



Goals of children entering child and adolescent mental health services: Agreement with parents and the link between goal orientation, goal motives, anxiety and depression

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Chapter 1

Introduction

Introductory Chapter

This thesis consists of two major sections: a systematic review and an empirical paper. A brief description of each section, along with details of how the sections are linked, will be provided in this introductory chapter.

Systematic Review

Theoretical standpoints are increasingly implicating goal processes in affective disorders and wellbeing (Johnson, Carver & Fulford, 2010). Goal processes include how an individual orientates their goals or the motives driving goal pursuit. For example, an individual may “want to maintain friendships” (approach orientation) or “not want to lose friendships” (avoidance orientation) because “it is really important to them” (autonomous motivation) or because “they would feel ashamed if they lost friends” (controlled motivation). Research suggests that these aspects of goals have an impact on wellbeing and levels of emotional distress irrespective of the goal content, in this case friendships (Elliot, Sheldon & Church, 1997; Miquelon & Vallerand, 2008).

This review uses systematic procedures to establish the current state of empirical research that investigates the relationship between goal processes and emotional distress and wellbeing in children and adolescents. There has been a paucity of research examining this link in children and adolescents. This is despite the potential that such knowledge could contribute to the understanding of the development and maintenance of mental health problems. This understanding is particularly important in children and adolescents due to the advantage of early intervention in treating mental health problems (Keiling et al., 2011).

This review is intended for submission to *Developmental Review* and so is written in accordance with the author guidelines for this journal which broadly follow the American Psychological Association (APA) publication manual (2011).

Empirical Paper

The second major section of this thesis is an original empirical research project, again interested in the goals of children and adolescents. More specifically, it studies the therapy goals of children attending Child and Adolescent Mental Health Services and the aspects of these goals that may be pertinent in mental health interventions. The study has two main aims which address two important issues relating to children's therapy goals. Parent-child agreement on presenting problems and goals of therapy is considered a significant factor in engagement and outcome in young people's therapy (Department of Health, 2004; Cates, Paone, Packman & Margolis, 2006). Therefore, the first broad aim of this study is to assess level of agreement between children and parents for the child's presenting problems and therapy goals. Next, the study focuses on the children's goals of therapy to better understand the link between the goal processes, approach and avoidance motivation and goals motives, and anxiety and depression. As the findings of the review suggest, this is an emerging area of research with clear implications for understanding emotional distress in children and adolescents. However, to the author's knowledge this study is the first to consider the link between goal processes and emotional distress in a clinical sample of children and adolescents. This means that it is well placed to make important clinical implications for clinicians working in child and adolescent mental health services (CAMHS).

The author intends to submit this paper to Journal of Abnormal Child Psychology and therefore it was written in accordance with the author guidelines for this journal which again follow APA style guidelines.

Thesis Overview

The thesis as a whole further informs the understanding of the aspects of children's goals that are particularly pertinent within a clinical setting. That is, characteristics that have been implicated in emotional distress and in therapeutic engagement and outcome, namely,

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level of agreement on goals within parent child-dyads and the association between goal-related processes and emotional distress. As a result, the thesis offers several important clinical implications for clinicians working within child and adolescent mental health services.

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Chapter 2

Systematic Review

How are goal processes linked to emotional distress and/or wellbeing in children and adolescents? : A Systematic Review¹

¹ To be submitted to the Developmental Review which does not have a word limit, however recent articles appear to be up to about 12000 words (see Appendix A for author guidelines for this journal)

Abstract

The link between goal processes and wellbeing or distress is a relatively nascent area of research, particularly with children and adolescents, but an area of research with promising potential clinical implications. A literature search revealed fifteen studies eligible for inclusion. That is, studies which were published between 1990 and 2014, included child or adolescent participants and assessed the link between goal-related processes and wellbeing or emotional distress. Findings of the included papers suggest that the majority of goal processes studied (e.g., goal orientation and goal expectancy) are linked to wellbeing and distress in a variety of ways. For example, anxious individuals generate more avoidance goals compared to controls, and the greater an individual is motivated to pursue their goals for autonomous reasons the greater they score on measures of wellbeing. Limitations identified include a lack of a clinical sample in any of the included studies and an inability to infer causation due to the cross-sectional design of many of the included studies. The findings of this review indicate several potential implications for clinical practice. These are outlined and largely relate to how clinicians could best address goals with their child or adolescent service users to promote wellbeing and reduce distress.

Keywords: Children, Adolescents, Goal Processes, Wellbeing, Emotional Distress.

Introduction

Global prevalence of disabling mental health difficulties in children and adolescents is between 10 and 20% and suicide is the third leading cause of death among adolescents (Belfer, 2008). Incidence of mental health problems in children and adolescents has increased over the past 20 years (Collishaw, Maughan, Natarajan, & Pickles, 2010). The study of wellbeing and mental health difficulties of children and adolescents is a particularly pertinent issue because more than half of adults with mental health difficulties had their onset in adolescence and less than half these individuals were treated appropriately at the time (Kim-Cohen et al., 2003). Effective early interventions with individuals at this stage of life have been shown to provide long-term health and socioeconomic benefits by preventing the development of emotional problems into chronic disorders (Kieling et al., 2011). In order to develop and provide the most effective interventions it is essential to obtain an in-depth understanding about the factors that contribute to the onset and maintenance of mental health problems. Although in law a child is defined as “every human being below the age of eighteen years” (United Nations General Assembly, 1989), for the purposes of this review a distinction is made between a child (birth to 12 years) and an adolescent (13 years to 18 years). There is a dearth of research that has studied child and adolescent emotional difficulties from various psychological perspectives; however, there are very few studies which have studied this important research area from a motivational perspective. Yet, motivation is fundamental to human experience and daily life.

