

Items	Component						
	Weak constitution	Invasion	Emotion	Serious disease	Digestion	Supernatural power	Lifestyle
Part of my body is inflamed	.93						
Part of my body is strained	.92						
A "weak spot" in my body	.90						
Damage to part of my body	.89						
Part of body wearing out	.88						
Part of body not working as well as used to	.88						
Dampness or a chill		.94					
Weather or changes in temperature		.92					
Pollution		.87					
Germ or infection		.78					
Something I caught from someone else		.75					
Moods/emotions			.89				
Stress			.89				
Nerves			.86				
Personality			.83				
Being rundown				.69			
Weak constitution or low resistance				.62			
A growth				.61			
Being over or under weight				.61			
Something seriously wrong with me				.59			
Heart trouble				.56			
Weak blood				.48			
Not looking after myself properly				.46			
Sluggish bowels					.77		
Poor digestion or weak stomach					.77		
Something I ate					.66		
Changing my diet or lifestyle					.61		
Body tissues less firm/supple					.55		
Devil/ jinn						.71	
Evil eye						.61	
Punishment from Allah						.50	
Sorcery/ magic						.43	
Overwork							.84
Job/ housework							.82
Demanding family/friends							.42

Removed items < 0.40: personal domestic or financial problems; worn joints; and pills or medicine.

5.4.3.2 Frequency of individual beliefs

As shown in Table 5.3, comparisons have been made between cases and non-cases on each aetiological belief. Punishment from Allah was the most common belief in both groups. About 55% of the non-cases and 66% of the cases regard their symptoms to be a punishment from Allah, but this difference was not significant. This contrasted with the other religious items, which cases cited more frequently. Surprisingly, nerves and stress were also common beliefs in non-cases as well as cases. About half of the non-cases regarded their symptoms to be caused by nerves or stress. Nevertheless, non-cases were more likely to consider their symptoms to be due to physical factors, whereas cases were more likely to consider their symptoms to be due to psychological and cultural factors. In particular, cases were more likely to consider their symptoms to be due to nerves, stress, and moods or emotions. Despite using $p < .01$ to protect against Type 1 error, most of the p values were significant, reflecting the extensive differences in their beliefs.

Table 5.3: Aetiological beliefs: Frequencies, percentages, means, medians, and results of Mann-Whitney tests comparing cases and non-cases. Aetiological beliefs shown are for the two diagnostic groups: Non-cases Patients and cases, ranked according to numbers of non-cases identifying each.

Items	Non-Cases (n=126)					Cases (n=98)					U	P		
	Probably Dose		Uncertain		Median	Mean	Probably Dose		Uncertain				Median	Mean
	N	(%)	N	(%)			N	(%)	N	(%)				
Punishment from Allah	70	55.6	3	2.4	3.0	2.1	65	66.3	5	5.1	3.0	2.3	5418.5	.067
Nerves	66	52.4	2	1.6	3.0	2.0	72	73.5	5	5.1	3.0	2.5	4748.0	.000
Part of body wearing out	65	51.6	4	3.2	3.0	2.0	65	66.3	3	3.1	3.0	2.3	5238.5	.024
Stress	64	50.8	4	3.2	3.0	2.0	72	73.5	4	4.1	3.0	2.5	4702.0	.000
Part of my body is inflamed	64	50.8	4	3.2	3.0	2.0	60	61.2	3	3.1	3.0	2.2	5513.0	.115
Part of my body is strained	63	50.0	4	3.2	2.5	2.0	66	67.3	3	3.1	3.0	2.3	5072.5	.008
Damage to part of my body	62	49.2	2	1.6	2.0	2.0	63	64.3	3	3.1	3.0	2.3	5182.0	.017
A "weak spot" in my body	61	48.4	4	3.2	2.0	2.0	67	68.4	4	4.1	3.0	2.4	4674.0	.002
Overwork	58	46.0	4	3.2	1.0	1.9	34	34.7	1	1.0	1.0	1.7	5380.0	.056
Job/ housework	57	45.2	4	3.2	1.0	1.9	38	38.8	3	3.1	1.0	1.8	5758.5	.323
Demanding family/friends	57	45.2	12	9.5	2.0	2.0	36	36.7	3	3.1	1.0	1.7	5380.5	.063
Moods/emotions	53	42.1	6	4.8	1.0	1.8	68	69.4	5	5.1	3.0	2.4	4394.5	.000
Part of body not working as well as used to	52	41.3	4	3.2	1.0	1.8	56	57.1	3	3.1	3.0	2.1	5167.0	.017
Dampness or a chill	48	38.1	6	4.8	1.0	1.8	31	31.6	2	2.0	1.0	1.6	5652.0	.203
Evil eye	48	38.1	7	5.6	1.0	1.8	36	36.7	7	7.1	1.0	1.8	6146.0	.947
Personality	47	37.3	3	2.4	1.0	1.7	61	62.2	6	6.1	3.0	2.3	4452.5	.000
Weather or changes in temperature	46	36.5	6	4.8	1.0	1.7	31	31.6	2	2.0	1.0	1.6	5752.0	.301

Table 5.3: continued

Items	Non-Cases (n=126)						Cases (n=98)						U	P
	Probably Dose		Uncertain		Median	Mean	Probably Dose		Uncertain		Median	Mean		
	N	(%)	N	(%)			N	(%)	N	(%)				
Pollution	45	35.7	9	7.1	1.0	1.7	34	34.7	2	2.0	1.0	1.7	5908.0	.515
Not looking after myself properly	44	34.9	11	8.7	1.0	1.7	48	49.0	15	15.3	2.0	2.1	4966.0	.006
Worn joints	44	34.9	5	4.0	1.0	1.7	52	53.1	1	1.0	3.0	2.0	5128.0	.013
Changing my diet or lifestyle	42	33.3	9	7.1	1.0	1.7	24	24.5	12	12.2	1.0	1.6	5799.0	.367
Something I ate	40	31.7	9	7.1	1.0	1.7	25	25.5	12	12.2	1.0	1.6	5976.5	.633
Germ or infection	36	28.6	0	0.0	1.0	1.5	19	19.4	3	3.1	1.0	1.4	5742.0	.238
Pills or medicine	32	25.4	10	7.9	1.0	1.5	28	28.6	18	18.4	1.0	1.7	5482.0	.098
Being over or under weight	32	25.4	8	6.3	1.0	1.5	23	23.5	7	7.1	1.0	1.5	6084.0	.818
Something I caught from someone else	30	23.8	0	0.0	1.0	1.4	17	17.3	3	3.1	1.0	1.3	5919.0	.463
Personal, domestic or financial problems	28	22.2	2	1.6	1.0	1.4	29	29.6	3	3.1	1.0	1.62	5641.0	.15
Being rundown	27	21.4	12	9.5	1.0	1.5	35	35.7	13	13.3	1.0	1.8	5026.5	.006
Body tissues less firm/supple	24	19.0	0	0.0	1.0	1.3	23	23.5	0	0.0	1.0	1.4	5901.0	.421
Something seriously wrong with me	24	19.0	13	10.3	1.0	1.4	31	31.6	13	13.3	1.0	1.7	5169.5	.014
Weak constitution or low resistance	22	17.5	8	6.3	1.0	1.4	29	29.6	10	10.2	1.0	1.6	5181.0	.011
A growth	17	13.5	1	0.8	1.0	1.2	24	24.5	2	2.0	1.0	1.5	5423.0	.024
Devil/ jinn	15	11.9	3	2.4	1.0	1.2	23	23.5	8	8.2	1.0	1.5	5128.5	.003
Poor digestion or weak stomach	14	11.1	2	1.6	1.0	1.2	19	19.4	4	4.1	1.0	1.4	5518.0	.038
Sluggish bowels	10	7.9	2	1.6	1.0	1.1	20	20.4	3	3.1	1.0	1.4	5308.0	.004
Heart trouble	5	4.0	0	0.0	1.0	1.0	11	11.2	4	4.1	1.0	1.2	5484.0	.004
Sorcery/ magic	5	4.0	3	2.4	1.0	1.1	14	14.3	6	6.1	1.0	1.3	5300.0	.002
Weak blood	4	3.2	1	0.8	1.0	1.0	16	16.3	3	3.1	1.0	1.3	5220.0	.000

Table 5.4 summarizes the findings in Table 5.3, comparing the seven factors of the aetiological beliefs scale for cases and non-cases. Beliefs about Serious diseases were affirmed by cases more than non-cases. As expected, beliefs about Emotion were held by cases more than non-cases.

Table 5.4: Comparison of the seven components of the aetiological belief questionnaire between cases and non-cases, ranked according to numbers identifying each by non-cases. Mean, Median, Standard Deviations (SD) and Mann-Whitney U comparing cases and non-cases.

Components	Non-Cases (n=126)			Cases (n=98)			U	P
	Mean	Median	SD	Mean	Median	SD		
Weak constitution	12.0	12.0	5.5	13.8	18.0	5.0	5083.5	.015
Serious diseases	11.2	10.0	3.3	13.1	12.0	4.2	4504.0	.000
Invasion	8.4	5.0	4.0	7.8	5.0	3.8	5645.0	.227
Emotional	7.7	8.0	3.6	9.7	12.0	3.1	4395.5	.000
Digestion	7.2	5.0	2.8	7.5	7.0	3.0	5743.0	.338
Supernatural	6.3	6.0	2.0	7.0	6.0	2.3	5099.0	.022
Lifestyle	5.8	6.0	2.2	5.2	5.0	2.1	5215.0	.040

5.4.4 Reasons for delay in seeking help

Out of 224 patients 176 (non-cases 98, 77.81%; cases 78, 79.60%) answered “Yes” on the question of “Do you think that you should have come to see your doctor before?” One hundred females and 76 males thought that they should have visited their GP before. There was significant a difference here between males and females ($U=4816.00$, $P < 0.001$). The most frequently cited reasons were lack of time and inconvenient hours, or thinking that they would get better or that it was not necessary. The objection of a family member was also important (Table 5.5). For this item, 67% of women compared with 20% of men endorsed it ($U=4632.50$, $P < 0.001$). Cases and non-cases did not differ on any barrier.

Table 5.5: Reasons of delaying in seeking help: Frequencies, percentages, means, and results of Mann-Whitney tests. Reasons shown are for the two diagnostic groups: Non-cases Patients and cases, ranked according to numbers of non-cases identifying each.

Items	Non-Cases (n=98)				Cases (n=78)				U	P		
	Probably has		Uncertain		Mean	Probably has		Uncertain				
	N	(%)	N	(%)		N	(%)	N			(%)	
Didn't have time	77	79.6	3	3.1	1.62	57	73.1	4	5.1	1.51	3581.0	.330
Hours were inconvenient	64	65.3	6	6.1	1.37	53	67.9	4	5.1	1.41	3728.0	.735
Thought would get better	55	56.1	10	10.4	1.22	39	50.0	9	11.5	1.12	3586.5	.433
Didn't think it necessary	51	52.1	10	10.2	1.14	36	46.2	7	9.0	1.01	3551.5	.371
A family member objected	49	50.0	12	12.2	1.12	37	47.4	9	11.5	1.06	3698.5	.685
Afraid of the treatment	46	46.9	52	53.1	.94	47	60.3	1	1.3	1.22	3287.5	.066
Afraid of being hospitalised	45	45.9	1	1.0	.93	48	61.5	1	1.3	1.24	3213.5	.037
Couldn't afford to pay bill	42	42.9	3	3.1	.89	31	39.7	5	6.4	.86	3772.5	.867
Hate answering personal questions	32	32.7	2	2.1	.67	35	44.9	2	2.6	.92	3332.0	.088
Had no way to get there	31	31.6	19	19.4	.83	34	43.6	12	15.4	1.03	3381.0	.154
Too embarrassed to discuss it with anyone	30	30.2	2	2.0	.63	35	44.9	2	2.6	.92	3252.0	.046
Thought could handle it alone	27	27.6	9	9.2	.64	21	26.9	4	5.1	.59	3683.5	.622
Didn't know any place to go	26	26.5	6	6.1	.59	28	35.9	3	3.8	.76	3506.0	.263
Afraid of what others would think	24	24.5	2	2.1	.51	25	32.1	2	2.6	.67	3512.0	.247
Didn't think anyone could help	17	17.3	9	9.2	.44	26	33.3	4	5.1	.72	3283.0	.051

5.4.5 Beliefs about help

The perceived efficacies of various interventions for patients are shown in Table 5.6. The most frequent interventions cited by non-cases were General practitioner, Private medical specialist, Prayer and reading Al-Quran. Similarly, the most frequent interventions cited by cases were General practitioner, Prayer and read Al-Quran, and Private medical specialist. By contrast, the items “Psychiatrist” and “Psychologist” rarely appeared and were at the bottom of the list of interventions. Indeed, only one of the sample cited “Psychologist” as a probable source of help. None of the non-cases cited “Psychiatrist” or “Psychologist”. There was only one significant difference between cases and non-cases. Except for the items “Skin cauterisation” and “Blood extraction” cases were more likely to consider the informal sources of help to be effective, but significant differences were found in one item only: “Onion seed/ olive oil”.

Table 5.6: Frequencies, percentages and means of patients' beliefs about sources of help. Values shown are for the two diagnostic groups: non-cases and cases. Results were ranked according to the numbers of non-cases identifying each as a source of help.

Items	Non-Cases (n=126)			Cases (n=98)			χ^2
	Yes	(%)	Mean	Yes	(%)	Mean	
General practitioner	119	94.4	0.94	88	89.8	0.90	1.69
Private medical specialist	103	81.7	0.82	72	73.5	0.73	2.21
Prayer and Reading Al-Quran	82	65.1	0.67	73	74.5	0.74	2.29
Honey	68	54.0	0.54	60	61.2	0.61	1.18
Hospital medical specialist	67	53.2	0.53	48	49.0	0.49	0.38
Onion seed/ olive oil	61	48.4	0.48	66	67.3	0.67	8.04*
Physiotherapy	35	27.8	0.30	18	18.4	0.18	2.70
Traditional doctor (Hakims)	32	25.4	0.28	30	30.6	0.31	0.74
Herbal medicine (Atar)	31	24.6	0.25	33	33.7	0.34	2.22
Religious healer	27	21.4	0.24	27	27.6	0.28	1.12
Skin cauterisation (Al-Kowie)	24	19.0	0.21	18	18.4	0.18	0.01
Blood extraction (Al-Hejama)	17	13.5	0.16	10	10.2	0.10	0.56
Social worker	9	7.1	0.07	33	33.7	0.34	0.07
Psychiatrist	0	0.0	0.06	6	6.1	0.06	0.03
Psychologist	0	0.0	0.04	1	1.0	0.01	1.83

5.4.6 Stigmatization

As shown in Table 5.7, comparisons have been made between cases and non-cases on each item of stigma belief questionnaire. There were no significant differences between cases and non-cases on individual items or the total score. When the analysis of the total score tested the difference between men and women, there was a significant difference ($u= 4570.50$; $p < .001$), with women reporting more stigma.

Table 5.7: Comparison of stigma questionnaire between cases and non-cases, ranked according to numbers identifying each by non-cases. Mean, Median, Standard Deviations (SD) and Mann-Whitney U are shown.

Items	Non-Cases(n=126)			Cases (n=98)			U	P
	Means	Median	SD	Means	Median	SD		
Most people feel that to be admitted in a mental hospital is a sign of personal failure(R).	2.9	3.0	1.1	2.9	3.0	1.0	5965.0	.646
Once they know a person was in a mental hospital, most people take his or her opinion less seriously (R).	2.8	3.0	1.2	3.0	4.0	1.2	5600.5	.196
Most people believe that a former mental patient is just as trustworthy as the average citizen.	2.7	3.0	1.2	2.8	3.0	1.2	5805.5	.419
Most employers will pass over the application of a former mental patient in favour of another applicant (R).	2.7	3.0	1.3	2.6	3.0	1.2	5825.0	.442
Most women would not marry a man who has been hospitalised for a serious mental disorder (R).	2.7	3.0	1.2	3.0	4.0	1.1	5460.5	.115
Most people would willingly accept a former mental patient as a close friend.	2.6	3.0	1.0	2.8	3.0	1.2	5639.5	.241
Most people in my community would treat a former mental patient just as they would treat anyone.	2.6	3.0	1.2	2.9	3.0	1.1	5534.5	.159
Most employers will hire a former mental patient if he or she is qualified for the job.	2.5	2.0	1.3	2.4	2.0	1.2	5999.5	.703
Most people would accept a fully recovered former mental patient as a teacher of young children in a public school.	2.4	2.0	1.1	2.4	2.0	1.3	5873.5	.516
Most people think less of a person who has been in a mental hospital (R).	2.4	2.0	1.2	2.2	2.0	1.2	5834.0	.462
Most people would not hire a former mental patient to take care of their children, even if he or she had been well for some time (R).	2.3	2.0	1.0	2.1	2.0	1.2	5680.0	.285
Most people believe that a person who has been in a mental hospital is just as intelligent as the average person.	2.0	2.0	1.1	1.9	1.0	1.1	5651.5	.240
Mean item score	2.56		0.78	2.58		0.74	5990.0	.702

5.4.7 Patients' satisfaction

As shown in Table 5.8, comparisons have been made between cases and non-cases on each item of patients' satisfaction. However, there were no significant differences between cases and non-cases. Table 5.9 summarizes the findings in Table 5.8, comparing the four factors of the satisfaction beliefs questionnaire for cases and non-cases. Again, there were no significant differences between cases and non-cases in their satisfaction.

Table 5.8: Patients' satisfaction. Mean, Median, Standard Deviations (SD) and Mann-Whitney U tests comparing cases and non-cases. items shown are for the two diagnostic groups: Non-cases Patients and cases, ranked according to numbers of non-cases identifying each.

Items	Non-Cases(n=126)			Cases (n=98)			U	P
	Means	Median	SD	Means	Median	SD		
I will follow this doctor's advice because I think he/she is absolutely right.	3.5	4.0	1.4	3.6	4.0	1.3	5961.0	.645
I thought this doctor took notice of me as a person.	3.4	4.0	1.4	3.6	4.0	1.3	5563.5	.188
This doctor was interested in me as a person not just my illness.	3.4	4.0	1.4	3.7	4.0	1.3	5413.0	.101
I felt able to tell this doctor about very personal things.	3.3	4.0	1.4	3.4	4.0	1.4	5884.0	.531
Some things about my consultation with the doctor could have been better.	3.3	4.0	1.5	3.3	4.0	1.3	6121.0	.910
The time I was able to spend with the doctor was a bit too short.	3.2	4.0	1.5	3.4	4.0	1.6	5810.5	.532
This doctor examined me very thoroughly.	3.2	4.0	1.4	3.2	4.0	1.4	6135.5	.934
I wish it had been possible to spend a little longer with the doctor.	3.2	4.0	1.6	3.4	4.0	1.5	5648.5	.255
I am totally satisfied with my visit to this doctor.	3.1	4.0	1.5	3.4	4.0	1.5	5520.5	.160
This doctor was very careful to check everything when examining me.	3.1	4.0	1.4	3.2	4.0	1.4	5855.0	.491
The time I was allowed to spend with the doctor was not long enough to deal with everything I wanted.	3.1	4.0	1.6	3.4	4.0	1.6	5548.5	.176
There are some things this doctor does not know about me.	3.0	3.0	1.4	3.2	4.0	1.3	5654.0	.268
This doctor knows all about me.	3.0	3.0	1.4	2.9	3.0	1.3	5994.0	.701
I am not completely satisfied with my visit to the doctor.	3.0	4.0	1.6	3.3	4.0	1.5	5582.0	.204
I understand my illness much better after seeing this doctor.	2.9	2.0	1.6	2.6	2.0	1.5	5837.0	.469
I felt this doctor really knew what I was thinking.	2.9	3.0	1.5	3.3	4.0	1.4	5347.5	.077
I would find it difficult to tell this doctor about some private things.	2.9	3.0	1.5	2.6	2.0	1.5	5488.5	.141
This doctor told me everything about my treatment.	2.6	2.0	1.6	2.4	2.0	1.5	6153.0	.964

Table 5.9: Comparison of the four components of the satisfaction belief questionnaire between cases and non-cases, ranked according to numbers identifying each by non-cases. Means, Standard Deviations (SD) and Mann-Whitney U.

Components	Non-Cases(n=126)		Cases (n=98)		U	P
	Mean	SD	Mean	SD		
Professional care	22.2	8.4	22.7	7.0	6044.00	.787
Depth of relationship	15.3	5.4	15.8	4.7	5870.00	.527
General satisfaction	8.8	2.4	8.8	2.1	6149.00	.958
Perceived length of consultation	8.3	4.5	7.7	4.6	5631.00	.048
Overall Consultation Satisfaction	54.8	16.2	55.0	13.7	6122.00	.914

5.4.8 Patients Request Form

Principal components analyses yielded three components (see Table 5.10), accounting for 57.8% of the variance. The component labelled “emotional support” represents a demand for emotional support, mainly for emotional problems. The component labelled “Explanation/reassurance” represents a demand for explanation of problems or for the understanding of symptoms. The component labelled “investigation/treatment” reflects a request for technical services such as: further medical tests, drugs, and referral to a specialist. The pattern of loadings was broadly similar to that reported by Valori et al (1996).

Table 5.10: Principal components analysis of responses to the Patients Request Form (PRF). Item loadings exceeding 0.40 are shown. loadings of each item on the corresponding scale described by Valori et al (1996) are shown for comparison.

Items	Valori et al (1996)	Components		
		Emotion support	Explan/ reassurance	Investigat/ treatment
Emotional support				
I want to discuss certain problems in my life	.54	.86		
I want the doctor to explain my emotional problems.	.74	.84		
I would feel better if I could talk about some of my feelings.	.52	.84		
I want treatment for a nervous condition.	.66	.80		
I am feeling anxious and would like doctor's help	.64	.75		
I have emotional problems for which I would like help.	.76	.73		
I want someone to comfort me at this difficult time.	.66	.68		
I am having a difficult time with my problem and would like some support.	.66	.66		
Explanation/ reassurance				
I want the doctor to explain how serious my problem is	.65		.87	
I want to know about possible side effects of my problem.	*		.87	
I want the doctor to talk with me about my problem.	.67		.85	
I want the doctor to explain the likely course of the problem.	.66		.85	
I want to be sure nothing is wrong with me	.60		.83	
I want to know if I am likely to have any problems in the future	.60		.82	
I want to be examined for the cause of my condition.	.69		.65	
I would like the doctor to tell me what the symptoms that I have mean.	.70		.58	
Investigation/ treatment				
I want advice on a drug I am taking.	.65			.77
I want the results from some tests.	.67			.73
I want to be referred to a specialist.	.64			.67
I want the doctor to explain some test results.	.69			.67
I want the doctor to explain the treatment I am having.	**			.62
I want a previous diagnosis confirmed.	.66			.61
I want to change the medication I am presently taking.	.52			.54
I want to know how quickly I will get over this problem.	***			.43

*loaded at 0.60 in study of Valori et al (1996) on "Investigation/ treatment".

** loaded at 0.62 in study of Valori et al (1996) on "Explanation/ reassurance".

*** loaded at 0.65 in study of Valori et al (1996) on "Explanation/ reassurance".

Table 5.11 shows the comparison of intentions between cases and non-cases. As expected, intentions for Emotional support were affirmed by cases more than non-cases. However, there were no significant differences between cases and non-cases in respect of “Explanation/ reassurance” and “Investigation/ treatment”.

Table 5.11: Comparison of the three components of the intentions questionnaire. Means, Medians, Standard Deviations (SD) and Mann-Whitney compare between cases and non-cases.

Components	Non-Cases(n=126)			Cases (n=98)			U	P
	Mean	Median	SD	Mean	Median	SD		
Emotional support	11.5	9.0	5.0	13.6	13.0	5.6	4697.5	.002
Explanation/ reassurance	22.4	23.0	4.3	22.7	25.5	4.3	5711.5	.329
Investigation/ treatment	13.5	14.0	2.9	13.2	14.0	3.1	5981.0	.685

5.5 Discussion

5.5.1 The importance of the study

The current chapter explored patients’ beliefs and intentions within Saudi primary care and their association with psychological problems.

The study used several questionnaires which have been validated previously in Western countries. Efforts were made to reduce bias arising from cultural and clinical invalidity through scrupulous translation and back-translation procedures. The translation process, involving consultation with 10 individuals in different roles (Chapter Three) maximized the local validity of the Arabic version of the questionnaires. Previous studies have shown that, if careful attention is given to translation, instruments can be used with reasonable confidence across cultures (Ngoma et al, 2003). The current study has therefore produced a new pool of Arabic

instruments which are available to be used by other Arabic researchers. By using these questionnaires, this study has explored a new area of study in Saudi Arabia and, in particular, provides the first systematic evidence on beliefs and intentions among Saudi primary care patients.

The high level of participation means that this sample is representative of the day-to-day activity in primary health care centres in the (semi-urban) Assir area.

5.5.2 Main findings

5.5.2.1 Patients' views of the basis of their symptoms

Cases were more psychological in their beliefs than were non-cases. However, nearly half the cases patients denied having any psychological role in their symptoms, and only 5% considered that their symptoms were psychologically caused. The current result is in accordance with UK study of Kuyken et al (1992) in which psychological patients tended to hold biological explanations for the causes of their psychological problems. This finding is very important. If the GP relies on the patient's response to simple questions such as those in this questionnaire as to whether his/her problem is a psychological one or not, these findings suggest that psychological problems in many patients would not be detected. This conclusion is inconsistent with the view, as some studies have suggested, that one simple question can be used to detect psychological disorders (Watkins et al, 2001). It may be that Saudi patients are less likely to consider that psychological factors are involved than are Western patients. There is no comparative data using this questionnaire from western GP attenders to test this idea. Therefore, this idea needs to be tested.

5.5.2.2 Aetiological beliefs

Most of the beliefs that were included in the UK version of the questionnaire were considered relevant to Saudi patients. However, to ensure that the questionnaire was valid for this group, additional beliefs had to be included that were not present in the UK version. These included "Devil/ jinn; Evil eye; Punishment from Allah; Sorcery/ magic. The importance of including these explanations was seen in the results, which indicated that some of these cultural explanations for symptoms were amongst the most common that patients held, reflecting the greater importance of religion in Saudi society. Cases and non-cases were both very likely to believe that their problems may be caused by Allah. They view Allah as the originator of all illness (see Chapter Two). However, this finding could reflect different beliefs. Disease may be seen as a punishment because they believe that their problem is due to sins committed in the past. By contrast, punishment can be seen as a gift from Allah, who will reward them at the end of their problem by wiping out their sins and presenting them with happiness. In Saudi culture there is a public belief which sees the one who is in good health for long period of time as an underprivileged person because this indicates that Allah does not want to wipe out his or her sins. Further, more detailed study would be needed to find out whether cases and non-cases differed in these specific beliefs.

Evil eye emanates from another person, or rather from the bad soul which inhabits that individual. Belief that illness comes from the "evil eye" is widespread across all ethnic and religious groups in Asia and the Middle East and was important in this study for both cases and non-cases. In a Pakistani study, Hussain (2002) studied health beliefs among four multi-ethnic groups. He reported that belief that illness comes from "evil eye" was similar among the Christians, Hindus and Muslims. In some parts of Europe "evil eye" is also widespread. Pieroni and Quave (2005) pointed

out that the "evil eye" is a common explanation for illness within the Mediterranean. Unlike the Evil eye which emanates from humans, Devil/ jinn and Sorcery/ magic emanate from supernatural power; therefore they were less common.

Cases and non-cases did differ, however, on psychological beliefs. Cases frequently blamed psychological causes despite the fact that they did not regard their symptoms as psychologically caused, as mentioned above. This finding is very important for GPs and for all professionals because it confirms the previous assumption that Saudi patients may deny that their problems are psychologically caused when asked directly, but at the same time consider specific psychological factors as important. As mentioned above, only about 5% of the cases agreed that their symptoms were psychologically caused when asked explicitly.

It was striking that psychological factors were blamed by most patients, cases and non-cases, as a cause of their problems. For example items "Nerves" and "Stress" were described by non-cases to be among the first four reasons for being ill. It seems that psychological beliefs are very common in Saudi primary care patients, as they are in the UK (Woloshynowych et al, 1998). These findings emphasize that the GPs should address psychological beliefs and concerns even with those patient who present physical symptoms.

The common belief in serious disease in the current study might be because of high levels of diabetes and blood pressure in Saudi Arabia and Gulf countries (Wahid et al, 1996; Zurba and Garf, 1996; Kalantan et al, 2001; Al-Faris, 2000). Alternatively, it may reflect a cultural belief in the danger of disease, perhaps because of the risk of punishment from Allah. Why cases should have greater fear of serious disease is unclear. Fear of disease might cause psychological distress. Alternatively, patients

might have more holistic belief systems within which psychological symptoms are attributed potentially to physical illness. Further research is needed to examine patients' beliefs, perhaps using qualitative methods, so that the interaction between different aspects of beliefs can be understood.

There are already potential clinical implications of these findings. Many patients, particularly those with psychological disorders, need to be reassured that their problems are not equivalent to a serious disease. This means that GPs need to pay more attention in explaining the problem. The extent to which GPs are doing this could be assessed in future by measuring patients' beliefs after consultation as well as before.

However, caution is needed about generalisation from the present study to other Saudi, and Arab patients. Because the sample of the current study was relatively modest, and because it was collected from one area in Saudi Arabia that is closed to western influence, it might not generalise to other parts of the country or to other Arab countries. Further work which includes a large sample from several areas of the Saudi Arabia is needed to produce generalisable evidence about beliefs among Saudi patients.

5.5.2.3 Reasons for delay in seeking help

This is the first Saudi study which investigates the reasons for delay in seeking help. To the best of the current researcher's knowledge, this study is also the first Arabic study to report on the reasons for delay in seeking help from GP. The results are very important because they focus on that time before patients come to primary care. The current result therefore provides some evidence about "Filter 1" in Goldberg and

Huxley's model (see Chapter One). The third aim of the present study was to find whether individuals reporting psychological disorders would report different reasons for delay in seeking help, perhaps because they or their family tried to hide their problems. However, the current finding confirmed that there was no difference between cases and non-cases in the reasons for not seeking help previously. Indeed, there was also no difference in the proportions who said that they should have sought help previously.

As expected, women faced more barriers to seeking help than men. As mentioned previously, women are not permitted to drive to attend to the GPs' clinic. If a woman lives far from her primary care centre, she needs one of her male relatives to accompany her to the primary care centre. The social position of women is also apparent in the item "A family member objected". About 67% of women thought that objection of one of their family member was the reason for their delay in seeking help compared with 20% of men. This finding is in line with other Muslim studies. Tabassum et al (2000) studied the Pakistani community in the UK and found that women could face barriers to seek help from professional because of their families, and they attribute this to the Muslim culture, in which men are generally dominant in the relationship and women are required to be more subservient.

Until people in Saudi Arabia change their attitude, there is a need to make the psychological health service more accessible to women without their needing to travel far. The current result indicates that health providers need to invest in alternative health care facilities, particularly for women. Socially acceptable home services, such as suitably trained health visitors, could be tried in Saudi Arabia to provide help to those women with psychological needs. This innovative health service could be called

“psychological health visitor” which would be appropriate particularly for those female patients with psychological disorders who could face double barriers: that family members have no time to come with her to seek help, and that the family may fear stigma and prefer to care for female patients at home.

Providing health care at home has been found to be very helpful for patients with psychological disorders (Borson et al, 1987). This could be because contact with “a psychological health visitor” is viewed as less formal than with GPs. Undoubtedly if a “psychological health visitor” visits women with psychological problem in their own home, they will be able to give women more time and privacy, which is very important to Saudi women. Indeed, when the issue is sensitive, privacy is not important for Saudi women only. In a UK study about domestic violence, women commented on the importance of the health visitor over a GP when they needed to discuss sensitive issues after the birth of their babies (Bacchus et al. 2003).

In conclusion, psychological health visitors need to be taken into consideration by health providers. In Saudi Arabia, in particular, it may be possible for the private sector to invest in this service because Saudi families prefer the privacy which is generally provided by the private sector. The results of the “psychological health visitor” could be fed back to GPs as an aid to make clinical decisions in the future when a female patient visits her GP.

Whereas this study used a semi-rural population, Fox et al (2001) studied the barriers to help-seeking for psychological disorders in a rural population in the USA. They found that the most frequently endorsed reasons for delaying in seeking help were expense, lack of health insurance and inconvenient hours. In the current study the item “Couldn’t afford to pay bill” was not endorsed so much as in Fox et al’s (2001) and

other studies because all governmental primary care is free in Saudi Arabia. In an American population, Sussman et al (1987) also found lack of time as the main barrier to seeking help.

5.5.2.4 The sources of help

Despite the expectation that help-seeking behaviour would depend on the nature of patients' problems, cases and non-cases shared their preference for seeking help first from three main sources: General Practitioner; Prayer and reading Al-Quran; and Private medical specialist. The General Practitioner was chosen first by both diagnostic groups. This finding emphasises the important role of the GP in the view of all patients, even those with psychological disorders.

It is notable that the psychiatrist and psychologist do not play a significant role in help-seeking in cases. This finding may arise if psychological disorders such as depression and anxiety are seen as an extension of normal feeling that most people experience (Angermeyer et al, 1999) and therefore do not need specialist help. Hence, the GP could deal with them. By contrast, public opinion may see the psychiatrist or psychologist as professionals for disorders such as schizophrenia and therefore they avoid contact with them. Also this finding may be explained by the public belief that psychiatrist or psychologists rely on psychotropic drugs which could lead the individual to be addicted or to suffer stigma (Shahin and Daly, 1999). Therefore, they prefer to seek help from somewhere which will cause less harm, such as the GPs. It is also likely that the low endorsement of these professionals reflects their low availability and the lack of familiarity with what they do. It is not surprising that the item "Psychologist" came last, because in Saudi Arabia there is a lack of knowledge about the scope of the psychologist and when patients should consult a psychologist.

It is common, even today, that a client asks for a prescription after having counselling with a psychologist (Alhaj, 2000). It seems that this lack of knowledge could be found even in Western studies. In a study of Cinnirella and Loewenthal (1999) which was conducted among several ethnic group in London (see Chapter One), they found that there was little understanding of the differences between psychiatrists and psychologists. However, the difference between cases and non-case in reporting "Psychiatrists" as a source of help should be reviewed carefully. Since none of the non-cases cited "Psychiatrists" as a source of help, statistical testing was problematic. There is a need to extend the sample and re-test these sources of help in further study.

That cases valued a social worker more than non-cases is consistent with a previous suggestion. It shows that cases do recognise a different need for help from non-cases, but suggests that they prefer to seek help from a professional whom they know does not rely on psychotropic drugs.

Items "Prayer and Reading Al-Quran" were reported frequently by both cases and non-cases. This finding is in accordance with various studies. Patients can believe that prayer improves mood, thought and behaviour as well as lowering of blood pressure and decreasing physiological activation (Syed, 2002). The specific ways in which religious help is seen as interacting with physical and psychological disorders needs further study.

The popularity of informal help might reflect cultural beliefs that preceded the development of formal westernised medicine in Saudi Arabia. However, there is another possible explanation which could not be tested in the current study. If the GPs fail to understand what patients seek or to meet patients' demands, informal medicine could be the alternative choice for those patients. It is clear that the degree

to which the patients and their GPs are in agreement influences their decision to consult (Ley, 1988). The interaction between the GP and patient could not be addressed in the present study, and will be examined later.

5.5.2.5 Stigmatization

The fifth aim of the present study was to examine patients' perceived stigma and to test the hypothesis that individuals reporting psychological disorders would report higher levels of stigma because their problem is psychological. However, the current study found no differences between cases and non-cases. This finding diverges from other Arabic studies (Al-Krenawi et al, 2000; Masalha, 1999; Shahin and Daly, 1999) which reported that patients with psychological disorders suffered from greater stigma than those with physical problems.

However, the present study is the first Arab empirical study to examine stigma systematically within primary health care. Shahin and Daly (1999) assessed perceived stigma by an Arabic questionnaire that was designed to determine patients' knowledge and beliefs about their medication. They applied this questionnaire in patients who were hospitalized in a governmental hospital, and such patients would be expected to suffer from stigma more than those in the current study. However, the current finding is in accordance with the study of Kurihara et al (2000) who applied the same questionnaire (Link et al, 1989) and found that the Balinese (in Indonesia, a largely Muslim nation) reported a better attitude towards psychological patients than did respondents in Tokyo. They explained the favourable attitude of the Balinese by suggesting the absence of a tradition of separating psychologically disturbed people from the rest of the population. Greater awareness of psychological problems therefore produces a more favourable environment for accepting psychological

patients. This explanation could apply in Saudi Arabia where patients with potential psychological disorders are mostly managed at home. Kurihara et al (2000) also suggested that more favourable attitudes could arise because the Balinese believe that psychological disorders are caused by a supernatural power or black magic, rather than by internal factors such as genetics or family problems, and this could be the reason for their more favourable attitudes. This explanation, also, could apply to Saudi Arabia.

Analysis also compared stigma between men and women, to contribute to existing literature about stigma and women in Arab countries. Arabic literature suggested that Arabic women may be more vulnerable than men to the stigma of psychotherapy (see Chapter Two). The current study found highly significant differences between men and women, indicating that women are more vulnerable than men to feeling stigmatized by psychological disorder. This result is in accordance with various Arabic studies (see Chapter Two) which reported several explanations. Zaidan et al (2000) hypothesised that women were valued for their marriage ability and that psychological disorder could particularly affect women's chances of getting married. Likewise, for married women, the label of psychological disorder could be used by the husband as an excuse for his remarriage (Al-Krenawi et al, 2000).

As there was no significant difference between cases and non-cases in stigma, the measurement of stigma will not be pursued further in this thesis. Nevertheless, further research which examines patients understanding of the links and distinction between physical and psychological problems could help to clarify the reason why the present study did not find that psychological disorders were associated with stigma.

5.5.2.6 Patients' satisfaction

The seventh aim of the present study was to describe patient satisfaction and to test the hypothesis that individuals reporting psychological disorders would be less satisfied, perhaps because their psychological needs are not recognised or met. However, the current study found no difference between cases and non-cases. Both diagnostic groups were moderately satisfied, which is in accordance with various Arabic studies. Mansour and Al-Osimy (1996) found that Saudi primary care patients were, overall, satisfied, even where the service was weak. They explained their finding by suggesting that Saudis accept lower standards of health care. Also, in a study by Saeed et al (2001), satisfaction was in general high, and the authors suggested that people in Saudi Arabia are usually reluctant to complain about services. However, it is a general finding, even in Western studies, that patients report themselves as being highly satisfied with care (Williams, 1994) and the findings about relationship between patient satisfaction and observed good quality of care have been contradictory (Wyshak and Barsky, 1995). In the opinion of some researchers, high levels of satisfaction may indicate merely the absence of an opinion on satisfaction (Brody et al, 1989).

As satisfaction did not differ between cases and non-cases, patient satisfaction will not be measured further in this thesis.

5.5.2.7 Patients' intentions

The eighth aim of this part of the present study was to investigate patients' intentions, and to compare these between cases and non-cases. As mentioned previously, there is no Arabic study into patients' intentions. This may be due to the ambiguity of the concept of intention (Valori et. al., 1996) or, more likely, it could be the result of the

absence of a suitable way of measuring intention (Salmon and Quine, 1989). Therefore the current study was concerned, first, with adapting and testing the first Arabic instrument to measure patients' intentions. The principal components analysis yielded components which resembled those reported in a UK sample, but with some differences (Valori et al,1996), but reliability of one factor was modest. Therefore, given that this instrument could be used widely in the future by other Arab researchers, the structure of the scale needs further work. Principal components analysis is an exploratory form of analysis and is not able to indicate the degree of adequacy of the factor structure that it suggests. For this, confirmatory factor analysis is needed. However, this needs a large sample than was available in this study.

Using the scales indicated by the principal components analysis, the current finding confirmed that there is no difference between the two diagnostic groups in respect of their desire for explanation and reassurance or for investigation and treatment. By contrast, desire for emotional support was greater in cases than non-cases. Similar findings have been reported previously in Western populations (Salmon et al, 1994; Zebiene et al, 2204). This finding indicates the importance of knowing how well GPs detect patients' intentions. If, as suggested in a UK sample (Salmon et al, 1994), GPs often misperceive what patients want, it is likely that many patients who want support for emotional problems will receive medical treatment or reassurance instead.

5.5.3 Limitations of the study

This study has provided a preliminary account of beliefs and intentions that might constitute barriers to Saudi Arabian primary care patients with psychological problems benefiting from appropriate health care. However, it had some limitations. Due to the modest sample size, the generalizability of findings is limited. In

particular, a large sample is needed to establish the factor structure of two important scales used here to measure aetiological beliefs and patients' intentions. The sample was recruited only from the Assir area, which is considered to be an area largely closed to Western influences. Therefore, its findings cannot be generalised to those parts of the country – and of other Arab countries – which have been more influenced by western ideas (see Chapter 4). Finally, an important limitation was that the study included no measure of the interaction between the patient and the GP. In particular, it showed that cases had different intentions from non-cases, but it could not examine how well the GP detected what the patient wanted. To do this, a study is needed in which the GPs provide more information about their perception of the patient, and in which the effect of the consultation on patients' beliefs can be studied.

5.5.4 Clinical implications

Patients' ideas about causation may be different from those of GPs who probably mostly hold biomedical beliefs. The current findings about patients' beliefs can help GPs to understand patients' beliefs about their symptoms and can help GPs to direct questioning about possible beliefs. Many patients hold beliefs about their symptoms which are likely to diverge greatly from the way that their GPs are likely to think. In particular, patients' emphasis on supernatural and psychological factors is unlikely to correspond to the beliefs of GPs who have been trained in Western medicine. GPs need to be aware of their patients' beliefs so that they can correct erroneous beliefs and provide explanations that make sense to patients in terms of the ways that they think about their problems.