Major theories of motivation (e.g., Gray, 1982) and self-regulation (e.g., Carver & Scheier, 1999) assert that human behaviour is primarily a goal-driven activity. Motivation has been increasingly implicated in affect and wellbeing. There appears to be a general agreement about the presence of a link between goals and affect; however, there is a lack of consensus about the nature of this relationship (Johnson, Carver, & Fulford, 2010). For some time

several theories such as Karoly's Discrepancy-Reduction Theory (1991) and Carver and Scheier's Control Theory (1990) have posited that goal achievement and the act of striving is linked to subjective wellbeing. The types of goals people pursue (i.e. goal content) has also been linked to individual's wellbeing (Cohen & Cohen, 2001; Emmons, 1991; Nurmi & Salmela-Aro, 2002). However, more recently, research has suggested that this phenomenon is more nuanced than just having and pursuing goals. Irrespective of goal content, goal processes have been consistently implicated in the maintenance of subjective wellbeing and/or emotional distress (Johnson et al., 2010).

Goals, defined as internal representations of desired states (Nurmi, Salmela-Aro, & Aunola, 2009), are an area of burgeoning research. The definition of goal content used in this paper is simply the object or subject being sought or avoided (Locke & Latham, 1990), for example "well-paid career" and "ill-health" respectively. Goal processes encompass goal orientation (approach and avoidance goals), motives for pursuing goals, goal-related cognitions (e.g., goal expectancy) and goal-related behaviours (e.g. goal disengagement). The content of a goal could remain the same (e.g., an exam) but there could be a number of different goal processes. For example, "I want to pass my exam" (approach goal orientation) or "I don't want to fail my exam" (avoidance goal orientation) because "it is important to me" (identified motivation) or "my parents will be mad if I don't" (external motivation).

The other constructs integral to this review are wellbeing and distress. Wellbeing is defined as the balance point between an individual's resource pool and the challenges they face (Dodge, Daly, Huyton, & Sanders, 2012). Distress in this context is used to define negative affect such as anxiety and depression. Negative affect and wellbeing, rather than at polar ends of a continuum, are considered conceptually distinct (Bradburn, 1969; Singh & Jha, 2008) and so, as argued by Keyes (2005), the absence of depression does not necessarily mean the presence of wellbeing. Given this, it is important to examine the link between goal

processes and both states. This is because, firstly, literature concerned with distress may aid in the understanding of clinical conditions, their onset, development and maintenance, from a motivational perspective. Secondly, as the recovery movement is becoming a dominant force within mental health services, the focus is turning from reducing problems to promoting wellbeing. Therefore, an understanding of the relationship between motivational processes and wellbeing may indicate some direction for clinicians to support service users to increase their wellbeing.

There are several prominent theories of motivation and an increasing number of theories proffering an explanation of the link between goal processes and wellbeing or emotional distress. Gray and McNaughton (2003) revised Gray's (1982) two system affective-motivational theory. This theory incorporates a behavioural activation system (BAS) which is appetitive, represents a sensitivity to rewards and is responsible for positive feelings and a behavioural inhibition system (BIS) which is aversive, represents sensitivity to signals of punishment and is considered to be responsible for negative feelings. Fowles (1994) applied Gray's two-system model of motivation to anxiety and depression. Fowles suggested that depression and anxiety are characterised by increased activation of the BIS and depression is uniquely associated with a reduction of the BAS. Fowles' postulations remained theoretically driven and not empirically established for several years. There has however, since been a limited amount of research that has empirically tested and supported Fowles's assertions for depression (Kasch, Rottenberg, Arnow, & Gotlib, 2002; Pinto-Meza et al., 2006).

Gray's theory and Fowles' application of it has led, in recent years, to the study of approach and avoidance goals (e.g., Elliot, 2008) which refer to the orientation of an individual's goals. They describe moving towards a desirable outcome (approach orientation) and moving away from, or inhibiting, an undesirable outcome (avoidance

orientation). Concordant with motivation theory, recent goal regulation theory would assert that all human behaviour is an approach-driven or avoidance-driven activity. Supporting Fowles' assertions, research has found that in adults approach goals are positively related to wellbeing whereas, avoidance goals have a negative relationship with wellbeing and a positive relationship with anxiety and distress (Elliot et al., 2012; Grosse Holtforth & Grawe, 2002; Vergara & Roberts, 2011).

Underlying goal motives which may drive or energise goal pursuit and goal commitment, referred to as goal motives or goal internalisation, have also been implicated in wellbeing and emotional distress. Goal internalisation refers to the extent to which the motivation behind a goal is autonomous (internally driven) or controlled (externally driven). Goal internalisation is derived from Self-Determination Theory (SDT; Deci & Ryan, 1985). SDT is a theory of human motivation and personality (Deci & Ryan, 2011). Empirical studies concerned with SDT have found that competence (Harter, 1978), autonomy (Deci, 1975) and relatedness (Baumeister & Leary, 1995) are required for optimal functioning and wellbeing (Ryan & Frederick, 1997). According to SDT if an individual is pursuing a goal for controlled, as opposed to autonomous, reasons they may be less likely to experience an increase in wellbeing, even if they reach the goal, as it violates their need for autonomy (Deci & Ryan, 2000). Deci and Ryan (1985) postulated five sub-theories within SDT, one being Organismic Integration Theory (OIT). OIT suggests that autonomous and controlled motivation are not simply two discrete concepts rather they can be found on a continuum from self-determined to externally determined; intrinsic, identified, introjected and external motivation. Autonomous reasons for goal pursuit include the individual pursuing the goal because they feel it will be enjoyable (intrinsic motives) or because they believe it is an important goal to have (identified motives). Whereas, controlled reasons for goal pursuit include feelings of guilt or anxiety (introjected motives) or the threat of punishment from

another (external motives) if they did not pursue a goal. Schmuck (2001) found that the importance that individuals placed upon intrinsic goals to be positively associated with indicators of wellbeing and negatively associated with symptoms of anxiety and depression and the inverse of these findings for the endorsement of extrinsic goals. In non-clinical adult samples, pursuance of goals for autonomous reasons has been found to be positively related to happiness (Miquelon & Vallerand, 2006) and wellbeing (Levesque, Zuehlke, Stanek, & Ryan, 2004; Sheldon & Elliot, 1999). Whereas, pursuance of goals for controlled reasons has been found to be negatively related to happiness (Miquelon & Vallerand, 2006).

Further goal-related processes, which some researchers have suggested have an impact upon wellbeing and emotional distress, are cognitions and behaviours relating to goals. Goal-related cognitions include an individual's beliefs about the importance of their goals, the likelihood that they will achieve their goals and the amount of control they have of achieving them. There has been a dearth of literature investigating the impact that cognitions have upon negative affect and wellbeing. However, the effect of cognitions specifically relating to goals, upon emotions is still a relatively nascent area of study. The most prominent cognitive theory of emotional disorders is Beck's (1976) cognitive theory of depression which has since been applied to numerous other psychological difficulties. This theory asserts that through experiences, individuals develop beliefs, which, activate thoughts that maintain psychological difficulties through a vicious cycle of thoughts, emotions, physiological reactions and behaviour (Persons, 2008). When considering this theory in relation to specific goal-related cognitions it can explain the findings of researchers, such as Brunstein (1993), that an individual who holds high expectancy for the attainment of important goals, experiences increased positive affect compared to an individual who makes pessimistic predictions about the attainability of their goals. As well as cognitions relating to goals, researchers have implicated behaviours relating to cognitions in wellbeing. Goal

disengagement is an example of a goal-related behaviour which, as the name suggests, refers to abandoning goal-directed activities. Wrosch, Scheier, Miller, Schulz and Carver (2003) found that in an adult sample both goal disengagement and goal reengagement were associated with higher subjective wellbeing.

As outlined above, there are several studies which have explored the link between goal processes and wellbeing and distress with an adult population. Research has rarely investigated this link with children and adolescents; but, encouragingly there has been an emerging interest in this specific research area over recent years. There appear to be several reasons for this. Adolescence is a time of major biological, educational and social role change (Bandura, Pastorelli, Barbaranelli, & Caprara, 1999). There is a focus on personal futures in adolescence; key goals need to be set, such as those relating to occupation, which can crucially influence adult life and where individuals begin to set independent goals as they acquire autonomy from their parents and transition to adulthood (Nurmi, Poole, & Kalakoski, 1994). Several researchers have postulated a link between goal pursuit and identity formation in adolescence, a time in life where a key task is to develop a coherent personal identity (Cantor & Fleeson, 1991; Nurmi, 1993). In comparison, children are less likely to hold significant goals independent from their parents, a difference which may have an impact upon the link between goals and wellbeing. Finally, motives for goal pursuit are thought to change throughout childhood and adolescence (Deci & Ryan, 2000). For these reasons, childhood and adolescence provide a “naturally rich context for studying goals” (Dickson & MacLeod, 2006, p. 418).

This review aims to answer the question: how are goal processes linked to emotional distress and/or wellbeing in children and adolescents? To the author’s knowledge, there have been two previous systematic reviews in this area by Nurmi (1991) and Massey, Gebhardt and Garnefski (2008). However, these reviews were interested in all adolescent goal literature

prior to 1991 (Nurmi, 1991) and between 1991 and 2007 (Massey, Gebhardt & Garnefski, 2009). This review is the first to specifically examine and synthesise evidence for goal processes and wellbeing and distress in children and adolescents. It is hoped that this review will provide a clear picture of the current state of the literature in this area including identification of gaps for further research. This is an important area of study as findings may indicate novel areas of intervention for children and adolescents who are experiencing psychological difficulties.

Method

Search Strategy

The initial search strategy involved searching the literature using the major electronic databases SCOPUS, Psychinfo, Web of knowledge and Medline. A comprehensive list of search terms used and Boolean details can be found in Appendix B. Search terms included a combination of the term goal, terms relating to wellbeing and distress (e.g., wellbeing, depression and mood) and terms relating to adolescents or children. Reference lists of previous systematic reviews and retrieved articles were also examined to capture articles not available on electronic databases. The database of retrieved literature is held on an End Note X6 software package.