However, in trying to find out about a patient's psychological beliefs, the present study shows that the GP should not rely on the patient's response to a simple question

about whether psychological factors are important. Instead, the GP should ask in more detail about specific causes of his/her symptoms.

The finding of the current study about the reasons for delaying in seeking help means that health-care providers should make care more accessible to women patients who may face more barriers to seeking help than men. To do this, a “psychological health visitor” has been suggested above.

The findings about patients’ intentions emphasise the importance of GPs detecting their patients intentions, so patients at the end of the consultation, particularly patients with psychological problems, will receive what they want, and unneeded medication can be avoided. The Arabic PRF could help GPs to fulfil this task. Patients could fill in the PRF while they are awaiting their consultation in the waiting room. Alternatively, the present findings could be used in GP education to demonstrate to GPs the importance of asking about patients’ intentions and to demonstrate the importance of patients’ desire for support.

5.5.5 Implications for future research

The findings from the present study highlight the importance of several further research subjects. First, a large sample is needed so that the structure of the measure of patients’ intentions can be assessed by confirmatory factor analysis. Secondly, the generalisability of the findings needs to be addressed by trying to replicate them in other areas of Saudi Arabia.

Secondly, it is necessary to examine aspects of the consultation. Whether GPs can detect patients’ intentions, and specifically the greater desire of cases for emotional support is important for understanding whether patients receive appropriate care.

Also, whether patients' beliefs change after consultation, and particularly whether the fear of serious disease in cases is reduced, is important as evidence of whether GPs are reassuring patients and diverting them from physical care.

Chapter 6: Study Two: The influence of the wording of the GHQ on responses to it

6.1 Introduction

The standard answering format of the General Health Questionnaire (GHQ) is that which is found in the original version of the GHQ, which could be called “Goldberg wording”. According to the Goldberg wording, each item is rated on a four-point scale (less than usual, no more than usual, rather more than usual, or much more than usual). However, most of the Arabic studies applied a different wording format for all of the items (strongly agree, agree, disagree, strongly disagree).

Alhaj (2000) devised this wording in the middle of the 1980s, declaring that he wanted to simplify the questionnaire for Arab patients who were not familiar with answering questionnaires. However, El-Rufaie and Daradkeh (1996) returned to the Goldberg wording in a different translation, stating that the GHQ is an accurate scale which should be translated as a whole unit (i.e. the items and the format).

In Study One, patients were instructed to rate themselves on each statement in the GHQ using the standard Arabic wording format (Alhaj, 2000). The prevalence of psychological disorders in Study One was higher than some recent studies conducted in Saudi Arabia (see Chapter Four), and there was some concern about whether that high prevalence was inflated by the non standard wording used in the Arabic version of the GHQ. The Hospital Anxiety and Depression Scale (HADS) has been used to test the performance of the GHQ in this study.

6.2 Aim of this study

The aim is to compare the two methods of wording of the GHQ by investigating whether or not they lead to different responses and by investigating which wording produces responses that agree most closely with the HADS.

6.3 Methods

6.3.1 Participants

The study sample consisted of patients who visited the University's Primary Health Care (UPHC) in Abha city. The UPHC is for the university staff and students and their families but also it is for all of the community in the local area. It has four clinics, which are segregated, with men and women having separate facilities and same-sex doctors. The study was done in two weeks. Every available patient aged 18 or above attending the UPHC was given information about the study and asked to participate, and those who agreed were included. Those patients who agreed to participate were asked to complete a questionnaire before consultation. They were informed that they would be asked to come to the UPHC again within 48 hours to complete another brief questionnaire.

6.3.2 Refusals and exclusions

Those patients attending for reasons other than health complaints, for example, vaccination, driver's license examinations, and reports were excluded. Nineteen patients, 4 males and 15 females (mean age 29.08; SD= 8.51) refused to participate in the first questionnaire. With respect to females the most frequently mentioned reason for refusing to participate was the cultural issue of avoiding contact with men. Lack of time was the main reason mentioned by males.

6.3.3 Procedure and ethics

6.3.3.1 Procedure

The daily procedure which was followed was to identify randomly one primary care doctor at each session every day, either male or female. Then the first questionnaire (GHQ using Alhaj wording) was administered to consecutive patients of that doctor. This sampling method was used because of the physical arrangement of the clinics with separate male and female clinics in different locations within the same building. Patients were then given an appointment to come to the UPHC 2 days later, and to complete the second questionnaire (GHQ using Goldberg wording). Every patient who completed the first questionnaire was given a letter including the time of attending the UPHC. All these patients were telephoned by the UPHC nurses who reminded them about the time of the second questionnaire.

6.3.3.2 Ethical issues

Same as in Study One, the official letter from the Saudi Cultural Bureau in London and the official letter from the Ministry of Health in Saudi Arabia were enough to approve the current researcher. In Saudi Arabia, the permission of the Health Ministry is required instead of Ethics Committee approval (appendix:E). However, because the University's Primary Health Care (UPHC) was administrated by the King Khalid Universty, there was a need to have further official letter from the university before conducting the study there.

Patients were asked if they would participate in the current study. Individually, the aims of the study were explained to each patient and their oral consent taken.

6.3.4 Instruments

The following instruments were applied in the current study:

1. The General Health Questionnaire 12-items, using the wording of the Arabic version (Alhaj, 2000).
2. The General Health Questionnaire 12-items using the Goldberg wording (El-Rufaie and Daradkeh, 1996).
3. The Hospital Anxiety and Depression Scale (El-Rufaie & Absood, 1987; Al-Haddad et al, 1999).

Full details of the translation of these questionnaires are provided in Chapter Three. Except for the HADS, full details of the validity of these questionnaires are in Chapter Four.

The Hospital Anxiety and Depression Scale (HADS) has been translated into the Arabic language by El-Rufaie and Absood (1987). As has been reported in Chapter Three, the translation of the HADS was checked. Although El-Rufaie and Absood (1987) reported that they used a back-translation method to translate the HADS, unfortunately there are no documented studies which explain in detail the translation process. Therefore, the HADS was also translated in order to help choose which of the available translations should be used. In Stage One, the HADS was subjected to forward and backward translation. In Stage Two, the HADS was tested in a pilot study. According to the committee's suggestion, the translation of the HADS in the current study was almost the same as the Arabic version of El-Rufaie and Absood, (1987). Therefore the Arabic HADS (El-Rufaie and Absood, 1987) was used without any modification.

The HADS as adapted to be used within Saudi primary care has the same answering formats as the original English version. El-Rufaie and Absood, (1987) tested the validity of the Arabic version of the HADS against psychiatric interview. The sample was 50 Saudi patients attending a primary health care centre. The results showed that the item-subscale correlations for all the items were high ($p < 0.001$), except for one anxiety item for which the English translation is: "I get a sort of frightened feeling, like butterflies in my stomach". The psychiatrist interview judgement correlated significantly with the HADS: for anxiety, $r=0.88$, $p<0.001$; and for depression $r=0.86$, $p<0.001$. Respondents who score ≥ 8 for either anxiety or depression subscales are identified as a case (El-Rufaie and Absood, 1987, Haddad et al, 1999).

To test the reliability and the validity of the cut-off ≥ 8 , Al-Haddad et al (1999) administered the HADS to a sample of 177 patients. The reliability alpha value was 0.79 for the anxiety sub-scale and 0.85 for the depression sub-scale. Validity of the cut-off was performed using GHQ-28 comparison analysis which reported agreement with both subscales ($P<0.001$). Applying the GHQ as a gold standard of psychiatric diagnosis has been done previously (Boardman, 1997; Ormel et al, 1990; Plummer et al, 2000).

In the current study, the judgment of the experts was used to confirm the validity of this instrument. The reliability was tested by alpha. Alpha value was 0.82 for the anxiety sub-scale and 0.83 for the depression sub-scale. Therefore, HADS could provide a method of comparing the performance of the two versions of the GHQ.

6.3.5 Statistical Analysis

6.3.5.1 Sample characteristics

Descriptive statistics were used to summarise sample characteristics.

6.3.5.2 Effect of different wording of GHQ

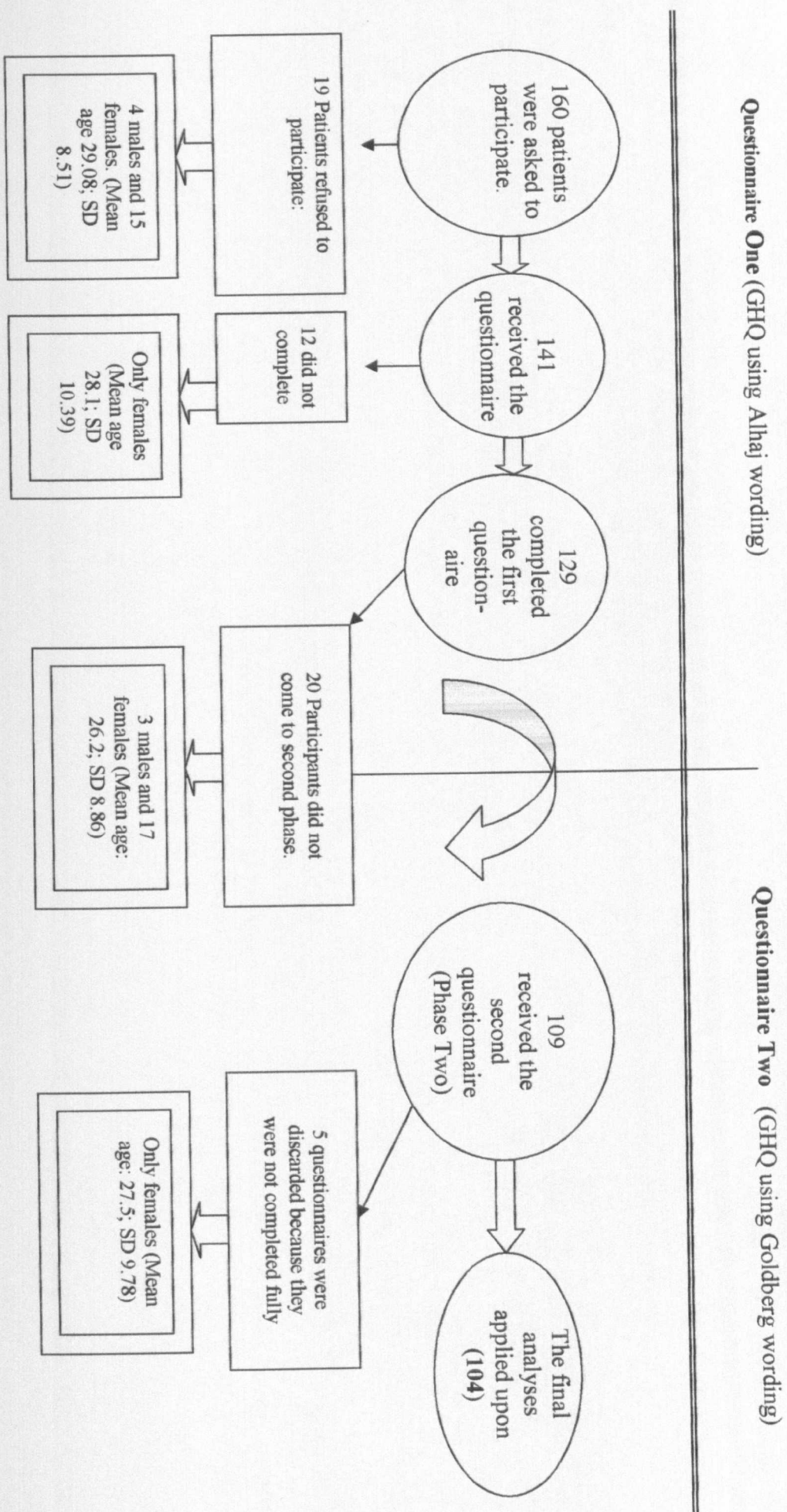
Frequencies, percentages, cross-tabulation and χ^2 were used to study the relationship between the forms of the GHQ with the Arabic and Goldberg wordings. Once again, frequencies, percentages, cross-tabulation and χ^2 were used to study the agreement between each and the HADS.

6.4 Results

6.4.1 Sample

One hundred and sixty patients attending UPHC appointments were asked to participate in this study (Figure 6.1). One hundred and forty one patients consented and received the first questionnaire. Of these, 12 female patients (8.51%; mean age 28.1; SD= 7.39) did not complete the questionnaire. Therefore, one hundred and twenty nine patients (91.48%) completed the first questionnaire. However, 20 patients (14.18%; 3 males and 17 females; mean age 26.2; SD 8.86) did not return to complete the second questionnaire, leaving only 109 patients (77.30%) who did. Of these, 5 questionnaires were rejected because they were not fully completed. Final analysis therefore involved 104 patients.

Figure 6.1: Details of recruitment, attrition and retention.



The characteristics of the final sample are shown in Table 6.1. There were more females than males. The mean age was 29.2 years. The majority of the patients were married. Most of them had completed undergraduate study. Regarding occupation, 41.3% were students and 40.4% were employed while 17.3% were not employed and only 1.0% were retired. These data were in accordance with expected societal characteristics of the UPHC.

Table 6.1 Socio-demographic characteristics of the sample ($n= 104$)

Demographic characteristics		n	%
Sex	Male	45	43.3
	Female	59	56.7
Age	Mean	29.15	
	Std. deviation	9.07	
Marital state	Married	57	54.8
	Separated	5	4.8
	Widow	2	1.9
	Single	40	38.5
Education	Primary school	4	3.8
	Intermediate school	10	9.6
	Secondary school	33	31.7
	Undergraduate	55	52.9
	Postgrad; and above	2	1.9
Occupation	Student	43	41.3
	Employed	42	40.4
	Not employed	18	17.3
	Retired	1	1.0

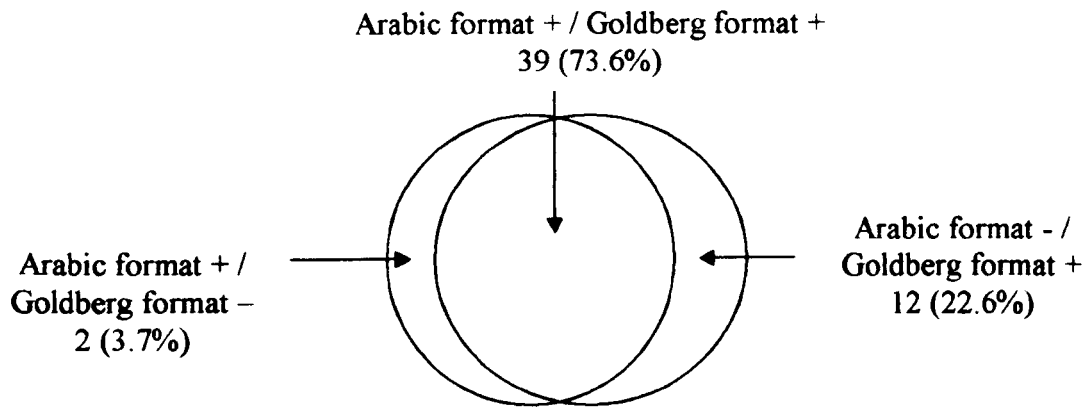
6.4.2 Effect of different wording of the GHQ

Table 6.2 and Figure 6.2 show the identification of cases by each form of the GHQ. There was a highly significant overlap between the patients identified as cases by the two forms. That is, in general, the two forms categorized patients similarly. The Goldberg format detected more cases, though.

Table 6.2: Cross-tabulation between different wording format of answering the GHQ: Arabic wording format vs Goldberg wording format. (*n*= 104)

Arabic format	Goldberg format		Total (%)	df	x	P
	Non-cases	Cases				
Non-cases	51	12	63 (60.75)	1	57.51	>.001
Cases	2	39	41 (39.42)			
Total (%)	53 (50.69)	51 (49.03)	104			

Figure 6.2: Caseness identified by the two wording forms of the GHQ.



The results in Table 6.3 assess the Arabic and Goldberg forms of the GHQ using HADS as a gold-standard. Chi-square indicated that there were highly significant relationships between both formats and the HADS. Both GHQ forms overlapped substantially with the HADS.

Table 6.3: Agreement between two different wordings of GHQ (Arabic wording format and Goldberg wording format) and HADS

	GHQ- Time 1 (Arabic wording format)			df	χ^2	P
		No	Yes			
HADS- Anxiety	No	56	14	1	33.82	.000
	Yes	7	26	1		
HADS- Depression.	No	58	12	1	44.50	.000
	Yes	5	29	1		
All HADS, either Anxiety or Depression	No	54	9	1	42.28	.000
	Yes	9	32	1		
	GHQ- Time 2 (Goldberg wording format)			df	χ^2	P
		No	Yes			
HADS- Anxiety	No	50	20	1	33.89	.000
	Yes	3	31			
HADS- Depression.	No	50	20	1	35.24	.000
	Yes	3	31			
All HADS, either Anxiety or Depression	No	50	20	1	35.89	.000
	Yes	3	31			

6.5 Discussion

This study has compared two wording formats for answering the GHQ. The Arabic format (Alhaj, 2000) of the GHQ give similar results to the Goldberg format.

If we go back to the main aim of this study, it can be concluded that the Arabic wording format for answering the GHQ cannot be blamed for the high prevalence of psychological disorders within Saudi primary care in Study One, and that the Arabic answering format works in almost the same way as the Goldberg wording format. Indeed, the Goldberg format detected even more cases than the Arabic format, but the differences observed here are not great. Therefore the Arabic format (GHQ using Alhaj wording) will continue to be used in this thesis.

Chapter 7: Study Three: Further investigation of prevalence of psychological disorders in Saudi Arabian primary care and their detection by GPs

7.1 Introduction

The result of Study One revealed a higher prevalence of psychological disorders than reported in Western studies (see Chapter Four) and than reported in some studies in other Arabic countries (see Chapter Two). Nearly half of the patients in primary health care were identified as cases. If those findings are generalisable, there are major implications for the care that needs to be provided in Saudi Arabian primary care. However, generalisability was limited by several factors. First, the study used one of several questionnaire forms and scoring methods that have been proposed.

Chapter Six showed that the difference of the wording of the Arabic form of the questionnaire that was used from the original English version did not explain this. However, the scoring method that was used might also be important. In Chapter Three, it was explained that there is some controversy as to the best scoring methods of the 12-item General Health Questionnaire (GHQ-12) for Arabic samples. Among Arab studies, there are two scoring methods. The first is the traditional scoring method (0,0,1,1), which was applied in a Saudi study by Alhaj (2000) with an optimal threshold suggested of > 3 . The other scoring method is the Likert scoring method (0,1,2,3) which was applied by El-Rufaie and Daradkeh (1996) with a suggested optimal threshold of > 13 . In Study One, the Alhaj scoring method and its threshold was used. However, it was very important to determine the most appropriate scoring method and threshold for using the GHQ-12 in Saudi Arabia. One aim of the present study, therefore, was to re-examine the prevalence of psychological disorder in Saudi

Arabian primary care attenders, and to compare these two scoring methods. Because resources were not available to have a psychiatric assessment for patients in this study, and because questionnaires have important advantages in this area of study in Saudi Arabia (see Chapter Three), the GHQ was also compared to a different questionnaire that has been used previously in Arabic populations: the Hospital Anxiety and Depression Scale (HADS, Zigmond and Snaith, 1983).

The second reason to re-examine the prevalence of psychological disorder was that the site of Study One may not be typical of Saudi Arabia. As explained in Chapters Four and Five, it was in a semi-rural area relatively closed to Western influence, and different findings might emerge from more urbanised areas and, particularly, from the major cities. Therefore, for the present study, a sample was drawn from the first four largest areas (according to the governmental structure) of the Kingdom of Saudi Arabia including the capital city area (see Appendix: Saudi Arabia map).

In a Palestinian study Afana et al (2002) revealed that the majority of psychological disorders pass undetected and remain unrecognized by GPs. They reported that only the most severe mental disorders are well recognized by GPs (Afana et al., 2002). Goldberg and Huxley (1980) considered failure of detection of psychological disorders in primary care by GPs as a potential filter which prevents patients with psychological disorders from receiving the proper treatment. They found that around 50% of primary health care patients who were real cases were diagnosed by the GPs as having morbidity. The ability of doctors to detect psychological disorders in Saudi primary care has been criticised. Alghamdi (2001) claimed that most of our GPs are not adequately trained to identify and treat psychological ill patients and that their knowledge and skills in detecting, diagnosing, and treating psychiatric diseases are

poor. In Study One, more than half of the cases (58%) were not detected by GPs. However, there was insufficient information about the detection of distressed patients to draw any conclusions because of several factors. The sample may not be typical of Saudi Arabia (see above) because it was chosen from one area of the Kingdom. Moreover, GPs might be different in these different areas. Patients also might be more transparent about their distress. Moreover, a larger sample is needed for confidence in generalisable findings.

In Saudi Arabia primary care Al-Faris (1995) reported that Saudi patients formulate their problems in somatic terms, not only to doctors but also to themselves, making it difficult for doctors to detect their psychiatric disorders (Becker et al., 2002). It was therefore anticipated that a large proportion of patients would present physical symptoms that doctors could not explain by physical disease. However, Study One found that only 15.2% of patients presented symptoms that were regarded by their GPs as medically unexplained, a similar proportion to that seen in the UK. Study Three addressed this once again, using a larger sample, drawn from several areas of Saudi Arabia.

Additional aims for this study are summarised in later chapters in which the relevant results are reported. In this chapter, the focus will be on the prevalence of psychological disorders and their detection. The general method of the current study and details of the sample will be reported here.

7.2 Aims

The main aim addressed in this chapter is to reinvestigate the prevalence of psychological disorders and their detection in primary care in Saudi Arabia, but to use a larger and more representative sample. This includes the following specific aims:

Aim 1: to detect the prevalence of psychological disorders and compare with Study One.

Aim 2: to compare the two scoring methods of the GHQ used in previous Arabic studies, and to examine the performance of the two methods against the HADS.

Aim 3: to investigate the ability of GPs to detect psychological disorders.

Aim 4: to investigate the prevalence of medically unexplained symptoms and to describe the psychological distress and symptoms of the patients identified in this way.

7.3 Method

7.3.1 Participants

The research population consisted of all consecutive patients who visited the primary health care in 20 Primary Health Care Centres (PHCC) in Saudi Arabia. In order to get the most generalizable results, the PHCC were chosen to represent fully different geographical areas of the Kingdom of Saudi Arabia: the Capital city area; the Makkah area; the Eastern area; and Al-Madinah area (see Appendix: Saudi Arabia map). The study was performed in three months starting from June 9th 2004. The work was undertaken 6 days a week from Saturday until Thursday; the weekend being Friday in Saudi Arabia. Because the current researcher aimed to have a representative sample from all of the four territories, data collection continued within each PHCC in each

area for a period of time between 15-21 days; then the study was moved to another PHCC in another area. Every available patient attending the PHCCs was requested to participate in the study and those who agreed were included. A total of 652 participants between the ages of 18 and 70 years were invited to participate in this study. Due to cultural practices, in cases where patients were female, the study was carried out in the presence of the patients' male companions. Regarding the GPs, all those GPs who were asked to take part in the current study were willing to participate. Table 7.1 details the GPs' characteristics. None of them were Saudi citizens. None of them had graduated into Saudi faculty of medicine. None of them was trained in Saudi primary care before starting to work in it.

Table 7.1: Socio-demographic characteristics of the GPs of Study Three (*n*=40)

GPs' characteristics		n	%
Gender	Males	18	45
	Females	22	55
Age	≤ 40 years	27	67.5
	≥ 41 years	13	32.5
Experience	≤ 12 years	22	55
	≥ 13 years	18	45
Where trained	Egypt	16	40
	India	8	20
	Jordan	6	15
	Sudan	4	10
	Pakistan	4	10
	Saudi Arabia	2	5

7.3.2 Refusals and exclusions

Those patients attending for reasons other than health complaints, for example, vaccination, driver's license examinations, and reports were excluded. Also those patients under the age of 18 years were excluded.

There were 42 patients, 6 males and 36 females, who refused to participate in the study. The pressure of time was the main reason given by the males who refused, while issues of culture and avoiding contact with men was the main reason given by females. In all, the total number of participants (n= 610) consisted of 272 males and 338 females but, because they did not provide demographic information, 4 questionnaires were excluded before the statistical analysis. Regarding the GPs, none of them refused to participate in the current study.

7.3.3 Procedure and ethic

7.3.3.1 Procedure

During the official working hours - the morning hours (7.00-12.00) and the evening hours (16.00-20.30) - the work was undertaken 6 days a week from Saturday until Thursday, the weekend being Friday in Saudi Arabia. The daily procedure which was followed was to identify one primary care doctor at each session every day, either male or female. Then each patient was asked, upon arrival, to participate in the study. The aim and procedures of the study were explained. Patients who consented were given the set of questionnaires to complete in a private air-conditioned room which offered privacy and confidentiality as well. This continued until at least 15 patients had been screened per GP. Different doctors were involved on different days. Each selected GP was omitted from the random selection on the following days until all of the GPs in the primary care were covered to avoid any duplication. The researcher switched his work daily between the female and male clinics. This sampling method was used because of the physical arrangement of the clinics with separate male and female clinics in different locations within the same primary care building.

7.3.3.2 Ethical issues

Before distributing the questionnaires, an official letter of permission was issued by the Ministry of Health in Saudi Arabia to facilitate the researcher's duties at primary care centres. As reported in Chapter Four that the current researcher obtained an official letter from the Saudi Cultural Bureau in London and then from the Ministry of Health in Saudi Arabia, and the research was approved accordingly. In Saudi Arabia, the permission of the Health Ministry is required instead of Ethics Committee approval (see appendix).

Patients were requested if they would participate in the current study. The goals of the study were explained to each patient individually and their oral consent taken. Patients were informed that participation or non- participation in the study would not affect their treatment, and they were assured that the data collected would be used only for the stated research purposes. They were informed that they could withdraw from the study at any time. They were asked not to write their name on the questionnaire. Patients were identified by a code number only.

7.3.4 Instruments

The instruments included in the present study, and used for analyses in the present chapter, were:

1. The Arabic General Health Questionnaire 12-items (GHQ-12), Arabic format (Alhaj 1984).
2. The Arabic Hospital Anxiety and Depression Scale (HADS) (El-Rufaie and Absood, 1987) was used.

3. GPs' judgment about the role of psychological factors in patients' symptoms (Salmon et al, 1988). Similarly to what was reported in Chapter Four, the cut-off of this scale was tested to choose the appropriate cut-off. Three cut-offs were examined: (1) Those patients for whom the GP answered "quite" and "highly" were classified as GP-detected (cut-off 1); (2) Those patients for whom the GP answered "highly" were classified as GP-detected (cut-off 2); (3) Those patients for whom the GP answered "slightly"; "quite"; and "highly" were classified as GP-detected (cut-off 3).
4. To detect medically unexplained symptoms, the checklist invented by Peveler (1997) and developed by Ring et al, (2005) was used.
5. The Hopkins Symptoms Checklist (HSCL) somatization scale (Raskin et al, 1970) provided a measure of somatisation.
6. Other questionnaires and the use of primary care medical records are described in subsequent chapters (see Chapter Ten).

Except for the HADS, full details of the content and validity of these instruments are provided in Chapter Four. Full details of the validity of the HADS are in Chapter Six. For translation of these questionnaires, see Chapter Three.

7.3.5 Statistical Analysis

First, variables were screened to identify those that were reasonably normally distributed. Scores on individual questionnaire items were highly skewed and hence non-parametric statistics were used. Total scale scores were, in general, suitable for parametric analysis. Moreover, because of the large sample size, parametric statistics would be expected to be robust in coping with non-normality of data. Non-parametric statistics were also used for univariate analyses of the total scale scores to confirm the

parametric results, and t-tests are reported for individual items to show that the two approaches give consistent results. To avoid the risk of Type 1 errors, a significance criterion of $p < .01$ was used for univariate analyses. In addition, it will be important to examine patterns of effects rather than individual isolated findings. Statistical analyses were performed with the aid of SPSS 12 for Windows. Data were analysed using the Statistical Package for the Social Sciences (SPSS12).

7.3.5.1 Sample characteristics

Descriptive statistics were used to summarise sample characteristics. Chi square was used to test the associations between the diagnostic group and sample characteristics.

7.3.5.2 Prevalence of psychological disorders using different scales

Descriptive statistics were used to describe frequencies of psychological cases according to the GHQ using each scoring method, and then to describe frequencies of cases according to the HADS. Chi square was used to examine the interrelationships between the classification of patients (cases v. non-cases) according to the two scoring methods (Alhaj scoring method v. El-Rufaie scoring method) and to compare each to the categorisation by the HADS.

7.3.5.3 GPs' detection of psychological factors

To test the agreement between the GP's judgement and the GHQ, cross-tabulation and Chi square was used also.

7.3.5.4 Somatization

Frequencies and percentages were used to summarise GPs' perception of MUS, and cross tabulation and Chi square were used to study the relationship between this and patients' GHQ caseness. Descriptive statistics were used to summarise patients' somatization symptoms according to the HSCL, and the Mann-Whitney test was used to compare between the two diagnostic groups in individual symptoms reported according to the HSCL.

7.4 Results

7.4.1 Sample characteristics

Of 652 patients invited to take part, 606 (93%) agreed and provided data, comprising 271 males and 335 females. The age range of the patients was 18 - 66 years old. The mean age was 32.8 years, reflecting the population in Saudi Arabia. The patient sample is described in detail in Table 7.2. Most patients were married; 7% of female respondents were in polygamous marriages (i.e. husband having more than one wife), and 5% of male respondents had more than one wife. The result of Chi square tests shows that there was no significant difference in sex, age, or marital state between cases and non-cases. Significant differences were found in occupation and education level: employed people and students, and less educated patients, had more psychological morbidity.

Table 7.2: Socio-demographic characteristics of the sample of Study Three. Chi square tests the associations between the diagnostic group and each sample characteristic.

Demographic characteristics			n	%	χ^2
Sex	Male		271	44.73	1.35
	Female		335	55.31	
Age	Mean (32.78)	17-30	306	50.50	2.95
		31 or over	300	49.52	
Marital state	Married		385	63.50	0.67
	Others		215	53.51	
Education	Lower educated (Elementary school or less)		187	30.85	5.86**
	More educated (High school or above)		419	69.14	
Occupation	Employed and Student		420	69.51	13.74***
	Not employed and Retired		185	30.51	

7.4.2 Prevalence of psychological disorders using different procedures

7.4.2.1 Psychological disorders detected by the GHQ

Table 7.3: Prevalence of psychological disorders detected by GHQ-12, using two methods of scoring

Scoring method	Study One (n= 224)		Study Three (n = 606)		χ^2	P
	(n)	(%)	(n)	(%)		
Alhaj (1)	(98)	(43.7)	(266)	(43.9)	413.05	<.001
El-Rufaie (2)	--	--	(254)	(41.9)		

(1) Goldberg scoring method with cut-off > 3 (Alhaj, 2000)

(2) Likert scoring method with cut-off >13 (El-Rufaie and Daradkeh , 1996)

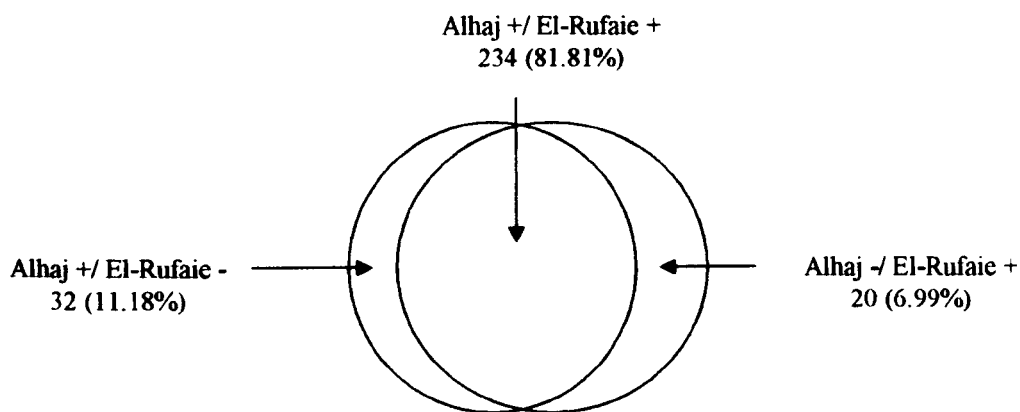
χ^2 tests the association between the two scoring methods

As shown above in Table 7.3, the number of cases of psychological disorders was 266 (43.8%), using the Goldberg scoring method and a cut-off of > 3, which was virtually identical to Study One. The prevalence of psychological disorders was similarly high (41.9%), using Likert scoring and a cut-off of >13.

7.4.2.2 Agreement between the Alhaj scoring method and the El-Rufaie method

Figure 7.1 compares the two scoring methods, i.e., the Alhaj scoring method and its cut-off vs the El-Rufaie scoring method and its cut-off, using the numbers of patients who were classified as cases. The two methods categorized patients almost identically ($p < .001$), though the Alhaj method detected slightly more cases than the El-Rufaie method.

Figure 71: Patients who were cases on the GHQ using either or both of the two scoring methods.



7.4.2.3 Psychological disorders detected by the HADS

Prevalence of psychological disorders was tested once more using the HADS. As shown in Table 7.4, the prevalence of anxiety and depression were high on this scale also, although slightly less than with the GHQ.

Table 7.4: Prevalence of psychological disorders detected by the HADS

Cut-off ≥ 8	All Sample (n = 606)	
	(n)	(%)
Depression	167	27.5
Anxiety	155	25.5
Anxiety or Depression	226	37.3

7.4.2.4 Comparison between two different ways of scoring GHQ: Agreement of the two GHQ scoring methods with HADS.

Cross-tabulations (Table 7.5) were used to compare the HADS categorization to the categorizations produced by each GHQ scoring method. HADS categorization overlapped substantially with each GHQ scoring method. However, the Alhaj scoring method corresponded more closely with the HADS. Therefore, the current study will use the Alhaj scoring method of the GHQ from this point forward.

Table 7.5: Cross-tabulations of GHQ-12 and HADS. Results shown are for the two methods of scoring the GHQ (Alhaj scoring method and El-Rufaie scoring method). HADS was used as a gold standard. Chi-square was used to compare HADS to GHQ categorization.

HADS-case	GHQ-case (Alhaj method)		df	χ^2	P	
	Yes	No				
Depression	Yes	149	16	1	193.43	< .001
	No	115	312			
Anxiety	Yes	136	18	1	161.00	< .001
	No	128	310			
Either Anxiety or Depression	Yes	195	29	1	260.61	< .001
	No	71	300			
	GHQ-case (El-Rufaie method)					
	Yes	No				
Depression	Yes	124	42	1	158.22	< .001
	No	85	344			
Anxiety	Yes	124	30	1	187.88	< .001
	No	85	356			
Either Anxiety or Depression	Yes	155	70	1	178.39	< .001
	No	65	317			

7.4.3 GPs' detection of psychological factors

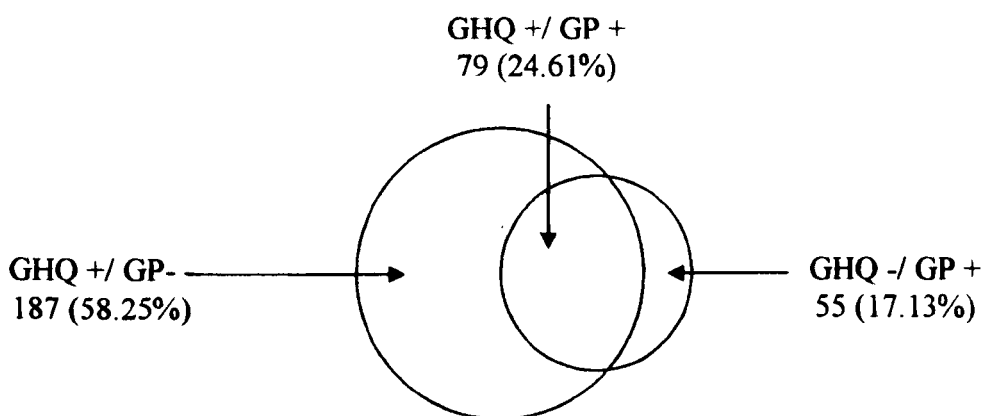
As shown in Table 7.6, cross-tabulation analyses were used to compare the GHQ categorization of cases to the GPs' judgements. The GPs' judgements were taken from the answer to the following question: "How relevant are psychological factors to the patients' symptoms?" There were four answers (i.e. no; slightly; quite; highly) and those patients for whom the GP answered "quite" and "highly" were classified as GP-detected.

Whereas only 134 (22.1%) of the patients were classified as positive on the GPs' judgements 266 (43.9%) were classified as cases on the GHQ. However, Chi-square between the two methods of classification was highly significant showing that GPs detected 'cases' much better than chance. Nevertheless, the most important feature here is the large number of cases (70.3%) that were not detected by the GP (see Figure 7.2).

Table 7.6: Frequencies, degrees of freedom, chi-square value, and *P* value of the agreements between GPs' judgement and GHQ. Results shown are for the two diagnostic groups: Non-Cases and Cases.

		GHQ			df	χ^2	P
		Non-Cases	Cases	Total of GP (%)			
GP judgment	Non-Cases	285	187	472 (77.9)	1	15.84	< .001
	Cases	55	79	134 (22.1)			
	Total of GHQ (%)	340 (56.1)	266 (43.9)				

Figure 7.2: Breakdown of patients who are positive on the GP judgment and/or GHQ



7.4.4 Somatization

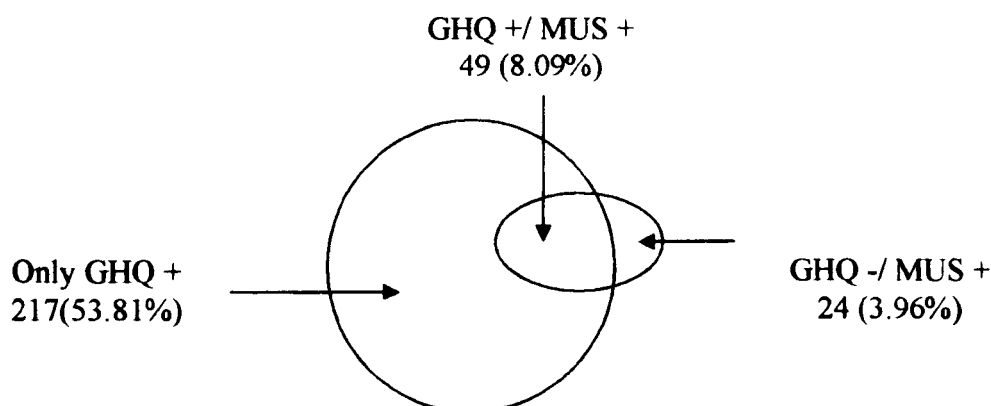
7.4.4.1 GPs' perception of medically unexplained symptoms, and its relationship to GHQ

As shown in Table 7.7 and Figure 7.3, 73 (12.2%) of the patients were classified as having medically unexplained symptoms by the GP. About two-thirds of these were also classified as cases on the GHQ. That is, patients with unexplained symptoms were much more likely to be GHQ cases than were others.

Table 7.6: Cross-tabulations of GP perception of medically unexplained symptoms (MUS) and the GHQ. Chi-square, was used to compare between the two groups.

		GHQ			df	χ^2	P
		Non-Cases	Cases	Total of GP (%)			
GP judgment	Non- MUS	316	217	524 (87.77)	1	18.19	< .001
	MUS	24	49	73 (12.23)			
	Total of GHQ (%)	340 (56.1)	266 (43.9)				

Figure 5: Relationship between medically unexplained symptoms (MUS) and GHQ cases. The percentages have been taken from the whole of the sample (n=606).



7.4.4.2 Relationship between psychological disorders and somatization symptoms (HSCL).

As shown in Table 7.7, there are differences between cases and non-cases in symptoms reported according to the HSCL. Cases were generally more likely to report somatization symptoms and therefore had a higher total score on this scale. There were some differences also in the pattern of symptoms in the two groups. Non-cases were most likely to report Faintness or Dizziness and Trouble getting your breath. Cases, on the other hand, were most likely to report Headache and Pains in the lower part of your back.

Table 7.7: Means, median, SD and Mann-Whitney and T. test for analyses of HSCL somatization scale. Values shown are for the two diagnostic groups: Non-Cases and Cases according to the GHQ. Results were ranked according to numbers of non-cases identifying each (scores: strongly disagree=1, disagree =2, agree =3, strongly agree=4.)

Items	Non-Cases (n=126)			Cases (n=98)			U	T
	Means	Median	SD	Means	Median	SD		
Faintness or dizziness	2.47	2.00	1.25	2.78	3.00	0.74	3790.250**	3.57**
Trouble getting your breath	2.44	3.00	1.28	2.72	2.00	0.86	36229.00**	3.01**
Headaches	2.42	3.00	1.28	3.41	3.00	0.49	26104.00***	11.86**
Soreness of your muscles	2.31	2.00	1.18	2.78	3.00	0.66	32789.00***	5.74**
Hot or cold spells	2.30	2.00	1.28	2.72	2.00	0.80	33569.50***	4.64**
Pains in the lower part of your back	2.27	3.00	1.20	3.15	4.00	0.99	25087.00***	9.56**
Numbness/tingling in parts of your body	2.24	2.00	1.35	2.29	2.00	1.29	42887.00	0.44
Feeling low in energy or showed down	2.22	2.00	1.10	2.19	2.00	1.08	43584.00	-0.33
Weakness in parts of your body	2.16	2.00	1.29	2.59	3.00	1.20	35868.50***	4.21**
A lump in your throat	2.15	2.00	1.30	2.00	1.00	1.25	41194.00	-0.45
Pains in the heart or chest	2.07	2.00	1.21	2.18	2.00	1.22	40893.50	1.13
Heavy feelings in your arms or legs	2.02	1.00	1.30	2.25	2.00	1.26	39270.50	2.13
Overall score: the high scores high level of somatization	26.5	26.0	9.9	29.6	29.9	8.5	30608.00***	3.85***

+ The significance criterion of $p < .01$ was used.