Study Selection

After the duplicate papers had been removed, the citations identified by the search strategy were assessed for inclusion in two stages. Firstly, a reviewer screened all relevant titles and abstracts identified to select potentially relevant studies for inclusion in the review. Secondly, full text copies of these selected studies were obtained and assessed using the inclusion and exclusion criteria (see Appendix C). That is, published between 1990 and 2014, this date limit was set as there is very little empirical goal research prior to 1990; main text

written in English; quantitative methodology; includes a sample of participants who are children and adolescents up to the age of 19 years old and assesses the link between goal-related processes (as defined above) and wellbeing and/or distress. Papers were excluded that did not include a goal-related construct as a central tenet, this includes the exclusion of papers that just focus on goal content (as defined above) and papers which focused on health compromising and/or delinquent behaviour rather than internal processes such as wellbeing and/or distress. Papers were also excluded which focused solely on sport-related goals or goals relating to a specific disease or physical health problem. A second reviewer, independent to the study, screened a SPSS randomly generated sample of papers (50%). Agreement between the author and independent reviewer yielded high inter-rater reliability ($K = 1$).

The search strategy yielded 302 studies. Two hundred and eighty seven of these were excluded as they did not meet inclusion criteria. Therefore, 15 studies were considered relevant for the current review. See Figure 1 for a PRISMA diagram of the selection process.

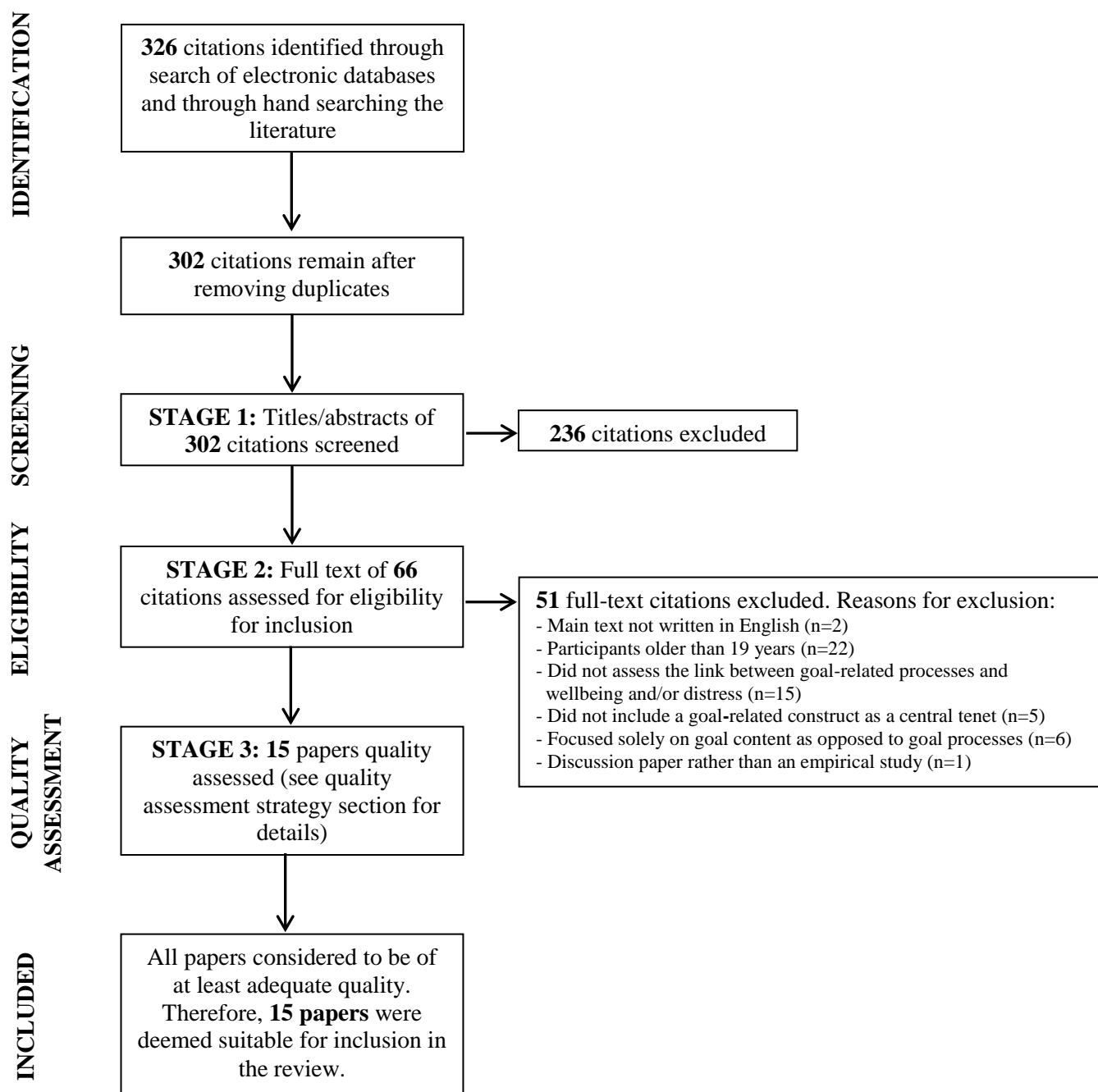


Figure 1. PRISMA Diagram depicting the process of inclusion and exclusion of studies

Table 1 presents all reviewed studies which met criteria in chronological order and includes details on the sample, setting, measures, procedures, results and quality rating for each study.

Quality Assessment Strategy

All of the included studies were assessed for their methodological quality using the Quality Assessment Tool for Studies with Diverse Designs (QATSDD; Sirriyeh, Lawton, Gardner, & Armitage, 2012). The QATSDD is a reliable and valid 16-item measure which, can be applied to assess the rigor of a methodologically diverse set of research articles according to the four areas: credibility, confirmability, transferability and dependability. The scores of this quality assessment can be found in Table 1 and in more detail in Appendix D. All of the included studies appear to be of at least reasonable quality. The majority of papers provide a strong theoretical framework for their study but fail to involve service users in any part of the research process and some papers fail to offer a detailed critique of their study.

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Table 2

Goals and wellbeing or distress papers included in the review

Author	Sample	Age (M)	Setting	Goal Variables	Wellbeing and Distress Variables	Method	Main Results	Quality Rating
Dickson and Macleod (2004a)	144 Australian Adolescents	16-18 (16.4)	School	Approach and avoidance goals (measured using the Goals Task where participants were asked to complete the sentences “In the future it will be important for me to/to avoid...” within the 75s time limit) and approach and avoidance consequences (participants asked to describe the most important consequences of achieving or not achieving each of their goals)	Anxiety and depression (as measured by the Hospital Anxiety and Depression Scale)	In a classroom setting, in groups of 6-22, participants were asked to complete the battery of measures	Anxiety was related to avoidance goals but not approach goals. Depression was associated with a deficit in the number of approach goals generated but was not related to an increase of avoidance goals	28
Dickson and Macleod (2004b)	112 Australian Adolescents	16-18 (16.35)	School	Approach and avoidance goals (measured using the Goal Task see Dickson and Macleod (2004a) above), Approach and Avoidance Plans (request to generate strategies to achieve their two most important approach and avoidance goals) and goal specificity	Anxiety and depression (as measured by the Beck Anxiety Inventory (BAI) and Beck Depression Inventory (BDI) respectively), participants assigned to one of four groups (high anxiety, high depression, mixed and control)	In a classroom setting, in groups of 10-25, participants were asked to complete the battery of measures	High depression and mixed (anxious and depressed) adolescents generated fewer approach goals, fewer approach plans, more avoidance plans and were less specific in forming their goals and plans than controls. Adolescents in the high anxiety group produced more avoidance goals, more avoidance plans, fewer approach plans, and were less specific in forming approach goals and plans than controls.	29
Street et al. (2004)	36 Australian	10-12	School	The Conditional Goal Setting Scale was used to prompt the participants	Depressive Symptoms (as	Following participation in	A significant relationship was found between goal setting styles,	18

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Table 1 (continued)

Author	Sample	Age (M)	Setting	Goal Variables	Wellbeing and Distress Variables	Method	Main Results	Quality Rating
	Children			to generate three important goals and rate on a 7-point likert scale how dependent their happiness is on achieving each goal	measured by the Birleson Depression Scale)	focus groups (data not included in this review) participants completed questionnaires	happiness and depression. Depressed children were more likely than non-depressed children to be conditional goal-setters.	
Sideridis (2005) Study 1	214 American Children	10-12	School	Goal orientations; performance approach, mastery, performance avoidance and multiple goals and Control Beliefs/Luck (as measured by Skinner's 3-item Luck subscale)	Depression, anxiety, negative affectivity and self-esteem (as measured by the Children's Depression Inventory (CDI), Revised Children's Manifest Anxiety Scale, Positive and Negative Affect Schedule (PANAS-C) and Rosenberg's Self-Esteem Inventory, respectively)	Participants completed the measures in groups in a classroom setting	Performance-approach orientation was not related to anxiety, negative affect, or depression. Whereas, performance-avoidance orientation positively correlated with anxiety and depression. Mastery orientation correlated negatively with anxiety and depression.	25
Sideridis (2005) Study 2	116 American Children	10-12	School	Goal orientations (as in study 1) three groups of students (high mastery, performance-approach and performance-avoidance) were formed on the basis of their ratings on mastery and performance-approach orientations	Negative affect (according to the PANAS-C)	Participants completed the measures in groups in a classroom setting	Findings suggested that performance approach students were no more anxious than mastery students or performance-avoidance students.	25
Sideridis	130	10-12	School	Goal orientations (as in study 1 and	Anxiety and affect	In a classroom	No significant differences were	25

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Table 1 (continued)

Author	Sample	Age (M)	Setting	Goal Variables	Wellbeing and Distress Variables	Method	Main Results	Quality Rating
(2005) Study 3	American Children			participants grouped as in study 2)	(measured using the PANAS-C)	setting participants were asked to complete a battery of self-report measures, solve a series of maths problems, and then complete more self-report measures	found across all goal orientation groups in both positive and negative post-task affectivity. Significant differences were observed in anxiety, with mastery students feeling more alienated and reporting more physiological concerns compared to performance-avoidance students.	
Sideridis (2005) Study 5 ²	377 American Children	10-12	School	Goal Orientations (measured as in study 1) Other constructs: Self-reported effort, time engaged on the exercises and commitment	Negative affectivity , anxiety, depression and self-esteem (as measured by the PANAS-C, RCMAS, CDI and Rosenberg’s Self-Esteem Scale, respectively)	As in Sideridis (2005) study three detailed above	Performance-approach goals had little effect upon negative affect, anxiety and depression. Performance-avoidance goals were positively linked to negative affect, anxiety and depression.	25
Dickson and Macleod (2006)	111 Australian Adolescents	16-18 (16.7)	School	Approach and avoidance goals (measured by the Goals Task (Dickson & Macleod, 2004a), causal explanations (as measured by the Goals Explanation Task which elicits explanations for why their goals would and would not be achieved), goal expectancy (measured on a 7-point likert scale)	Dysphoria as measured by the BDI. Participants were divided into two groups; dysphoric and non-dysphoric (those who scored in the upper quartile and lower quartile on the	In a classroom setting, in groups of 8-24, participants were asked to complete the battery of measures	Compared to controls, dysphoric adolescents generated fewer approach goals and more avoidance goals, more reasons that goals would not be achieved and fewer reasons that explain why goals would be achieved regardless of goal type. Dysphoric adolescents also rated approach	33

² Study 4 not included as not related to wellbeing or distress.