* $P < .01$; ** $P < .001$.

7.5 Discussion

7.5.1 The importance of the study

The sample size and sampling procedure enhanced generalisability by comparison with Study One. Whereas the data of the first study were collected from one area – Assir - the data of the present study were collected from several areas of Saudi Arabia (see Appendix: Saudi Arabia Map). Moreover, the response rate, although lower than for Study One, was still excellent for patients. Whereas previous studies have used different methods of scoring the GHQ-12 in Arabic populations, the current study is the first to compare these. The study is therefore the most authoritative description available of psychological problems in primary care attenders in Saudi Arabia.

7.5.2 Main findings

7.5.2.1 Method and sample

The sample was generally young. Although one third of the sample consisted of unemployed people, 93.2% of these were women. Therefore these data were in accordance with expected societal characteristics of Saudi Arabia at the time of conducting this research.

As explained previously, Saudis, like residents of many other non-Western countries, generally live within a collective culture, where there is not such an emphasis on individual opinion and action as in Western culture. This, together with the dominant role of men and the cultural attitudes towards women, explained the unavoidable presence of the male head of the household while women completed the study questionnaires.

There was no significant difference between cases and non-cases in sex, age, or marital state, but less educated patients had more psychological morbidity. This result is consistent with the result of Study One. But the current study also shows a significant difference between cases and non-cases in occupation. Employed people and students had more psychological morbidity than those who were not employed or were retired. This could be due to the stress of the workplace. Stress was associated with being employed, perhaps reflecting a negative perception of their workplace (Muntaner and Schoenbach, 1994; Stansfeld et al, 1997). The current result might mean that employees need more help from their GPs. This will be addressed in Chapter Nine.

Regarding those GPs who participated in the current study, the most important result is that none of them were Saudi citizens, only 5% were trained and graduated from a Saudi faculty of medicine, and about 30% were non-Arabic. This result reflects the reality of primary care in Saudi Arabia, and is in line with Study One (see Chapter Four).

7.5.2.2 Prevalence of psychological disorders

The present study compared the performance of the two methods of scoring of the Arabic GHQ-12. Using the HADS as a comparison, the result is in accordance with the study of Goldberg et al (1997) which concluded that, for the GHQ-12, the GHQ method is better than the Likert method. Although it might be preferable to have compared the GHQ to a psychiatric interview, this was not possible and applying a questionnaire, like the HADS, as a gold standard has been reported previously (Boardman, 1997; Ormel et al, 1990; Plummer et al, 2000).

The overall prevalence of cases according to the GHQ-12 was 43.9%. This finding confirms the result of Study One, where the prevalence was 43.7% and suggests that the prevalence of psychological disorders is high throughout the Saudi Arabian primary care centres. The HADS suggested that the prevalence of anxiety and depression among Saudi primary care centres is less than when detected by the GHQ. Nevertheless, the HADS also showed high prevalence of anxiety and depression (37.3%).

The current study used the GHQ-12 which, according to previous results, has excellent ability to detect psychological disorders and works well in developing countries as well as developed ones (Goldberg et al, 1997). According to the current study, the GHQ is preferable for screening in primary care and is regarded as providing the more trustworthy indicators of prevalence.

The higher prevalence of psychological disorders than in western literature that the GHQ showed might be on account of inhibitions in the culture, not allowing people to express their emotional feeling freely. Such an explanation has been suggested previously (see Chapter Two) by other studies conducted in other Muslim countries, such as the study of Qidwai and Azam (2002) in Pakistan. However, this explanation concern levels of psychological disorders in the community which might not the explanation for the primary care attenders.

The prevalence found here is still higher than some recent Saudi studies (Al-Khathami and Ogbeide, 2002; Becker et al, 2002). As discussed previously, this could be because those studies used instruments with less validity (see Chapter Four).

According to the HADS, depression was slightly more common (27%) than anxiety (25%). This result confirms the result of Study One where the GHQ-28 suggested that the prevalence of depression was 27.2 % and anxiety was 25.4%. The current result matches closely one which used a similar scale. Al-Fares et al (1992) used the GHQ-28 and detected 47% of the sample as cases. Also, this result is in line with a previous Saudi study (Becker et al, 2002) which conducted in an academic primary care. Although the current figures show a tiny difference between anxiety and depression, the current result is in accordance with various studies. For example, in a study of Bhui et al (2004) which conducted among Punjabi and English primary care attenders, depression was more common than anxiety among Punjabis.

7.5.2.3 Prevalence of somatization

In general, cases were much more likely than non-cases to report physical symptoms that are commonly regarded as indicating somatization. Headache and back-pain were particularly common in cases. As mentioned in Chapter Four, headache was also reported to be a common symptom in the study of El-Rufaie et al (1999). Back pain has been reported also to be a common symptom in the Saudi community (Al-Arfaj et al, 2003).

Unfortunately, to the best of the current researcher's knowledge, there is no comparable study to the current study, in which physical symptoms were compared between cases and non cases in primary care centres. However, the details of the current results differ from non-Arabic studies. In an American study, the most common physical symptoms among patients, one third of them being cases according to the PRIME-MD questionnaire, were musculoskeletal, dermatological and

abdominal pain (Kroenke and Jackson, 1998). In this study there was no separation of data about cases and non-cases.

In a comparison study between Japanese and American depressed primary care patients, Waza et al (1999) explored the type and number of physical symptoms presented by primary care patients in each country. The most common physical symptoms among Japanese patients were sleep problems, loss of appetite, and abdominal symptoms. The most common physical symptoms among American patients were sleep problems, loss of appetite, and fatigue. In their study, they argued that physical symptoms differed by country, reporting that Japanese patients had more abdominal distress; headaches, and neck pain. Tylee and Gandhi (2005) stated that these types of physical symptoms reported by patients differ between cultures, reflecting the patterns of these symptoms in the community in each culture. The results about the most common physical symptoms represent potentially important information for the GP. Such information may help the GP to identify the psychological disorders more easily. Odell et al (1997) reported that GPs are less likely to identify psychological symptoms in ethnic minority patients. This could be because the GPs do not understand which symptoms are associated with psychological disorder in any culture other than the majority one. This point will be discussed in Chapter Twelve.

However, very few patients were classified as having medically unexplained symptoms by the GP. This was even less than in Study One and less than in the UK using the same checklist (Peveler et al, 1997; Ring et al, 2005). It seems likely that GPs are attributing many physical symptoms of psychological disorders to physical disease. It has been suggested that GPs in Arab countries have been trained with an

even greater emphasis on physical medicine than in the West and hence tend to explain all symptoms physically (Al-Faris, 1998; Becker, 2004). Qualitative study of GPs' accounts of consultation, or observations of consultation, would help to test this possibility. These methods are beyond the scope of this thesis, but qualitative information from patients about their consultation may help to throw light on the issue, and will be investigated later (see Chapter Twelve). About two-thirds of patients with medically unexplained symptoms were classified as cases on the GHQ. Therefore, a symptom that the GP regards as medically unexplained is one way in which a small number of cases do present to their GP.

7.5.2.4 GPs' detection of psychological factors

The appropriate cut-off for this scale is not clear. Therefore different cut-offs were compared. Three cut-offs were tested to choose the appropriate cut-off. Against the GHQ-12, the sensitivity and the specificity of cut-off 1 were 69% and 60%, respectively. The sensitivity and the specificity of cut-off 2 were 54% and 63%, respectively. The sensitivity and the specificity of cut-off 3 were 73% and 44%, respectively. It is very important to choose the appropriate cut-off which balances between sensitivity and specificity. Therefore, GP cut-off 1 will be used in this study.

As discussed previously in Chapter Four, the current researcher was aware that this scale, which was applied to obtain GPs' detection of psychological disorders, does not ask them to detect cases. Instead it is a scale to investigate whether or not GPs recognise psychological factors to be a part of the patient's symptoms. Nevertheless, several previous studies (Marks et al, 1979; Boardman, 1987; Maginn et al, 2004) used essentially the same scale for the same purpose.

In line with Study One, the GPs did not identify psychological factors in more than half of the patients who, on the GHQ, were cases. This finding is in line with an Australian study in which Richards et al (2004) reported that GPs did not accurately identify psychological patients. The current findings support previous claims that the GHQ provides a better judgment of the presence of psychological disorders than the GP's judgment (Boardman, 1987; Maginn et al, 2004). In their work, the Mental Health and General Practice Investigation Research Group, MaGPie, reported that GPs were able to recognize at least 56.4% of patients with psychological disorders (2004). In a later report (2005) GPs identified psychological disorders in about 70% of patient with a CIDI diagnosable disorder.

However, it is important not to use this finding to criticise GP's diagnostic ability, but to understand why GPs and the GHQ might not agree. Many patients might be presenting exclusively physical symptoms (Kroenke and Jackson, 1998), and the GPs might not have the training or skills to identify psychological problems, or they might not regard this as part of their role. Alternatively, it may be that GPs are using different criteria when responding to the scale on which they identified the presence of psychological factors.

As mentioned in Chapter Two, Arab patients are less psychologized and tend to describe their complaints with personal abstract language which is often vague and non-specific (Dwairy and Van Sickle 1996; Dwairy, 1997). Arab patients refer to depression, for example, as "problems of the heart" (Kaiser et al, 1998). The problem here is that these descriptions are often misunderstood by GPs and lead to different potential barriers (Bazzoui, 1970; Dwairy, 1997). Further study of how GPs make their judgements would be needed to test these explanations. Further information from

the present study, concerning how GPs record patients' problems in their own records will provide another view of this issue.

7.5.3 Limitations

The study has provided authoritative data on the prevalence of GHQ caseness in Saudi Arabian primary care attenders. However, any approach to detecting GPs' views has problems. The scale used to record GPs' views of the presence of psychological factors in patients' presentation might underestimate GPs' recognition of psychological distress, and it will be important to examine whether GPs' own records and treatment decisions suggest a better level of recognition. The GP's checklist to detect medically unexplained symptoms suggested that GPs saw very few patients in this way. However, examining GPs' own records of diagnosis and treatment will be needed to confirm this finding.

It is also very important to clarify that the primary care centres' patients usually are from a lower socioeconomic class. Patients from other classes visit a private doctor or go to the private health sector and would therefore be underrepresented in this sample.

7.5.4 Clinical implications

Despite ongoing debate about the efficacy of GHQ-12, the evidence from this study suggests that, in Saudi Arabian primary care centres, the GHQ-12 is a useful instrument for detecting psychological disorders. In the present study, with the cut-off of > 3 , the Alhaj scoring method is the better method to detect cases in Saudis' primary care centres. This form of the GHQ could be used in routine screening of patients. However, this would not be helpful unless GPs had useful responses to patients that they identified as cases of psychological distress. Examining their

treatment decisions later (Chapter Ten) will show whether they do. Arab medical training has been criticized for focusing exclusively on the biomedical approach, which explains symptoms entirely physically. The present results suggest that GPs diagnose physical illness in many patients with psychological disorders. If this happens, it is likely to contribute to 'somatising' these patients (Ring et al, 2005).

7.5.5 Implications for future research

As explained above, further study of GPs' records is necessary to find out whether their diagnoses and treatment decisions support and clarify the present findings about their recognition of cases of psychological distress. It seems likely that, in their classification of symptoms as medically unexplained, GPs underestimate the occurrence of somatization. In future research on somatization in Saudi Arabian primary care, further study is needed into ways to detect it, using alternative strategies to relying on the GP. This will be beyond the scope of this thesis.

Chapter 8: Study Three: Comprehensive investigation of patients' beliefs among Saudi primary care centre patients.

8.1 Introduction

It is important to know the range of beliefs of Arab patients when they consult. However, among Arab countries, very little is known about patients' beliefs when deciding when and where to seek help. Using their clinical experience without any evidence, Al-Krenawi et al (2000b) suggested that Arab psychological patients blamed supernatural causes for the origins of their problems, which is consistent with the tendency in Arab culture to impute an external locus of control in mental health problems. Study One was the first systematic study of the range of beliefs about their symptoms in consecutive Arab primary care patients. In replicating and extending Study One it was important to make some improvements. First, the sample of Study One was quite small and this caused two limitations. Generalisation from the sample to the population of primary care attenders is limited. Also, to be confident in the factor structure of the aetiological beliefs questionnaire, a much larger sample is needed. Secondly, the sample for Study One was chosen from one area only, which is relatively less closed to Western influence, and other areas which is relatively more closed to Western influence, might have different beliefs.

Study One showed that both diagnostic groups believed that their problems were a punishment from Allah. Although cases were more likely to believe that their symptoms were the reflection of emotional problems, they were also more likely to consider their symptoms to be due to cultural factors but were less likely to report Lifestyle as a cause of their symptoms. The present study will provide a way to test the generalisability of these findings.

Study One showed also that cases were more likely than non-cases to consider the informal sources of help to be effective. It will also be valuable to know whether patients' aetiological beliefs influence their beliefs about which sources of help should be sought, and the larger sample sought in the current study will allow this aim to be addressed.

One of the main reasons that patients consult a GP is to have their symptoms explained (Salmon, 2000). Therefore GPs should try to provide explanations that help patients. Whether or not they try to provide an explanation, it is likely that patients' beliefs are changed by what the GPs say and do. Consultation itself may change the patients' beliefs (Thorsen et al, 2001). Therefore, Study Three extended the study of patients' beliefs by measuring what patients believed after the consultation as well as before, so that changes in their beliefs could be measured. If GPs are working effectively with patients who are emotional cases, beliefs in cases should become more psychological after consultation than before.

8.2 Aims

A formal statement of the present study aims and hypotheses follows:

Aim 1: to investigate patients' beliefs about the psychological or physical basis of their symptoms, and to test the prediction that cases will have more psychological beliefs than non-cases.

Aim 2: to reinvestigate the factor structure of the Arabic version of the aetiological belief scale, and to compare it with the results from Study One. Also, to use this to investigate patients' aetiological beliefs, comparing the two diagnostic groups. The current study predicted that cases will have more psychological aetiological beliefs than

non-cases, and tested the generalisability of the finding in Study One that cases are less likely to attribute their symptoms to lifestyle.

Aim 3: to investigate patients' beliefs about sources of help, and to compare these beliefs between cases and non-cases, and to investigate the impact of aetiological beliefs on beliefs about help.

Aim 4: to explore what happens at consultation; namely, to investigate the change from before to after consultation in patients' beliefs concerning: the psychological or physical basis of their symptoms; aetiological beliefs; beliefs in relation to help.

8.3 Method

8.3.1 Participants, procedure and ethics

These are detailed in Chapter Seven.

8.3.2 Instruments

The instruments used in the analyses in the present chapter are detailed below:

8.3.2.1 Patients' view about the psychological or physical basis of their symptoms

A previously reported measure of patients' views concerning the basis of their symptoms (Rosenberg, et al. 2002) was used. This measures patients' opinion about whether psychological factors are involved in their symptoms. As in Study One, this scale was viewed as a continuous scale. Full details of this questionnaire are provided in Chapter Five. This was completed before and after consultation.

8.3.2.2 The aetiological beliefs questionnaire

The Arabic aetiological beliefs questionnaire (35-items) was used in the current study. This was based on that reported by Salmon et al. (1996) and modified as described in Study One (Chapter Five). However, out of the 38 items of the questionnaire which were used in Study One, only 35 items were used in Study Three. Three items were excluded because they loaded less than 0.40 in the principal components analysis of Study One. The deleted items are personal domestic/financial problems; worn joints and pills/medicine. In deed they were rarely endorsed in Study One. This questionnaire was completed before consultation.

8.3.2.3 A brief index of patients' aetiological beliefs

In order to measure beliefs after consultation also, a brief version of the Aetiological Beliefs Questionnaire was used because it was thought that patients would not be willing to complete the whole scale again. Therefore the highest loading items in Study One were used to choose two items from each component. To confirm the validity of the short scale, data from the complete questionnaire before consultation were used to calculate the correlation between full and brief versions of each scale. All of the correlation (Pearson) values were significant ($p < 0.01$) and high $r = 0.98; 0.97; 0.99; 0.80; 0.84; 0.95; 0.99$ for Weak constitution; Invasion; Emotion; Serious disease; Digestion; Supernatural; Lifestyle, respectively. This was completed after consultation. For comparisons of before vs after consultation, the equivalent score was calculated for before consultation using only those items from the total set that were used to calculate the post-consultation belief scores.

8.3.2.4 The sources of help questionnaire

This measures patients' beliefs in how helpful they would expect several different sources of help that might be used to be. It was specially devised for Study One, as described in Chapter Five. However, in Study One the current researcher noted that patients used much time and lost concentration when they tried to choose a source of help from the list of 15 possible sources. They also complained that there were similarities between some of these sources of help. Therefore some modifications were needed. This scale was sent again to the committee for translation (see Chapter Three). According to the committee's suggestion further modifications were made and some items were deleted or combined. "Hospital medical specialist was deleted, leaving only "Private medical specialist"; "Traditional Arabic doctor (*Hakims*); Religious healer ; Skin cauterisation (*Al-Kowie*); and Blood extraction (*Al-Hejama*)" were integrated in one item which is "Traditional medicine"; "Psychiatrist and Psychologist" were integrated in one item which is "Psychiatrist or Psychologist". Those items which were least frequently chosen in study one (i.e., Physiotherapy and Social worker) were omitted. The item of "psychiatrist or psychologist" remained, despite being infrequently endorsed, because it strongly relevant to the aims of this study. The list of possible sources in Study Three therefore contained 7 sources of help, divided equally between formal and informal sources. There was one further development in this scale for Study Three. Answer formats were modified from the two choices "Yes and No" to three choices "Yes; Uncertain and No". This was completed before and after consultation.

8.3.3 Statistical Analysis

Data were analysed using the Statistical Package for the Social Sciences (SPSS12). The distribution of each continuous variable was first examined. Scores on individual

questionnaire items were highly skewed and hence non-parametric statistics were used. Aggregated scale scores were, in general, suitable for parametric analysis. Moreover, because of the large sample size, parametric statistics would be expected to be robust in coping with non-normality of data. Using parametric statistics also made possible the techniques, particularly multiple linear regression, that would be necessary to test specific multivariate questions. However, non-parametric statistics were also used for univariate analyses of the total scale scores to confirm the parametric results. Moreover, for consistency, and as a check on whether the different forms of analysis converged, parametric statistics were also used for analyses of individual items.

Because this study is partly descriptive and exploratory, rather than hypothesis-testing, a large number of univariate tests are reported and there is therefore a risk of Type 1 errors. To protect against these, a significance criterion of $p < .01$ was used for univariate analyses, while a criterion of $p < .05$ was used for multivariate analyses. In addition, it will be important to examine patterns of effects rather than individual isolated findings.

8.3.3.1 Patients' beliefs about the psychological or physical basis of their symptoms

Descriptive statistics were used to summarise patients' views. Then, Mann-Whitney test and t-test was used to examine the differences between the two diagnostic groups.

8.3.3.2 Aetiological beliefs

Descriptive statistics were used to summarise patients' beliefs, and the Mann-Whitney test (and t-test) was used to compare the specific beliefs between the two diagnostic groups. Principal components analysis was used to describe the structure of the questionnaire. The number of components to retain for Varimax rotation was decided with the help of a scree test. Items loading at more than 0.45 were used to define the

components. Items with lower loadings were ignored. Component-based scale scores were calculated by summing the items loading on each component. These scores were then compared between diagnostic groups by independent-samples T-tests. Mann-Whitney test is displayed for comparison.

8.3.3.3 Beliefs about help

Descriptive statistics were used to summarise patients' beliefs about help. Then, the t-test was used to compare the specific beliefs of the two diagnostic groups (the Mann-Whitey test being shown for comparison).

8.3.3.3 Impact of aetiological beliefs on beliefs about help

These analyses were to find out whether what patients believed about aetiology predicted what they believed about sources of help, and whether the different beliefs that cases and non-cases had about sources of help could be explained by the different aetiological beliefs that they had.

The set of variables to be used in analysis was first tested for multicollinearity. Then hierarchical multiple linear regression analysis was used to identify variables that could explain variance in patients' beliefs about help. The seven sources of help were response variables in separate analyses. Predictor variables were the patients' scores on the aetiological belief scales which resulted from the principal components analysis of the aetiological beliefs questionnaire. Because cases and non-cases had different beliefs about help, the predictor variable "Diagnostic group" was entered as a final predictor variable, in all analyses. The first analysis just confirmed that diagnostic groups differed in beliefs about help. In the next analysis, demographic characteristics were entered first, as block 1, before entering diagnostic group. In the next analysis,

aetiological beliefs were added in a subsequent block. Therefore, in each successive analysis, an extra block of variables was added in a further attempt to explain differences in response variables while controlling for those variables entered previously. Within blocks, predictor variables were entered with stepwise entry. Only the significant variables from previous analyses were used in subsequent analyses.

Change in R^2 was examined to test the significance of each set of variables, after controlling for those entered previously, and beta coefficients were examined to test the significance of each variable individually. Model R^2 was used to assess the amount of variance in patients' beliefs accounted for by the model being tested. Beta coefficients and their significance levels are taken from the final model of each analysis.

8.3.3.5 Beliefs before and after consultation

Cross tabulations were used to display patients' views about psychological factors in their symptoms before consultation and after. Wilcoxon (Z) was used to test the changes.

To avoid multiple statistical tests, two-way repeated measured analysis of variance provides a way to contrast the diagnostic groups and compare aetiological beliefs before and after consultation. However, for the questionnaire of patients' views about psychological factors, this relates to a single item scale (i.e., there are no total scores for this scale). The present researcher was aware that the data are not normally distributed and that there is no equivalent nonparametric test to the two-way repeated measured analysis of variance. Therefore a repeated measures analysis of variance ANOVA was used because the large sample size should make this test robust in the face of any departures from normality. In addition, as a secondary approach to analysis, contrasts

and changes were also tested in the following non-parametric way. First, change over time across both groups was tested by the Wilcoxon test. Then differences between groups on each occasion were compared by the Mann-Whitney (U) test. This technique has been borrowed from the study of Peters et al (2002).

8.4 Results

8.4.1 Sample characteristics

These are described in Chapter Five.

8.4.2 Patients' views about the psychological or physical basis of their symptoms

As shown in Table 8.1, 37.4% of the non-cases believe that their problem has some relationship to mood, emotion or psychological factors. On the other hand 74.4% of the cases believe the same, although only a few of the cases view their problem as a psychological one. Mann-Whitney test and t-test confirmed that cases were much more psychological in their views than were non-cases.

Table :8.1 Patients views of the psychological or physical basis of their symptoms.

View	Non-cases				Cases				U (P)	T (P)
	Frequency	%	Mean	SD	Frequency	%	Mean	SD		
Physical	213	62.6	1.53	0.75	68	25.6	2.08	0.84	28566.00 (.000)	8.35 (.000)
Physical/mood	76	22.4			125	47.0				
Physical/ emotion	48	14.1			57	21.4				
Psychological	3	0.9			16	6.0				
Total	340	100			266	100				

8.4.3 Aetiological beliefs

8.4.3.1 Factor structure of the scale

The principal components analysis yielded seven components, which were readily interpretable and jointly explained 71.9 % of the total variance (see Table 8.2). Seven components emerged which were similar to those in study one. Only one item “Being over or under weight” loaded on more than one component, and was allocated to one component for the calculation of scale scores on the basis of its highest loading. Compared with study one, only one item “Being rundown” loaded on a different component. Four components, labelled Weak constitution; Invasion; Serious disease; and Digestion represent views of physical causes. Two components, labelled Emotion and Lifestyle, represent a view of psychological influences. One component, labelled Supernatural power, represents a view of the influence of religious and cultural demands.

The internal consistency of each scale was estimated by standardized Cronbach Alpha reliability coefficients. Alpha was high for the seven components (Table 8.2), showing that the scales are reliable in this sense. For the present, these results provide a way of measuring the aetiological beliefs of individual patients in the present sample which allows us to go on to use the scale scores to examine how beliefs compare between cases and non-cases and which types of beliefs were associated with expectation of help from particular sources of help.

Table 8.2: Principal components analysis of responses to the Aetiological Beliefs Questionnaire, comparing study One (S1) and study Three (S2). Item loadings on components at 0.45 or above are shown.

Items	Component													
	Weak constitution		Invasion		Emotion		Serious disease		Digestion		Supernatural power		Lifestyle	
	S1	S2	S1	S2	S1	S2	S1	S2	S1	S2	S1	S2	S1	S2
Part of my body is inflamed	.92	.93												
Part of my body is strained	.92	.88												
A "weak spot" in my body	.90	.94												
Damage to part of my body	.89	.92												
Part of body wearing out	.88	.91												
Part of body not working as well as used to	.88	.92												
Dampness or a chill			.94	.92										
Weather or changes in temperature			.92	.92										
Pollution			.87	.88										
Germ or infection			.78	.93										
Something I caught from someone else			.75	.90										
Moods/emotions					.89	.86								
Stress					.89	.88								
Nerves					.86	.76								
Personality					.83	.73								
Being rundown					.57	.69								
A growth							.61	.78						
Being over or under weight		.46					.61	.68						
Something seriously wrong with me							.59	.69						
Heart trouble							.56	.81						
Weak blood							.48	.84						
Sluggish bowels									.77	.58				
Poor digestion or weak stomach									.77	.56				
Something I ate									.66	.93				
Changing my diet or lifestyle									.61	.87				
Devil/ jinn											.71	.88		
Evil eye											.61	.81		
Punishment from Allah											.50	.62		
Sorcery/ magic											.45	.87		
Overwork													.84	.87
Job/ housework													.82	.86
Demanding family/friends													.42	.89
Alpha=	.96	.97	.92	.97	.94	.96	.76	.82	.76	.83	.60	.85	.65	.95

Removed items < 0.45: body tissues less firm/supple; demanding family/friends; weak constitution or low resistance

8.4.3.2 Frequency of individual beliefs

As shown in table 8.3, comparisons have been made between cases and non-cases on each aetiological belief. In general, non-cases were more likely to consider their symptoms to be due to physical factors, whereas cases were more likely to consider their symptoms to be due to psychological and cultural factors. In particular, cases were more likely to consider their symptoms to be due to nerves, stress, and moods or emotions. Despite using $p < .01$ to protect against Type 1 error, most of the p values were significant, reflecting the extensive differences in their beliefs. Punishment from Allah was the most common belief in both groups. About 42% of the non-cases and 44% of the cases regard their symptoms to be a punishment from Allah. But this contrasted with the other religions items which cases cited more frequently. Although we could regard items which related to the component of “Weak constitution” to be physical items (Part of my body is inflamed; Part of my body is strained; A weak spot in my body; Damage to part of my body; Part of body wearing out; Part of body not working as well as used to) these items were cited by cases more than non-cases.

Table 8.3: Aetiological beliefs: Frequencies, percentages, means, medians, and results of Mann-Whitney tests and t-tests. Aetiological beliefs shown are for the two diagnostic groups: Non-cases Patients and cases, ranked according to numbers of non-cases identifying each

Items	Non-Cases. (n=340)						Cases (n= 266)						U	T
	Probably Does		Uncertain		Mean	Median	Probably Does		Uncertain		Mean	Median		
	N	(%)	N	(%)			N	(%)	N	(%)				
Punishment from Allah	144	42.4	40	11.8	1.99	2.00	117	44.0	74	28.8	2.16	2.00	39615.0+	2.32+
Dampness or a chill	123	36.2	18	5.3	1.78	1.00	58	21.8	9	3.4	1.47	1.00	37726.0***	4.14***
Overwork	119	35.0	41	12.1	1.84	1.00	82	30.8	73	27.4	1.90	2.00	41985.5	-0.85
Something I caught from someone else	119	35.0	21	6.2	1.76	1.00	54	20.3	19	7.1	1.48	1.00	38246.5***	3.86***
Germ or infection	116	36.1	19	5.6	1.74	1.00	55	20.7	9	3.4	1.45	1.00	37714.0***	4.04***
Pollution	115	32.4	27	7.9	1.73	1.00	61	22.9	13	4.9	1.51	1.00	39586.0**	2.98**
Job/ housework	114	33.5	56	16.5	1.85	2.00	108	40.6	63	23.7	2.05	2.00	38837.0**	-2.81**
Weather or changes in temperature	113	33.2	25	7.4	1.74	1.00	55	20.7	16	6.0	1.49	1.00	37709.5**	3.36**
Demanding family/friends	100	29.4	88	25.9	1.85	2.00	75	28.2	81	30.5	1.87	2.00	44135.5	-0.32
Part of my body is strained	99	29.1	9	2.6	1.61	1.00	92	34.6	14	5.3	1.75	1.00	41619.0	-1.83
Changing my diet or lifestyle	91	26.8	32	9.4	1.63	1.00	29	10.9	31	11.7	1.34	1.00	36006.0***	4.52***
Something I ate	88	25.9	60	17.6	1.69	1.00	25	9.4	33	12.4	1.31	1.00	34598.0***	6.06***
Part of body wearing out	79	23.2	6	1.8	1.49	1.00	103	36.7	0.0	0.0	1.80	1.00	36696.0***	-4.12***
Damage to part of my body	76	22.4	15	4.4	1.49	1.00	87	32.7	4	1.5	1.67	1.00	41137.0+	-2.50+
A " weak spot" in my body	76	22.4	13	3.8	1.49	1.00	81	30.5	15	5.6	1.68	1.00	39279.0**	-2.75**
Sluggish bowels	68	20.0	0.0	0.0	1.40	1.00	10	3.8	12	4.5	1.12	1.00	39372.0***	5.13***
Part of body not working as well as used to	66	19.4	0.0	0.0	1.39	1.00	86	32.3	0.0	0.0	1.67	1.00	37348.0***	-3.98***

p<.05; +; p<.01**; p<.001***

Table 8.3: continued

Items	Non-Cases (n=340)						Cases (n=266)						U	T
	Probably Does		Uncertain		Mean	Median	Probably Does		Uncertain		Mean	Median		
	N	(%)	N	(%)			N	(%)	N	(%)				
Poor digestion or weak stomach	66	19.4	19	5.6	1.44	1.00	16	6.0	3	1.1	1.14	1.00	36305.5***	5.49***
Part of my body is inflamed	65	19.1	0.0	0.0	1.38	1.00	69	25.9	0.0	0.0	1.55	1.00	39502.5+	-2.36+
Nerves	58	16.5	54	15.9	1.49	1.00	135	50.8	46	17.3	2.20	3.00	26107.0***	-10.40***
Stress	48	14.1	53	15.6	1.44	1.00	134	50.4	46	17.3	2.18	3.00	25385.5***	-11.34***
Moods/emotions	38	11.2	63	18.5	1.41	1.00	130	48.9	50	18.8	2.17	2.00	24687.5***	-11.93***
Something seriously wrong with me	37	10.9	12	3.5	1.25	1.00	30	11.3	3	1.1	1.24	1.00	44292.0	0.29
Evil eye	36	10.6	90	26.5	1.48	1.00	59	22.2	105	39.5	1.85	2.00	32254.0***	-6.27***
Weak constitution or low resistance	35	10.3	28	8.2	1.29	1.00	29	10.9	20	7.5	1.30	1.00	44407.0	-0.18
Not looking after myself properly	33	9.7	6	1.8	1.19	1.00	36	13.5	0.0	0.0	1.27	1.00	43302.5	-1.45
Being over or under weight	30	8.8	27	7.9	1.26	1.00	19	7.1	3	1.1	1.15	1.00	41449.0**	2.16+
Body tissues less firm/supple	25	7.4	20	5.9	1.21	1.00	5	1.9	0.0	0.0	1.04	1.00	38907.5***	4.59***
Devil/jinn	23	6.8	72	21.2	1.35	1.00	37	13.9	101	38.0	1.67	2.00	33354.5***	-5.99***
Sorcery/magic	23	6.8	56	16.5	1.30	1.00	29	10.9	108	40.6	1.63	2.00	31841.5***	-6.39***
Being rundown	18	5.3	41	12.1	1.23	1.00	27	10.2	48	18.0	1.41	1.00	36653.5***	-3.57***
Personality	17	5.0	74	21.8	1.32	1.00	104	39.1	66	24.8	2.03	2.00	24920.5***	-12.26***
Weak blood	9	2.6	15	4.4	1.10	1.00	3	1.1	18	6.8	1.09	1.00	44718.5	0.22
A growth	6	1.8	0.0	0.0	1.04	1.00	0.0	0.0	0.0	0.0	1.00	1.00	42919.0+	2.15+
Heart trouble	6	1.8	13	3.8	1.06	1.00	6	2.3	7	2.6	1.07	1.00	42709.5	0.07

p<.05; +, p<.01**; p<.001***

Table 8.4: Comparison of the seven components of the aetiological belief questionnaire between cases and non-cases, ranked according to numbers identifying each by non-cases. Mean, Median, Standard Deviations (SD) and Mann-Whitney U and t-test.

Components	Non-cases			Cases			U	T. test
	Mean	Median	SD	Mean	Median	SD		
Serious disease	9.42	8.00	2.76	9.55	8.00	2.98	43683.00	-0.53
Weak constitution	8.84	6.00	4.63	10.16	6.00	5.34	41090.50*	-3.25+
Invasion	8.74	5.00	4.39	7.41	5.00	3.93	37402.00***	3.86***
Digestion	7.37	6.00	3.02	5.93	5.00	1.93	32276.50***	6.71***
Supernatural	6.10	6.00	2.35	7.33	8.00	2.53	32021.00***	6.17***
Emotional	5.65	4.00	2.57	8.58	10.00	3.35	23343.50***	12.08***
Lifestyle	5.52	5.00	2.59	5.82	6.00	2.38	42536.00	-1.47

p<.05: +; p<.01**; p<.001***

Table 8.4 summarizes the findings in Table 8.3, comparing the seven factors of the aetiological beliefs scale for cases and non-cases. As expected, beliefs about the “Invasion” were affirmed by non-cases more than cases ($p < .000$). Beliefs about Emotion were held by cases more than non-cases ($p < .000$). Furthermore, cases believed in the “Supernatural” causes more than non-cases ($p < .000$).

8.4.4 Beliefs about help

The perceived efficacies of various interventions for patients are shown in Table 8.5. The “General practitioner” and “Prayer and read Al-Quran” were perceived as the most effective sources of help, whereas the item “Psychiatrist or Psychologist” was rarely endorsed and at the bottom of the list of interventions. In fact none of the sample cited “Psychiatrist or Psychologist” in the “Probably help” category.

However, there are some significant differences between cases and non-cases. In general, cases were more likely than non-cases to consider the informal sources of

help to be effective. But significant differences were found in one item only, the item “Prayer and read Al-Quran” which more than half of cases (65%) thought helpful. Inspection of Table 8.5 suggests some other interesting findings. All non-cases believed that the psychiatrist or psychologist would not be a source of proper help. None of them, in fact, marked the choice of “probably help” or “Uncertain” for the intervention “psychiatrist or psychologist” at all. Even cases, however, were unenthusiastic about this sort of help, 77.8% believing that it would provide no help, although they were more likely to think that it might help. Cases also expected more help from private specialists.

Sources of help: Table (64): Frequencies and percentages of patients’ beliefs about sources of help. Values shown are for the two diagnostic groups: non-cases and cases. Results were ranked according to the numbers of non-cases identifying each as a source of help. Mann-Whitney and t-tests compare cases and non-cases.

Items	Non-Cases. (n=340)				Cases. (n= 266)				U	T. test
	Probabl y help	(%)	Unce r- tain	(%)	Probabl y help	(%)	Uncer- tain	(%)		
General Practitioner	324	95.3	6	1.8	257	96.6	3	1.1	44860.00	0.26
Prayer and Reading Al-Quran	178	52.0	28	8.2	172	65.0	56	21.1	38017.50***	-4.41***
Onion seed/ olive oil	13	3.82	71	20.9	31	11.7	84	31.6	44970.50	-1.07
Traditional medicine	30	8.8	21	6.2	35	13.2	60	22.6	41605.00	-0.57
Honey	19	5.8	65	19.1	19	5.9	56	21.1	43910.00	-0.64
Private Specialist	0	0.0	67	19.7	34	12.8	82	30.8	33068.50***	-8.09***
Psychiatrist or Psychologist	0	0.0	0	0.0	0	0.0	59	22.2	35020.00***	-9.85***

p<.05: +; p<.01**: p<.001***

8.4.5 Impact of aetiological beliefs on beliefs about help

In a test for multicollinearity the minimum tolerance was 0.51 and the maximum conditioning index was 29.00. Therefore, there was no appreciable multicollinearity.

Tables 8.6.i to 8.6.vii display the results of multiple regression analyses with beliefs about each source of help as the dependent variables, and diagnostic group, demographic characteristics and aetiological beliefs as independent variables (or predictors). The strategy of the analysis is that non-significant predictors in one analysis are omitted in the next analysis of the same dependent variable.

The first multiple regression (Table 86.i) sought to confirm which predictors were associated with seeking help from the GP. The first analysis examined whether diagnostic groups predicted seeking help from the GP. In this analysis the predictor variable was non-significant, reflecting the finding described previously that cases and non-cases were not different in expecting help from the GP. A second analysis examined whether the demographic characteristics of the sample affected patients' desire for seeking help from the GP. The demographic predictor variables were entered in block 1. Of the four predictor variables entered, "high education, males, and young age" were found to be uniquely significant and accounted for 4 % of the variance in patients' desire to seek help from the GP. A third analysis examined the influence of Aetiological Beliefs. Seven sub-scales of the Aetiological Beliefs Questionnaire were entered in block 2 (i.e. after "demographic characteristics" in block 1). Only "Serious diseases" and "Digestion" were each significant and accounted for 4 % of the variance.

Table 8.6.i: Summary of multiple regression analyses: In this and following Tables, sets of variables are included in successive blocks. Entry of variables within blocks is stepwise. F-to-enter and R² Change refer to the set of variables entered in one block. R² refers to complete set of variables entered to that point. β and **b** are taken from the final model. Only significant variable are shown.

Dependent Variable: Expectation of help from the GP

Variable set	Analysis 1	β	B	R ²	R ² Change	F-to-enter (d.f.)
GHQ	Diagnostic group (cases=1, non-cases=0)	-	-	-	-	-
	Analysis 2					
Demographic	Education (low =0, high =1)	.19***	.04	0.04***	0.04**	8.64*** (3,601)
	Gender (M=1, F=2)	-.16***	-.06			
	Age	-.15**	-.00			
	Employment (Employee=1,unemployed & other =0)	-	-			
	Analysis 3					
Demographic	Education (low =0, high =1)	.20***	.04	0.04***	0.04**	8.64*** (3,601)
	Gender (M=1, F=2)	-.13**	-.05			
	Age	-.03**	-.00			
Aetiological beliefs (Probably does not=1, Probably does 3)	Weak constitution	-	-	0.08***	0.04**	13.03*** (2,599)
	Invasion	-	-			
	Emotion	-	-			
	Serious diseases	.11**	.01			
	Digestion	.17***	.01			
	Supernatural	-	-			
	Lifestyle	-	-			

p<.05: +; p<.01**; p<.001***

The second set of analyses, using the same structure, (Table 8.6.ii) sought to confirm which predictors were associated with seeking help from Prayer and reading Al-Quran. The first analysis examined whether the diagnostic group predicted expecting this help. In this analysis the predictor variable was significant, confirming the finding described above: non-cases were more likely to seek help from Prayer and reading Al-Quran. In a second analysis demographic characteristics were significant. “Low education, females, old age, and employee” were uniquely significant and accounted

for 9 % ($p<0.001$) of the variance. Diagnostic group remained significant. In a third analysis Aetiological Beliefs were significant. Of the Aetiological Beliefs all were significant and accounted for 20 % of the variance. Diagnostic group remained significant, showing that all the variable sets did not explain the significant differences between the two diagnostic groups in seeking help from GP.

Table 8.6.ii:

Dependent Variable: Sources of help “Prayer and read Al-Quran”

Variable set	Analysis 1	β	b	R ²	R ² Change	F-to-enter (d.f.)
GHQ	Diagnostic groups (cases=1, non-cases=0)	-.14**	-.27	.02**	.02***	11.60 (1,603)
	Analysis 2					
Demographic	Education (low =0, high =1)	-.17***	-.02	.09***	.09**	20.42 (3,601)
	Gender (M=1, F=2)	.28***	.55			
	Age	.15***	.01			
	Employment (Employee=1.unemployed & other =0)	.31***	.66			
GHQ	Diagnostic groups (cases=1, non-cases=0)	-.11	-.22	.10***	.01**	7.27 (1,600)
	Analysis 3					
Demographic	Gender (M=1, F=2)	.25***	.49	.09***	.09**	20.42 (3,601)
	Age	.04	.00			
	Employment (Employee=1.unemployed & other =0)	.24***	.52			
Aetiological beliefs (Probably does not=1, Probably does 3)	Weak constitution	.20***	.04	.29***	.20***	28.31 (6,595)
	Invasion	.17***	.04			
	Emotion	.34***	.10			
	Serious diseases	.35***	.11			
	Digestion	.37***	.13			
	Supernatural	.31***	.12			
	Lifestyle	.17***	.06			
GHQ	Diagnostic groups (cases=1, non-cases=0)	-.29***	-.57	.35***	.06***	5.59 (1,594)

$p<.05$: +; $p<.01$ **; $p<.001$ ***

The third set of analyses (Table 86.iii) sought to confirm which predictors were associated with seeking help from Onion seed and Olive oil. The first analysis

examined whether the diagnostic group predicted seeking help from Onion seed and Olive oil. In this analysis the predictor variable was not significant, consistent with the previous analysis. In a second analysis demographic characteristics were significant. “Low education, females, and employee” were marginally significant ($p < 0.05$) and accounted for 6 % of the variance. In a third analysis Aetiological Beliefs were significant. “Emotion, Supernatural, and lifestyle” were each uniquely significant and accounted for 15 % of the variance.

Table 86.iii:

Dependent Variable: Sources of help “Onion seed and Olive oil”

Variable set	Analysis 1	β	b	R ²	R ² Change	F-to-enter (d.f.)
GHQ	Diagnostic groups (cases=1, non-cases=0)	-	-	-	-	-
	Analysis 2					
Demographic	Education (low =0, high =1)	-.26***	-.15	.06***	.06*	13.00 (3.601)
	Gender (M=1, F=2)	.10*	.12			
	Age	-	-			
	Employment (Employee=1.unemployed & other =0)	.14**	.18			
	Analysis 3					
Demographic	Education (low =0, high =1)	-.19***	-.11	.06***	.06*	13.00 (3.601)
	Gender (M=1, F=2)	.08	.09			
	Employment (Employee=1.unemployed & other =0)	.10*	.13			
Aetiological beliefs (Probably does not=1, Probably does= 3)	Weak constitution	-	-	.21***	.15**	37.90 (3.598)
	Invasion	-	-			
	Emotion	.26***	.05			
	Serious diseases	-	-			
	Digestion					
	Supernatural	.10**	.02			
	Lifestyle	.28***	.06			

$p < .05$: +; $p < .01$ **; $p < .001$ ***

The fourth set of analyses (Table 86.iv) examined predictors of expecting help from the Traditional Doctor. In the first analysis diagnostic group was not significant,

confirming the previous analysis. In a second analysis, two demographic predictors were significant “low education and employee” which explained 6% ($p < 0.001$) of the variance. In a third analysis, aetiological beliefs were entered in block 2 and were significant. Invasion, Emotion, Supernatural, and Lifestyle were uniquely significant and accounted for 15% of the variance.

Table 86.iv:

Dependent Variable: Sources of help “Traditional Doctor”

Variable set	ANALYSIS 1	β	b	R ²	R ² Change	F-to-enter (d.f.)
GHQ	Diagnostic groups (cases=1, non-cases=0)	-	-	-	-	-
	Analysis 2					
Demographic	Education (low =0, high =1)	-.25***	-.14	.06***	.06***	17.83 (2.602)
	Gender (M=1, F=2)	-	-			
	Age	-	-			
	Employment (Employee=1,unemployed & other =0)	.17***	.21			
	Analysis 3					
Demographic	Education (low =0, high =1)	-.29***	-.16	.06***	.06***	17.83 (2.602)
	Gender (M=1, F=2)	-	-			
	Employment (Employee=1,unemployed & other =0)	.15***	.18			
Aetiological beliefs (Probably does not=1, Probably does 3)	Weak constitution	-	-	.16***	.15**	15.50 (4.598)
	Invasion	.28***	.04			
	Emotion	.11*	.02			
	Serious diseases	-	-			
	Digestion	-	-			
	Supernatural	.25***	.05			
	Lifestyle	.13**	.03			

$p < .05$: +; $p < .01$ **; $p < .001$ ***

The fourth set of analyses (Table 86.v) examined predictors of expecting help from Honey. The first analysis examined whether the diagnostic group predicted seeking help from Honey. The result was not significant, confirming the previous analysis.

In a second analysis demographic characteristics were significant. Low education, female, and employee explained 14% ($p<0.001$) of the variance. In a third analysis Aetiological Beliefs were significant. Emotion, Supernatural and Lifestyle” were uniquely significant and accounted for 16% of the variance.

Table 8.6.v:

Dependent Variable: Sources of help “Honey”

Variable set	ANALYSIS 1	β	b	R ²	R ² Change	F-to-enter (d.f.)
GHQ	Diagnostic groups (cases=1, non-cases=0)	-	-	-	-	-
	Analysis 2					
Demographic	Education (low =0, high =1)	-.39***	-.23	.14***	.14**	31.90 (3,601)
	Gender (M=1, F=2)	.12**	.14			
	Age	-	-			
	Employment (Employee=1.unemployed & other =0)	.22***	.28			
	Analysis 3					
Demographic	Education (low =0, high =1)	-.34***	-.20	.14***	.14**	31.90 (3,601)
	Gender (M=1, F=2)	.13**	.15			
	Employment (Employee=1.unemployed & other =0)	.20***	.25			
Aetiological beliefs (Probably does not=1, Probably does 3)	Weak constitution	-	-	.30***	.16*	46.93 (3,598)
	Invasion	-	-			
	Emotion	.18***	.03			
	Serious diseases	-	-			
	Digestion	-	-			
	Supernatural	.09*	.02			
	Lifestyle	.29***	.07			

$p<.05$: +; $p<.01$ **; $p<.001$ ***

The fifth set of analyses (Table 8.6.vi) sought to confirm which predictors were associated with expecting help from a Private Specialist. The first analysis confirmed that diagnostic group was significant, confirming the previous analysis. Cases were more likely to expect help from a Private Specialist. In a second analysis demographic

characteristics were significant. Being male and older accounted for 6 % ($p < 0.01$) of the variance. The Diagnostic group in block 2 remained significant. In a third analysis Aetiological Beliefs were significant. “Emotion and Digestion” were uniquely significant and accounted for 16 % ($p < 0.01$). Diagnostic group remained significant, showing that all the variable sets did not explain the significant differences between the two diagnostic groups in seeking help from a private specialist.

Table 8.6.vi:

Dependent Variable: Sources of help “Private Specialist”

Variable set	Analysis 1	β	b	R ²	R ² Change	F-to-enter (d.f.)
GHQ	Diagnostic groups (cases=1, non-cases=0)	.31***	.37	.10***	.10***	65.42 (1,603)
	Analysis 2					
Demographic	Education (low =0, high =1)	-	-	.07***	.06**	21.09 (2,602)
	Gender (M=1, F=2)	-.09	-.11			
	Age	.16***	.01			
	Employment (Employee=1 unemployed & other =0)	-	-			
GHQ	Diagnostic groups (cases=1, non-cases=0)	.27***	.32	.13***	.07***	46.66 (1,601)
	Analysis 3					
Demographic	Gender (M=1, F=2)	-.07	-.08	.07***	.06**	21.09 (2,602)
	Age	.17***	.01			
Aetiological beliefs (Probably does not=1, Probably does 3)	Weak constitution	-	-	.22***	.16**	30.56 (4,598)
	Invasion	-	-			
	Emotion	.25***	.04			
	Serious diseases	-	-			
	Digestion	.15***	.03			
	Supernatural					
	Lifestyle	-	-			
GHQ	Diagnostic groups (cases=1, non-cases=0)	.20***	.23	.25***	.03***	22.49 (1,597)

$p < .05$; +; $p < .01$ **; $p < .001$ ***

The final set of analyses (Table 86.vii) sought to confirm which predictors were associated with seeking help from a Psychiatrist or psychologist. In the first analysis

diagnostic group was significant, confirming the previous analysis. Cases were more likely to seek help from a Psychiatrist or psychologist. In a second analysis demographic characteristics were significant. Males were uniquely significant and accounted for 6% ($p < 0.01$) of the variance. In a third analysis Aetiological Beliefs were significant. All were uniquely significant and accounted for 23% ($p < 0.05$). Diagnostic group remained significant, showing that all the variable sets did not explain the significant differences between the two diagnostic groups in seeking help from a psychiatrist or psychologist.

Table 8.6.vii:

Dependent Variable: Sources of help "Psychiatrist or psychologist"

Variable set	Analysis 1	β	b	R ²	R ² Change	F-to-enter (d.f.)
GHQ	Diagnostic groups (cases=1, non-cases=0)	.37***	.22	.14***	.14***	97.06 (1,603)
	Analysis 2					
Demographic	Education (low =0, high =1)	-.08*	-.03	.06***	.06**	19.46 (2,602)
	Gender (M=1, F=2)	-.21***	-.12			
	Age	-	-			
	Employment (Employee=1,unemployed & other =0)	-	-			
GHQ	Diagnostic groups (cases=1, non-cases=0)	.35***	.21	.18***	.12***	89.31 (1,601)
	Analysis 3					
Demographic	Education (low =0, high =1)	-.02	-.05	.06***	.06**	19.46 (2,602)
	Gender (M=1, F=2)	-.19***	-.12			
Aetiological beliefs (Probably does not=1, Probably does 3)	Weak constitution	-.12**	-.01	.29***	.23*	31.35 (6,596)
	Invasion	-.10*	-.01			
	Emotion	.23***	.02			
	Serious diseases	-.09*	-.01			
	Digestion	-.15***	-.02			
	Supernatural	.10**	.01			
	Lifestyle	.09	.01			
GHQ	Diagnostic groups (cases=1, non-cases=0)	.19***	.11	.32***	.03***	23.61 (1,595)

* $p \leq 0.05$, ** $p \leq 0.01$, *** $p \leq 0.001$.

8.4.6 Beliefs after consultation: What happens at consultation?

8.4.6.1 Change in patients' views on the psychological or physical basis of their symptoms

Table 8.7 shows the change in views of non-cases and cases. In non-cases there appeared to be a slight change to less physical beliefs after consultation but the Z test does not confirm this change. Cases, however, changed in a more obvious way, with more entirely physical beliefs. Wilcoxon Z test showed that this change was significant ($p < 0.001$).

Table 8.7: Frequencies and percentages of patients' views of the psychological or physical basis of their symptoms: Results are shown for the two diagnostic groups: Non-cases and Cases and for patients before consultation and after. Wilcoxon test (Z) was used to test changes.

Before consultation	Non-Cases				Total: before consultation (%)	Z (P)
	After consultation					
	Physical	Physical/mood	Physical/emotions	Psychological		
Physical	80	103	28	2	213 (62.6)	1.51 (.131)
Physical/mood	37	33	5	1	76 (22.4)	
Physical/emotions	39	9	0	0	48 (14.1)	
Psychological	2	0	1	0	3 (0.9)	
Total: after consultation(%)	158 (46.5)	145 (42.5)	34 (10.0)	3 (0.9)	340 (100%)	
Before consultation	Cases- After consultation				Total: before consultation (%)	Z (P)
	Physical	Physical/mood	Physical/emotions	Psychological		
	Physical	13	0	2		
Physical/mood	13	1	4	1	19 (7.14)	
Physical/emotions	150	26	17	1	194 (72.93)	
Psychological	5	28	2	3	38 (14.29)	
Total: after consultation(%)	181 (68.05)	55 (20.68)	25 (9.40)	5 (1.88)	266 (100%)	

8.4.6.2 Change in patients' aetiological beliefs

Repeated measures ANOVA (Table 8.8) compared diagnostic groups (cases v. non-cases) across time (before consultation v. after). Emotional and Lifestyle beliefs declined after consultation, although Emotional beliefs declined most in cases. Supernatural beliefs increased, but this increase was confined to the cases.

Table 88: Repeated measures analysis of variance of aetiological beliefs, comparing beliefs before consultation (Time1) and after consultation (Time2) and between the two diagnostic groups.

Factor	GROUP \diamond	Means (Std Error)		df	F Diagnostic Group	F Within-Subjects	
		Time1 before	Time2 after			Time before v after	Time \times Group
Weak constitution	<i>a</i>	2.99(.09)	3.00(.09)	1,591	3.44	5.09*	1.07
	<i>b</i>	3.24(.10)	3.26(.10)				
Invasion	<i>a</i>	3.52(.09)	3.57(.10)	1,589	5.09	0.94	3.50
	<i>b</i>	2.92(.11)	2.75(.11)				
Emotion	<i>a</i>	2.85(.09)	2.57(.04)	1,596	148.34***	556.15***	75.43***
	<i>b</i>	4.36(.10)	2.89(.05)				
Serious disease	<i>a</i>	2.51(.06)	2.60(.06)	1,574	3.85	0.03	1.62
	<i>b</i>	2.73(.07)	2.74(.07)				
Digestion	<i>a</i>	2.85(.07)	2.81(.07)	1,588	37.75	1.09	0.06
	<i>b</i>	2.25(.08)	2.21(.08)				
Supernatural	<i>a</i>	2.82(.07)	2.81(.08)	1,593	92.84***	215.13***	218.47***
	<i>b</i>	3.51(.08)	4.29(.10)				
Lifestyle	<i>a</i>	3.69(.10)	2.98(.05)	1,586	17.14***	74.70***	3.42
	<i>b</i>	3.95(.11)	3.25(.06)				

\diamond Non-cases group is *a*; cases is *b*. U*: U¹ is the value of the U test before consultation and between the two diagnostic group. U² is the value of the U test after consultation and between the two diagnostic groups. p<.05*; p<.01**; p<.001***

8.4.6.3 Change in patients' beliefs about help

Repeated measures ANOVA (Table 8.9) compared diagnostic groups (cases v. non-cases) across time (before consultation v. after). The general practitioner was rated as less helpful after consultation, but the significant interaction shows that this was confined to the cases. Prayer and reading Al-Quran was rated more helpful after consultation, and the interactions shows that this change was greatest in cases. Honey was rated more helpful after consultation, but the interaction shows that this effect was present only in cases. The Psychiatrist/psychologist was also thought more helpful after consultation but only in cases. The non-parametric tests confirmed the parametric interaction terms except for Psychiatrist/psychologist, where the very small variability in scores makes any test of doubtful validity,

Table 8.9: Repeated Measures analysis of beliefs about help, comparing beliefs before consultation (Time1) and after consultation (Time2) and between the two diagnostic groups. Wilcoxon Z test and Mann-Whitney U test was used to confirm the result of the parametric test.

ITEM	GROUP	MEANS AND (Std. Error)		df	F DIAGNOS TIC GROUP	F Within-Subjects	
		Time1 before	Time2 after			Time before v after (Z test and P value)	Time × Group (U Mann-Whitney test and P value before consultation and after)
General practitioner	<i>a</i>	2.01(.01)	2.01(.03)	1,603	494.17***	599.96*** (Z= 12.29, P 000)	590.93*** (U ¹ =44860 00, P 792, U ² = 12522 00, P 000)
	<i>b</i>	2.01(.01)	0.83(.04)				
Prayer and reading Al-Quran	<i>a</i>	1.37(.05)	1.51(.04)	1,599	0.15	122.73*** (Z= 9.05, P 000)	55.19*** (U ¹ =37102 50, P 064, U ² = 38017 50, P 000)
	<i>b</i>	1.10(.06)	1.82(.05)				
Onion seed/ Olive oil	<i>a</i>	0.39(.03)	0.39(.04)	1,601	0.80	4.00 (Z= 1.81, P 059)	4.00 (U ¹ =44970 50, P 871, U ² = 30497 50, P 556)
	<i>b</i>	0.40(.04)	0.50(.04)				
Traditional doctor (Hakim)	<i>a</i>	0.24(.03)	0.23(.03)	1,603	0.30	4.08 (Z= 1.88, P 056)	0.06 (U ¹ = 41605 00, P 963, U ² = 41904 00, P 661)
	<i>b</i>	0.26(.03)	0.25(.03)				
Honey	<i>a</i>	0.31(.03)	0.31(.04)	1,602	87.87***	313.01*** (Z= 10.78, P 000)	300.01*** (U ¹ = 43910 00, P 486, U ² = 21925 00, P 000)
	<i>b</i>	0.34(.04)	1.19(.05)				
Private Specialist	<i>a</i>	0.20(.03)	0.83(.05)	1,602	92.75***	5.28 (Z= 14.88, P 000)	5.02 (U ¹ =33068 50, P 068, U ² = 30366 50, P 000)
	<i>b</i>	0.57(.03)	1.43(.06)				
Psychiatrist or Psychologist	<i>a</i>	0.00(.02)	0.00(.02)	1,603	106.87***	17.85** (Z= 2.45, P 014)	7.85** (U ¹ =35020 00, P 026, U ² = 34000 00, P 031)
	<i>b</i>	0.22(.02)	0.25(.02)				

◊Non-cases group is *a*; cases is *b*. U¹; U² is the value of the U test before consultation and between the two diagnostic group. U¹ is the value of the U test after consultation and between the two diagnostic groups. p<.01**; p<.001***

8.5 Discussion

8.5.1 The importance of the study

Like Study One, the efforts taken to ensure high quality of translation and the use of internationally validated measures of patients' beliefs enable comparison with other research in non-Arabic countries. However, the sample is larger and more representative than that of Study One and, to the best of the current researcher's knowledge, this study is the first to report on the impact of the consultation on patients' beliefs in an Arab population.

8.5.2 Main findings

8.5.2.1 Patients' views on the psychological or physical basis of their symptoms

The first question in the present study was to find whether patients think that their symptoms are psychological or physical and whether the two diagnostic groups differ. The current finding confirms the finding of Study One. Although cases were more psychological in their beliefs than were non-cases, only 6% considered that their symptoms were psychological in origin.

However, this finding suggests a fundamental barrier to patients with psychological disorders receiving help. El-assra and Amin (1988) reported that Saudi patients seek psychological attention by complaining of physical symptoms such as a paralysed leg rather than by expressing their emotional concerns. However, the present finding suggests that, even when they are emotionally distressed, most do not see their distress as primary in causing their problems. Therefore they are likely to be reluctant to express emotional concerns, which will make their GPs' task of detecting the emotional reasons why physical symptoms are being presented very difficult.

8.5.2.2 Aetiological beliefs

The Arabic aetiological belief scale (35-items) which included additional cultural beliefs that had not been included in the UK version, appears to be able to measure reliably the beliefs held by Arab primary care patients. The importance of including the additional cultural beliefs was seen in the results, which indicated that some of these cultural aetiological beliefs for symptoms were amongst the most common that patients held, reflecting, in particular, the greater importance of religion in Saudi society. The structure of the Arabic aetiological belief scale replicated that seen in

Study One and the factors were reliable. It demonstrated an ability to distinguish between cases and non-cases.

The importance of cultural and religious beliefs in the analysis bears out the assertion of many theorists such as Eisenbruch (1990) that non-Western cultures have a different conceptualisation of psychological disorders from Western cultures. Therefore measurement of beliefs must be tailored to the specific culture.

Among both diagnostic groups, “punishment from Allah” was the most common belief about the cause of their symptoms, which confirms the Study One result. The current finding confirms the study’s prediction that cases have more psychological aetiology beliefs than non-cases. In addition, cases believed in “Supernatural” causes more than non-cases. This finding is in accordance with various studies in Muslim populations which found that supernatural powers were commonly blamed for the psychological disorders (Fosu, 1995; Kurihara et al, 2000; Sheikh and Furnham, 2000). This finding is also in accordance with findings from a UK study which included different ethnic groups (i.e., Asian people some of whom were Muslims). Hatfield et al (1996) found that “the will of God” was cited as one of the main causes of psychological disorders. The present finding, as would be expected, diverges from other studies which found that supernatural power played only a slight role in Western patients’ beliefs about their psychological disorders, such as the German study by Angermeyer and Matschinger (1999), and in which the samples have reflected the majority cultural groups.

8.5.2.3 Beliefs about sources of help

The General Practitioner and prayer and reading Al-Quran were perceived as the most effective sources of help, whereas the item “Psychiatrist or Psychologist” was rarely endorsed and at the bottom of the list of interventions. This finding confirms the result of Study One. In a previous Arabic study, Savaya (1995) also found that GPs rather than psychologists, psychiatrists or other psychological health professionals tend to be the treatment sources of choice. Jorm et al (1997) also found that most of an Australian sample perceived the GP to be the most effective source of help for psychological disorders. In another Australian study the GP was also perceived as an effective source of help for psychological disorders (Highet et al, 2002) (see Chapter One).

The perceived importance of the intervention “Prayer and reading Al-Quran” and its greater importance to cases is consistent with the previous finding that many patients attributed their symptoms to supernatural causes. This result is consistent with the study of Hatfield et al (1996) in an Asian community (in the UK) who were recent users of psychological health services in the community. They concluded that Islamic prayer was seen as an important way of seeking help for psychological illness. Clearly, the Saudi population tends to believe in supernatural causes for both psychological and physical disorders, and to seek religious assistance, but especially when they have psychological disorders. However, it is important to note that this does not necessarily mean that cases seek this help for psychological problems; they might seek it for their physical problems.

Religious beliefs within the Muslim population are major determinants that colour the disease and determine when and where help is sought (Dwairy, 1999; Okasha, 1999).

Fosu (1995), in an Indonesian study, reported that if people's psychological disorders were regarded by the sufferers as being caused by cultural factors, the problem was usually dealt with by traditional healers.

In general the current findings confirm those of Study One in showing that cases seek psychological interventions no more than non-cases. Neither diagnostic group, in fact, seems to believe that a psychiatrist or psychologist would provide help. Okasha (1999) reported that seeing a psychiatrist or psychologist is seen as a last option by Egyptian people because of the stigma associated with it. No patient declined to complete this item, or asked the researcher to clarify what these terms meant. Nevertheless, perhaps there is a lack of knowledge about the scope of the psychologist and psychiatrist. It would be worth studying the degree of knowledge and awareness about psychiatrists and psychologists among Saudi Arabia primary care patients. Saudi Arabia, like other Arabic countries, is facing great difficulties as there are not sufficient psychiatrists/psychologists. The population of Saudi is more than 23.000000. According to a report by the Ministry of Health (2004) there are approximately 606 psychiatrists and psychologists, 1 for every 37953 citizens (see Chapter Two).

Education for patients about where they can seek help for psychological disorders might reduce this potential barrier to their receiving proper help for psychological disorders. Even in the UK, Williams et al (2001) found a lack of awareness about forms of help for psychological disorders, considering that to be a potential barrier to getting treatment.

8.5.2.4 The impact of aetiological beliefs on beliefs about help.

In a series of analyses the possible influence of aetiological beliefs on beliefs about help was tested. The difference between the two diagnostic groups was only significant for the sources of help of “Prayer and read Al-Quran”, “Private Specialist” and “Psychiatrist or Psychologist”. Non-cases sought more help from “Prayer and reading Al-Quran” than did cases. Cases sought more help from “Private Specialist” and “Psychiatrist or Psychologist”.

In Arab countries and also among all Muslim countries, there are beliefs that physical illnesses (in particular) are caused by Allah (Al-Krenawi et al, 2004) as a punishment or as a test (see Chapter Two), and hence, patients seek help from Allah and His book (i.e., Al-Quran). This could explain why non-cases (who have mainly physical symptoms) sought more help from “Prayer and read Al-Quran”. By contrast, Arab patients believe that psychological illness is caused by biomedical, psychological, or supernatural factors other than punishment from Allah (Al-Krenawi et al, 2004). Therefore, cases might seek “Private Specialist” for their biomedical beliefs, and seek a “Psychiatrist or Psychologist” for their psychological beliefs about the cause of their problem.

However, it is worth mentioning that this result of the source “Psychiatrist or Psychologist” needs to be viewed carefully, as the distribution of the sample was highly skewed. In another words, none of the non-cases patients considered “Psychiatrist or Psychologist” to be a proper source of help.

The demographic characteristics of the sample were significantly related to the sources of help in all series of analyses. However, demographic characteristics did not

explain the difference in beliefs about help between the two diagnostic groups in any analysis.

Low education was highly significantly relating to seeking help from all informal sources: “Prayer and read Al-Quran, Onion seed and Olive oil, Traditional Doctor, Honey”. This result could be explained because low-educated patients are more traditionally-minded and less informed about formal help compared to those patients with a high level of education. This might explain also why patients with a high level of education have more belief in a “GP” than low educated patients.

Gender was significantly related to the sources of help in most of the analyses. Compared to female patients, male patients had more belief in seeking formal help such as a “GP, Private Specialist, Psychiatrist or Psychologist”. An explanation for this result is linked with the explanation of the previous finding as most Saudi women are house-wives with minimum or basic level of education compared to men who have a better level of education in general.

There is another cultural explanation for this result. Males in Arab countries are able to contact professional practitioners and disclose their problems freely. Cultural norms and family members prevent female patients from seeking help from formal sources freely. Female patients need to overcome several barriers before reaching formal help. Cultural rules, for example, require that one of her family members take her to the professional practitioners (see Chapter Five: Reasons for delay in seeking help). She is not allowed to drive, walk alone to her clinic, or to consult male professionals alone without one of her family member attending. In contrast, informal sources could be used at home without needing to visit a traditional clinic.

Compared to male patients, female patients had more belief in seeking help from informal help such as “Prayer and read Al-Quran, Onion seed and Olive oil, Honey” but not to a “Traditional Doctor”. The former help could be used without the need to visit any traditional healers. These sources of help are usually suggested by family members, relatives, or friends and can be obtained easily and can be used without any fear of disclosing a problem of the female to somebody from outside the family. In contrast a “Traditional Doctor” is not the favourite choice, at least at the beginning of the problem, because female patients will not want to disclose their problems to somebody from outside her family. Stigma and harm to the family’s reputation will be a potential result of disclosure of a female’s problem (see Chapter Five).

Age was significant in some of the analyses. Young patients were significantly more likely to seek help from “GP” only. This is a rational result if we know that the GP is the easiest and the cheapest way of seeking help which does not need any experience or money which could be required for the other sources of help. Compared to middle-aged patients and old patients, young patients seem to have less experience and are less able to afford the expenses of the other source of help, and hence, they are more likely to seek help from a GP.

Another explanation that links with the previous finding is that patients with high education have more belief in a “GP”. Indeed, most of the older and middle aged in Saudi Arabia did not get a chance in the past to go to school because there was no school in the village or even in the cities of Saudi Arabia where they grew up. Therefore, young patients are more educated, and hence, they hold more positive beliefs towards a GP as mentioned above.

The source of help “Private Specialist” requires the ability to pay the high cost of the treatment bills. Therefore, old patients who are assumed to be financially better off than young patients (some of whom are students) could be able to pay this bill, and hence, they believe more in seeking help from a “Private Specialist” compared to young patients.

The most striking result is regarding being an employee. Employees believe in the informal help of “Prayer and reading Al-Quran, Onion seed and Olive oil, Traditional Doctor, Honey”. It is not clear why employees believe in informal help more than unemployed people do. It could be that employee patients have some specific problems and they do not know where to go to seek help. The majority of the workplaces in Saudi Arabia do not have special clinics for their employees to be treated for work-related stress problems. However, this result links with Study One (Chapter Four) and with Study Three (Chapter Seven) where employees reported a significant difference in psychological disorders compared to those who are not employed.

The aetiological beliefs were significant in all series of analysis, confirming the importance of the aetiological beliefs in seeking help behaviour. Nevertheless, aetiological beliefs did not explain the difference in beliefs about help between the two diagnostic groups in any analysis. Aetiological beliefs were able to explain from 0.08% to 30% of the difference throughout all of the series of analyses. The aetiological beliefs “Serious diseases” and “Digestion” were significantly associated with seeking help from the GP. It is an expected finding in the light of the nature of these aetiological beliefs which indicate beliefs in physical symptoms and physical causes. It seems that a GP is the main source of help for treating patients with

physical aetiological beliefs. The most important finding here that the rest of the patients' aetiological beliefs including for example "Emotion, Supernatural, Lifestyle" did not correlate with seeking help from the GP. It could mean that the GP is not thought to be the right person to deal with a psychological problem (Dowell, 2004). Alternatively, it could mean that the GP did not meet the patients' intentions; this will be examined later (see Chapter Nine). However, cases might seek help from the GP for their physical problem but not for emotional problems.

All aetiological beliefs increase belief in help from "prayer and reading al-Quran". It is not surprising to find patients who believe in seeking help from "Prayer and reading Al-Quran". As mentioned above (Al-Krenawi et al, 2004), in Arab countries there are beliefs that illnesses are caused by Allah as a punishment or as a test, and hence, prayer to Allah is a demand to be cured. However, this finding may need to be investigated qualitatively to understand how so many different kinds of aetiological beliefs could lead patients to think that prayer would help.

The aetiological beliefs "Emotion, Supernatural, and Lifestyle", which were not associated with seeking help from the GP, were significantly associated with seeking informal help "Prayer and reading Al-Quran, Onion seed and Olive oil, Traditional Doctor, Honey". It is not surprising to find this result in a community like Saudi Arabia where emotional and cultural illnesses link strongly with traditional treatment. Al-Subaie and Alhamad (2000) reported that Arab patients believe that psychological disorders can only be treated through religious or traditional therapy. In Tanzania where a main part of the population is Muslim, Ngoma et al (2003) found that those patients who attended a traditional healer centre were twice the number of those that attended a primary care centre.

In Saudi Arabia nowadays, cultural problems for primary care attenders have not been treated in primary care and those with such problems need to seek help from outside the professional health system. But it is not clear if patients with emotional or lifestyle problems have been treated in primary care or not. If patients' intentions and needs are not met in primary care, patients could seek help from other sources of help. This will be examined in the next chapter.

Finally, all aetiological beliefs were associated significantly with seeking help from "Psychiatrist or Psychologist". However, only the aetiological beliefs of "Emotion, Supernatural, and Lifestyle" were associated positively, which means that more psychological or cultural beliefs lead to more seeking of help from a "Psychiatrist or Psychologist". This finding is in accordance with the above discussion. It reflects widespread interpretation of the causes and the potential treatment to psychological/cultural problems.

8.5.2.5 What happens at consultation? Changes in patients' beliefs about the psychological or physical basis of their symptoms

Because there was a short time between completing the questionnaires before the consultation and after, it might be expected that patients would tend to repeat the same answers. Nevertheless the results confirmed significant and striking changes, particularly in cases. Cases after consultation changed their beliefs to be more physical and less psychological. This finding is consistent with the previous suggestions that Saudi Arabian GPs overemphasise physical factors and minimize psychological factors. In earlier work, Ingham and Miller (1986) supported the idea that the consultation plays a role in changing patients' beliefs. It seems that

consultation had a 'somatising' effect. This has been suggested in recent research in UK primary care (Ring et al, 2005; Salmon et al, 2004), on the basis of observations of how GPs speak to patients presenting medically unexplained symptoms, especially when they present emotional or social problems. However, the present researcher is aware of no study in Arab countries that has examined the role of consultation in changing patients' beliefs. This study is apparently the first which shows evidence that consultation changes patients' beliefs to be more physical and less psychological. To identify the factors in GPs' behaviour that explain patients' more physical beliefs after consultation needs further research. GPs' own explanations might be important. Also, if GPs make physical treatment decisions, these might lead patients to more physical beliefs. Chapter Ten will examine their treatment decisions. Interviews with patients after consultation might help to understand how and why their beliefs change.

8.5.2.6 What happens at consultation? Patients' aetiological beliefs before and after consultation

In aetiological beliefs, despite the short time between completing the two questionnaires, the results revealed that patients tended to change their beliefs. In particular, emotional beliefs declined after consultation. This decline was most obvious and significant in cases. This finding confirms the above finding, and demonstrates, once again, that consultation 'somatises' patients' beliefs. Also after consultation, cases changed their beliefs about "supernatural" causes. Cases rated "supernatural" causes to be more important after their consultation than they did before. This could be a sign that GPs failed to meet patient's needs for explanation. Ingham and Miller (1986) explained the changes in patients' aetiological beliefs by

suggesting that the GPs might succeed in reassuring patients who cannot understand their symptoms.

8.5.2.7 What happens at consultation? Patients' beliefs about help before/after consultation

The non-parametric tests, Wilcoxon Z test and Mann-Whitney U, were used to re-confirm the result of change over time across both groups and to assess and re-confirm differences between groups on each occasion. However, the non-parametric tests were confirmed the result of the parametric test wherever it was significant. The most important finding here, as in other beliefs, is that the cases in general tend to change their beliefs more than non-cases. Cases rated the general practitioner as less helpful after consultation than before. It is not clear if this finding is the result of patients' dissatisfaction, which was not measured in this study. It could mean that the GP did not meet the patients' intentions, and this will be examined later (see Chapter Nine). After consultation, cases rated the informal help of Prayer/reading Al-Quran and Honey to be more helpful than they did before. This could be another sign that the GP did not meet the cases' intentions. However, Study One found no difference in satisfaction between cases and non-cases.

Formal help from a psychiatrist or psychologist was also rated to be more helpful after consultation by cases, which could also reflect dissatisfaction with the GP. However, the distribution of the responses to the item "psychiatrist or psychologist" was strongly skewed as none of the non-cases chose this source of help before consultation or after. Therefore, this finding needs to be viewed cautiously.

8.5.3 Clinical implications

The value of the aetiological belief scale is that, to the best of the current researcher's knowledge, it is the first scale that can be used to measure Arabic patients' beliefs. Symptom attributions play an important role in the recognition of psychological disorder (Bower et al, 2000). Therefore, the Arabic aetiological belief scale could be used to measure symptom attributions in routine practice. In particular, Arabic GPs who have been trained to think of physical health only (Al-Faris, 1998; Becker, 2004; see Chapter Two) may find this scale helpful in order to know what the patient believes about their symptoms.

Chiu (1994) argued that health professionals working in a multicultural setting need to understand their patients' beliefs and cultural background. The present study has shown that large numbers of Saudi Arabian patients seeing GPs trained in western medicine have beliefs that come from religious influences and that are completely discordant with their doctors' medical training. GPs' knowledge and skill reflect formal training (Al-Krenawi, 1999). GP should, however, appreciate the aetiology of problems from the perspective of their patients (Al-Krenawi et al, 2004). Indeed, GPs could bridge the gap between informal and formal perspectives. Such bridging could include using patients' idioms of distress in the intervention process (Bilu and Witztum, 1995). Patients with special beliefs need special care. For example, those patients who hold religious beliefs may need some religious help from their GPs. Cooper et al (2001) argued that, if the GPs feel their patients require more religious care, they should provide it to them.

Also, GPs who want to identify psychological disorders will not do so by relying on the patient's response to simple questions which ask the patient whether his/her

problem is a psychological one or not. Whereas very few patients describe their problems as psychological when responding to a very general question, they will acknowledge the role of psychological factors when responding to more specific questions. Indeed if, as suggested previously, GPs asked their patients to complete the aetiological beliefs questionnaire developed by the present researcher, they might become more aware of whether their patients consider that psychological factors are important.

However, the most important clinical implication of the present findings is that GPs' consultations are giving patients with psychological distress more physical beliefs than they have when they begin consultation. It is likely that, for many of these patients, their symptoms are symptoms of emotional distress. In this case, GPs need to avoid 'somatising' their beliefs. Instead, they need to help patients to think about the role of psychological factors and to accept psychological help. However, when developing and applying psychological interventions for primary care patients in the Saudi culture, it will be important that the interventions are consistent with patients' beliefs.

It could be important to train GPs in how to apply reattribution therapy. Despite the fact that reattribution therapy relates more to somatization than to psychological problems, the principles of such techniques are simple and generic and can readily be applied in primary care (Salmon, 2000a). Reattribution will encourage patients to move from a physical belief in the cause of their somatic symptoms, towards a broader belief in which psychosocial explanations are considered as well (Blankenstein et al, 2002). Many patients can be helped when GPs use reattribution therapy (Morriss et al, 1999). Reattribution training has been successfully delivered to

GPs in several countries, but not yet in Saudi Arabia or Arab countries. Reattribution leads to more positive attitudes towards psychological patients, reduces health care cost and modifies patients' beliefs (Morriss et al 1998; Rosendal et al 2005). Reattribution therapy might be particularly well accepted by Arab patients because, they expect their GPs to be like teacher who explains their situation and provides information concerning problem (Al-Krenawi and Graham, 2000b).

However, there are other approaches to teaching GPs to manage psychological problems. And other approaches as well to deal with cultural beliefs. This will be addressed in Chapter Twelve.

8.5.4 Implications for future research

The present findings suggest several potentially important research questions. First, it is important to find out how the cultural beliefs that patients hold influence their decision to consult their GP, the consultation with the GP, and their response to the GPs' treatment. Second, and perhaps most importantly, it is necessary to identify the aspects of consultation that lead to patients holding more physical beliefs. Third, the reasons why consultation leads patients who are cases to seek help from sources – informal and formal – other than the GP also need to be explored. Related to this, the effect of GP consultation on the use of alternative medicines needs to be explored. Patients with unmet intentions might seek help more from alternative medicines and religious sources

In the following chapter, analysis of GPs' management decisions will help to illuminate one factor that might explain some of the effects of consultation on patients' beliefs. However, further in-depth qualitative research would help to clarify

the questions raised in this chapter and might begin to indicate possible answers that could be explored in future survey research. A preliminary attempt to take a qualitative approach will be described in Chapter Eleven.

Chapter 9: Study Three: Patients' Intentions

9.1 Introduction

As has been mentioned in Chapter One, there are several terms which have been used to describe patients' intentions. However, in the current study, the term "intention" has been used to describe "what patients actively seek or desire rather than what they expect to be given" (Salmon and Quine, 1989; Salmon et al, 1994).

Study One suggested a different loading structure of items of the PRF, compared with the UK (Valori et. al., 1996). However, exploratory factor analysis, which was used to explore the factor structure in Study One, is not suitable for testing whether a structure fits the data. Confirmatory Factor Analysis (CFA) can test the fit of a dimensional model with the data. However, this technique needs a much larger sample for robust findings (Cole, 1987; Tabachnik and Fidell, 2000). Therefore the first aim of this aspect of Study Three was to identify the structure of the PRF among the Saudi patients using a large sample. No confirmatory factor analysis of this scale has been published in any country. The original validation studies only used exploratory factor analysis. Therefore, additional data were sought from a UK sample, with which to carry out a parallel confirmatory factor analysis to that using the Arabic sample of Study Three to find out whether similar structures could be fitted in each sample.

Beliefs influence the ways in which patients manage their symptoms, and what they want from their doctors. That is, what patients want from their doctor is likely to reflect what they believe about their problems. Little is known about the role of patients' beliefs in shaping what patients who are emotionally distressed seek from their doctors. Study One revealed that the two diagnostic groups have different

intentions. Cases need more emotional support than non-cases. The current study therefore set out to replicate this finding, and then to find out whether it was explained by the different beliefs that cases and non-cases had (Chapter Eight). Although intentions were investigated in Study One, the sample was small and it was a special sample because it was collected from the Assir area only, which is a semi-urban area. This present study aims to investigate intentions again using a large sample representing different areas.

Accurate perception by the GP is necessary for intentions to be met and for patients to be satisfied. Previous UK evidence (Salmon et al., 1994) suggests that accuracy is low. Therefore, disagreements between what patients want and what GPs perceive that they want could be another barrier which prevents patients from receiving appropriate help from professionals. In Study One the agreement between what patients want from their doctor and what doctors perceive that they want was not investigated. The present study therefore investigated the accuracy of GPs' detection of patients' intentions.

9.2 Aims

This part of Study Three aimed to answer the following questions:

1. Is the factor structure of the Arabic version of the PRF, in an Arabic sample, the same as the original English version, and can this version be confirmed using confirmatory factor analysis in a UK sample?
2. Do psychological cases have different intentions from non-cases? Specifically, can the result of Study One be replicated that cases want more emotional support than non-cases?

3. Do cases have different intentions because they have different beliefs?

4. How accurately do the doctors perceive patients' intentions?

9.3 Methods

9.3.1 Participants and procedure

9.3.1.1 Main study: Saudi Arabian sample

Details of sample selection, recruitment, procedure and ethical issue have been described in Chapter Seven. Only additional methods specific to the aims addressed in this chapter are described here.

9.3.1.2 Supplementary study: UK sample

To find out whether the factor structure of the PRF is the same as in the UK, data recently obtained by Shuttleworth (2004) were used as a supplementary study, with that author's permission. All the reported analysis was carried out by the present author.

Participants were recruited from two general practices in North Liverpool. The first was a single-partner practice (Surgery1) and covered an inner-city area, with a practice size of approximately 2,500. The second surgery was also a single-partner practice, and covered an area of economic deprivation in an inner-city location, with a practice size of approximately 2,200. A female researcher attended Surgery 1 to recruit patients. Patients in Surgery 2 were recruited by a female medical student.

Patients were excluded when their age was below 18 years, or if they had severe mental health difficulties, learning disabilities or dementia. Those patients who were unable to read or write, or those who were physically unable to take part, were also

excluded. Individuals not registered with the practice and attending as emergency patients were also excluded. Only patients attending for consultation with the GP were included in the study.

Suitable consecutive patients were identified on arrival, were given an explanation of the study and were asked for written consent to take part. Consenting patients were then asked to complete a set of questionnaires in a private area of the clinic.

9.3.2 Instruments

The following instruments were used to answer the research questions addressed in this chapter:

9.3.2.1 The patient requests form (PRF)

This was completed both in the main study and in the supplementary study. Each patient completed the 22-items of the PRF before consultation. Subscale scores were calculated on the basis of the results of the confirmatory factor analysis, described below. Scores were calculated for three major types of help that patients seek from their doctors. Scores vary from zero to 14, 18 and 16 for the scales: medical investigation and treatment; explanation and reassurance; and emotional support, respectively. Scores were trichotomised to provide normally distributed variables (Salmon et al., 2005): scores of zero and one were coded zero, scores at the maximum and maximum -1 were coded 2, and the intermediate scores were coded 1. The resulting scores were standardised to a mean of zero and standard deviation of 1. The remaining instruments were used only in the main study.

9.3.2.2 Accuracy of GPs' detection of patients' intentions

To quantify this, both GPs and patients were asked to record their assessments using complementary, brief scales based on the procedure described previously to assess GPs' perception of patients' intentions (Salmon et al, 1994).

i. A brief index of patients' intentions

Three questions were put to patients before consultation: these questions were worded in the following sentences: "Here are three kinds of help that you might want from your doctor TODAY": 1) you need more explanation and reassurance about your symptoms; 2) you need more investigation and treatment; 3) you need emotional support. Respondents rated themselves on each question using a 3-point scale (No = 0; Uncertain = 1; Disagree = 2). To explain the concepts of patients' intentions to the patients, a short definition was provided in each questionnaire: 'Explanation and reassurance means that the patient wants explanation from a doctor about their problem and they also want to be sure nothing is seriously wrong with them'; 'Investigation and treatment means that the patient wants the results from tests or more tests or that they want drugs or other treatment'; 'Emotional support means that the patient wants support or help to deal with his emotional or physical problems'.

ii. A brief index of GPs' perception of patients' intentions

GPs' judgment about each patient's intentions was measured by responses to three questions. For each patient, GPs were asked to rate whether patients had wanted: 1) more explanation and reassurance about symptoms; 2) need more investigation and treatment; 3) need emotional support. Each of the three items was followed by a three-point response scale: (No = 0; Uncertain = 1; Disagree = 2). To explain the

concepts of patients' intentions to the GPs a short definition (same as the above definition) was provided in each questionnaire.