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Table 1 (continued)

Author	Sample	Age (M)	Setting	Goal Variables	Wellbeing and Distress Variables	Method	Main Results	Quality Rating
				and perceived level of personal control (measured on a 7-point likert scale)	BDI respectively)		goal outcomes as less likely to occur and avoidance goal outcomes as more likely to occur and anticipated less personal control in implementing their goals than controls.	
Massey, Gebhardt and Garnefski (2009)	438 Dutch Adolescents	Early adolescent group 12-15 Late adolescent group 16-19	School	Goal content, goal attainability (measured by rating on a 5-point likert scale), goal obstacles (report of any obstacles participants felt they may experience whilst trying to achieve their goals) and goal frustration (emotional reaction to goal obstruction measured on three 10-point scales of annoyance, stress and anger) and goal related self-efficacy (measured by an adaption of Schwarzer's General Self-Efficacy Scale)	Wellbeing (as measured by subjective life satisfaction and happiness both rated on two five-point scales)	Measures completed in school	Goal related self-efficacy was most strongly related to wellbeing, followed by perceived difficulty in goal attainment and goal frustration when obstacles are encountered. Perceived difficulty in goal attainment and greater frustration when setbacks to goal pursuit are encountered were found to be negatively related to wellbeing.	27
Scott et al. (2008)	112 American Indian Adolescents	13-19 (16.0)	School	Personal strivings listing (measured using Emmons' Personal Strivings Listing where participants generate two everyday goals and rate these on a 7-point likert scale for goal orientation [goal internalisation], goal importance and goal activation)	Recent negative life events history and depressive symptoms (measured using Novins' and colleagues Negative Life Events Measure and Inventory to Diagnose Depression, respectively)	Participants completed the measures in a classroom setting	No relationship was found between depression and goal importance and goal activation. However, academic self-efficacy and depressive symptoms was positively related when mediated by goal importance for 11 th and 12 th grade adolescents.	21

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Table 1 (continued)

Author	Sample	Age (M)	Setting	Goal Variables	Wellbeing and Distress Variables	Method	Main Results	Quality Rating
Wrosch and Miller (2009)	97 Canadian Adolescents	15-19 (16.16)	Unclear	Goal disengagement and goal reengagement (measured by the Goal Adjustment Scale)	Depressive symptoms (according to the BDI)	Participants completed the measures and data was then collected at 7, 13 and 19 months	Higher baseline levels of depressive symptoms were predictive of greater goal disengagement capacities over the first year and associated with a steeper increase in goal disengagement capacities across time. Participants who showed greater increases in goal disengagement reported a greater reduction in depressive symptoms compared to their counterparts.	32
Dickson and Moberly (2010)	119 Australian Adolescents	16-19	School	Approach and avoidance goals (as measured by Goals Task (Dickson & Macleod, 2004a)), goal matrix (rating of the extent to which the pursuit of each goal facilitates or inhibits the pursuit of every other goal) and goal ratings (ratings on a 7-point likert scale for distress and repetitive thinking for the two goals that “conflicted or inhibited each other most”)	Anxiety and depression (as measured by the BDI and BAI respectively)	In a classroom setting, in groups of 10-25, participants were asked to complete the battery of measures	Anxiety and depression were both negatively associated with overall goal facilitation and positively related with the level of distress and repetitive thinking relating to the pursuit of participants’ most conflicting goals. Depressive but not anxious symptoms were independently associated with reduced goal facilitation and increased distress and repetitive thinking about conflicting goals.	28
Lekes, Gingras, Philippe, Koestner and Fang	515 Chinese Adolescents and 567 North American	China 12-17 (15.5) North America	School	Intrinsic and extrinsic life goals (as measured using Kasser and Ryan’s Life Aspiration Index)	Autonomy-support and wellbeing (as measured by the Perception of Autonomy Support	Participants completed all measures at a single time point in a classroom	Extrinsic goals were not related to wellbeing in Chinese or North American adolescents. Parental autonomy-support was positively related to intrinsic life goals	26

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Table 1 (continued)