9.3.2.3 *The aetiological beliefs questionnaire*

This is detailed in Chapter Eight.

9.3.3 Statistical Analysis

The distribution of each continuous variable was examined. Scores on individual questionnaire items were highly skewed and hence non-parametric statistics were used. Total scale scores were, in general, suitable for parametric analysis. Moreover, because of the large sample size, parametric statistics would be expected to be robust in coping with non-normality of data. Parametric statistics were valuable in this chapter because they provided ways of testing the multivariate research questions that were being asked. Non-parametric statistics were chosen for univariate analyses of data that were highly skewed. Multiple linear regression was used to test specific multivariate questions. Confirmatory factor analysis was used to test the structure of the PRF, as detailed below. Statistical analyses were performed with the aid of SPSS 12 for Windows and LISREL (version 8.85) computer program (Jöreskog and Sörbom, 1993).

This study is partly descriptive and exploratory, rather than hypothesis-testing. In turn, a large number of univariate tests are reported and there is therefore a risk of Type 1 errors. To protect against Type 1 errors, a significance criterion of $p < .01$ was used for univariate analyses, while a criterion of $p < .05$ was used for multivariate analyses. As mentioned previously, it will be important to examine patterns of effects rather than individual isolated findings.

9.3.3.1 Factor structure of the Patient Request Form (PRF)

For each data set (the main study in Saudi Arabia and the supplementary UK data), an initial principal components analysis using the correlation matrix was used to suggest a factor structure. A scree test helped to decide the number of components to retain for Varimax rotation. Loadings exceeding 0.40 were used to interpret components. These structures were then examined using confirmatory factor analysis (CFA) by LISREL.

CFA was carried out using the Spearman rank-order correlation matrix (Jöreskog, 2001) because individual items of the PRF had very skewed distributions, which can inflate the values of a parametric correlation. .

Rejecting or accepting a model was decided on the basis of the global fit indices. Because there is no single adequate index of model fit, several indicators of model fit were calculated (Roesch, 1999): a) chi-square, which tests the fit of the observed covariance matrix with the covariance matrix obtained under the constraints of the model; b) the root-mean-square error of approximation (RMSEA) which estimates the lack of fit in a model compared to a perfect model; and c) Bentler's comparative fit index (CFI) which estimates the proportion of the sample variance and covariance explained by the model. d) The standardised root mean square error of approximation (SRMR) indicates the discrepancy between observed and predicted covariances.

A non-significant chi-square is desirable and indicates an excellent fit, although, in practice, values depend on the sample size (Cole, 1987). The desirable RMSEA is <0.08 (Cole, 1987). The CFI can range from 0 to 1.0 and $CFI >0.90$ indicate an acceptable fit (Anderson and Gerbing, 1984). The SRMR also ranges from 0 to 1.0 and $SRMR \leq 0.09$ is desirable (Cole, 1987). A model can be accepted if both RMSEA

and CFI are acceptable (Cayrou et al, 2003). However, the additional indices will be provided for completeness.

9.3.3.2 Comparing intentions between cases and non-cases

Means, standard deviations and t-tests were used to describe and test the difference between cases and non-cases on the subscale scores calculated (see above) to measure each of the PRF dimensions.

9.3.3.3 Testing the influence of beliefs on intentions

A test for multicollinearity was first carried out. Acceptable levels of tolerance are considered to be > 0.01 and acceptable values for the conditioning index are < 30 (Tabachnik and Fidell 1996).

Analysis of each intention followed a systematic sequence. The first analysis simply examined whether diagnostic group explained significant variance in patients' intentions for GP consultation. This essentially confirms the analysis carried out previously by t-test. For intentions which were significantly related to diagnostic group, each subsequent analysis concluded by testing the effect of group. This shows whether the predictor variables included in the model to that point could explain the difference between the groups. In each subsequent analysis, an additional block of variables was added in a further attempt to explain differences in patients' intentions. Only the significant variables were used in subsequent analyses. The second analysis examined whether patients' demographic characteristics explained differences in intentions. The third set of analyses examined whether beliefs explained differences in patients' intentions. Aetiological beliefs were therefore entered in block 2.

Change in R^2 was examined to test the significance of each set of variables after controlling for those entered previously, and beta coefficients were examined to test the significance of each variable individually. Model R^2 was used to assess the amount of variance in patients' intentions accounted for by the model being tested. Beta coefficients and their significance levels are taken from the final model of each analysis.

9.3.3.4 Accuracy of GPs' detection of patients' intentions

First, to confirm the validity of the three summary questions about intentions, Spearman correlations were calculated, using patients' responses, to test the correlation between each full scale of the PRF and the corresponding brief index of patients' intentions. All of the correlation values were high and significant ($p < 0.01$), indicating that the single questions measure intentions validly $\rho = 0.95$; 0.83 ; 0.87 , for Explanation and reassurance; Investigation and treatment; Emotional support, respectively.

Cross tabulations were therefore used to display the agreement between what patients wanted and what GPs perceived that they wanted (using responses to the brief indices). Wilcoxon test (Z) was used to test differences between GPs and patients' ratings.

9.4 Results

9.4.1 Sample

9.4.1.1 Main study: Saudi Arabian sample

Sample characteristics were described in chapter Seven.

9.4.1.2 Supplementary study: UK sample

Table 9.1 details the Supplementary samples' characteristics.

Table 9.1: Socio-demographic characteristics of the Supplementary study: UK sample (N= 200)

Samples' characteristics		n	%
Sex	Male	79	39.5
	Female	121	60.5
Age	Mean	45.6	
Marital state	Married	96	48.0
	Others	104	52.0
Occupation	Student	6	3.0
	Employed	81	41.0
	Retired	26	13.1
	Not employed and other	85	42.9

9.4.2 Factor structure of the Patients Request Form

9.4.2.1 Main study: Saudi Arabian sample

Three components emerged from the principal components analysis, explaining 81.43% of the variance. From table 9.2 we can see that all items were grouped as in the UK validation study (Valori et al., 1996). The component of emotional support refers to the request for emotional support, mainly for emotional problems. "Explanation/reassurance" reflects requests for explanation of problems or for the understanding of symptoms, together with requests for reassurance. The third

component “investigation/ treatment” reflects a demand for technical services such as: further medical tests, drugs, and referral to a specialist. The factor structure corresponded exactly to that found by Valori et al (1996), and therefore to the scale structure of the UK questionnaire. Except for three items, the factor structure corresponded exactly to that found in Study One.

9.4.2.2 Supplementary study: UK sample

Three components emerged from the principal components analysis, explaining 70.01% of the variance. Table 9.2 shows that all items were grouped as in the validation study (Valori et al., 1996) and as in the current main study, above.

Table 9.2: Principal components analysis of responses to the Patients Request Form (PRF), comparing Study One (S1) and study Three (S2). Item loadings exceeding 0.40 are shown. Items are grouped into the subscales described by Valori et al (1996), and loadings of each item on that dimension in the analysis of Valori et al. are shown for comparison.

Items	Valori	Shuttleworth	Components						
			Emotional support		Explanation/ reassurance		Investigation/ treatment		
			Study 1	Study 2	Study 1	Study 2	Study 1	Study 2	
Emotional support									
I want to discuss certain problems in my life	.54	.63	.86	.96					
I want treatment for a nervous condition.	.66	.82	.80	.94					
I want the doctor to explain my emotional problems.	.74	.74	.84	.93					
I am having a difficult time with my problem and would like some support.	.66	.73	.66	.94					
I am feeling anxious and would like the doctor's help.	.64	.66	.75	.92					
I would feel better if I could talk about some of my feelings.	.52	.73	.84	.87					
I have emotional problems for which I would like help.	.76	.81	.73	.91					
I want someone to comfort me at this difficult time.	.66	.68	.68	.85					
Explanation/ reassurance									
I want the doctor to explain how serious my problem is	.65	.67			.87	.94			
I want the doctor to talk with me about my problem.	.67	.72			.85	.95			
I want to know how quickly I will get over this problem.	.65	.77				.88	.43		
I want to be sure nothing is wrong with me	.60	.74			.83	.90			
I want the doctor to explain the likely cause of the problem.	.66	.70			.85	.92			
I want to be examined for the cause of my condition.	.69	.75			.65	.93			
I would like the doctor to tell me what the symptoms that I have mean.	.70	.81			.58	.90			
I want the doctor to explain the treatment I am having.	.62	.70				.92	.62		
I want to know if I am likely to have any problems in the future	.61	.73			.82	.89			
Investigation/ treatment									
I want to change the medication I am presently taking.	.52	.46					.54	.61	
I want the results from some tests.	.67	.75					.73	.79	
I want a previous diagnosis confirmed.	.66	.76					.61	.80	
I want to be referred to a specialist.	.64	.51					.67	.72	
I want advice on a drug I am taking.	.65	.69					.77	.89	
I want to know about possible side effects of my problem.	.60	.59			.87			.85	
I want the doctor to explain some test results.	.69	.77					.67	.78	
Alpha=				.978		.978		.888	

9.4.3 Confirmatory analysis

In view of the above results, CFA was used to test the fit of the structure of the questionnaire described by Valori et al (1996) to the data from the main study and the supplementary study. That is, a model was fitted in which each item was linked to one of three latent variables corresponding to Emotional support, Explanation and reassurance, and Investigation and treatment. The latent variables were allowed to intercorrelate. Table 9.3 summarises the indices of model fit. The CFI and RMSEA values for the main study indicate very good fit: 0.99 and 0.03 for CFI and RMSEA respectively. The standardised loadings for items on the relevant factor ranged in value from 0.06 to 0.98 (See figure 9.1). All loadings were statistically significant (t-values > 1.96). The error terms for the items ranged from 0.42 to 0.71. The correlation coefficients between these 3 substantive factors ranged from -0.31 to -0.56.

Table 9.3 Goodness of fit values

Models	χ^2	df	SRMR	RMSEA	CFI
Main study (Saudi Arabian sample)	355.80***	249	0.04	0.03	0.99
Supplementary study (UK sample)	577.45***	249	0.07	0.08	0.92

*** $p \leq 0.001$.

The CFI and RMSEA values for the UK sample indicate a good model fit (0.92 and 0.08, respectively), and all of the standardised loadings ranged in value from 0.43 to 0.83 (See Figure 9.2) and were statistically significant (t-values > 1.96). The error terms for the items ranged from 0.40 to 0.92. The correlation coefficients between these 3 substantive factors (subscale) ranged from 0.53 to -0.63.

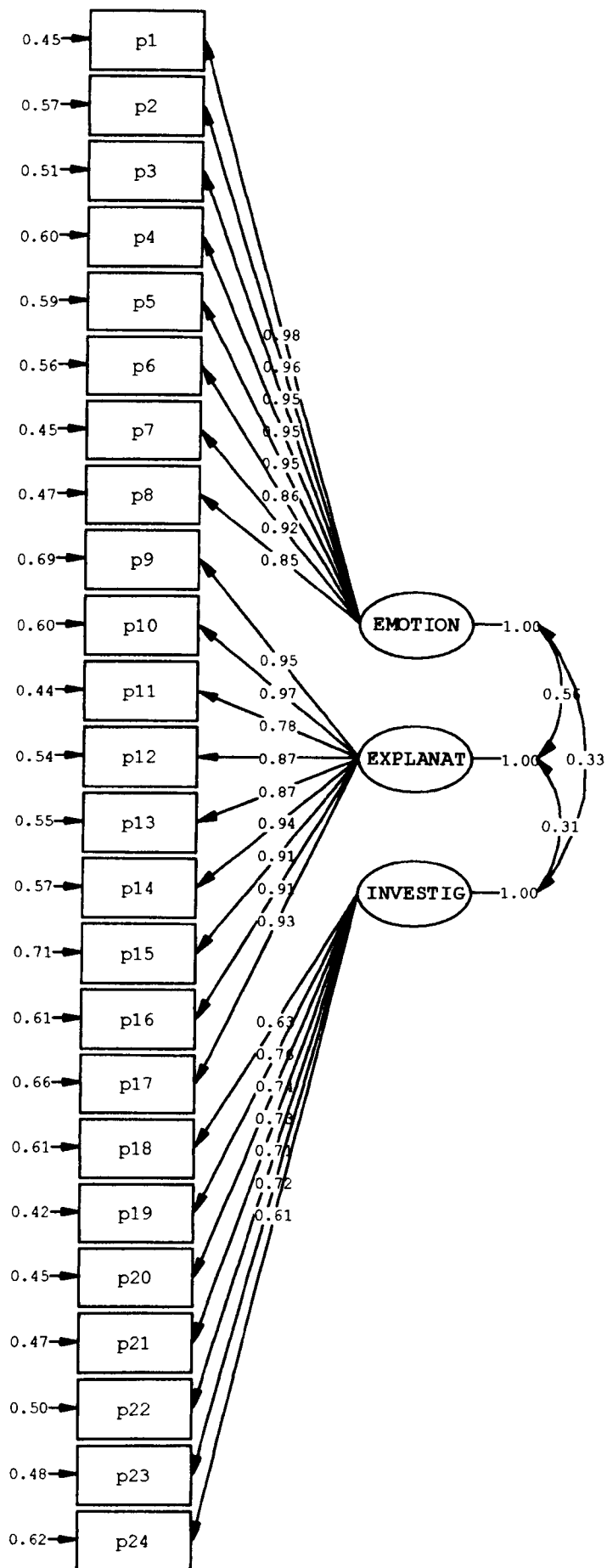


Figure 9.1: Chi-Square=355.80, df=249, P-value=0.00001, RMSEA=0.027

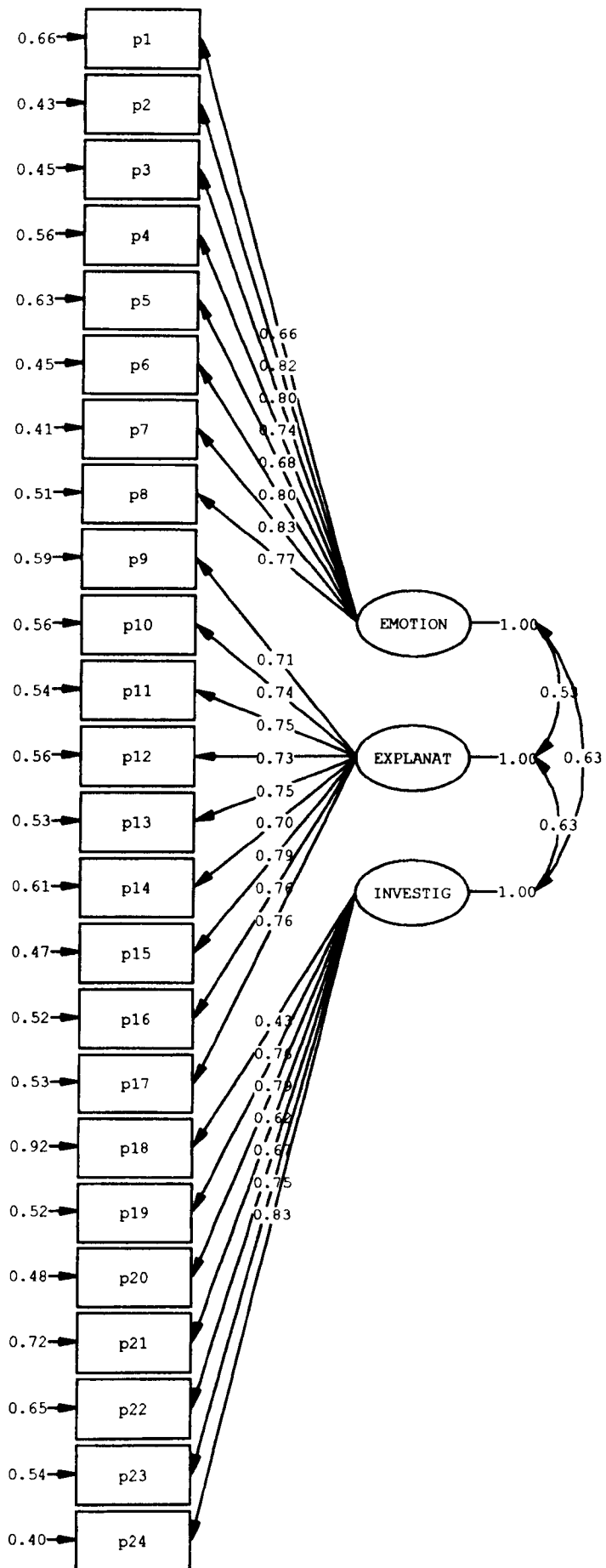


Figure 9.2: Chi-Square=577.45, df=249, P-value=0.00000, RMSEA=0.081

9.4.4 Do cases have different intentions from non-cases?

Table 9.4: Comparison of intentions between cases and non-cases according to the PRF

	Non-cases		Cases		T-test	P
	Mean	SD	Mean	SD		
Emotional support	-0.10	0.94	0.13	1.06	2.89	.004
Explanation/ reassurance	-0.01	1.03	0.01	0.97	0.24	.809
Investigation/ treatment	-0.02	0.98	0.03	1.02	0.75	.455

Table 9.4 shows the comparison of intentions between cases and non-cases. As expected, intentions for “Emotional support” were affirmed by cases more than non-cases ($p < .01$). However, there were no significant differences between cases and non-cases in respect of “Explanation/ reassurance” and “Investigation/ treatment”.

9.4.5 Influence of beliefs on intentions

9.4.5.1 *Desire for emotional support*

The minimum tolerance was 0.55 and the maximum conditioning index was 26.48. Therefore, there was no appreciable multicollinearity.

The first analysis examined whether diagnostic group (cases v. non-cases) predicted patients’ request for emotional support (Table 9.5.i). The diagnostic group was significant, reflecting the fact that cases requested more emotional support from their GP.

Table 9.5.i: Summary of multiple regression analyses. Sets of variables are included in successive blocks. Entry of variables within blocks is stepwise. F-to-enter and R² Change refer to the set of variables entered in one block. R² refers to complete set of variables entered to that point. β and *b* are taken from the final model. Only significant variables are shown.

Dependent Variable: request for emotional support.

	Analysis 1	β	<i>b</i>	R ²	R ² Change	F-to-enter (d.f.)
GHQ	Diagnostic groups (cases=1, non-cases=0)	.12**	.24	.01**	.01**	8.35 (1.601)
Demographic	Analysis 2					
	Education (low =0, high =1)	-.25***	-.26	.10***	.10**	22.50 (3.599)
	Gender (M=1, F=2)	-	-			
	Age	.12**	.01			
Employment (Employee=1.unemployed & other =0)	.22***	.47				
GHQ	Diagnostic groups (cases=1, non-cases=0)	.09**	.18	.11***	.01*	4.81 (1.598)
Demographic	Analysis 3					
	Education (low =0, high =1)	-.18***	-.18	.10***	.10**	22.50 (3.599)
	Age	.06	.01			
	Employment (Employee=1.unemployed & other =0)	.15***	.33			
Aetiological beliefs (Probably dose not=1, Probably dose 3)	Weak constitution	.17***	.03	.28***	.18*	23.97 (6.593)
	Invasion	-.13**	-.03			
	Emotion	.13**	.04			
	Serious diseases	-	-			
	Digestion	.10*	.04			
	Supernatural	.17***	.07			
	Lifestyle	.15***	.06			
GHQ	Diagnostic groups (cases=1, non-cases=0)	-	-	-	-	-

* $p \leq 0.05$, ** $p \leq 0.01$, *** $p \leq 0.001$.

The second analysis sought to examine whether patients' characteristics explained differences in their request for emotional support, and the different intentions of cases and non-cases. Patients' characteristics (i.e., education, gender, age, and employment) were entered in block 1, followed by diagnostic group in block 2. Each block was significant. Age, education and employment were significant. More support was

sought by patients who were older, less educated and those who were employees. Gender was non-significant. Patients' characteristics accounted for 10% of the variance in patients' requests for emotional support. The diagnostic group emerged once again as a significant predictor.

The third analysis sought to examine whether aetiological beliefs explained differences in patients' requests for emotional support and the different intentions of cases and non-cases. Aetiological beliefs, including weak constitution, invasion, emotion, serious diseases, digestion, supernatural, and lifestyle, were entered in block 2 (i.e. after patients' characteristics in block 1) followed by diagnostic group in block 3. Two blocks were significant. Patients' characteristics and aetiological beliefs were found to be uniquely significant, explaining 18% of the variance in patients' intention to seek emotional support. The only non-significant aetiological belief was "Serious disease". Belief in Invasion was related to wanting less support. The diagnostic group was no longer significantly associated with patients' request for emotional support, confirming that beliefs can explain the differences in requesting emotional support between cases and non-cases.

9.4.5.2 Explanation and reassurance

In a test for multicollinearity of the sets of variables on which patient request for explanation and reassurance was regressed, minimum tolerance was 0.55 and the maximum conditioning index was 26.46. Therefore, there was no appreciable multicollinearity.

The first analysis examined whether diagnostic groups (cases v. non-cases) predicted patients' request for explanation and reassurance (Table 9.5.ii). Diagnostic group was

not significant, confirming the result of the t-test, above. The second analysis sought to examine whether patients' characteristics explained differences in patients' request for explanation and reassurance. Patients' characteristics (i.e., education, gender, age, and employment) were entered in block 1. More explanation and reassurance was sought by patients who were less educated; females; and employees. Age was not significant. Patients' characteristics accounted for 5% of the variance in patients' request for explanation and reassurance.

Table 9.5.ii: Summary of multiple regression analyses. Sets of variables are included in successive blocks. Entry of variables within blocks is stepwise. F-to-enter and R² Change refer to the set of variables entered in one block. R² refers to complete set of variables entered to that point. β and b are taken from the final model. Only significant variable are shown.

Dependent Variable: request for explanation and reassurance.

	Analysis 1	β	b	R ²	R ² Change	F-to-enter (d.f.)
GHQ	Diagnostic groups (cases=1, non-cases=0)	-	-	-	-	-
	Analysis 2					
Demographic	Education (low =0, high =1)	-.17***	-.17	.05***	.05*	10.79 (3,598)
	Gender (M=1, F=2)	.19***	.37			
	Age	-	-			
	Employment (Employee=1,unemployed & other =0)	.10*	.22			
	Analysis 3					
Demographic	Education (low =0, high =1)	-.09*	-.09	.05***	.05*	10.79 (3,598)
	Gender (M=1, F=2)	.18***	.35			
	Employment (Employee=1,unemployed & other =0)	.05	.11			
Aetiological beliefs (Probably dose not=1, Probably dose 3)	Weak constitution	-	-	.16***	.11**	14.82 (5,593)
	Invasion	-.19***	-.04			
	Emotion	.13	.05			
	Serious diseases	.10*	.04			
	Digestion	.11**	.04			
	Supernatural	.11**	.04			
	Lifestyle	.11**	.05			

* $p \leq 0.05$, ** $p \leq 0.01$, *** $p \leq 0.001$.

The third analysis sought to examine whether aetiological beliefs explained differences in patients' request for explanation and reassurance. Aetiological beliefs were entered in block 2 (i.e. after patients' characteristics in block 1). Each block was significant. Aetiological beliefs explained 11% of the variance in patients' intention to seek explanation and reassurance. In the aetiological beliefs block only the weak constitution was non-significant. Invasion was negatively associated with the intention.

9.4.5.3 Investigation and treatment

In a test for multicollinearity of the set of variables on which patients' request for investigation and treatment was regressed, minimum tolerance was 0.55 and the maximum conditioning index was 26.47. Therefore, there was no appreciable multicollinearity.

The first analysis examined whether diagnostic groups predicted patients' request for investigation and treatment (Table 9.5.iii). Diagnostic group was not significant, confirming the result of the t-test, above.

Table 9.5.iii:

Summary of multiple regression analyses. Sets of variables are included in successive blocks. Entry of variables within blocks is stepwise. **F-to-enter** and **R² Change** refer to the set of variables entered in one block. **R²** refers to complete set of variables entered to that point. **β** and **b** are taken from the final model. Only significant variables are shown.

Dependent Variable: Request for Investigation and treatment.

	Analysis 1	β	b	R ²	R ² Change	F-to-enter (d.f.)
GHQ	Diagnostic groups (cases=1, non-cases=0)	-	-	-	-	-
	Analysis 2					
Demographic	Education (low =0, high =1)	-.16***	-.16	.03***	.03***	15.96 (1,600)
	Gender (M=1, F=2)	-	-			
	Age	-	-			
	Employment (Employee=1, unemployed & other =0)	-	-			
	Analysis 3					
Demographic	Education (low =0, high =1)	-.19***	-.19	.03***	.03***	15.96 (1,600)
Aetiological beliefs (Probably dose not=1, Probably dose 3)	Weak constitution	-	-	.04***	.01**	6.74 (1,599)
	Invasion	-	-			
	Emotion	-.11**	.03			
	Serious diseases	-	-			
	Digestion	-	-			
	Supernatural	-	-			
	Lifestyle	-	-			

* $p \leq 0.05$, ** $p \leq 0.01$, *** $p \leq 0.001$.

The second analysis sought to examine whether patients' characteristics explained differences in their request for investigation and treatment. Patients' characteristics (i.e., education, gender, age, and employment) were entered in block 1. Patients' characteristics were significant, but only one of the variables, education, was significant, more investigation and treatment being wanted by less educated people. Patients' characteristics accounted for only 3% of the variance in patients' request for investigation and treatment.

The third analysis sought to examine whether aetiological beliefs explained differences in patients' request for investigation and treatment. Aetiological beliefs were entered in block 2 (i.e. after patients' characteristics in block 1). Each block was significant, but only one of the variables, emotion, was significant; emotional beliefs were associated with wanting less investigation and treatment.

9.4.6 Accuracy of GPs' detection of patients' intentions

This section of results will answer the following question: How accurately do the GPs perceive patients' intentions? GPs were not generally able to recognise patients' intentions. GPs' assessments of patients' intentions were significantly different from what patients requested. This was more obvious with those patients who requested "explanation /reassurance" or "emotional support". For each of these sub-scales, the GP underestimated patients' intention in both diagnostic groups (see Table 9.6). Of non-case patients who recorded that they needed "explanation /reassurance" (n=165), only 81 of them (49%) were detected by their GPs as requesting this. Also, of those non-case patients who recorded that they needed "emotional support" (n=117), only 35 of them (29%) were detected by their GPs as seeking it. Regarding case patients, of those who recorded that they needed "explanation /reassurance" (n=156), only 53 of them (34%) were detected by their GPs. Of those cases who recorded they needed "emotional support" (n=109), only 59 of them (54%) were detected by their GPs. However, the only intention to which GPs could be shown to be accurate was the seeking of "Investigation and treatment". They recognised the intention in almost all the patients, about 98% of non-cases and about 100% of cases.

Table 9.6: Accuracy of perceiving patients' intentions between GP's assessment and patients' requests. Results are shown for the two diagnostic groups: Non-cases and Cases. Wilcoxon test (Z) was used to test differences between GPs' and patients ratings.

Patients intention request (Non-cases)		GP's assessment				Z (P)
		No	Uncertain	Yes	Total	
Explanation & Reassurance	No	122	2	9	133	8.15 (.000)
	Uncertain	28	12	2	42	
	Yes	81	3	81	165	
	Total	231	17	92	340	
Investigation & Treatment	No	0	0	2	14	1.09 (.840)
	Uncertain	0	0	15	12	
	Yes	0	8	315	314	
	Total	0	8	332	340	
Emotional support	No	159	21	20	200	5.50 (.000)
	Uncertain	13	10	0	23	
	Yes	74	8	35	117	
	Total	246	39	55	340	
(Cases)						
Explanation & Reassurance	No	52	11	14	77	7.91 (.000)
	Uncertain	18	7	8	33	
	Yes	97	6	53	156	
	Total	167	24	75	266	
Investigation & Treatment	No	1	0	3	21	1.83 (.067)
	Uncertain	0	1	10	24	
	Yes	2	1	248	221	
	Total	3	2	261	226	
Emotional support	No	116	17	3	136	5.62 (.000)
	Uncertain	10	5	6	21	
	Yes	47	3	59	109	
	Total	173	25	68	266	

9.5 Discussion

9.5.1 The importance of the study

As for the aspects of Study Three reported in previous chapters, the strength of the study lies in the high quality of translation of internationally validated measures of patients' intentions which enables comparison with other research in Non-Arabic countries. The current study is the first, to the researcher's knowledge, that has

explored patients' intentions in Saudi Arabian primary care. By use of sophisticated statistical methods, it has demonstrated the validity of a questionnaire that can pioneer the study of patients' intentions in Arab countries and open the door for many researchers to explore this novel area.

9.5.2 Main findings

9.5.2.1 Factor structure of the Patients Request Form

The PRF was translated to the Lithuanian language previously (Zebiene et al, 2004). Therefore, Arabic is the second language into which the PRF has been translated. The value of the Arabic PRF questionnaire is that the Arabic PRF could be used throughout 23 Arabic countries.

The present analysis of this scale also has implications beyond Arab countries. This analysis (i.e., CFA) extends previous analysis with this scale, which has been restricted to principal components analysis. Moreover, by using two distinct samples to investigate patients' intentions it has been possible also to demonstrate that the structure of intentions is similar in two very different cultures.

These analyses have answered the first question of the current study. Results indicate that the instrument, in both translations and both samples, conforms well to the three-factor structure reported in the UK by Valori et al (1996). The UK sample shows a good fit to the data while the Arabic sample shows an excellent fit. This difference in the fit between the two samples, although both of them showed a high fit, could reflect sample size as the size of the UK sample was less than half the size of the Arabic sample in the main study. Previous studies indicated a positive relationship between the size of the sample and the level of fit indices (Shevlin and Milesb, 1998).

Despite similarities in the general structure of the patients' intentions questionnaire in Saudi Arabia and UK, it would be incorrect to conclude that patients' intentions in both countries are identical (Zebiene et al, 2004). This statistical method identifies the main sources of common variance between the items. Minor sources of variance are not identified and could differ between cultures. Moreover, it needs to be pointed out that the original PRF is only for primary care patients as, therefore, is the Arabic PRF. The adaptation procedure carried out in this study was focused on patients in primary care centres. Therefore this adaptation may not be applicable to other groups.

9.5.2.2 Do cases have different intentions from non-cases?

The second aim of this study was to answer the question whether psychological cases have different intentions from non-cases. The result confirms the finding of Study One that cases seek emotional support more than non-cases. This has not been confirmed in Arab studies before. It has been reported in Western studies that cases may seek more emotional support than non-cases. Specifically, in a study of Salmon et al (1994), they found that patients who are emotionally distressed seek more support from their GPs. However, this finding supports the previous discussion; psychologically distressed patients in Saudi Arabian primary care need to be supported emotionally by their GPs, even if – as most do– they view their symptoms to be physical. Also, this finding is consistent with earlier findings, in Chapters Five and Eight, that cases are more likely to report emotional factors as a cause of their symptoms.

However, as expected, cases and non-cases reported no difference in respect of their desire for explanation and reassurance or investigation and treatment. If intentions are

reflected in GPs treatment, we should expect, therefore, that cases should receive no more medical intervention than non-cases. This will be tested in the next chapter.

9.5.2.3 The impact of aetiological beliefs on patients' intentions

To the best of the current researcher's knowledge, the impact of aetiological beliefs on patients' intentions has not been tested before. The present study is the first in an Arab culture and the first in any culture. The series of multiple regression analyses examined whether patients' aetiological beliefs influence their intentions and explain the difference between cases and non-cases in the desire for support.

In the second set of analyses, when "Emotional Support" was regressed on the patients' characteristics, older patients; less educated ones and employees requested more emotional support. As mentioned in Chapter Eight, these two characteristics (i.e., older patients and less educated) may refer to the same thing – lack of formal knowledge about health and illness. Most of the old and middle aged in Saudi Arabia are less educated than young Saudis. Those patients who were less educated may need more help in general from their GPs than those who were more educated because they have no alternative sources of knowledge that could help them to cope with their problem. This assumption could be confirmed by the other sets of analyses (i.e., patient requests for: Explanation and reassurance or Investigation and treatment), where less educated patients also needed more help from their GPs. This finding could be linked with the discussion of the previous chapter (i.e., Chapter Eight). Old patients with less education are not familiar with western medical terms. However, they do need formal and Western medication. They need their GPs to communicate with them in simpler language (i.e., using lay-man's language rather than a scientific one). It is essential to provide all patients with information. But for old and less

educated patients, this information should be at a level that they can readily understand. Providing the information in patients' own languages, especially for old and less educated patients, is often crucial in helping them understand their problem and benefits from their treatment (Hietanen et al, 2000).

The previous analysis confirmed that employees requested more emotional support. This finding can be linked with the finding of aetiological beliefs (see Chapter Eight). The item "Overwork" was cited by patients among the first three main causes of their symptoms. Also this finding links with another suggestion in Chapter Eight: that employees seek more informal help because they regard themselves as suffering from stress in the workplace and needing something more than the GPs' drugs.

Furthermore, this finding links with the result in Chapter Four and Chapter Seven where employed patients reported more psychological disorders compared with those who were not employed. It may be that employed patients are more vulnerable to work stress. Therefore, they need more emotional support.

In the third set of analyses, the difference between cases and non-cases in requesting emotional support could be explained by their differing aetiological beliefs. This result confirms the important role of patients' beliefs in shaping their seeking of emotional help. As expected, all the aetiological beliefs which might be regarded as non-physical, i.e., "Emotion; Supernatural; Lifestyle" and "Weak constitution" (which were cited by cases more than non-cases; see Chapter Eight), were found to be uniquely significant, confirming that requesting "Emotional support" from the GP was related to all these beliefs. The aetiological beliefs were able to explain 18% of patient's request for "Emotional support". It is worth noting the role of cultural beliefs here. It seems that patients who hold cultural beliefs among their aetiological beliefs

want more support from their GPs. The services of primary care in Saudi Arabia may need to give more attention to helping patients with needs arising from cultural beliefs. This point will be addressed in more detail in Chapter Twelve.

The aetiological belief “Digestion” was significantly related to the desire for support also, despite being a physical belief. There is no clear explanation of this result, but it is worth mentioning that, when the researcher interviewed patients for the qualitative study (see Chapter Eleven) he observed that there were several who complained of “irritable bowel” and appeared to be seeking emotional support. However, whether a large proportion of such patients are present, and whether their support needs explain this result is beyond the scope of this thesis. Finally, as expected, the aetiological belief “Invasion” was negatively related to requesting emotional support from the GP. Therefore, if patients attribute their symptoms to an acute external factor such as infection, they do not seek support from the GP.

The finding of no difference between cases and non-cases in their other intentions is in accordance with a study of Salmon et al (1994) which found that patients with psychological distress do not seek more medical treatment or information than other patients.

However, the aetiological beliefs were able to explain 11% of patient’s request for “Explanation and reassurance”. Except for “Weak constitution”, and “Invasion” which correlated negatively, all the aetiological beliefs were found to be uniquely significant, revealing that patients with most aetiological beliefs requested most explanation and reassurance. Even those patients with physical beliefs needed more explanation and reassurance.

Finally, the aetiological beliefs were able to explain only 1% of patient's request for "Investigation and treatment". All the aetiological beliefs were unrelated to seeking investigation and treatment from GP, except for a negative relationship of "Emotion" beliefs. Patients with such beliefs came to primary care for help other than investigation and treatment. If this is right, GPs need to pay particular attention to these other sources of help rather than physical interventions for patients with emotional beliefs.

9.5.2.4 Accuracy of GPs' detection of patients' intentions

The strategy which has been used in the current study to explore the ability of the GPs to detect patients' intentions was a unique strategy which has not been used before to the best of the current researcher's knowledge. This strategy was to use a scale which has been modified to be brief enough to be completed by the GP and flexible enough to be used in two different populations, i.e. the GPs and their patients. Patients were asked to fill in this questionnaire before consultation, while GPs were asked to fill it in after consultation. There were significant differences between what patients wanted from their GPs and what GPs thought were the patients' intentions. In particular, many of the non-cases and cases who were seeking "explanation /reassurance" or "emotional support" were missed by their GPs. The only intention to which GPs could be shown to be highly sensitive was the seeking of "Investigation and treatment".

However, this result is in accordance with the general impression throughout this thesis that the GPs in Arab countries are trained physically. Although previous studies have suggested this, this study is the only study which has demonstrated it in practice. Becker (2004) reported that the Arabic doctor focuses on physical symptoms and minimizes the role of psychological needs of patients. Al-Shammari and Al-Subaie

(1999) reported that some Saudis' doctors may feel unable to provide social support when treating patients. However, this finding is in discordance with the study of Salmon et al (1994) where the GPs were only able to detect the demand for support. This could be explained by the previous suggestion. Arab GPs are less sensitive to psychological issues than physical ones. The different methods used in the two studies for measuring detection of patients' intention could be another explanation. However, this apparent sensitivity (i.e., the ability of the GP to detect patient's need for "Investigation and treatment") could be false because GPs expect almost all their care patients to seek help for "Investigation and treatment", and almost all do. Therefore the apparent agreement does not necessarily reflect an ability to detect needs on an individual basis.

From another point of view, the current result could be linked with the results from Chapter Eight. Beliefs and cultural background, for the GP and the patient, are present in the consultation (Wachtler et al, 2006), and consequently affect the ability of the GP to detect a patient's intention. Patients tend to experience health and disease according to their cultural beliefs, and create their intentions accordingly (Flores, 2000). By contrast, GPs will act in the consultation according to Western perspectives.

There is a very important point here which cannot be ignored in this discussion. In the current study (see Chapter Seven), none of the GPs are Saudi citizens. Only 5% were trained or graduated from Saudi faculties of medicine, and about 30% were non-Arabic. It is clear that there are differences in the culture between patients and GPs. This difference could contribute to the inaccuracy of GPs' detection of patients' intentions. Communication problems between patients and GPs arise when the

patients' culture and the GP's culture cause different understanding of health and disease (Flores, 2000). However, this point needs to be investigated qualitatively. This will be addressed in Chapter Eleven.

9.5.3 Limitations of the study

Beliefs and intentions were measured at the same time. Therefore, although the regression analyses can be interpreted as studying the influence of beliefs on intentions, the direction of cause and effect is not known. In particular, it is possible that the associations found reflect the influence of further variables that were not measured in the study. The design of Study Three was more salient to those participating because questionnaires were to be completed after consultation as well as before. This makes it more likely that the GPs who participated in the current study were reminded that the researcher was conducting psychological research about GPs, patients and consultation. Therefore, perhaps the participating GPs paid more attention in communicating with their patients to meeting their intentions. In this case, the findings might overestimate the accuracy of the GPs in perceiving their patients' intentions.

9.5.4 Clinical implications

The value of this PRF scale is that it is the first scale that can be used to measure Arabic patients' intentions. Arabic doctors underestimate the importance of supporting patients and reassuring them (Al-Shammari and Al-Subaie, 1999). Therefore, using the PRF scale in practice might be able to turn the attention of Arabic GPs to aspects of the patients' intention which are being neglected.

In today's age, doctors are encouraged to consider patients as equal partners in their health-care (Salmon and Young, 2005; Edwards and Staniszewska, 2000). It is therefore not for the GP alone to decide what is good for the patient. GPs are encouraged to involve the patient in making decisions. However, this requires that the GP should be able to find out what the patient wants.

Another problem which needs to be considered is that GPs could miss patients' intention because of differences in culture. This problem could arise even if the GP is Arabic GP and if he/she is restricted to western concepts of health and disease. It is already known that problems can arise in consultation when the patient and the GP do not share the same culture (Wachtler et al, 2006).

As mentioned previously (Chapters Five and Eight), cases were more likely to report emotional factors as a cause of their symptoms. In the current chapter, again, cases were more likely to report that they requested emotional support more than non-cases. Therefore, it is very important for the Saudi GP to understand this and provide them with the additional emotional support which is needed. Moreover, patients with psychological beliefs also need from their GPs more explanation and reassurance rather than more drugs or physical treatments. It is therefore important that Saudi GPs, who have been criticised for over-reliance on drugs in their treatment (Al-Faris and Al-Taweel, 1999), are encouraged to involve patients in making decisions. This should begin by finding out what the patient wants.

9.5.5 Implications for future research

The validation of the PRF in this chapter will enable research into the needs of primary care patients in Arab cultures and how well they are perceived. In particular,

it could be used to study other groups of patients where there is reason to suspect that their needs are not recognised or are misunderstood, for example patients presenting unexplained symptoms (Salmon et al, 2005). The brief form developed in this study could also be used in evaluation of training of GPs.

Although it is well accepted that what patients want from their doctors depends on what they believe about their problems (Helman, 1994; Salmon, 2000a), very little research has examined this quantitatively. The present findings suggest that this could be done more widely, with the methods used here. It would then be possible to find out whether the different beliefs of different cultures lead to different demands on doctors. For example, in the present chapter, it was clear that supernatural beliefs were a main reason why patients wanted support from their doctor. This could mean that patients in cultures such as Arab ones (particularly patients who are psychologically distressed and have stronger supernatural beliefs) need more support than those in cultures with less religious and supernatural explanation of illness.

It will also be important to examine how beliefs influence the decision to attend the doctor. In this chapter, patients who had a belief in an external, short-term cause of their illness were less likely to seek explanation from the doctor. Such beliefs might therefore delay their consultation with a GP.

Quantitative studies of intentions can be very powerful in allowing us to study differences between different groups of patients and the accuracy of GPs' perception. However, it is still not clear exactly what psychologically distressed patients mean when they are scored by the PRF as wanting more support from the GP. 'Support' is a vague term. Qualitative methods could help to understand what patients want. Similarly, quantitative methods can show the size of the influence of beliefs on what

patients seek from the doctor. However, they cannot show why the beliefs have this effect; for example, why supernatural beliefs lead psychologically distressed patients to seek more support from the doctor. Again, qualitative methods could throw light on this issue.

The relationship between the characteristics of GPs and their ability to meet their patients' intentions has not been taken into consideration in this study. Future work could explore extensively the influence of GPs' characteristics on their ability to meet patients' intentions.

Finally, the importance of GPs' misperception of patients' intentions is because it is a key potential barrier in preventing patients from receiving the care that they need. Therefore it is important to go on to examine whether patients who are cases receive different care from non-cases. This will be examined in the next chapter.

Chapter 10: Study Three: GP's treatment and decision

10.1 Introduction

General practitioners' treatments include a variety of possible decisions. A GP can prescribe from a wide range of drugs and can take a variety of other actions such as referring a patient to a specialist, or asking a patient to take tests. Goldberg and Huxley (1980) suggested that, when patients with minor mood disorders accompanied by somatic symptoms attend primary care, their GP may overlook the psychological problems and prescribe only symptomatic medication.

It is likely that such practice is also common in Arab countries. As previously mentioned, the majority of general practitioners in the Arab world have been trained exclusively to deal with physical conditions (Al-Faris, 1998). That is, the biomedical approach is favoured in medical training which focuses almost entirely on physical causes of physical illness (Becker, 2004). Moreover, as explained previously, cultural factors mean that emotional disclosure and discussion is probably even less likely than in Western primary care.

A previous chapter examined whether GPs in Saudi Arabia detected psychological disorders in their patients and found that many disorders were undetected. That part of the study used formal questionnaires to record GPs' judgements. It remains possible that GPs' unstructured assessments of their patients might show that they are more accurate in distinguishing cases from non-cases, but in ways that are not detected reliably by the formal questionnaires. Therefore, the first aim of the part of the study described in this chapter is to examine the ways that GPs record the presentations of patients and compare the presentations that GPs detect in those patients who are 'cases' and 'non-cases'. The second aim in this chapter is to examine the treatment

decisions that GPs make. Compared to GP recognition of psychological disorders, relatively little research has been done into GP treatment decisions (Kendrick et al, 2005). It is important, for example, to know whether cases of psychological disorder are more likely to receive psychological treatment (usually, psychotropic drugs) and less likely to receive physical treatment. This will provide further evidence of the extent to which GPs are detecting psychological problems and prescribing psychotropic drugs. In addition, treatment decisions are important to research because they determine whether the patient receives appropriate care. Finally, decisions are also important because they can influence the future course of the patients' problems. This is because patients' ideas and beliefs about their illness and its treatment might be influenced by their GPs' decisions. In some cases patients, for example, might believe that they would only be given a drug when ill (Stimson, 1974). Therefore receiving a drug would increase their belief that they are ill.

10.2 Aims and hypotheses

The aims of the present study are to test the following predictions:

- *Hypothesis1*: according to the GPs' records, cases have different presentations compared with non-cases, with a higher proportion of psychological diagnoses.
- *Hypothesis2*: GPs make different treatment decisions for cases compared with non-cases; specifically, they prescribe more psychotropic drugs and fewer physical drugs and make fewer physical referrals.

10.3 Methods

10.3.1 Participants

10.3.1.1 Patients

These are detailed in Chapter Seven. Recruitment and ethical issues are detailed in Chapter Seven.

10.3.1.2 GPs

Forty GPs participated in the current study; their ages ranged from 34 to 49 and their experience as a GP ranged from 6 years to 20 years. See Chapter Seven for the full information of the GPs' characteristics.

10.3.2 Refusals and exclusions

These are detailed in Chapter Seven for GPs and patients.

10.3.3 Procedure

When a patient comes to see his GP in Saudi Arabia, s/he must first register at reception; it is normally not necessary to have a prior appointment to see the doctor. The receptionist needs the ID number of the patient to open the patient's file in the computer in order to print out the Patient's Form 1 (PF1). Afterwards, the patient is given his PF1 which includes some general details: name, date, ID number, age, sex, previous medical history, allergies, previous drugs and general history. The PF1 has three main sections: The first section is for the symptoms identified in the present consultation by the doctor; the second is about the GP's diagnosis and the third is about medication, referrals, tests, or any other type of treatment which has been decided. GPs have to obtain the PF1 from the patient and then fill it in briefly

according to what happens in the consultation. Usually, doctors keep PF1 forms in their clinics until the end of the day when they hand them over to the medical archives clerk.

After obtaining authority, the current researcher arranged with the medical archives clerks in each primary care centre to photocopy the PF1 forms of all those patients who had completed the research questionnaire. It should be noted here that patients were referred to by a code number in the study records, not by their names. The heads of the medical archive at some primary care centres declined permission to photocopy the PF1s or form the medical records. To overcome this problem, after consultation, and inside the GP's clinic, the current researcher manually copied the required information from the PF1s with the permission of the heads of the medical archives.

A special checklist list was designed onto which to transfer the information in the PF1. Three columns regarding each patient were completed: 1) column one was for the symptoms of the patients; 2) column two was for the GP's diagnosis; 3) column three was for treatment, which included five sub-columns for drugs, referral, follow-up, more tests, and any other type of treatment.

10.3.4 Coding of GP records

A modified version of the scheme described by Stanley et al (2002) was used to categorize patients' presentations. It includes four groups of symptoms: fatigue; emotional; musculoskeletal; and 'other'. Two groups of symptoms were added: abdominal and upper respiratory. The British National Formulary 49 (BNF) March 2005 was used to categorize drugs which had been prescribed by the GPs. The third

section of the PF1 provided information on other treatments, which were categorised into: referrals; follow up; and more tests.

10.3.5 Statistical Analysis

Descriptive statistics were used to summarise patients' presentations. Then, the Chi-square test was used to examine the differences between the two diagnostic groups. Similarly, descriptive statistics were used to summarise those drugs which were prescribed by GPs, and their other treatment decisions. Then the Chi-square test was used to examine the differences between the two diagnostic groups. To avoid the risk of Type 1 errors, a significance criterion of $p < .01$ was used. Statistical analyses were performed with the aid of SPSS 12 for Windows.

10.4 Results

10.4.1 Patients' presentations according to GPs' records

For most of the patients (82%), multiple presentations were recorded by the GPs. These are categorized in Table 10.1. Thirty-eight different types of presentation that GPs noted were categorized into six groups (see Table 10.1): abdominal (7 presentations); musculoskeletal (7 presentations); upper respiratory (7 presentations); emotional (4 presentations); fatigue (4 presentations); and other presentations (9 presentations). 'Abdominal' was the most common presentation throughout the sample, and 51% of them were described as peptic acid disease. 'Musculoskeletal' was the second common presentation of which back pain was the most common (33%). 'Emotional' and 'fatigue' presentations were rarely endorsed. Figure 10.1 and Figure 10.2 illustrate the patients' presentations according to the GPs.

Table 10.1: Details of the main patient presentations which were noted by GPs, ranked according to numbers reported by each GP. Patients may have more than one presentation

	Category of Presentation	Presentation	%
1	Abdominal	upset stomach, stomach pain, irritable bowel, digestive disease, diarrhoea, constipation, indigestion, heartburn, being sick	26.21
2	Musculoskeletal	feeling stiff, swelling, aches all over, cramps, gout, chest / legs/ arms pain, back pain/ neck pain	23.30
3	Upper respiratory	sore throat/ cough, runny nose, temperature, short of breath, difficulty swallowing, difficulty breathing, ear/ nose/ throat problems	20.82
5	Fatigue	fatigue, tired, weak, sleep disorders	13.71
4	Emotional	anxiety, eating disorders, sexual dysfunction, psychological problems	5.90
6	Other presentation	eye problems, shaking/trembling, headache, pregnancy and maternity, diabetes, dizziness, skin problems, sprain or other injury, asthma	29.23

As shown in Table 10.2 cases and non-cases did not differ in the frequency of abdominal or musculoskeletal presentations. Chi-square test confirmed that cases were recorded as presenting more fatigue and emotional presentations than non-cases, and fewer respiratory and ‘other’ presentations.

Figure 10.1: Non-cases' presentations according to the GPs. The diagram shows three groups of presentations: Fatigue; Emotion; Physical (i.e., all the other physical categories). The Figures in the diagram are percentages.

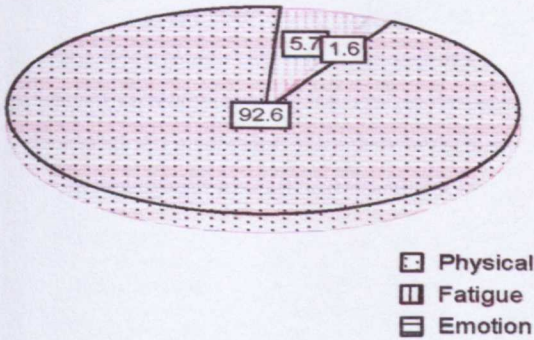


Figure 10.2: Cases' presentations according to the GPs. The diagram shows three groups of presentations: Fatigue; Emotion; Physical (i.e., all the other physical categories). The Figures in the diagram are percentages.

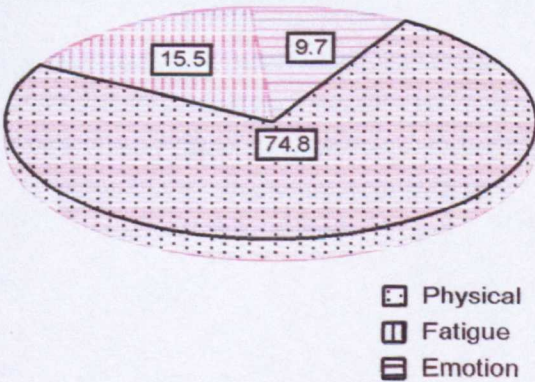


Table 10.2: Means, frequencies, percentages, and χ^2 tests for patients' presentation, comparing between the two diagnostic groups: non-cases and cases. Results shown are ranked according to numbers of non-cases' presentations which were reported by each GP.

	Non-cases		Cases		df	χ^2	P
	N	%	N	%			
Abdominal	95	27.91	64	24.10	1	1.16	.281
Upper respiratory	87	25.60	39	14.70	1	10.82	.001
Musculoskeletal	73	21.50	68	25.60	1	1.40	.237
Fatigue	22	6.50	61	23.10	2	34.80	.000
Emotional	6	1.80	30	11.31	1	24.17	.000
Other presentation	119	35.0	58	21.82	1	12.57	.000

10.4.2 Drug prescriptions and other decisions according to GPs' records

About 96% of the patients received two or more drugs, and about 61% received three drugs or more. Table 10.3 details the drugs that were prescribed by GPs. Antibiotics were the most common drugs prescribed, whereas antidepressants and hypnotic and anxiolytics drugs were rarely endorsed and at the bottom of the list of drugs. However, prescription of these and other types of drug differed between the diagnostic groups.

Table 10.3: Details of the groups of drugs that were prescribed by GPs, categorized according to BNF. Results shown are ranked according to numbers prescribed.

	Drug type	%
1	Antibiotics	23.4
2	Vitamins and Minerals	14.9
3	Antipyretic (paracetamol)	12.0
4	Laxatives	12.0
5	Antacids	11.0
6	Antispasmodic	9.7
7	Analgesics	9.6
8	Cough suppressants	9.4
9	Oxygen	4.5
10	Ulcer-healing drugs	3.8
11	Antihistamine	3.8
12	Antibacterial drugs	3.0
13	Antirheumatics	2.8
14	Nausea and vertigo Drug	2.8
15	Fluids and electrolytes	2.8
16	Antidepressant	1.8
17	Hypnotics and Anxiolytics Drug	1.6

Table 10.4 shows the comparison between cases and non-cases. Chi-square test confirmed that cases were prescribed more analgesics, vitamins and minerals, antidepressants, and hypnotics and anxiolytic drugs than were non-cases, and fewer antibiotics, cough suppressants and ulcer-healing drugs. Nevertheless, only 26 patients (9.8%) of the cases were prescribed psychotropic drugs. Antidepressants were prescribed more often than anxiolytics. Figures 10.3 and Figures 10.4 illustrate the GPs' prescriptions.

Table 10.4 Means, frequencies, percentages, and χ^2 tests for drugs prescribed by GPs, comparing between the two diagnostic groups: non-cases and cases. Results shown are ranked according to numbers of drugs which were prescribed to non-cases

	Non-cases		Cases		df	χ^2	P
	N	%	N	%			
Antibiotics	97	28.5	45	16.9	1	11.22	.000
Cough suppressants	45	13.2	12	4.5	2	15.91	.000
Antacids	43	12.6	23	8.6	1	2.46	.117
Antipyretic	41	12.1	31	11.7	2	0.79	.675
Laxatives	34	10.0	38	14.3	1	2.62	.106
Analgesics	28	8.2	69	26.8	1	35.61	.000
Antispasmodic	28	7.4	65	24.4	1	1.60	.206
Vitamins and Minerals	25	8.2	30	11.3	1	34.44	.000
Ulcer-healing drugs	21	6.2	2	0.8	1	12.03	.053
Antihistamine	17	5.0	6	2.3	1	3.08	.079
Oxygen	13	3.8	14	5.3	1	0.73	.394
Nausea and vertigo Drug	12	3.5	5	1.9	1	1.49	.222
Oral sodium and water	12	3.5	4	1.8	1	1.46	.220
Antirheumatics	8	2.4	9	3.4	1	0.58	.446
Fluids and electrolytes	8	2.4	9	3.4	1	.58	.446
Antibacterial drugs	7	2.1	11	4.1	1	2.23	.135
Antidepressant	0	0.0	15	5.6	1	19.66	.000
Hypnotics and Anxiolytics Drug	0	0.0	11	4.1	1	14.32	.000

Figure 10.3: Drugs prescribed to non-cases. The diagram shows four groups of drugs: vitamins; analgesic; antidepressants and anxiolytics; all other drugs. The Figures in the diagram are percentages.

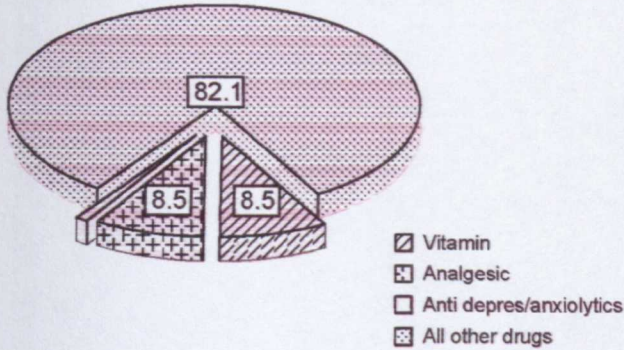
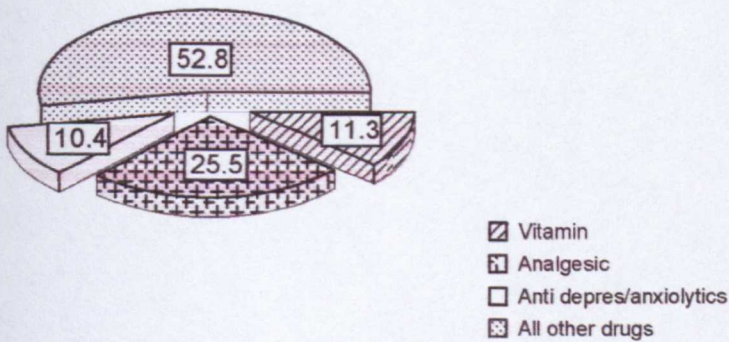


Figure 10.4: Drugs prescribed to cases. The diagram shows four groups of drugs: vitamins; analgesic; antidepressants and anxiolytics; all other drugs. The Figures in the diagram are percentages.



Other actions that were taken by GPs were listed in Table 10.5, where it can be seen that a significant minority of patients were referred to a specialist or offered a further GP appointment, and that tests were used more rarely. However, cases and non-cases

were not treated differently. None of the cases was referred to a psychological specialist (i.e. psychiatrist or psychologist).

Table 10.5: further actions taken by GPs. Results shown are ranked according to numbers of non-cases receiving each.

Further actions		Non-cases		Cases		df	χ^2	P
		N	%	N	%			
Refer patient to specialist		21	6.2	24	9.0	1	1.76	.185
Follow up		25	7.4	20	7.5	2	0.83	.662
More tests	X ray	12	3.5	5	1.9	4	11.58	.021
	Blood test	12	3.5	3	1.1			
	Ultrasound ray	1	0.3	6	2.3			
	Urinalysis	2	0.6	0	0.0			

10.5 Discussion

10.5.1 Strengths of the study

The main strength of this aspect of Study Three is that it examines what GPs do in consultation, rather than their responses to questionnaires. It has explored the pattern of the GPs' treatment decisions in Saudi primary care, comparison between cases and non-cases for the first time.

10.5.2 Main findings

10.5.2.1 GPs' diagnoses

Multiple presentations (82%) were recorded by the GPs. The most common presentations recorded by GPs were abdominal, musculoskeletal and upper respiratory. This type of physical morbidity pattern is seen generally in primary health care in Saudi Arabia (Al-Shammari et al, 1994). A study conducted among eight health centers in the city of Riyadh, the capital of Saudi Arabia, by Al-Faris and Al-Taweel (1999), found that the most frequent diagnoses were upper respiratory, abdominal and musculoskeletal. Due to the changing seasons of the year, it is possible that the commonly recorded pattern of the presentations in the current study may change over a year.

Back pain was the most common musculoskeletal presentation, which is consistent with the previous finding (see Chapter Seven) that back pain is a common symptom reported by patients and various studies that found musculoskeletal symptoms to be common in Saudi Arabian primary care (Al-Shammari et al, 1994). The prevalence of back pain in primary care in the UK is also high (Palmer et al, 2000). Finally, in the current study, fatigue was more common than emotional problems, consistent with the UK study of Stanley et al (2002), but both were relatively uncommon.

GPs diagnosed only about one-fifth of the cases as having emotional problems. Therefore there is no clear support for the first hypothesis of the current study. This low rate of detecting psychological disorders is in accordance with the previously reported low rate of detecting psychological disorders by GPs in Arab countries. Afana et al (2002) reported that the GPs detected only 11.6% of patients with psychological disorders. However, the current result is not consistent with Al-Faris

and Al-Taweel's (1999) study, in which no psychological diagnosis appeared among the diagnoses of 17067 patients in eight health centers in the city of Riyadh. This difference could be explained by the fact that, before 2001, GPs were prohibited from writing psychotropic drugs because the Ministry of Health intended GPs to send the potential psychological patients to hospital outpatient clinics.

The very low rate of psychological diagnosis in the current study is less than reported in non-Arabic studies. In the WHO study, Sartorius et al (1996b) found that about half of psychological disorders were recognised by the primary care physician. Weich et al (1995) concluded that GPs were able to detect about 20% of cases of psychological disorders where patients with those disorders presented only physical symptoms, 53% where patients presented both psychologically and physically, and 100% of those who complained of emotional problems. However, in the current study, it was not clear whether the patients at the consultation had presented with physical or psychological complaints or both.

10.5.2.2 Prescribed drugs

It is important to emphasise that studying the appropriateness of drug prescription is beyond the scope of the current study. Also no data were gathered regarding dosages or duration of treatment. However, to the current researcher's knowledge, these are the first data to be reported on psychotropic drugs prescriptions in Saudi primary care.

Most (61%) patients were given three or more drugs. The rate of antibiotic used (23.4%), was somewhat higher than the rate (14%) in Al-Faris and Al-Taweel's study (1999). As mentioned above, this difference could be due to the changing seasons of the year, especially as the study of Al-Faris and Al-Taweel (1999) was conducted in a

short period of time (two weeks), which could be too short to sample the general prescribing pattern. However, the current finding is much less than in another Saudi study. Mahfouz et al (1997) studied the prescribing patterns at primary care in Assir area, finding that 56% of patients received antibiotics. The colder weather of the Assir area in contrast to the rest of Saudi Arabia, and the timing of their study in winter, may explain this high rate of antibiotic prescription

Analgesics and vitamins and minerals were also prescribed at high levels, but especially to cases. The greater analgesic prescription in cases might be explained by the association of caseness with pain symptoms (see Chapter Eight). It has previously been reported in some Saudi studies in psychiatric outpatient clinics that vitamins are prescribed frequently (Al-Ghamdy et al, 1999). However, this result partly could support the second hypothesis of the current study.

In the study of Linden et al (1999) which collected data from 15 centers around the world, it was remarkable to find that there is a wide variety of drugs prescribed for psychological disorders, and nearly 80% of those drugs have unproven clinical efficacy, including vitamins/tonics; analgesics; and herbal drugs. GPs' use of these drugs might reflect patient expectations, if there are cultural beliefs that psychological problems can be addressed by nutritional solutions. As concluded in Chapter Eight, those patients with emotional and lifestyle beliefs sought help from potions of traditional medicine: onion seed; olive oil; and honey. They used these informal drugs as non-specific tonics (see Chapter Two). It could be that patients see the vitamins and minerals in the same way. Another possible explanation is that the vitamins and minerals seem to the GP to be least harmful of the drugs that s/he could prescribe. GPs in the UK sometimes put more weight on addictiveness than on effectiveness

when considering antidepressant prescription (Kendrick et al, 2005). GPs' prescription could be affected also by patients' beliefs about antidepressants (Kendrick et al, 2005). Saudi patients are likely to have negative attitudes to these or other psychotropic drugs (Shahin and Daly, 1999). Further possibilities are that the GP prescribes vitamins and minerals as a placebo, or as a way of 'doing something', i.e. providing a tangible response to a patient's demands.

In New Zealand empirical treatment is used as a management option where GPs have no explicit diagnosis (MaGPIe Research Group, 2006). That is, GPs prescribe to see whether the drug makes a difference. Also, GPs prescribe drugs to maintain good relationships with patients, in the belief that this is what patients want (Butler et al, 1998).

Whatever the explanation, the fact that cases are more likely to receive such prescriptions suggests that consultation produces another barrier to these patients receiving appropriate care. Patients may believe that they are being prescribed a drug because they have a physical illness (Stimson, 1974). This will increase patients' reattendance (Little et al, 1997), where they seek the same drug.

To explore and test the above explanations, there is a need for a study which questions GPs about their reasons for prescribing each drug. In addition, more detailed information from patients about what they want and do not want when they consult their GP might help to understand how patients with psychological disorders are more likely than others to receive drugs that are unlikely to help them.

The current study confirms that psychotropic drugs do not play an important role in the treatment of psychological disorders by GPs. Only 3.4 % of all of the patients

(9.8% of the cases) were prescribed psychotropic drugs. This level is higher than in other Saudi primary care studies. Al-Faris and Al-Taweel (1999) reported that no psychotropic drugs were prescribed in 17067 prescriptions. A possible explanation has been described above: before 2001, Saudi Arabia GPs were prohibited from prescribing psychotropic drugs. The current result is in accordance with a recent study of the MaGPie Research Group (2006) in New Zealand when treatment was given to only 9.6% of primary care patients with a CIDI diagnosed disorder seen once for the first time.

However, this finding is discordant with the study of Linden et al (1999) when about 51% of all GP-diagnosed cases were prescribed psychotropic drugs. This discordance might be explained by cultural differences. Medical treatment in general and the prescription of drugs in particular are not related only to pharmacologic or medical variables but also to social and cultural factors (Bellantuono et al, 1988; Linden et al 1999).

As mentioned above, in a Saudi study about patients' attitudes toward psychotropic drugs, Shahin and Daly (1999) concluded that doctors might anticipate that patients or their community would reject a psychological diagnosis; therefore, they avoid prescribing psychotropic drugs. This explanation is in line with a recent UK study. Kendrick et al (2005) reported that offers of antidepressants were more likely where patient attitudes towards prescribing psychotropic drugs were perceived to be positive. Another explanation for the low rate of prescribing psychotropic drugs is related to the previous finding about the GP's diagnosis. If the GP fails to detect a psychological disorder, no psychotropic drugs will be prescribed. The first and the

most important predictor of drug treatment is the recognition of psychological disorders (Linden et al, 1999).

Psychotropic drugs are far from being the only effective treatment for some of psychological disorders (Donoghue et al, 1996b). It was not clear from this study if the GPs used non-pharmacological treatments or not. In the UK many GPs may prefer to use psychotherapy rather than drugs (Dowrick et al, 2000a). However, it is unlikely that the GPs in this study used 'talking treatments' with their patients because they would not be trained in this way and this would not be consistent with their use of physically-oriented drugs.

10.5.2.3 GPs' decisions regarding cases

Although there is a shortage in the psychiatric services in Saudi Arabia (see Chapter Two), it was striking to find that none of the cases were referred to psychological specialists. However, this finding is in accordance with various Arabic Studies that found a very small number of psychological patients were referred by their GPs (Khattab et al, 1999). In studies of patients attending psychiatric clinics, most were sent by their families and friends rather than by GPs (El-Gaaly et al, 1987; El-Assra and Amin, 1988). However, even in the USA, with its well-developed psychiatric and psychological services, these can be accessed by only a small minority of patients with psychological disorders. Forrest et al (2002) reported that only 3.6% of primary care patients with psychological disorders were referred to psychologists (2.1% of all referrals), followed by psychiatrists (1.3%) and social workers (0.4%).

The low numbers of psychological diagnoses made by GPs, and the absence of referrals of cases to specialists, might be a reflection of the low level of GPs'

detection of psychological disorders in Arab primary care (Khattab et al, 1999; Afana et al, 2002). Another possible explanation could be that GPs might anticipate that patients or their community would reject a psychological diagnosis and treatment (Shahin and Daly, 1999). GPs may feel that labelling by diagnosis and psychological treatment do more harm than good. In this situation, GPs might judge that patients have psychological disorders but consider them insufficiently severe to warrant a psychological diagnosis or treatment decision (Afana et al, 2002). However, without further investigation of the impact of the referral in primary care patients it is not clear whether this should be a cause of concern or reassuring (Hickie et al, 2001; MaGPie Research Group, 2006). Whatever the explanation may be, the appropriate treatment will only be possible if the GP is provided with more possibilities to refer to specialists, such as a psychiatrists, psychologists or social workers.

Finally, regarding the additional actions which were taken by GPs, there were no differences between case and non-cases. Cases received no more medical intervention than non-cases. Therefore there is no clear support for the second hypothesis of the current study. This result is consistent with the findings in Chapter Nine that cases desire no more medical intervention than non-cases. It is reassuring, therefore, that GPs are not especially 'somatising' cases by making physical treatment decisions other than prescription as discussed above.

10.5.3 Limitations of the study

Because GPs were aware that their decisions were being studied, it is possible that their behaviour was different from normal. However, there was no reason to suspect that they were behaving differently. Moreover, as they knew what the study was about, any influence on their behaviour would have been likely to make them more

'psychological' in their actions. Therefore, if there was any influence of their awareness on their behaviour, their normal behaviour would be even less 'psychological' than this study suggested. A limitation of the design is that the study did not explore the GPs' explanations regarding decisions and treatments made. Therefore the different explanations suggested have to remain speculative.

10.5.4 Clinical implications

Although GPs are only one group of health professionals who can deliver primary care, GPs are usually the first contact for patients with psychological disorders. These findings suggest that psychological treatment has not yet been integrated into Saudi Arabian primary care. GPs, according to the current finding, have a very limited role in the management of patients with psychological disorders.

Training GPs to detect and assess patients with psychological disorder should be more of a priority for Saudi Arabian health care providers. As the majority of GPs working in Saudi primary care have not been trained psychologically (Al-Faris, 1998), they should undertake a training program for detecting psychological disorders. Although there are questionnaires, such as the GHQ, that are designed to replicate psychological clinical judgements, GPs' diagnosis may not improve unless they apply such questionnaires instead of relying on their own judgements (Schmitz et al, 1999).

However, there will be little point in GPs detecting disorders unless they have more options for treating them. GPs may need support from their psychiatric and psychologist colleagues in managing psychological disorders (Saravay and Cole, 1998). They might benefit from training in psychological approaches, such as counselling, cognitive therapy, and behavioural therapy (Qureshi et al, 2001).

However, it may not be practicable for them to apply techniques of this kind in primary care. Therefore they need techniques that are more practicable in primary care.

Problem solving treatment is another effective psychological intervention which could be delivered within primary care without expensive or complex healthcare infrastructures (Dowrick et al, 2000c). This kind of intervention has three basic levels: patients' problems are defined and explained; patients' symptoms are linked with their problems; and in a structured way, an attempt is made to solve the patient's problem (Dowrick et al, 2000c). This structured intervention could be more effective for Saudi patients. Saudi patients who define and link their symptoms with cultural beliefs might feel reassured by this structured intervention. It is worth noting that traditional healers in Arab countries play a role as problem-solvers but with insufficient experience and unclear structuring (Ahmed et al, 1999). However, nurses with very little previous experience in psychological treatments can be trained to use problem solving techniques (Mynors-Wallis et al, 1997).

Skills in psychotropic prescribing, should also be added to the training program (Al-Faris, 1998). GPs should change their prescribing so that, if they are going to use drug prescriptions, they use psychotropic drugs of proven efficacy and dosage (Linden et al, 1999; Donoghue and Tylee, 1996).

Finally, by being published and made available to the Ministry of Health in Saudi Arabia as well as to GPs, the present findings can inform education and training about detection and treatment of psychological disorders.

10.5.5 Implications for future research

The current study highlights the need for further research into why Saudi Arabian GPs avoid psychological diagnoses and treatments and why they use specific types of physically-oriented drugs (particularly vitamin and mineral supplements) to treat cases. The first task is, since GPs' decisions seem to be affected by their patients' beliefs towards treatment in the UK, at least (Kendrick et al, 2005), to explore patients' attitudes, and specifically whether they would resist or accept psychological diagnoses and treatment and whether they seek vitamin and mineral supplements instead of emotional help. The second task is to focus on GPs and to find out what influences their decisions; specifically, whether their decisions reflect their own physically-oriented beliefs about what is wrong with the patient, their perception of what the patient would accept, or their wish to 'do something' for the patient. Qualitative study of patients' attitudes and beliefs will help with the first task. Qualitative interviews with GPs could address the second task, but is beyond the scope of this thesis.

Chapter 11: Study Four: Qualitative study

11.1 Introduction

The previous studies have certain limitations. Use of standardized questionnaires for investigation of patients' beliefs and intentions has received some criticism. Questionnaires may limit the patients' opportunity to express beliefs or concerns about different aspects of care. Patients may have a complex set of important beliefs that cannot be expressed in responses to standardized questionnaires.

Qualitative research, broadly defined, means "any kind of research that produces findings not arrived at by means of statistical procedures or other means of quantification" (Strauss and Corbin, 1990). Qualitative research is therefore usually 'inductive'. That is, general principles are derived from specific observations. It can produce new ways to think about problems, whereas quantitative work normally means examining problems using theories and ideas that already exist. Therefore, the role of qualitative research has become recognised in medical literature in the last decade because it can be used to answer 'how' questions (see Chapter Three; Steckler et al, 1992). In particular, it has been used to study patients' perspective on consultations in primary care. The findings of qualitative work cannot be generalised automatically to the wider population. However, they can suggest ideas that can help to make sense of quantitative findings, that could be tested quantitatively, or that can suggest new lines of research. Therefore, use of qualitative methodology may provide results that add to those in previous studies in this thesis.

Although, in Chapter Eight, very few patients regarded their symptoms as entirely psychological, many considered that there was an interaction of physical and psychological factors. Moreover, patients who were psychologically distressed were

more likely to attribute their problems, not just to emotional factors but to supernatural ones and to serious disease. They were more likely than other patients to expect help from prayer as well as from specialists. The quantitative findings of Study Three therefore suggest a complex interaction of beliefs about physical, psychological and religious or cultural factors.

There was also evidence that the GP consultation interacts with these beliefs. Expectations of help from both specialists and cultural/religious remedies increased in psychological cases after consultation (Chapter Eight). Although belief in the GP's help decreased in psychological cases, there was no evidence in Study One of their being less satisfied with the GP than other patients. It is not clear from these quantitative findings, however, how GPs' responses could have these effects.

Quantitative findings have shown that these factors interact. However, they cannot show how they interact. The present study was designed to help understand this.

This study is the first qualitative Saudi study conducted in primary care to study psychological problems. In fact, to the best of the current researcher's knowledge, this study is also the first study in an Arab country to use a qualitative method to study aspects of psychological problems in primary care centers. Chapter Three touches on the difficulties of using interviews where patients may not feel inclined to open up or express their true feelings. Therefore, one of the aims of this study is to explore whether or not it is possible to do qualitative work among Saudi primary care patients, and whether patients will talk openly or not.

11.2 Aims

The aims of this study were to:

1. Find out whether qualitative work is feasible in Saudi Arabian primary care patients.
2. Describe ways in which psychological, physical and cultural/religious factors interact in patients' understanding of their symptoms.
3. Describe the implications of this interaction for what patients wanted from their GPs and for how they responded to GPs.

11.3 Methods

11.3.1 Participants

The approach to sampling was to recruit typical patients (Patton, 2002). Patients from four primary care centers were approached immediately after their consultation, and asked to take part in a study to "*find out patients' point of view about their illness and consultation*". To confirm that the patient sample had a range of beliefs about psychological factors, the questionnaire of patients' views about the psychological or physical basis of their symptoms (see Chapter Eight) was used. The aim was to obtain equal numbers of patients from two groups: 1) patients who had entirely physical beliefs that their symptoms are physical; 2) patients who believed that psychological factors were involved in their symptoms or caused their symptoms. Patients were asked after consultation for agreement to be interviewed. Sixty three patients were asked to participate. Twenty seven patients agreed to be interviewed. None of them had taken part in the quantitative study. The sample of this study was chosen totally from the Assir area in order to study patients that were not greatly exposed to western cultural influences.

11.3.2 Refusals and exclusions

Thirty six patients, 3 males and 33 females (mean age 27.79; SD= 6.67) refused to participate in being interviewed. With respect to females, the most frequently mentioned reason for refusing to participate was the cultural issue of avoiding contact with men. Lack of time was the lone reason mentioned by males. No-one was excluded.

11.3.3 Interview

A semi-structured interview format was used and questions were designed to obtain open answers. Questions included general questions (e.g. *in a few words, could you tell me briefly about yourself*) to make the patient relaxed and comfortable. The first questions identified the patient's current medical and psychological problems, and whether or not s/he had disclosed them to the GP. The interview then covered five areas: 1) For those indicating psychological distress, their understanding of it and readiness to tell the GP about it (e.g. *what did you tell your doctors about the psychological effects of your symptoms?*). 2) Beliefs about the cause of the symptoms (e.g. *how did devil eyes harm you?*). 3) Cultural beliefs (e.g. *you told me that you always seek help only from Allah. How does Allah help you?*). 4) The reason why they consulted the GP (e.g. *what do you need more from your doctor?*). 5) Treatments and diagnostic decisions received, whether they had sought them and their attitudes to them (i.e. do cases ask for physical treatment only) (e.g. *what exactly did you ask for from your doctor?*).

The interviews were conducted by the present researcher, and took approximately 20-50 minutes, including the introduction and explanations. Permission to tape-record the interviews was rejected by some primary health care centers. In those primary care

centres which agreed to tape-recording of the interviews, the majority of patients refused to be tape-recorded because they would be anxious at being recorded. Interviews were recorded in only 4 cases. Other patients' responses were noted during the interview, and immediately after the interview the full text of the interview was written down in Arabic using these notes.

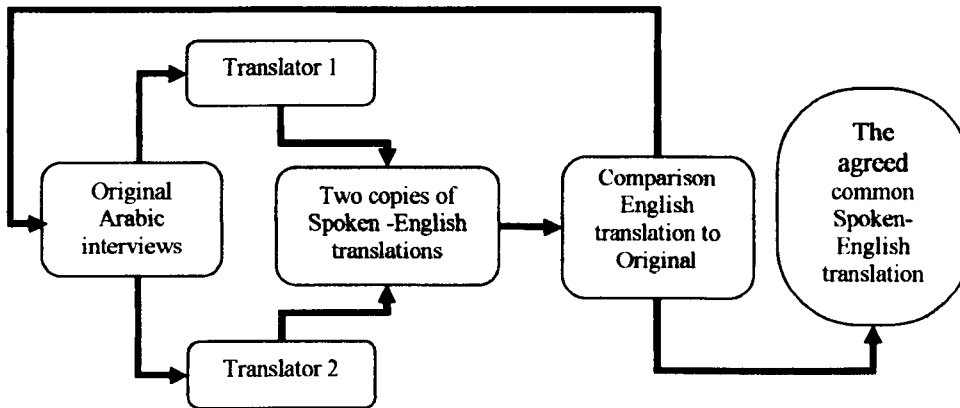
Fully listening to the interview was important in terms of understanding the meanings patients were attaching to particular situations or events. The listening involved a 'double attention' on the part of the current researcher who was also processing information and thinking of the next question to ask as the participant was responding. The researcher took notes in the interviews as well as registering non-verbal communication.

All the interviews were passed through a forward-translation process, similar to that described in Chapter Three (see Figure 11.1). Two independent bilingual translators (Translator 1 and Translator 2) translated the interviews from Arabic into English. Both translators were female Arabic-speakers who worked in the UK NHS. Both translators had worked before in translating the study questionnaires (see Chapter Three).

Independently, the translators worked to produce two English forward-translations. After finishing translation, they met together with the current researcher to compare their translations and to modify them if necessary. The current researcher urged the two translators to use spoken-English rather than academic-English in order to keep as close as possible to the spoken-Arabic language in the original interviews. At this stage, the major problem was in finding an exact spoken-English equivalent to several

spoken-Arabic words under translation. Afterwards, the agreed common version was produced.

Figure 11.1: The translation process of the interviews



Regarding the ethical issues, as in previous studies, an official letter from the Saudi Cultural Bureau in London and an official letter from the Ministry of Health in Saudi Arabia were necessary to approve the current researcher. In Saudi Arabia, the permission of the Health Ministry is required instead of Ethics Committee approval (see appendix). However, patients were all asked if they would give informed consent to participate in the current study. Individually, the aims of the study were explained to each patient and their oral consent taken.

11.3.4 Analysis

Bernard (1988) affirms that “all analysis is the search for patterns in data and for ideas that help explain the existence of those patterns”. Interview data in the present study took the form of transcripts from tape-recorded interviews and interviewer’s notes. The method of analysing data in the current study was inductive. The process is

grounded in the data rather than reflecting pre-existing ideas (Dey, 1998; Patton, 2002). That is, categories were not specified in advance. Analysis of the interview transcripts occurred in two phases. In phase one, each interview was analyzed for emerging themes and patterns in the data. Each transcript was coded, identifying these recurring themes. In the second phase of qualitative data analysis, these themes were grouped into broader categories. Relevant quotes (given in italics, 'P' is the patient and 'I' is the current researcher) from the interview highlighted the differences and similarities between these categories and themes. A letter was added beside the patient's number when there was more than one extract belonging to the same patient in the same section. Patients with psychological beliefs according to the questionnaire ranged from number 1 to 15 plus numbers 26 and 27, while patients with physical beliefs ranged from number 16 to 25.

11.4 Results

11.4.1 Sample

Twenty seven patients were interviewed. Interviews included 26 male and only 1 female patients. The characteristics of the sample are shown in Table 11.1. Seventeen patients believed that psychological factors were involved in their symptoms; and ten patients had beliefs that their symptoms were physical. Responses were monitored to ensure that patients were being recruited in reasonable numbers in two groups, as mentioned above. However, patients with psychological beliefs outweighed patients with physical beliefs. This result reflects the reality of the sample and that psychological beliefs about symptoms are widespread. This result is in link with the result of Study One and Study Three (see Chapter Five and Chapter Eight).

Table 11.1 Socio-demographic characteristics of the sample (*n*= 27)

Demographic characteristics		n	%
Sex	Male	26	96.30
	Female	1	3.70
Age	Mean	27.03	
	age range	21-51	
Marital state	Married	17	62.96
	Separated	3	11.11
	Single	7	25.93
Education	Intermediate school	3	11.11
	Secondary school	8	26.63
	Undergraduate	15	55.55
	Postgraduate	1	3.70
Occupation	Student	5	18.52
	Employed	13	48.15
	Not employed	7	25.93
	Retired	2	7.41

11.4.2 Qualitative analysis

Regarding the GPs whose patients participated in the current study, Table 11.2 details the GPs' characteristics. None of them was a Saudi citizen. None of them was a graduate of Saudi faculties of medicine. None of them was trained in Saudi primary care centers before commencing their work there. About 23% were non-Arabic.

Table 11.2: Socio-demographic characteristics of the GPs of Study Four ($n=9$)

GPs' characteristics		n	%
Gender	Males	8	88.89
	Females	1	11.11
Range age	≤ 35 years	6	66.67
	≥ 36 years	3	33.33
Range of GP experience	≤ 4 years	7	77.78
	≥ 5 years	2	22.22
Where trained	Egypt	4	44.45
	Pakistan	2	22.22
	India	1	11.11
	Sudan	1	11.11

11.4.2.1 Descriptions and explanations of symptoms

11.4.2.1.1 Presentations were complex

For the interviews transcripts of this section see Table 11.3i. Patients' descriptions of their symptoms generally began with a symptom or medical diagnosis, but went on to include other information. Seventeen patients' accounts included psychological components where they described psychological causes or effects of the symptoms or, in two cases, purely psychological symptoms. These corresponded exactly to the patients who had indicated psychological factors on the questionnaire about patients' view of the psychological or physical basis of their symptoms. The accounts of this group typically began with a single symptom but went on to describe general feelings of diffused 'illness' or malaise (Patient 2), with widespread psychosocial aspects (Patient 6), social aspects (Patient 8) or physical and psychosocial aspects (Patient 9).