Author	Sample	Age (M)	Setting	Goal Variables	Wellbeing and Distress Variables	Method	Main Results	Quality Rating
(2010)	Adolescents	12-17 (14.7)			Scale and PANAS and Anderman's Self-Concept Scale)	setting	which were in turn positively associated with wellbeing in both samples. There was partial mediation of intrinsic life goals between autonomy-support and wellbeing.	
Kuroda and Sakurai (2011)	116 Japanese Adolescents	12-13 (at time 1)	School	Social goal orientations (as measured by the Social Goal Orientation Scale)	Negative interpersonal events and depressive symptoms (as measured by a modified version of the Negative Interpersonal Events Scale (NEIS) and CDI)	In a classroom setting participants were asked to complete the goal and depression measure at time 1 and the NEIS and depression measure at time 2 (13 months later)	Social learning goals were found to reduce the effects of interpersonal stress and as a result protect against depression conversely social performance-avoidance goals increased the risk of developing depression as they increased the effects of interpersonal stress. Social performance-approach goal did not significantly influence the effects of interpersonal stress.	28
Mouratidis and Michou (2011)	426 Greek Children	10-12	School	Autonomous and controlled motivation (as measured by the Sport Motivation Scale), perceived task-related competence (as measured by six adjusted items from the Intrinsic Motivation Inventory), social achievement goals (as measured by a version of Ryan and Shim's Scale) and perceived social competence (as measured by four items from the Perceptions of Social Competence	Class-related emotions (as measured by an adapted version of the Academic Emotions Questionnaire)	Participants completed measures in groups in a classroom setting	Autonomous and controlled motivation and social demonstration-approach goals were positively associated with pride. Controlled motivation was positively correlated and perceived competence was negatively correlated with each of the five negative emotions. Autonomous motivation was negatively associated with anger, boredom and hopelessness but not	26

GOALS OF CHILDREN ENTERING CHILD AND ADOLESCENT MENTAL HEALTH SERVICES

Table 1 (continued)

Author	Sample	Age (M)	Setting	Goal Variables	Wellbeing and Distress Variables	Method	Main Results	Quality Rating
				Subscale)			to anxiety and shame.	
Haase, Poulin and Heckhausen (2012) Study 1	752 American Adolescents	(17.7)	School and via postal survey	Primary control strivings (as measured by the Optimisation in Primary and Secondary Control Scale) and control beliefs (as measured by five items from the Control Agency Means-Ends in Adulthood Questionnaire (CAMAQ) which assess ability and effort agency beliefs on a 5-point likert scale)	Positive Affect and Depressive symptoms (measured by selected items from the Center for Epidemiologic Studies Depression (CESD) Scale)	In a longitudinal two-wave design participants completed measures in a classroom setting and the first wave and then were mailed the measures in the second wave	Positive affect predicted relative increases in primary control striving but control beliefs partially mediated these effects. Depressive affect did not predict primary control striving over time. Results indicated that positive affect predicted primary control strivings more strongly than primary control striving predicted positive affect.	27
Haase, Poulin and Heckhausen (2012) Study 2	464 German Adolescents	(16.8)	School and via postal survey	Primary control strivings (as measured by the Optimisation in Primary and Secondary Control Scale) and Apprenticeship-Related Control Beliefs (as measured by five items from the CAMAQ)	Positive affect and negative affect (as measured by the PANAS)	This study used a dense longitudinal analysis in six waves. For the first five waves participants completed the questionnaires in 2-monthly intervals in a classroom setting and for the sixth wave participants were mailed the questionnaires	Lagged positive affect predicted primary control striving. Control beliefs were a significant mediating factor between positive affect and primary control beliefs. Lagged primary control striving was predictive of positive affect. However, this association was smaller than positive affect predicting primary control striving.	27
Dickson and Moberly	70 Australian	16-18	School	Approach and avoidance goals (as measured by the Goal Task	Anxiety and depression (as	In a classroom setting	Anxiety was generally associated with controlled but not	28

GOALS OF CHILDREN ENTERING CHILD AND ADOLESCENT MENTAL HEALTH SERVICES

Table 1 (continued)

Author	Sample	Age (M)	Setting	Goal Variables	Wellbeing and Distress Variables	Method	Main Results	Quality Rating
(2013)	Adolescents			(Dickson & Macleod, 2004a), goal internalisation (measured by Ryan and Connell's Goal Internalisation Ratings) and goal expectancy and goal importance (as measured by two 7-point likert scales)	measured by the Revised Anxiety and Depression Scale)	participants were asked to complete the battery of measures	autonomous reasons for goal pursuit. Anxiety was related to introjected reasons for pursuing approach goals and external reasons for pursuing avoidance goals. Anxiety was also significantly associated with heightened expectancies of undesirable goal outcomes, but not with expectancies for desirable goal outcomes.	
Pomerantz and Qin (2013)	374 American and 451 Chinese Adolescents	China 12-14 (12.78 at time 1) America 12-14 (12.69 at time 1)	School	Autonomous motivation (measured using Ryan and Connell's Academic Self-Regulation Questionnaire)	Affect (participants rated how often, on a 5-point likert scale, in the past week they experienced each of 15 unpleasant emotions and 14 pleasant emotions) and self-esteem (as measured by Tafasrodi and Swann's scale)	Questionnaires completed in a classroom setting every six months from the start of seventh grade until the end of eighth grade	In both America and China, there were negative reciprocal pathways between unpleasant affect and children's autonomous motivation. Over time, increased autonomous motivation predicted reduced unpleasant affect, which in turn predicted increased autonomous motivation. Positive reciprocal pathways between children's autonomous motivation and pleasant affect were evident over time only in China.	32

Results

Below is a narrative commentary of the included studies. For ease of reference the findings of each of the studies will be presented in relation to the goal processes they study.

Approach and Avoidance Goals

Studies have found that individuals reporting anxious symptoms are more likely to generate more avoidance goals but no less approach goals compared to controls (Dickson and Macleod, 2004b) and individuals reporting depressive symptoms (Dickson and Macleod, 2004a). Similarly, individuals with high anxiety generate fewer approach plans and more avoidance plans than controls (Dickson & MacLeod, 2004b). Individuals who scored highly on a measure of anxiety generated less specific approach goals but not avoidance goals than controls (Dickson & Macleod, 2004b). Sideridis (2005) found that performance-avoidance goals were positively related to negative affect, anxiety and depression whereas performance-approach goals were not related to the same measures of distress.