Table 11.3i: Interview transcripts for “*Descriptions and explanations of symptoms*”.

These transcripts were organized according to the sub-titles in the text. Transcripts are in order according to the patients’ numbers.

Presentations were complex
<p>Patient 2: ... it is hard to explain that in a few words ... I think I have a serious problem in my stomach, I am not sure if it is an ulcer, it could be something else, I could have the devil's eyes on me.</p>
<p>Patient 6: I don't have definitive symptoms, just feel ill and nauseous, I feel so tired. I feel that I could fall down when I am walking... I am tired, I feel sick... I have a lot of demands. From my parents, my family, my job, from everybody... demands, demands.</p>
<p>Patient 8: Allergic rhinitis... I hate this pain ... when I have these symptoms I hate meeting people or attending parties or any social gathering... I feel distant from people around me as if there's no-one near me, I don't know what is going on.</p>
<p>Patient 9: I have two problems... my physical problem is obesity, the other side of my problem is the side effects of being obese, these side effects bring problems into my life... I become the butt of people's jokes, my friends always tell stories and jokes about me. Even within my family they don't care about my feelings, they always call me “heavy-man”.</p>
Illness has external causes
<p>Patient 1: I can say that I was Ok until I changed my job, I was a teacher at the school of ... and after about 10 years the head-teacher sent me to the centre of Education to be an administrative employee rather than a teacher, and unfortunately I worked with two employees who were smokers, since then I have had headaches and chest pain.</p>
<p>Patient 1b: I am sure that I have passed through difficult times... I want to change my workplace and escape from my family and I will be ok... I feel I have lost my nervous system.</p>
<p>Patient 3: I went out on one military manoeuvre in the middle of the summer and we used live ammunition, I later got diagnosed as having asthma, and the battalion's doctor wrote a recommendation to my authority to give me an exemption from undertaking any outdoor task.</p>
<p>Patient 6: I work at nights... we are three guards on night watch working shifts. This month my shift started from 10 PM to 8 AM.</p>
<p>Patient 7: My family don't understand the cause of my problem. They put me under pressure... they cause my problem and they don't know this fact.</p>
<p>Patient 13: My family ... I have social stress from my family and from the community.</p>
<p>Patient 14: Why have they called my illness “Irritable”? ... Because the psychological symptoms are the main problem... doctors said my problem came from psychological problems... Since the days of childhood, my family have described me as irritable.</p>
<p>Patient 15: I think my everyday tasks, the demands of my big family caused my problem.</p>
<p>Patient 17: I ate too much two weeks ago, then slept badly in an air-conditioned room ... the food was hot and I slept in a cool room which affected my digestion.</p>

Patient 18: *Infection in the atmosphere. The worst thing about this infection is that it strikes at this time of the year when people gather several times for big social events ... I went to one of my relative's party, one of my friends was unwell, he was taking some medication... he was the source of my illness.*

Patient 19: *I went to the university internal accommodation ... I got this virus from there.*

Patient 20: *I suspect it could be unclean food that is the source of my problem... I ate my food from a travelling salesman, the sandwich looked unclean.*

Patient 21: *we are a tribal society, with a lot of traditional customs, all our gatherings have included meals, heavy meals, usually whole camel, sheep, or goat... These meals affect me.*

Patient 23: *Pollution ...the grouping and the gathering at this time of summer.*

Supernatural causes of psychological problems

Patient 2: *I believe I have a Devil eye... I was okay until the year of 1999 when I attended my brothers' wedding ceremony and I sat with a subgroup of the guests around the dinner table. I ate a lot that night and from the next morning I started feeling unwell. I am sure one of them envied me.*

Patient 7: *Allah sent this pain to me, and He is able to treat me.*

Patient 11: *It is maybe a punishment from Allah ... when Allah loves someone He may punish him. Allah punishes his slave to remind him of some wrongdoing he may have done.*

Patient 14: *All of us must believe that everything that has happened has come from Allah.*

Patient 14b: *Allah tested me to see whether I will be patient or not.*

Patient 26: *there are jinn who have sought to amuse themselves by possessing members. The one who becomes possessed in this way would often found himself becoming so ill with mysterious symptoms. In my case, I started hearing strange voices in my chest. I began to utter my words with a harsh tone. The jinn possessed me to speak with borrowed voices. If the jinn possesses someone, it may use their body as if it was their own body. And sometimes they share the body with his owner... The Jinn may come back again to regain control of my body at anytime but I don't know when.*

Patient 27: *I think someone has an evil eye on me, I have a mysterious headache... I think that my husband's brother might be giving me the "evil eye"... I am sure he has cast an evil Eye on me because every time we tell him something that is going to happen or something new we get, it ends up getting damaged or ruined accompanied with a headache.*

11.4.2.1.2 Illness has external causes

For the Interview transcripts of this section see Table 11.3i. Explanations were a central part of almost all patients' accounts and were usually described without being asked for. One physical patient had no idea of cause (Patient 25: *No I don't know, really it is a strange colic and I have no clue*) and another cited high blood pressure

(Patient 22: *I think it is caused by high blood pressure*). All other explanations described external causes. In the physical group, family and work were sources of 'invasion' by food and cold (Patient 17), unclean food (Patient 20), traditional food (Patient 21), and by infection (Patient 19), including seasonal infection (Patient 18), and by pollution (Patient 23). Psychological patients told complex stories about social and environmental influences. Work, again, provided sources of their problem including changing job (Patient 1), demands of work (Patient 3), and work shifts (Patient 6). Family, once more were sources of their problem where they didn't understand the patient's problem (Patient 7), problems were caused by demands of family (Patient 15) or demands both of family and community (Patient 13). Patients described being trapped in family or work obligations that they knew were causing their symptoms but that they could not escape from (Patient 1b). Several used the words "Talabat; shoghl; waget", corresponding to English "stress", and used the phrase "I have lost my nervous system" corresponding to English "I am under stress". Some referred to personal and psychological problems (Patient 14).

11.4.2.1.3 Supernatural causes of psychological problems

For the interview transcripts of this section see Table 11.3i.. For some psychological patients, social causes worked supernaturally, by the devil eye (Patient 2) or evil eye (Patient 27). Allah caused the current illness (Patient 7) and all illness (Patient 14), as a punishment (Patient 11) or a test (Patient 14b). Similarly, the devil (jinn) could cause illness by possessing the patient (Patient 26). Supernatural causes were only described by the psychological group.

11.4.2.2 Accounts of treatment

11.4.2.2.1 GP as explainer and reassurer

For the Interviews transcripts of this section see Table 11.3ii. Most patients consulted the GP for information or explanations for their symptoms (Patient 13), information about their drugs (Patient 14), and for support and reassurance (Patient 20). Some described receiving what they needed (Patient 1) but others did not (Patient 2). This failure was because of the decision of the GP which was not accepted by patient (Patient 3) or because of the short duration of the consultation (Patient 12). Some consulted many doctors to compare explanations (Patient 5) or needed more explanations (Patient 22).

Table 11.3ii: Interview transcripts for “*Accounts of treatment*”. These transcripts were organized according to the sub-titles of the text. Transcripts are in order according to the patients’ numbers.

GP as explainer and reassurer

Patient 1: *Clearly, I like this doctor because he understood my problem and made it his priority to talk to me and reassure me, like you.*

Patient 2: *I need my doctor to reassure me, do you believe today I sat down on the chair and he spoke five minutes with me without making eye contact, would you believe?*

Patient 3: *I remember only one doctor last year who was sympathetic and spent more than the usual time with me, but he asked me to visit a psychiatrist at the end, unfortunately. I don't have a mental problem that warrants a visit to a psychiatrist at the mental health hospital, I want my doctor in the primary care do this job. You should see the Western Countries, they treat this problem within primary care.*

Patient 5: *...I want a GP to explain and reassure me about some previous results from a private doctor.*

Patient 12: *I need someone to reassure...I need an explanation of my symptoms... doctors don't have this time... you see this long snake queue making problems for doctors and patients...I need somebody like you to reassure me.*

Patient 13: *I need more information about my problem; I want my doctor to explain my symptoms to me. I need to have only two minutes more with him to explain my symptoms.*

Patient 14: *He checked me carefully then he prescribed me some tablets. I need to have more information about this drug.*

Patient 20: *My doctor gave me reassurance ... and this is what I need.*

Patient 22: *I visited several doctors without benefit... they did not explain the reason.*

GP as supporter and provider for treatment and investigation

Patient 1: *Take your time I am not in a rush and I have not met anybody like you before who cares and is prepared to listen to my story and who actually wants to help.*

Patient 1b: *I: how do you explain your problem at your workplace to your doctor? P: no no, he knows nothing about work problem, I've only told you.*

Patient 2: *I: what did you say about the cause of your symptoms? P: no no, I don't want to open this matter with my doctor at all... they don't believe what I believe. And I think this will not help me to complete my treatment and if they heard me saying that I have a Devil eyes they may not consider my request to refer me to the main hospital.*

Patient 3: *I want my doctor to give me guidance, I don't like a doctor to act like a pharmacist, marketing drugs only. I was in the USA 7 years ago and I saw how doctors treated their patients. We don't have doctors listening to and speaking with patients here.*

Patient 4: *Unfortunately we don't have a marital counsellor in this city. So, I told my doctor about that but he has not got sufficient experience in this area.*

Patient 5: *I don't think that they could help me to get rid of this anxiety.*

Patient 5b: *Doctor did not listen to me clearly when I told him about some personal things... but he prescribed my drugs immediately... he was busy writing his comments in his book (the Doctor record book).*

Patient 6: *I told him I feel pain all over my body. He asked me in which part of my body, and I told him there was no particular part. He asked me whether or not I have temperature or headache, I said no.*

Patient 6b: *no no my GP knows nothing about my family problem.*

Patient 7: *No I don't want... what will people say if they know that my doctor has treated me psychologically.*

Patient 7b: *... but that it was up to the GP to ask... Do you think he asked me like you? No no, he does his job quickly, he asked me two or three questions?*

Patient 8: *I have not received any information about the psychological helps in the primary care before... I did not know that this is a part of the GP's duty.*

Patient 9: *I spoke to doctors several times, but nobody ever touched on this psychological part. They only care about the physical symptoms.*

Patient 9b: *They were very good when they dealt with the body, but not good enough in dealing with the psychology of patients.*

Patient 10: *He doesn't care about the psychological issues.*

Patient 12: *I need somebody like you to encourage me or to support me.*

Patient 12b: *I have not mentioned to anyone about my personal problems.*

potentially important finding which can influence teaching in patient-doctor communication.

11.5.2.3 Patients' beliefs about source of help

The current study shows that most patients are content to utilize formal medicine without giving up traditional explanations of their problems. This result has been reported previously by Dein (2002).

In the Saudi community, it seems, the use of cultural/religious medicine is the rule, not the exception. Patients used formal and cultural/religious medical care together, weighing up which was most appropriate or worth trying at any time according to views about how they compared in respects such as the safety or power of their medicines, or the patients' recent experience of failure of one kind of care (Hasan et al, 2000). However, psychological problems were particularly associated with cultural/religious remedies (Dwairy, 1999; Al-Krenawi et al, 2000). Previous studies showed that praying and reading Al-Quran can be viewed as both a preventative and an inexpensive guard against anxiety and depression (Azhar et al, 1995; Al-Krenawi and Graham, 2000).

On the other hand, whereas GPs were seen as unable or unwilling to provide support, or as not having this role, religious healers and rituals did provide support. Patients described a dualist distinction between help from the GP and religious sources. The GP had the job of diagnosing disease and providing palliative help for symptoms. Religious support was holistic, addressed the soul, and could therefore be curative (Okasha, 1999). This explains the result of Chapter Five and Chapter Eight that psychological cases expected more help from cultural/religious sources than did non-

Patient 12c: *I have not been asked about my personal problems before, it's strange for me to find one like you who wants to hear from me.*

Patient 13: *All my doctors asked me two or three questions quickly and they didn't ask me like you... in previous consultation when I spoke to my doctor about this stress he said to me coldly don't take it seriously. How do you think this doctor will understand me?*

Patient 15: *I don't want to share my personal life with others... we don't accept someone from outside to look on the inside.*

Patient 15b: *I don't want to share my personal life with others.*

Patient 19: *I can't start talking with the doctor... if my doctor wants to ask any questions I will respond.*

Patient 19b: *I: how do you think your doctor will know about you and your problem if you don't mention what you need? P: he should use his stethoscope, this is the first step, but this did not happen, then he should encourage me like you and ask some questions but this also did not happen.*

Patient 21: *I need more support, I was looking for more support but my doctor said nothing.*

11.4.2.2.2 GP as supporter and provider of treatment and investigation

For the Interviews transcripts of this section see Table 11.3ii. Many of the psychological group and a few of the physical group described needing someone to talk to about their problems. Several patients in the psychological group said that they valued talking with the interviewer (Patient 1) and all patients talked freely with him (see Patient 12). However, only two patients wanted this kind of help from the GP (Patient 3). Conversely, the psychological group told their GPs about the full extent of their physical illness (Patient 6).

They generally did not tell the GP about their family (Patient 6b), work (Patient 1b), psychological (Patient 12b), or supernatural problems (Patient 2). In explaining why they did not tell the GP these things, patients said that it was not the GPs' role. They described being surprised that the interviewer was interested in their personal problems (Patient 12c). They commented that they had never been asked about such personal topics before by a professional person (Patient 9). They said that personal

things are one's own responsibility and not the GP's (Patient 15), and that a GP could not help (Patient 5), especially if the problem is not physical (Patient 9b), or that it was not part of the GP's duty (Patient 8). Others thought that the GP did not care (Patient 10), or did not have psychological skills (Patient 4). Two referred to stigma (Patient 7), and a third did not want to share his personal life with the GP (Patient 15b), another said that they could not start talking about their personal problems (Patient 19). Some patients said that they would tell the GP about their social and personal problems if he asked (Patient 7b). Patients' previous experiences of trying to obtain support from doctors supported these views (Patient 13), and the few who did disclose psychological needs to the GP at this consultation felt ignored (Patient 5).

There was a widespread view in the physical group also that GPs often did not provide support (Patient 21) and did not take patients seriously, even to the extent of not using a stethoscope to examine the patient (Patient 19b).

11.4.2.3 Cultural/religious and formal medicine are used together

For the Interviews transcripts of this section see Table 11.3iii. Patients widely used cultural/religious medicine as well as formal medicine, whether or not they thought that their problems had supernatural causes. It was interesting that the only reference to psychotropic drugs was by a patient who attributed her psychological problems to jinn, had tried faith healers, and now wanted antidepressants (Patient 13: *GP will offer me a prescription which I need ...I need antidepressant.*). Cultural/religious help was often tried first. For example, onion seed (Patient 1), religious man (Patient 2), and honey (Patient 6) were used before seeing a GP, and also after doctors failed. For example cauterization (Patient 2b) and Allah (Patient 4) were used after consulting doctors.

Similarly, patients consulted the GP when faith healers (Patient 27) or cultural remedies (Patient 15) had not helped. Patients described ‘believing’ in both forms of medicine (Patient 7) and sampling them both and comparing them for their effects (Patient 6b).

Table 11.3iii: Interview transcripts of “*Cultural/religious and formal medicine are used together*”. These transcripts were organized according to the sub-titles of the text. Transcripts are in order according to the patients’ numbers.

Cultural/religious and formal medicine are used together
Patient 1: <i>Before seeking help from doctors I used some onion seed.</i>
Patient 2: <i>I was treated at first by a Sheikh reading Al-Quran.</i>
Patient 2b: <i>I went to a Healer to cauterize me... after seeking help from doctors... he cauterized my arm and my back, after that my condition improved.</i>
Patient 4: <i>When all doctors at the primary care and the main hospital failed to treat me properly I sought help from Allah and it was helpful.</i>
Patient 6: <i>I used the Honey and the Onion Seed as a tonic for a long time.</i>
Patient 6b: <i>...now I need to see what the doctor can offer... I used the Honey and the Onion Seed as a tonic.</i>
Patient 7: <i>honey and onion seed together are very useful for ulcer’s patients. But that did not mean that I stopped seeking help from doctors. I believe in traditional and modern medicine.</i>
Patient 15: <i>I used some traditional medication but it seems to be without effective results.</i>
Patient 24: <i>... When I feel a manageable pain I seek help only from Allah and I can endure it. But when I feel pain that I can’t endure, I visit a doctor.</i>
Patient 27: <i>I went to a well known Faith healer who told me that women are more readily influenced by evil eye than men and because we are weaker and more spineless than men... healer asked the spirits to leave my body, but the spirits refused to leave my body... He wrote me Islamic medicine(herbal medicine)... black cumin seed mixed together with honey to be eaten, and olive oil to be used as a body lotion before I go to my bed, but I did not find any improvement, so I am here today.</i>

11.4.2.4 Similarities and differences between cultural/religious and formal medicine

For the interviews transcripts for this section see Table 11.3iv. The two systems of medicine were not separate in patients' thinking. They used common frameworks of understanding the body. Spicy soup (Patient 16) or onion seed, olive oil and honey energised the immune system (Patient 22) and castor oil could purge the stomach (Patient 17). Allah guided some patients to a GP (Patient 13) or to the best doctor (Patient 22b), although there was no reference to GPs guiding patients to cultural/religious help. However, the two types of medicine had different strengths. Whereas cultural/religious medicine could treat the patient, the doctor was needed to provide a diagnosis (Patient 20) or to provide palliative treatment (Patient 27).

Even supernatural causes led to problems that needed tests to diagnose them (Patient 2), or drugs to treat them (Patient 26). Patients 'weighed up' the two forms of medicine before deciding which was appropriate (Patient 23). Whereas cultural/religious remedies were 'natural', the GP's drugs were 'chemical' (Patient 6), or 'poison' and risked addiction (Patient 1). On the other hand, the GP's drugs could be stronger than natural remedies and therefore more useful (Patient 17b), although another view was that cultural remedies could be more powerful (Patient 22c).

The two forms of medicine were seen as fundamentally different in the area of support. Whereas GPs provided no support, many patients said that Allah, or Islamic medication and prayer or Al-Quran, gave them support, describing this as a feeling of strength (Patient 3), protection (Patient 7) or relaxation (Patient 4).

Some of the physical group thought that support was often enough to treat or cure symptoms (Patient 21). However, religious support was particularly important for the

psychological group. Religious support could address psychological aspects of patients' problems (Patient 4b), it could treat the 'soul' (Patient 9), and care for the whole person (Patient 11). Many in the psychological group said that psychological problems were the concern of Allah rather than formal medicine (Patient 15).

The lack of stigma in seeking help for psychological problems from cultural/religious medicine (Patient 3b), was particularly important for this group. Therefore these two forms of medicine were complementary and coexisted easily. Only two patients described tensions between the two forms of medicine. They were reluctant to describe using cultural/religious help to their GP (Patient 2b), or the interviewer (Patient 22d), seeing him as experienced in formal medicine, in case they disapproved.

Table 11.3iv: Interview transcripts for "*Similarities and differences between cultural/religious and formal medicine*". These transcripts were organized according to the sub-titles of the text. Transcripts are in order according to the patients' numbers.

Similarities and differences between cultural/religious and formal medicine

Patient 1: *I don't like to be addicted ... you know medication equals poison.*

Patient 2: *my illness is not a normal illness because it is from the devil's eyes... I don't understand what is going on with me... I need more investigation and I want the doctor to help me by doing more tests and I need to know the name of my symptoms.*

Patient 2b: *I did not mention traditional medicine in my consultation... my doctor knows nothing about this... frankly, for two main reasons: the first: most GPs are non-Saudi doctors, so they know nothing about our cultures. The second reason, the doctors may care less or pay less attention if they hear me saying something like that. Also, as I told you I don't want my wife and family hear me saying that again.*

Patient 3: *Reading Al-Quran helps me to overcome some of my problems... when I read some verses of Al-Quran I feel that I remove my entire problem and then I don't need a doctor.*

Patient 3b: *Do you know the good things here? All people have respected this way of seeking help and you never ever feel stigma if you seek religious treatment.*

Patient 4: *Al-Hejamah alleviated my physical symptoms... I think when the healer withdrew the blood from different places in my back, the muscles and the nerves around that place were reactivated by the withdrawn blood... and I feel happy and relaxed also.*

Patient 4b: *Al-Hejamah is an Islamic source of treatment which is recommended by Prophet Mohammed (PBUH) therefore it cures my psychological problem.*

Patient 6: *I used the Honey and the Onion Seed ... It is better than the chemical tonic... they are different from the modern drugs because they are taken from the nature.*

Patient 7: *when I feel so ill I go to any quiet place whenever and wherever I am, at home in my work, then I pray to Allah, after that I feel all His support inside me and His protection will help me, believe me, sometimes I forgot the pain.*

Patient 9: *I: what have you sough for your soul? P: nothing, except Allah.*

Patient 11: *Allah is able to cure me completely... with Allah's help, I could be treated wholly.*

Patient 13: *Allah will guide me to seek help from doctors.*

Patient 15: *my psychological problems are in Allah's hand. He is the One who has everything. He sends this pain to me, and He is able to treat me. Therefore, I don't want other help any more... my doctor can not help me.*

Patient 16: *I am from those people who believe in the benefit of spicy soup to treat most of the flu symptoms ... pepper, spice, and condiment help the immune system to be better.*

Patient 17: *I tried to cure my self using some hot and spicy soups but without benefit. Then I decided to use the Castor Oil despite heating it,, it is so sour ... it is a purge to the stomach, it causes symptoms such as diarrhoea..*

Patient 17b: *I need stronger medication than Castor Oil.*

Patient 20: *I have received good treatment but I have not been given a definitive diagnosis. I want to be sure about what's going on with me.*

Patient 21: *I only need Allah's support, this support treats my symptoms... Allah can solve my problem with or without doctor.*

Patient 22: *Islamic medication such as onion seed and honey energize the immune system.*

Patient 22b: *Allah always guides believers to a good bath. I am sure Allah will guide me to the best doctor who will solve this problem.*

Patient 22c: *I have used Islamic medication such as onion seeds, olive oil, and honey... this is ten times better than my doctor's drugs.*

Patient 22d: *If you consider the traditional Arabic medication as one of the sources of help, I would say yes. I: Why do you think I will not consider it as a sort of help? P: Because you are a doctor, and you have studied in the United Kingdom and you will not believe in traditional medication. Most doctors don't believe in it.*

Patient 23: *I tried to see the differences; Islamic medication and chemical drugs.*

Patient 26: *The possession lasts until the jinni voluntarily leaves and you know this may take over a year before leaving. But a Faith Healer has the ability by the Quran's power to eject the Jinn outside my body at anytime I visit him. Naturally, the jinni may attempt to possess the*

character again so I have to visit my Faith Healer... I want my GP to see me and to give me some medicine.

Patient 27: *I only need some drugs which will help to alleviate this pain for a short time. Because I know that a GP will not be able to cure me completely. Western medicine is not enough.*

11.5 Discussion

11.5.1 The importance of the study

Despite the absence of previous research using qualitative methods in health care in Arab cultures, patients in this study were willing to talk to the researcher, and told him things that they were unwilling to tell the doctor. The study revealed several interesting and important findings, which help to explain some of the puzzling findings of quantitative research in earlier chapters. Therefore the study shows the potential of qualitative research in Arab cultures.

Reporting a qualitative study in a language different from the one that participants have responded in raises important considerations. It is possible that meanings could be changed in translation. Therefore, the present study used an important lesson from the previous work regarding translation of the questionnaires of the quantitative studies. In particular, the use of two translators who translated interviews into spoken-English was important to increase the reliability of the method. Using this method, it proved possible to describe even culturally specific aspects of the findings in English.

The strength of using notes, however, has been explained below. Having notes in the interviews is an essential task when conducting interviews within the Saudi community even in cases which agreed to tape-recording their interviews. Notes will help to record the non-verbal communications (body language) which is common

among Saudi people. A strength of the present data is that they describe the beliefs of patients who have not yet been greatly affected by westernisation.

11.5.2 Main findings

11.5.2.1 Method and sample

There was complexity and difficulty in translating cultural terms. One of the major difficulties was finding equivalent English words which captured the meaning of the Arabic term (e.g. *cauterization; castor oil or devil eye*). Indeed sometimes there was no equivalent English words to some of the Arabic medicines (e.g. Al-Hejamah); therefore, the Arabic word has been used. Mostly, ordinary patients at the primary care centers do not use psychological terms (see Chapter Two; Dwairy, 1997). Some patients who were less psychologized tended to describe their complaints with personal abstract words (see Chapter Two; Bazzoui, 1970; Dwairy and Van Sickle 1996; Dwairy, 1997). Similarly, Kaiser et al (1998) reported that Arab patients refer to depression as “problems of the heart”. In fact, a benefit of the present researcher’s procedure was that he noted the interviews rather than tape-record them only. This was because some patients used non-verbal language to describe their symptoms and to communicate what they felt. For example, patients used their hands in such a way to say “*I am depressed*”. This body language would be very difficult to understand for a non-Saudi doctor (see Chapter Two; El-Rufaie et al, 1999).

The sample was biased towards men because women declined consent. This is a severe limitation to qualitative research in Arab cultures. In future work, a female researcher would be necessary to have access to data from female patients.

11.5.2.2 Patients' beliefs regarding aetiology of the problem and disclosure of their beliefs

Supernatural processes – Allah, jinn, devil eye, and evil eye – were each described as causes of illness in the psychological group, but not in the physical group. This is consistent with the finding of Chapter Five and Chapter Eight that supernatural beliefs were more common in psychological cases than non-cases. The present study did not, however, show why this is. It may be that believing that one has been punished, possessed or cursed supernaturally leads to psychological problems (Naser, 1996; Shahin and Daly, 1999; Al-Krenawi and Graham, 2000b). It is also possible that being psychologically distressed makes people more vulnerable to suspect supernatural processes. Alternatively, it is possible that supernatural causes provide a culturally valid way of explaining the diffuse psychosocial problems that these patients described (See Chapter Two; AL-Krenawi et al, 2000).

Some of the study patients showed an unwillingness to share personal beliefs with GPs. This result supports the suggestion by Dwairy (1997) that Arab patients believe that personal experiences cannot be shared with doctors. However, patients shared personal things with their GPs when they were asked about their feelings and experiences. It seems that patients need their GPs to start asking and then they are more likely to talk openly and share their personal experience with them. This suggestion could be linked with the previous discussion about the view of doctors in an Arab patient's mind. Arab patients expect their GPs to play a role like a teacher (Al-Krenawi and Graham, 2000b). If the GP asked a patient something, they would answer. This helps to explain findings (see Chapter Two) reported by Dubovsky (1983) and West (1987) about Arab patients who appear to be passive in consultation and who sought medication instead of sharing discussion with the doctors. This is a

cases. It seems that, in Saudi Arabia, it is religious sources that provide the kind of holistic and supportive care that western health services aim to deliver through primary care and psychological services. Indeed, in some Arabic private modern mental health clinics they have supported an integration of culture and religion with psychotherapy treatments (Al-Krenawi and Graham, 1999), because they can be used successfully in parallel (Al-Krenawi and Graham, 2001). The results of the current study and results from previous Arabic studies highlighted the importance of collaboration with cultural and religious sources of help. In addition to the strong belief in cultural help (see Chapter Five and Chapter Eight), they are well accepted by the community and accessible to the people (Ahmed et al, 1999). Several countries have made efforts to combine cultural help with formal primary care (Ahmed et al, 1999). Hoff (1992) reviewed 17 projects in various countries in which cultural healers were trained to carry out primary health care in the community. He concluded that if properly trained people were presented to traditional healers, they could contribute significantly to the work of primary care teams.

The supernatural system of influences and remedies was not very distinct in patients' thinking from the system of physical causes and formal medicine. Cultural remedies could work on processes, such as the immune system that belonged to formal medicine, and one of the ways that Allah could help was by guiding patients to the right doctor. This helps to explain the finding that psychologically distressed patients (especially in Study One, conducted in the area where this qualitative study was also conducted) were more likely than others to believe both in supernatural causes and serious disease (see Chapter Five). Patients thought that supernatural causes could harm them by creating serious physical disease.

The present findings also suggest two possible reasons why expectations of help from the GP decline after consultation in patients with psychological needs, whereas they expect more help from specialists or religious sources. One reason is that they experience the consultation as confirming that the GP will not provide the support that they need (Gask et al, 2003). Another reason is that many of these patients attend the GP just to obtain reassurance or palliative drugs for their physical symptoms and, once these are provided, they have no more need of the GP's limited role and look to others for support or treatment in dealing with the problem that the GP has diagnosed.

Patients' concepts of disease and treatment are likely to differ from those that their GPs hold. Patient's beliefs are based on their culture while GP's beliefs are based on biomedical teaching, and perhaps their own culture. However, Study One and Study Three reported a shortage of Saudi doctors in primary care and the fact that most of the GPs were trained outside of the Kingdom of Saudi Arabia (see Chapter Four and Chapter Seven). Similarly, the current study reports this result. This means that most of the GPs in Saudi primary care centers will face potential difficulties in understanding the patient's supernatural and other lay concepts of disease and treatment. This will continue unless GPs have the chance to participate in specific training that equips them with skills to work effectively across a diverse range of patients' cultures.

Patients' cultural beliefs place them at a disadvantage, in particular, if the GP has been trained in the western style of medical practice (Fielding et al, 1998) and doesn't believe in what the patients' culture says, perceiving defining features of his or her role to be professionalism and not to involve being part of the culture. Patients with cultural 'demands' will therefore be more likely to seek other sources of help (i.e.,

cultural help) who at least will spend more time listening to a patient. Modern doctors have been criticised for not spending time listening to patients. The need for extending the duration of consultation does not mean only more time for specific psychological techniques. It means time for styles of listening and communication with patients in the consultation period when they present their psychological problems (Cape et al, 2000b).

11.5.2.4 Patients' intentions

Most patients consulted their GPs for more than medication and drugs alone. They clearly need more explanation, information, and support. Many of the psychological group and a few in the physical group described needing someone to talk to about their problems. Both groups did not receive the support they needed. Some of the patients did not think that they needed the medication prescribed by their GP. All of these results confirm the findings of Chapter Nine which revealed that there are significant differences between what patients need from their GPs and what GPs thought were the patients' intentions. This result is in line with the previous assumption that the GPs in Arab countries preferred the biomedical approach (see Chapter Two; Chapter Nine; Al-Faris, 1998; Dwairy, 1998; Becker, 2004).

These results are important. They send out a very clear message which needs to be understood by GPs and all health professionals in Saudi primary care and in Arab countries. Patients need more than biomedical approach, more than drugs, or as some patients said in the current study, they need something more than "*chemical drugs*".

Time is one of the main barriers which, on the one hand, prevents patients from disclosing their needs. Waiting time is a big issue, not only among patients, but

physicians as well. This result confirms the result in Study One (see Chapter Five). Lack of time for seeking help from GPs, was the first barrier reported by cases and non-cases. It is worth mentioning that patients must wait in the reception of the primary care until he/she obtains an appointment; then he/she has to wait until the time of consultation. A request for an appointment via telephone cannot be made. The GPs and patients do not have a clear idea of the number of patients who will be attending during a clinic. Sometime the waiting room will be completely full and sometimes there is no-one else there. However, time waiting before consultation might be valuable. Applying the PRF, for example, and spending some time speaking with a nurse could help the GP to know what patients are looking for.

11.5.3 Limitations of the study

The two main methodological limitations of the study were a result of cultural factors. First, the study contains only one female who agreed to an interview. All other women refused to participate. Female patients who declined to take part may have different beliefs from males. They might be willing to speak with a female researcher. However, patients from both sexes may be reluctant to work with a practitioner of the opposite sex (Al-Krenawi and Graham, 2000) because of cultural forces. When these problems arise, it does not come necessarily from the patient him/herself but may come from a male family member in a position of authority such as father/brother. Secondly, the current study included tape-recordings of only 4 interviews. The rest of the interviews were noted manually and immediately were written down after the interviews. It is possible that patients in more westernised areas would be more ready to agree to tape-recording. However, until cultural views change, it will not be possible to obtain tape-recorded data in Arab populations. Researchers and

professionals should use notes along with interviews when they need to collect data by interviews. Even tape-recordings are not enough to record the entire interview as there is a range of non- verbal communication which will be missed when using the tape-recording alone.

This study was carried out in primary care in Assir area and these considerations cannot be generalised to the rest of the population until there are further attempts at qualitative studies in other areas.

11.5.4 Clinical implications

This study succeeded in applying a qualitative interview in Saudi Arabia. To the best of the current researcher's knowledge, this study is the first qualitative study about psychological problems in Arabic primary care centers. Therefore, there are some important points which arise from this work.

Saudi patients valued talking about their problem and being interviewed face-to-face. They needed somebody from their culture who could understand their beliefs and roots so they could feel comfortable in seeking help and presenting their problem freely. In case a male medical practitioner or researcher interviews a female client, the practitioner should reduce eye contact, keep appropriate physical distance (i.e. greater distance than usual) between practitioner and client for fear of suggesting sexual impropriety (Mass and Al-Krenawi, 1994). Practitioners should also use appropriate non-sexual terms such as "my brother" or "my sister" (Al-Krenawi, 1996).

GPs should have a clear understanding of Arabs words (verbal and non-verbal words) on psychological problems which may be encountered during consultation such as "Evil Eye, possessed by Jinn". It is obvious that religious/cultural medicine and

Western-biomedicine differ in their concept of the nature and causes of illness (Ngoma et al, 2003). Better understanding of idioms of expression for common psychological disorders should aid detection and treatment (Ngoma et al, 2003). GPs could use patients' idioms of psychological problems (Bilu and Witztum, 1995).

GPs and other professionals should bear in mind that patients and their families may refuse to accept discussing psychological issues because of a fear of stigma or opening up to strangers. Even if patients are willing to talk about their psychological issues, they may not consider them relevant to the medical visit, unless a physician specifically encourages a discussion of emotions. This finding confirms the previous suggestion about a need to educate people in general and educate and train GPs in particular in order to be able to communicate culturally with psychological patients. GPs can request an open discussion of psychological and cultural issues with his patient and include his family as well. Family approaches are necessary here (Laurer and Lindsey, 1997).

This study indicates that cultural beliefs are a potential barrier to diagnosis and treatment of psychological disorders which need to be treated in primary care. However, cultural beliefs did not conflict with biomedical paradigms. GPs need to be trained how to deal with such beliefs. In general, GPs should be involved in training courses which include the concept of health and disease according to the local culture.

Despite the fact that the two systems of formal and informal medicine differ from each other, it was obvious in this study that they were not separate in patients' minds. GPs could bridge the gap between informal and formal therapies. Since the informal therapy has strong resonance with patients and their families (Al-Krenawi and Graham, 2000b), learning more about cultural beliefs and how they affect patients'

understanding of their symptoms could improve GP's communication and could facilitate consultation. This means that future management of patients with psychological disorders in Saudi primary care could combine traditional therapy with formal medical help (Green, 1988; Al-Krenawi et al, 2004).

The waiting time before consultation is a valuable time. Although patients complained about waiting for long time before consultation, they valued the time of the interview after consultation. They need somebody to speak with about their problem and the GP has not enough time to do so. Therefore, nurses could play an essential role by giving patients more time and privacy, while waiting, and feed back to GPs. Furthermore, applying the useful instruments, such as the GHQ and the PRF, during waiting time could aid GPs to make clinical decisions.

Chapter 12: Conclusion

12.1 Prevalence of psychological disorders

Study One (Chapter Four), Study Two (Chapter Six) and Study Three (Chapter Seven) exposed a high prevalence of psychological disorders in Saudi primary care.

In some Arabic literature, and according to some clinical observations (without evidence), Western-lifestyle has been attributed as the source of stress and psychological disorders. Assir is a semi-urban area and their society is less influenced by Western culture compared to other areas of the Kingdom of Saudi Arabia which have been included in Study Three. Nevertheless, the prevalence of psychological problems in Study One and Study Three were almost the same. The result of this thesis provides evidence to reject an assumption which links a high rate of psychological disorders to a Western lifestyle. Instead, these disorders are inherent in Saudi life. This high rate of psychological disorders therefore means that there is a need to improve the quality of psychological health services in Saudi primary care centres.

A useful way to review how the findings of thesis could help in doing this is in terms of Goldberg and Huxley Model (1980), which was presented earlier.

12.2 Goldberg and Huxley Model as a background to this thesis

This thesis attempts to investigate the problems of seeking and receiving help in Saudi Arabia in the light of Goldberg and Huxley's model of the pathways to psychiatric care (see Chapter One). As has been pointed out earlier, this thesis does not try to test

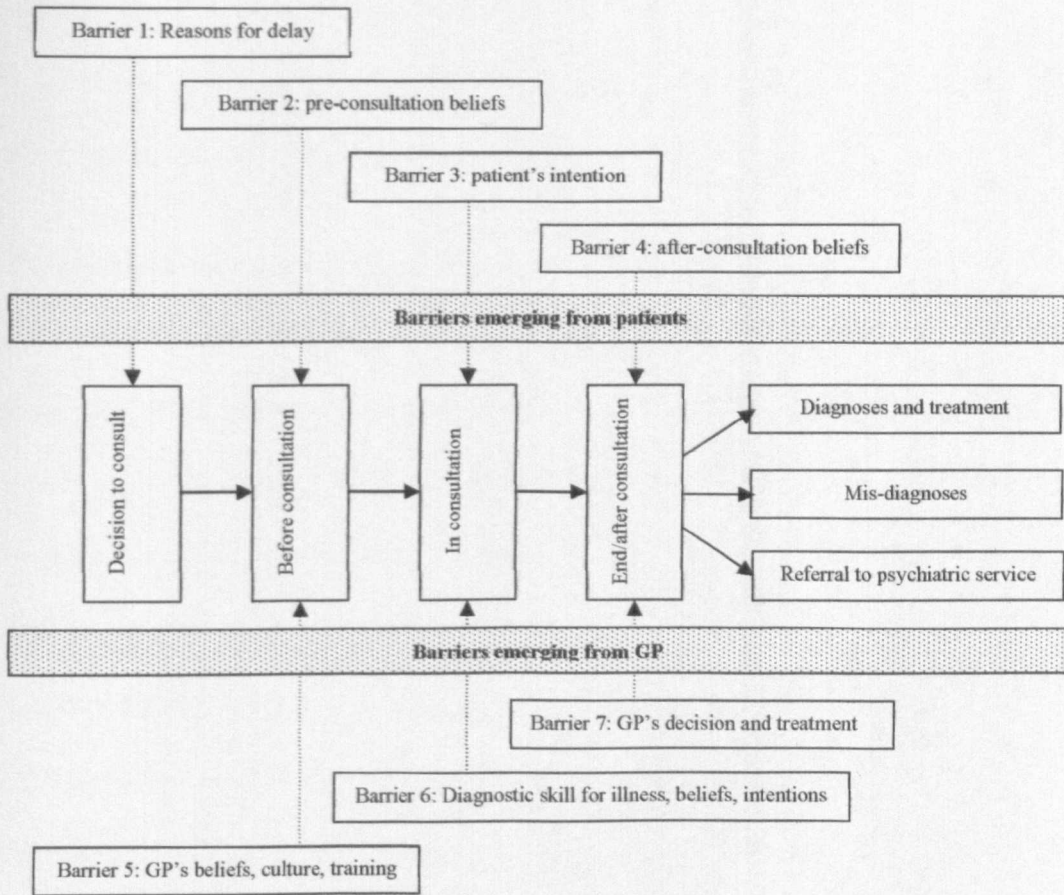
Goldberg and Huxley's model. However, it attempts to use the model to investigate any barriers to seeking psychological help from professionals in Saudi primary care.

From the five levels of care that were reported in Goldberg and Huxley's model, only two levels were within the scope of this thesis (see Chapter One: Figure 1.1): Level two, "primary care" and level three, "primary psychological health care". The other levels, level one "community", level four "out patients care", and level five "inpatient care" were out of the current study's scope. Of four barriers (filters) in Goldberg and Huxley's model, three were very important in this thesis: barrier one "decision to consult", barrier two "recognition and treatment", barrier three "referral to psychiatric services".

12.3 A model of pathways and barriers

A way of understanding the barriers which psychologically disordered patients need to overcome to reach primary care and to consult and receive help from his/her GP, according to the current work, is illustrated in Figure 12.1. A patient has to go through two entry barriers. One is from the part of the patient himself and the other is from the GP. According to the current study, the first barrier is "reason for delay" which emerges when a patient is in the process of making a decision to consult or not consult a GP. Chapter Five described this barrier which was more obvious from the women's side. Patients at this stage may use traditional medicine instead of consulting a GP. Nevertheless, using traditional medicine will not necessarily prevent patients from consulting a GP. Indeed, Chapter Eleven indicates that patients believe in both styles of medication and they probably approach traditional medicine before consultation and after.

Figure 12.1: A model of pathways of care and barriers



According to the present work, about half of the patients were cases but, although they did consult their GPs, they consulted for problems other than the psychological ones. That is because of their beliefs: one of the potential barriers at this stage, barrier 2, is whether patients believe that their problem is psychological or not. Barrier 2 prevents patients with psychological problems from disclosing their psychological problems. Saudi patients visit their GP carrying with them a package of beliefs which are influenced by a mix of religious and cultural perceptions. Chapter Five and Chapter Eight and Chapter Eleven illustrate these kinds of beliefs, including aetiological beliefs and patients' beliefs about the psychological or physical basis of their symptoms. GPs' training and culture, which sometime differs from patients' culture, "barrier 5" plays as a major barrier at this stage. Chapter Eleven shows that a

GP needs to be aware of patients' beliefs and culture. Otherwise, a patient may be misunderstood. This barrier, "barrier 5", is likely to impair the communication between the GP and patient if the GP underestimates the psychological role in a patient's problem and overestimates the biomedical role.

GPs perspectives emphasise their biomedical grounding, medical and external causes of illness (UMDS, 1999), and Western humanism. This influences the consultation by leading them to ignore cultural disorders, or psychological problems presented in cultural ways. Avoiding cultural disorders in this way results in at least two effects on the outcome of the consultation. Firstly, GPs do not develop strategies for dealing with specifically cultural problems. When these cultural beliefs arise, they are therefore not addressed. Secondly, GPs do not reflect on their own cultural beliefs that they bring to the consultation. GPs should be aware that Arab patients interpret what they say and do according to their own cultural beliefs (Al-Krenawi and Graham, 2000b), even when these are different from those of the GPs.

Patients' package of beliefs links with patients' intentions (see Chapter Nine). Patients' intentions create "barrier 3" which emerges inside the consultation. Chapter Five and Chapter Nine illustrate that patients need far more than physical treatment from their GPs. However, Chapter Nine reports that patients' intentions were missed by their GPs, particularly when patients requested explanations and reassurance or emotional support. GPs' skills to detect and meet patients' intentions emerge as a further barrier, "barrier 6". Indeed "barrier 6" is a very important barrier. Further to detecting patients' intentions, this barrier includes GPs' ability to detect psychological disorders and patients' beliefs. Chapter Four and Chapter Seven reported that more than 50% of cases were missed by their GPs. However, the current study does not

have any information about GPs' detection of patients' beliefs, but this can also be poor, because of the cultural differences that were discussed above.

Patients with psychological problems are more likely to change their beliefs “barrier 4” at post-consultation stage “see Chapter Eight”. A GP's decision at the end of a consultation “barrier 7” plays key role in creating “barrier 4”. For example, if the GP's decision misdiagnoses a psychological problem in cases and if the GP's decision reports a physical problem only, cases may somatize their problem and they could change their aetiological beliefs and their beliefs about the proper source of help. In this model, it is clear that a potential barrier emerges from both patients and GPs. Also it is worth noting that these barriers interconnect with each other and are not separate.

12.4 Overcoming the barriers

It is ideal for primary care centers in Saudi Arabia to involve a psychiatrist or psychologist (male and female) who will be able to deal with psychological patients and with their beliefs and help them to obtain an obvious need for support and reassurance. However, this suggestion cannot be the right solution due to a shortage of psychiatrists and psychologists in Saudi Arabia (see Chapter Two). The reasonable solution is by breaking down the barriers illustrated in Figure 12:1.

Barrier 1, which includes reasons for delay to seek help from GP, will be overcome by creating a new intervention which will be provided by “psychological health visitor” to help those patients with such reasons of delay. Chapter Five indicates that women represent the majority of this group of patients. So this new intervention needs to be conducted at home by male/female professionals. This service of health care at

home will be very helpful for those patients with psychological disorders, especially for women and for those patients who fear from stigma.

Barrier 2 which includes pre-consultation beliefs could be overcome by some intervention before consultation. Waiting time is a hot topic, not only among the patients, but physicians as well. Ideally, there should be no waiting time, but in reality patients have to wait for a certain time period to see the GP. The next question in this regard is as to, whether we can break down the barrier of the adverse impact of pre-consultation beliefs through other remedial measures such as the GHQ, aetiological beliefs questionnaire and the PRF as well (barrier3). These results could be fed back to GPs as an aid to individual clinical decision making. The aim is that the results of these questionnaires will be incorporated into the care of individual patients in order to improve the ability of recognition (Goldberg and Williams, 1988). GP's can detect patient's psychological problems by understanding patient's beliefs and patient's culture. The aetiological beliefs questionnaire, for example, could play an essential part in the understanding of patient's beliefs and be acted on accordingly. This could help to diagnose psychological/cultural disorders in cases. This will partly help to break barrier 6.

Nurses, with appropriate clinical training, could be able to assess and support patients with psychological disorders (Symons et al, 2004). Nurses could have access with patients while they are awaiting their consultation in the waiting room. Nurses and GPs have been confirmed to work well together in managing psychological disorders (Symons et al, 2004). Barrier 2 "pre-consultation beliefs" and barrier 3 "patients' intention" will be overcome by improving knowledge and attitude towards those ill and seeking help from a GP.

As mentioned in Chapter Ten, problem solving treatment is an ideal intervention (Dowrick et al, 2000c) which can help to break barrier 4 from the part of the patient and barrier 7 from the part of the GP. Nurses with very little previous experience in psychological treatments can be trained to use problem solving techniques. This technique has the advantage of defining patients' symptoms and define their cultural beliefs as a first step. Then these definitions can be linked with their problem in aiming to find a good solution for it.

Regarding breaking barrier 5 and barrier 6, GPs should have access to information about various forms of alternative medicine especially the informal ones. Indeed a GP needs to be in line with patients' cultural concepts of illness and health. This is very important, especially if we know that the majority of Saudi primary care doctors are not Saudi citizens and they have limited information about such sources of help and about the reasons that make patients seek help from those cultural sources of help. Moreover, Non-Arabic GPs who are not familiar with the patient's culture, could face miscommunication with patients, unless they receive special training about the patient's culture and methods of communication. To break barrier 5, GP's should be well trained in the detection of Psychological and cultural disorders. Qualified practitioners of alternative medicine should be included in this kind of training.

In fact, several countries have involved cultural medication in the activities of the primary health care (Hoff, 1992). Furthermore, the current study indicates that cultural medication is well accepted and accessible to the patients. Therefore, it will be useful to create a cultural clinic within primary care to help those patients who need cultural help. This will require trained traditional healers to be involved in such a provision within primary care.

12.5 The importance of the study

First: It is the first Saudi and Arabic study which has conducted a series of studies in primary care centers. These series studies (four studies) were conducted in 33 primary care centers throughout five areas representing the main areas which create the Kingdom of Saudi Arabia.

Secondly: It is the first Saudi and Arabic study which has applied two methods together (i.e., quantitative and qualitative). The quantitative method was used as a means to access a large population. While qualitative was used to understand results which could not be explained quantitatively.

Thirdly: The current thesis creates and translates a collection of instruments and supplies a field of research in Saudi Arabia in particular, and in Arabic countries by the use of valuable and unique psychological instruments. This series of studies tested, re-tested, and adapted a collection of psychological instruments, proving the validity and the reliability of these instruments among the Saudi population in primary care.

Fourthly: This thesis is the most authoritative description available of psychological problems in primary care attenders in Saudi Arabia. Several methods and strategies have been used in this thesis to screen psychological problems, including: three different instruments (GHQ-12, GHQ-28, HADS), two different wording formats, and two different scoring methods.

12.6 Limitations and implications for future research

The samples of all the current studies consisted of those attending their GP and was not a postal survey of all those registered. Therefore, the results reflect the views of

primary care patients who visit their GP rather than the population as a whole. It is possible that such attendees have different expectations and different experiences than other members of the population. In the near future, there is a need to conduct the first community study to investigate psychological problems in Saudi Arabia. Furthermore, the sample of the qualitative study needs to be broader to represent the population and the variety of areas in Saudi Arabia like the sample of the quantities studies. The qualitative study in the current thesis reflects the views of primary care patients. There is a need to conduct qualitative study which reflects the views of GPs.

12.7 Conclusions

Primary care providers should accept that their services are not the same as in the West. Health care providers in Saudi Arabia need new strategies that organize and combine the best of traditional utilization management approaches with innovative, emerging solutions.

From a management point of view, the current finding and the previous discussions urge health providers in Saudi Arabia to make two steps without delay. The first step is to create a new definition for psychological/cultural problem, to clarify the natural causes and use of appropriate language of mental health in Saudi Arabia. This new definition, based on a worldwide concept of psychological problem, should include aspects of local culture. The Arab patients' concept of their psychological problem is that the origin of them is biomedical, human, or supernatural (Al-Krenawi and Graham, 2000b). Therefore, there is a need for adaptation to a worldwide concept of psychological problems. This step is very important for GP management and for all health professionals in Saudi Arabia because this will portray a real picture of what it is to have a mental health problem in a country coloured by strong religious beliefs

and cultural orientation. With such a comprehensive definition, GPs will simply not miss the psychological problem in their patients. So it is clear that this step includes another task. There is a need to create specific definitions for each cultural illness. Some Arabic practitioners and most of the Western practitioners may be surprised to find that the cultural illness “possession” which indicates jinn possession illness (see Chapter Two) is stated as a diagnostic entity within the International Classification of Disease ICD-10 and the Diagnostic Statistical Manual DSM-IV. In ICD-10 “possession disorder” is classified under dissociative (conversion) disorders (World Health Organization, 2001b). This example highlights that this task (i.e., definition for cultural disorders) is possible. More efforts are needed to define several cultural disorders.

The second step, in fact, depends on the first step. According to the definition of psycho/cultural disorders, GP and other professionals need defining skills and problem-solving techniques. This does not mean that the well established instruments will be swapped by cultural instruments. Cultural disorder in Arab countries is separate from the concept of being ill physically or psychologically (Al-Krenawi and Graham, 2000b).

The strategy here is to integrate the culture part which has been omitted in the definition, diagnostic skill, and management of patient’s psychological problem. For example, involving teaching GPs techniques to encourage patients to reattribute and relate their symptoms to psychological causes instead of supernatural causes.

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* Note: this is the same individual Al-Faris, below.

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APPENDIX (A)

QUESTIONNAIRES USED IN STUDY ONE

ENGLISH AND ARABIC VERSIONS

بسم الله الرحمن الرحيم

رقم الاستمارة

الرعاية الصحية في:

التاريخ: / / 1424

الفترة الصباحية الفترة المسائية

رقم المريض السببي:

اخى الفاضل / اختى الفاضلة

السلام عليكم ورحمة الله وبركاته ،،،

انا طالب في درجة الدكتوراة ، ادرس الان في كلية الطب/ جامعة ليفربول - بريطانيا . وحيث ان مشروع الدراسة التي اقوم بها يدور حول الصحة العامة لدى مراجعي مراكز الرعاية الصحية في المملكة العربية السعودية واحتياجاتهم المختلفة ، فانني امل في ان تساهم معي في تحقيق هدفي من هذا المشروع ، والذي ان شاء الله سوف يعود بالفائدة والخير الكبير على الفرد والمجتمع في وطننا الحبيب .

اخى الكريم / اختى الكريمة :

بين ايديكم استبيان عام ومبسط ، شرحت فيه بشكل موجز جدا كيف يمكنك ان تجيب عليه . فارجو منك ان تجيب على جميع فقراته . علما بان جميع المعلومات سوف تحفظ عندي بسرية تامة وليس لها علاقة مطلقا بالطبيب او بالعيادة التي تراجع انت فيها الان. ولن يستخدم اطلاقا الا للاغراض العلمية.

هاهي: اذا رغبت في الحصول على نتيجتك الخاصة فيما يتعلق بمستوى الصحة العامة لديك (النفسية و النفسجسية) وذلك وفقا لمقاييس المعهد الطبي الملكي البريطاني ، فالرجاء منك حفظ رقم الاستمارة الخاص بك والموجود في اعلى الصفحة (على اليمين) وان تتصل على الرقم / الايميل الموجود اسفل هذه الصفحة بعد اكمال تعبئة جميع الاسئلة.

صدا مع خكري وتقديري لكم ملقا على تعاونكم ومساهمتمكم

اخوكم / محمد مرعي

معلومات شخصية عامة، الرجاء اكمال المعلومات التالية بكتابتها في الفراغات المناسبة او بوضع علامة في الخانة المناسبة.

1-العمر:..... (الرجاء حدد ذلك واكتب رقما في الفراغ)

2-الجنسية:..... (الرجاء حدد ذلك) 3-الدين

4-الجنس : (اxtار المربع المناسب) ذكر انثى

5-العالة الاجتماعية: (اxtار المربع المناسب)

متزوج منفصل عازب ارملة (خاص بالنساء)

6-اذا كنت ابا او اما لاسرتك فكم عدد الاطفال: (الرجاء حدد ذلك واكتب الرقم في الفراغ)

7-المستوى التعليمي : (اxtار المربع المناسب)

الابتدائية متوسطة ثانوية جامعي فوق جامعي

8-العالة الوظيفية: (اxtار المربع المناسب)

طالب موظف مدني معلم عسكري

متقاعد اعمال حرة (متسبب) لا يوجد عمل ربة بيت (خاص بالنساء)

الزيارات السابقة:

9- فيما يخص ما تشككي منه الان هل سبق لك ان راجعت الطبيب:

نعم لا اذا نعم كم مرة سبق لك ان راجعت الطبيب بسبب هذا المرض:.....

10- من تفضل ان يكشف عليك من الاطباء : دكتور دكتورة لا فرق عندي

اسئلة عامة :

11- هل لك خبرة ذاتية مع شخص مصاب بمرض نفسي او مرض عقلي

نعم لا

12- اذا كانت الاجابة بنعم فهل هذا الشخص المريض هو :

احد افراد اسرتك احد الاقرباء احد الاصدقاء

13- هل سبق لك ان راجعت العيادة نفسية او الاستشاري النفسي

نعم لا

مقياس مفهوم المريض عن طبيعة مرضه :

طبيعة المرض

الرجاء الاجابة على السؤال التالي باختيار خيار واحد فقط . ضع علامة في الخانة التي تتفق مع وجهة نظرك.

14- طبيعة واعراض مرضك الان هي : (خيار واحد فقط)

- مرض جسمي فقط .
 المرض الذي اشكو منه هو مرض جسمي ، لكنه يؤثر على الجانب النفسي عندي.
 المرضي هو مرض جسمي لكن اسبابه او نتاجه اثرت على نفسياتي وشخصيتي.
 مرضي الذي اشكو منه اصله مرض نفسي.

سبب المرض

هنا بعض الاسباب التي قد يكون لها دور في ظهور هذا المرض عندك وذلك بعد مشيئة الله
الرجاء الاجابة عن جميع الفقرات بوضع علامة في الخانة التي تتفق مع وجهة نظرك.

سبب المرض (والله اعلم)	محتمل ان يكون	غير متأكد	غير ممكن ان يكون
15 الصعوبات المالية الشخصية هي سبب مرضي.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
16 الانفعالات والجانب المزاجي.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
17 ضغوط نفسية.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
18 العمل الاضافي الزائد.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
19 توتر الاعصاب.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
20 تدهور صحتي.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
21 الوظيفة / اعمال المنزل.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
22 اضطراب في الشخصية الذاتية.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
23 كثرة مطالب العائلة والاقارب.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
24 جزء من جسمي تعبان.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
25 مشكلات جلدية في جسمي.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
26 احد اعضاء جسمي لم يعد يعمل جيدا كما كان سابقا..	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
27 مفاصلي متعبة جدا.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	تقلبات الطقس وتغير درجات الحرارة.....	28
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	عدوى اخذتها من شخص ثاني.....	29
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	البرد الشديد او الرطوبة.....	30
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	فيروس او عدوى.....	31
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	تلوث البيئة.....	32
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	عندي متاعب في جزء من جسمي.....	33
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	جزء من جسمي مجهود.....	34
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	متأكد من وجود مشكلة صعبة عندي.....	35
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	النمو والكبير.....	36
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	ضعف الدم.....	37
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	عسر وامسك.....	38
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	سوء هضم.....	39
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	مشكلات في القلب.....	40
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	كثرة الادوية والعلاجات.....	41
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	تغيير نوعية طعامي وطريقة حياتي.....	42
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	الطعام الذي انا اكله هو السبب.....	43
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	بسبب زيادة الوزن / او نقص الوزن.....	44
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	لم اعتني بنفسي بشكل مناسب.....	45
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	جزء من جسمي ملتهب.....	46
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	عندي منطقة ضعيفه في جسمي.....	47
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	ضعف البنية الجسمية / او ضعف المناعة الجسمية..	48
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	مرضي من الشيطان.....	49
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	عين او نظرة.....	50
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	مرضي اشك انه من سحر وضع لي.....	51
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	ابتلاء من الله سبحانه.....	52

عنواني العلاج

هل تعتقد انه كان من المفروض عليك ان تزور الطبيب من قبل : نعم لا

انذا كانت الاجابة بنعم فارجو منك ان تحدد من القائمة التالية الاسباب الممكنة في عدم حضورك من قبل الى الطبيب

الرجاء الاجابة عن جميع الفقرات بوضع علامة في الخانة التي تتفق مع وجهة نظرك.

المسبب	محتمل ان يكون	غير متأكد	غير ممكن ان يكون
53 لم استطيع ان دفع قيمة فاتورة العلاج	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
54 لم اجد وقت مناسباً لمراجعة الطبيب	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
55 اخاف من ان انوم في المستشفى	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
56 اعتقدت انني قادر على حل مشكلتي لوحدي	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
57 اعتقدت ان لا احد يستطيع ان يساعدي	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
58 اخجل من ان مناقشة مشكلاتي مع اي احد	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
59 لا ارغب في الاجابة عن الاسئلة الشخصية	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
60 اعتقدت انني سوف اتعافى بسرعة	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
61 اخاف من كلام الناس عني وعن مرضي	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
62 اخاف من العلاج ومن المستشفيات	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
63 اعتقدت انه ليس من الضروري مراجعة الطبيب	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
64 لم اعرف من الذي يمكنه ان يعالجي بشكل جيد	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
65 اوقات الدوام غير مناسبة	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
66 لم اجد الطريق الصحيح للوصول الى المعالج	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
67 بعض افراد الاسرة يرفض السماح لي بمراجعة الطبيب	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

هل سبق لك في اي وقت مضى ان استعنت بشيء من اساليب العلاج التالية للتخلص من مرضك الحالي ؟
الرجاء الاجابة عن جميع الفقرات بوضع علامة في الخانة التي سبق لك استخدامها.

هل سبق لك ان
استخدمت ذلك

الاسم

نعم لا

- | | | |
|--------------------------|--------------------------|--|
| <input type="checkbox"/> | <input type="checkbox"/> | 68 الاخصائي النفسي..... |
| <input type="checkbox"/> | <input type="checkbox"/> | 69 طبيب الاسرة والمجتمع..... |
| <input type="checkbox"/> | <input type="checkbox"/> | 70 الاخصائي الاجتماعي..... |
| <input type="checkbox"/> | <input type="checkbox"/> | 71 الطبيب النفسي..... |
| <input type="checkbox"/> | <input type="checkbox"/> | 72 طبيب المستشفى العام..... |
| <input type="checkbox"/> | <input type="checkbox"/> | 73 طبيب في مستشفى خاص..... |
| <input type="checkbox"/> | <input type="checkbox"/> | 74 اخصائي العلاج الطبيعي..... |
| <input type="checkbox"/> | <input type="checkbox"/> | 75 طب عربي..... |
| <input type="checkbox"/> | <input type="checkbox"/> | 76 علاج الاعشاب (العطار)..... |
| <input type="checkbox"/> | <input type="checkbox"/> | 77 العلاج بالكي العربي..... |
| <input type="checkbox"/> | <input type="checkbox"/> | 78 الحجامة..... |
| <input type="checkbox"/> | <input type="checkbox"/> | 79 العلاج بالعسل..... |
| <input type="checkbox"/> | <input type="checkbox"/> | 80 العلاج بالحبة السوداء او زيت الزيتون..... |
| <input type="checkbox"/> | <input type="checkbox"/> | 81 شيخ يقرأ عليك القرآن..... |
| <input type="checkbox"/> | <input type="checkbox"/> | 82 الاتجاه الى الله والدعاء والصلاة..... |

اهتمامات المريض.

هنا بعض الاسباب التي تجعل البعض يراجع الطبيب ، وايضا بعض الاشياء التي يتوقعونها من جانب الطبيب .
الرجاء الاجابة عن جميع الفقرات بوضع علامة في خانة الاجابة المناسبة :

غير موافق	غير متأكد	موافق	سبب زيارتي للطبيب هو انني	
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	اريد ان اناقش مشكلات معينة في حياتي مع الطبيب	83
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	احتاج الى علاج لحالات التوتر والقلق	84
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	اريد من الدكتور ان يفسر لي بعض مشكلاتي الشخصية	85
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	انا في فترة صعبة جدا وارغب في بعض الدعم والمساندة	86
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	اريد من الدكتور ان يشرح لي الى اي درجة مرضي قوي (خطير)	87
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	اريد الدكتور ان يتكلم معي عن مرضي ومشكلاتي	88
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	اشعر ببعض القلق واريد الدكتور ان يساعدني	89
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	اريد ان اعرف هل ساشفى قريبا من هذا المرض	90
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	اريد ان اغير العلاج الذي استخدمه انا الان	91
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	سوف اشعر بتحسن اذا استطعت التحدث مع الدكتور عن بعض ما اشعر	92
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	اريد ان اطمأن انه لا توجد مشكلة خطيرة تتعلق بصحتي	93
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	اريد ان اجري بعض الفحوصات الايضافية	94
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	اريد ان اتأكد من تشخيص سابق لهذا المرض	95
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	اريد الدكتور ان يحولني الى المستشفى او الى مكان اخر	96
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	احتاج بعض النصائح والارشادات حول العلاج الذي اخذه الان	97
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	اريد ان اتعرف على بعض الآثار الجانبية السلبية في مرضي	98
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	عندي مشكلات شخصية لذلك احتاج الى مساعدة	99
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	احتاج الى احد يطمني في هذه الفترة الصعبة	100
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	اريد الدكتور ان يشرح لي بعض اشياء عن تطورات مرضي المحتملة	101
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	اريد ان اعرف سبب الحالة التي انا امر بها الان	102
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	اريد من الدكتور ان يخبرني ماهو معنى الاعراض التي عندي	103

غير موافق	غير متأكد	موافق	سبب زيارتي للطبيب
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	104 اريد من الدكتور ان يشرح لي برنامج العلاج الذي اتبعه انا الان.....
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	105 اريد اعرف اذا كان محتمل ان يظهر عندي مستقبلا بعض المشكلات....
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	106 اريد ان يشرح لي الدكتور بعض نتائج الفحوصات.....

مقياس الصحة البدنية العامة :

هل شعرت خلال السبعة ايام الماضية بما فيها اليوم باي شيء من الاعراض التالية؟

الرجاء الاجابة عن جميع الفقرات بوضع علامة في الخانة التي تعبر فيها عن درجة انزعاجك من هذه الاعراض.

نعم كثيرا	بعض الاحيان	قليلا	لا ابدا	الاعراض
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	107 احس بصداغ.....
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	108 احس بدوخة ودوران.....
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	109 اشعر بالألم في الصدر.....
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	110 جسمي ما فيه قوة كافية (ما فيه حيل).....
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	111 احس بالألم في ظهري.....
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	112 اشعر بالألم في عضلاتي.....
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	113 اشعر بصعوبة في التنفس.....
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	114 في بعض الاوقات يصيب جسمي برودة او حرارة.....
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	115 احس بخدر (تنمل) في بعض اطرافي.....
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	116 اشعر بتورم في الحلق.....
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	117 احس بضعف في بعض اعضاء جسمي.....
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	118 اشعر بثقل في يدي او رجلي.....

الرجاء الاجابة عن جميع الفقرات بوضع علامة في الخانة التي تتفق مع وجهة نظرك. علما بانه لا توجد اجابه صحيحة او خاطئة.

غير موافق بشدة	غير موافق	موافق	موافق بشدة	العبارة
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	119 لدي القدرة على التركيز عندما اقوم بعمل ما.....
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	120 اعاني من قلة النوم بسبب القلق.....
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	121 احس انني اقوم بدور مهم في بعض الاشياء.....
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	122 لدي القدرة على اتخاذ قراراتي.....
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	123 اشعر دائما بانني مجهد.....
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	124 اجد صعوبة في التغلب على بعض مشكلاتي.....
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	125 استمتع بقيامي باعمالى اليومية.....
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	126 لدي القدرة على مواجهة مشكلاتي.....
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	127 اشعر بعدم السعادة والاكتئاب.....
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	128 احس انني فقدت الثقة في نفسي.....
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	129 افكر احيانا باننى انسان عديم القيمة.....
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	130 اشعر بالسعادة لان كل شيء يسير كما كنت اتوقع.....
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	131 احس اننى بصحة جيدة.....
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	132 جسمي يحتاج الى بعض الفيتامينات والمقويات.....
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	133 اشعر بتعب وان صحتي ليست جيدة.....
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	134 اشعر دائما باننى مريض.....
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	135 تتعاوننى الام في راسي.....
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	136 احس بشيء يضغط على راسي او رقبتى.....
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	137 احس بعض الاحيان بحرارة او برودة في جسمي.....
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	138 اجد صعوبة في نومي ، واذا نمت تقطع نومي.....

غير موافق بشدة	غير موافق	موافق	موافق بشدة	العبارة	
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	انا شخص سريع الانفعال وعصبي.....	139
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	اشعر بالخوف والذعر في كثير من الاوقات.....	140
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	كل شيء مرمي فوق رأسي، اشياء كثيرة جدا لازم اسويها.....	141
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	اوقات اعصب و احس اني مخنوق من شدة الغيظ والزعل.....	142
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	دائما انا امشغول ولا اجد وقت افضى فيه.....	143
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	امور بسيطة جدا تستهلك مني وقت طويل في اعدادها وانجازها.	144
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	انجز اعمالى واشغالى باتقان.....	145
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	احس بالرضا على انجازي مهام معينة.....	146
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	احس ان حياتي ما لها فائدة.....	147
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	يأتيني شعور ان الحياة مالها معنى وميوس منها.....	148
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	اسرح بذهني كثير وافكر مع نفسي.....	149
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	اكون احيانا معصب ومتضايق بشدة.....	150
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	اوقات ادعي ربي اني اموت وارتاح من كل هذا الذي انا فيه.....	151
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	تجيني افكار اني اموت نفس عاشران يعرفون قيمتي وارتاح انا.....	152

نظرة المجتمع للمريض النفسي

هنا بعض العبارات التي توضح كيف ينظر الناس الى المريض المصاب بنوع من المرض النفسي .

الرجاء الاجابة عن جميع الفقرات بوضع علامة في الخانة التي تتفق مع وجهة نظرك .

نعم كثيرا	بعض الاحيان	قليلا	لا ابدا	الاعراض
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	153 كثير من الناس يقبلون المريض النفسي بان يكون صديقا قريبا منهم.....
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	154 كثيرون يعتقدون ان ذلك الشخص الذي كان في مستشفى الصحة النفسية هو مساوي لاي انسان اخر من حيث مستوى ذكاءه.....
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	155 كثير من الناس يعتقدون ان الشخص الذي سبق وان كان مريضا نفسيا هو شخص جدير بالثقة مثله مثل اي شخص اخر عادي.....
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	156 اذا شفي الشخص تماما من مرضه النفسي ، فان كثيرا من الناس يتقبلون ان يكون هذا الشخص مدرسا في الدراسة العادية.....
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	157 كثير من الناس يعتقدون ان دخول اي شخص الى مستشفى الصحة النفسية هو اشارة الى خلل في شخصية الفرد.....
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	158 كثيرا من الناس لن يقبل اطلاقا ان يجعل شخصا ما مدرس خاصوصي لاولاده ان علم انه كان في السابق مريض نفسي حتى ولو شفي تماما و كان سليم لفترة من الزمن.....
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	159 كثير من الناس ينظرون بدرجة ادنى او لا يعبرون الشخص المريض الذي كان في مستشفى للأمراض النفسية.....
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	160 كثير من اصحاب الاعمال لا يمانعون في التعاقد مع شخص اصبح سليما من مرضة النفسية اذا كان لديه مؤهلات علمية جيدة.....
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	161 اغلب اصحاب الاعمال سوف يهملون النظر في اوراق توظيف الشخص الذي شفي من مرضه النفسي وسوف تعطون هذه الفرصة الوظيفية لشخص اخر سليم.....
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	162 اغلب الناس الذين هم حولي يعاملون الشخص الذي شفي من مرضه النفسي كما يعاملون اي شخص عادي.....
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	163 كثير من النساء لن تقبل الزواج من شخص كان مريضا ومنوما في مستشفى الصحة النفسية.....
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	164 عندما يعرف احد ان هذا الشخص كان مريضا نفسيا فانه مباشرة ياخذ حديثه وكلامه على انه مشكوك في صدقه و جديته.....

(ب2) رضا المريض عن الكشف الطبي

الجدول التالي يتضمن اسئلة عن رأيك انت في زيارتك اليوم وكشف الطبيب عليك .

الرجاء الاجابة عن جميع الفقرات بوضع علامة في الخانة التي تتناسب مع رأيك الشخصي.

موافق بشدة	موافق	لا ادري	غير موافق	غير موافق بشدة	المقابلة
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	165 انا راضي تماما عن زيارتي لهذا الطبيب.....
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	166 هذا الدكتور كان دقيقا جدا في فحصة علي.....
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	167 سوف اتبع ارشادات هذا الطبيب لاني احس انه ممتاز.....
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	168 كانت قادر على اخبار هذا الدكتور اشياء شخصية جدا.....
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	169 الوقت الذي قضيته مع هذا الدكتور كان قصيرا جدا.....
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	170 هذا الطبيب قال لي كل شيء احتاجة عن علاجي.....
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	171 هناك اشياء في الكشف من المفترض ان تكون افضل.....
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	172 بعض الاشياء لم يستطع الدكتور ان يعرفها عني.....
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	173 هذا الدكتور فحصني بشكل متقن وشامل.....
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	174 اعتقد ان هذا الطبيب اخذ ملاحظاتي بجدية واحترام.....
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	175 الوقت لم يكن كافي لبحث كل ما اريده.....
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	176 عرفت اشياء عن طبيعة مرضي بعد زيارتي للطبيب.....
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	177 الدكتور كان مهتما بي شخصيا وليس فقط مهتما بمرضي..
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	178 هذا الدكتور يعرف كل شيء عني.....
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	179 هذا الدكتور فهم الذي كنت افكر فيه بدقة.....
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	180 كنت اتمنى ان اقضي وقت اطول بقليل مع الدكتور.....
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	181 انا لست راضيا بشكل كامل عن زيارتي لهذا الطبيب.....
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	182 وجدت صعوبة في اخبار الدكتور عن اشياء خاصة عني ..

PATIENT QUESTIONNAIRES

Primary Care in

Date.....

AM PM

Patient's Number

NO:

Dear sir/ madam

I am a Ph.D. student in the **Faculty of Medicine, Liverpool University**. I am presently researching the topic of "psychological problems among primary care in Saudi Arabia".

I would be very grateful if you could complete the questionnaire and return it. Your answers will be kept entirely confidential and will not be shown to anyone. So feel free to say what you wish.

Your views will help me to make an assessment of the current situation and enable me to make recommendations as to how present psychological services in Saudi Arabia might be improved.

Your answers will be kept entirely confidential and will not be shown to the doctor. So feel free to say what you wish.

Should you wish to know anything about this study, please do not hesitate to contact me:

Mohammed Al-Qahtani

Demographic information

Most of the questions in this section merely require the selection of one of the listed alternatives. Please indicate your answer by writing or placing a tick in the appropriate space.

1- *Your age* : (please state)

2- *Your nationality*: (please state)

3-*Your religion*: (please state)

4- *Your sex*: (please tick one answer) Male Female

5- *Your marital state* :(please tick one answer)

Single Married Separated Widow

6- What is your highest level of formal education that you have completed: (please tick one answer)

Primary (Junior) school Intermediate school Secondary school
 Undergraduate (University) Postgraduate and over

7- *Your occupation*: (please tick one answer)

Student Employee Teacher Military work Retired

Businessman Unemployed Housewife (for female)

- *A 1) Nature of your symptoms.*

Here are question about the symptoms you have come to see your doctor about **TODAY**.

Please tick the one which best applies to you.

14- My symptoms are a:

- Strictly physical.
- Physical, but it has affected my mood.
- Physical, but symptoms vary with my emotions.
- Primarily psychological.

- *A2) Causes of your symptoms.*

For each of the following, tick whether you thing it **PROBABLY HAS** or **PROBABLY HAS NOT** helped to cause the symptoms you have come to see your doctor about today.

Please answer every item

	Item	Probably does	Uncertain	Probably does not
15	Personal, domestic or financial problems	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
16	Moods/emotions	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
17	Stress	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
18	Overwork	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
19	Nerves	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
20	Being rundown	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
21	Job/ housework	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
22	Personality	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
23	Demanding family/friends	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
24	Part of body wearing out	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
25	Body tissues less firm/supple	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

	Item	Probably does	Uncertain	Probably does not
26	Part of body not working as well as used to	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
27	Worn joints	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
28	Weather or changes in temperature	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
29	Something I caught from someone else	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
30	Dampness or a chill	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
31	Germ or infection	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
32	Pollution	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
33	Damage to part of my body	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
34	Part of my body is strained	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
35	Something seriously wrong with me	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
36	A growth	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
37	Weak blood	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
38	Sluggish bowels	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
39	Poor digestion or weak stomach	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
40	Heart trouble	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
41	Pills or medicine	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
42	Changing my diet or lifestyle	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
43	Something I ate	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
44	Being over or under weight	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
45	Not looking after myself properly	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
46	Part of my body is inflamed	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
47	A "weak spot" in my body	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
48	Weak constitution or low resistance	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
49	Devil/ jinn	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
50	Evil eye	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
51	Sorcery/ magic	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
52	Punishment from Allah	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Barriers to care: reasons for not seeking treatment.

Do you think that you should have come to see your doctor before?

Yes No

If yes, which of this list of possible reasons had played apart in your decision not to see a doctor or professional

For each one (each reason), please tick whether you think it: Probably does; Uncertain; Probably does not play a part in your decision to see/not to see a doctor before today.

	Reason	Probably does	Uncertain	Probably does not
53	Couldn't afford to pay bill	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
54	Didn't have time	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
55	Afraid of being hospitalised	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
56	Thought could handle it alone	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
57	Didn't think anyone could help	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
58	Too embarrassed to discuss it with anyone	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
59	Hate answering personal questions	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
60	Thought would get better	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
61	Afraid of what others would think	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
62	Afraid of the treatment	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
63	Didn't think it necessary	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
64	Didn't know any place to go	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
65	Hours were inconvenient	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
66	Had no way to get there	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
67	A family member objected	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Patient's perspective toward treatment.

Here are some sources of treatment that which might help with the symptoms you are seeing your doctor about today. For each of the following, please tick each one to show whether you have used it or not.

Pleas answer EACH item.

	Sources	You have used	
		Yes	No
68	Clinical psychologist	<input type="checkbox"/>	<input type="checkbox"/>
69	Family therapist	<input type="checkbox"/>	<input type="checkbox"/>
70	Social worker	<input type="checkbox"/>	<input type="checkbox"/>
71	Psychiatrist	<input type="checkbox"/>	<input type="checkbox"/>
72	Hospital medical specialist	<input type="checkbox"/>	<input type="checkbox"/>
73	Private medical specialist	<input type="checkbox"/>	<input type="checkbox"/>
74	Physiotherapy	<input type="checkbox"/>	<input type="checkbox"/>
75	Traditional Arabic doctor(Hakims)	<input type="checkbox"/>	<input type="checkbox"/>
76	Herbal medicine (Atar)	<input type="checkbox"/>	<input type="checkbox"/>
77	Skin cauterisation (Al-Kowie)	<input type="checkbox"/>	<input type="checkbox"/>
78	Blood extraction (Al-Hejama)	<input type="checkbox"/>	<input type="checkbox"/>
79	Honey	<input type="checkbox"/>	<input type="checkbox"/>
80	Onion seed/ olive oil	<input type="checkbox"/>	<input type="checkbox"/>
81	Religious healer to read Al-Koran	<input type="checkbox"/>	<input type="checkbox"/>
82	Prayer and seek help from Allah	<input type="checkbox"/>	<input type="checkbox"/>

Patients' intention in primary care.

Here are some reasons why people go to see their doctor, and about what they expect from the doctor.

For each one, please tick one of the three boxes to show whether it applies to your visit today.

Please give an answer for each reason

	Reason	Agree	Un-certain	Disagree
83	I want to discuss certain problems in my life.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
84	I want treatment for a nervous condition.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
85	I want the doctor to explain my emotional problems.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
86	I am having a difficult time with my problem and would like some support.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
87	I want the doctor to explain how serious my problem is	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
88	I want the doctor to talk with me about my problem.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
89	I am feeling anxious and would like the doctor's help.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
90	I want to know how quickly I will get over this problem.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
91	I want to change the medication I am presently taking.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
92	I would feel better if I could talk about some of my feelings.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
93	I want to be sure nothing is wrong with me.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
94	I want the results from some tests.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
95	I want a previous diagnosis confirmed.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
96	I want to be referred to a specialist.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
97	I want advice on a drug I am taking.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
98	I want to know about possible side effects of my problem.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
99	I have emotional problems for which I would like help.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
100	I want someone to comfort me at this difficult time.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
101	I want the doctor to explain the likely course of the problem.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
102	I want to be examined for the cause of my condition.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
103	I would like the doctor to tell me what the symptoms that I have mean.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
104	I want the doctor to explain the treatment I am having.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
105	I want to know if I am likely to have any problems in the future	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
106	I want the doctor to explain some test results.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Symptom Checklist

How have you felt DURING the PAST SEVEN DAYS including today any of the following symptoms?

For EACH symptom please tick the one which best describes how much it has bothered you during the past seven

	Symptom	Not at all	A little	Quite a bit	Extremely
107	Headaches.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
108	Faintness or dizziness.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
109	Pains in the heart or chest.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
110	Feeling low in energy or showed down.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
111	Pains in the lower part of your back.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
112	Soreness of your muscles.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
113	Trouble getting your breath.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
114	Hot or cold spells.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
115	Numbness or tingling in parts of your body.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
116	A lump in your throat.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
117	Weakness in parts of your body.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
118	Heavy feelings in your arms or legs.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

GHQ

Please read this carefully:

We would like to know if you have had any medical complaints, and how your health has been in general, *over the past few weeks* Please answer All the questions simply by ticking the answer which you think most nearly applies to you. Remember that we want to know about present and recent complaints, not those that you had in the past

It is important that you try to answer ALL the questions.

	Item	Not at all	No more than usual	Rather more than usual	Much more than usual
119	Been able to concentrate on what you'er doing	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
120	Lost much sleep over worry	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
121	Felt that you are playing a useful part in things	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
122	Felt capable of making decisions about things	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
123	Felt constantly under strain	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
124	Felt you couldn't overcome your difficulties	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
125	Been able to enjoy normal your activities	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
126	Been able to face up to your problems	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
127	Been feeling unhappy and depressed	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
128	Been losing confidence in yourself	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
129	Been thinking of yourself as a worthless person	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
130	Been feeling reasonably happy, all things considered	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
131	Been feeling perfectly well	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
132	Felt that you are in need of a good tonic	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
133	Been feeling run down	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
134	Felt that you are ill	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
135	Been feeling pains in head	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
136	Been feeling pressure in your head	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
137	Been feeling hot or cold spells	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
138	Been face a difficulty staying asleep	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
139	Felt that you are edgy and bad-tempered	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
140	Been feeling scared or panicky	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
141	Felt that everything on top of you	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
142	Felt that you are nervous and strung-up	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

	Item	Not at all	No more than usual	Rather more than usual	Much more than usual
143	Been feeling busy and occupied	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
144	Been taking longer over things	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
145	Felt that you are doing things well	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
146	Been feeling satisfied with carrying out task	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
147	Been feeling that life entirely hopeless	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
148	Been feeling that life not worth living	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
149	Make away with yourself	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
150	Felt that you are nerves too bad	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
151	Been thinking of dead and away from it all	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
152	Been thinking of idea of taking your life	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Patients' perspective toward people with psychological problems

Here are some statements about how people see a person with a mental health problem.

For each one, please tick whether you think you: strongly agree; agree; disagree; strongly disagree.

Please answer EACH item.

	items	Strongly Agree	Agree	Disagree	Strongly Disagree
153	Most people would willingly accept a former mental patient as a close friend.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
154	Most people believe that person who has been in a mental hospital is just as intelligent as the average person.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
155	Most people believe that a former mental patient is just as trustworthy as the average citizen.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
156	Most people would accept a fully recovered former mental patient as a teacher of young children in a public school.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
157	Most people feel that to be admitted in a mental hospital is a sign of personal failure.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
158	Most people would not hire a former mental patient to take care of their children, even if he or she had been well for some time.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
159	Most people think less of a person who has been in a mental hospital.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
160	Most employers will hire a former mental patient if he or she is qualified for the job.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
161	Most employers will pass over the application of a former mental patient in favor of another applicant.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
162	Most people in my community would treat a former mental patient just as they would treat anyone else.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
163	Most women would not marry a man who has been hospitalised for a serious mental disorder.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
164	Once they know a person was in a mental hospital, most people will take his or her opinion less seriously.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Patients' satisfaction toward their consultation.

This form contains a list of questions. They ask you what you think of your visit today to the doctor. Please answer all the questions.

Your answers will be kept entirely confidential and will not be shown to the doctor. So feel free to say what you wish.

For each question tick the answer that is close to what you think. "Neutral" means you have no feelings either way.

	items	Strongly Agree	Agree	Disagree	Strongly Disagree
165	I am totally satisfied with my visit to this doctor.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
166	This doctor was very careful to check everything when examining me.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
167	I will follow this doctor's advice because I think he/she is absolutely right.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
168	I felt able to tell this doctor about very personal things.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
169	The time I was able to spend with the doctor was a bit too short.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
170	This doctor told me everything about my treatment.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
171	Some things about my consultation with the doctor could have been better.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
172	There are some things this doctor does not know about me.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
173	This doctor examined me very thoroughly.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
174	I thought this doctor took notice of me as a person.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
175	The time I was allowed to spend with the doctor was not long enough to deal with everything I wanted.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
176	I understand my illness much better after seeing this doctor.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
177	This doctor was interested in me as a person not just my illness.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
178	This doctor knows all about me.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
179	I felt this doctor really knew what I was thinking.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
180	I wish it had been possible to spend a little longer with the doctor.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
181	I am not completely satisfied with my visit to the doctor.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
182	I would find it difficult to tell this doctor about some private things.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>