Studies have found that depression is linked to the generation of fewer approach goals (Dickson & Macleod, 2004a, 2004b, 2006). Interestingly, some studies found no significant relationship between depression and avoidance goals (Dickson & Macleod, 2004a, 2004b), whereas others have found that individuals reporting higher depressive symptoms report more avoidance goals (Dickson & Macleod, 2006; Kuroda & Sakurai, 2011; Sideridis, 2005). Social performance-avoidance goals were found to significantly predict changes in depressive symptoms over time and this effect was mediated by interpersonal stress, that is, those individuals with a high level of social performance-avoidance goals who experienced a high level of interpersonal stress experienced an increase in depressive symptoms over time (Kuroda & Sakurai, 2011). This relationship was not found for social performance-approach goals. Dickson and Macleod (2004b) found that high depression and “mixed individuals”

(individuals who scored highly on measures of both anxiety and depression) were less specific than controls in framing their approach and avoidance goals.

Goal Internalisation

Endorsement of extrinsic goals was not related to wellbeing whereas intrinsic goals were positively related to wellbeing, these findings were consistent across both Chinese and North American adolescent samples (Lekes et al., 2010). Controlled motivation was positively correlated with negative emotions and autonomous motivation was negatively associated with hopelessness, anger and boredom but not to anxiety and shame (Mouratidis & Michou, 2011). However, the sample studied was very specific, pupils of a PE class in a Greek school, meaning that findings cannot be generalised. Again, consistent across Chinese and American adolescent samples autonomous motivation was negatively related to unpleasant affect (Pomerantz & Qin, 2013). Autonomous motivation was positively related to pleasant affect but this relationship was only found to be significant over time in China. These researchers found that, over time, increased autonomous motivation was predictive of reduced unpleasant affect which was also predictive of increased autonomous motivation. Scott and colleagues (2008) found that extrinsic reasons for goal pursuit were positively associated with depressive symptoms; however, goal internalisation in this instance was measured by a single likert scale asking whether each goal was something others wanted or something they wanted. This is opposed to Deci and Ryan's (1985) levels of goal internalisation which have been used extensively in other studies. In addition, as highlighted by the quality assessment Scott and colleagues' paper fails to provide detailed recruitment data or to provide an adequate description of their procedure.

Dickson and Moberly (2013) found that anxiety symptoms were generally associated with controlled but not autonomous reasons for goal pursuit. More specifically, anxiety symptoms were significantly correlated with greater external regulation for avoidance, but

not approach, goals. Anxiety was also associated with greater introjected regulation for approach, but not avoidance, goals. As expected, anxiety was not significantly related with intrinsic or identified motives for goal pursuit.

Goal Engagement and Disengagement

In a study which emphasised the adaptive traits of depression, Wrosch and Miller (2009) found that higher levels of depressive symptoms at baseline were predictive of increased likelihood of goal disengagement (defined as withdrawal of effort and commitment from pursuing an unattainable goal) but not goal reengagement over time. In turn individuals who demonstrated greater increases in goal disengagement capacities experienced a reduction in depressive symptoms. The authors of this paper also found that there was no relationship between depressive symptomatology and goal disengagement capacities at baseline. They concluded that their findings demonstrated that depression leads to increases in an individual's ability overtime to disengage from goals. However, these findings cannot be generalised as participants were adolescent girls considered to be at risk of developing depressive symptoms.

Cognitions Associated with Goals (Goal Expectancy, Causal Explanations, Primary Control Strivings, Control Beliefs, Goal Importance, Goal Frustration and Goal Related Self-Efficacy)

Massey et al. (2009) found that perceived difficulty in goal attainment was negatively associated with wellbeing, suggesting that higher levels of goal expectancy are linked to higher levels of subjective wellbeing. Compared to controls, individuals who scored highly on measures of depressive symptomatology endorsed approach goal outcomes as less likely to happen and aversive goal outcomes as more likely to happen (Dickson & Macleod, 2006). Whereas, again compared to controls, individuals who scored highly on measures of anxious symptomatology reported increased expectancy for avoidance goal outcomes but not for

approach goal outcomes (Dickson & Moberley, 2013). With regards to causal explanations, Dickson and Macleod (2006) found that, compared to controls, depressed adolescents generated more reasons to explain why goals would not be achieved and fewer reasons to explain why goals would be achieved. Therefore, unsurprisingly considering their cognitive profiles, depressed individuals expected negative things to happen and did not expect good things to happen and anxious individuals predicted that they were more likely to avoid “bad” things from happening but did not differ to controls in their expectancy for the attainment of positive goals.

Haase, Poulin and Heckhausen (2012) studied the effect of primary control striving, the motivation to invest time and effort and overcome obstacles in goal pursuit, on positive affect. They found that increases in the motivation to invest time and effort to achieve goals and primary control striving both predicted and was predicted by positive affect; however, the former relationship was stronger than the latter. These effects were mediated by control beliefs which in this study encompassed ability and effort agency beliefs and expectancies. In the same study, depressive symptoms did not predict primary control strivings over time. However, in another study adolescents scoring highly on a measure of depression anticipated less personal control in achieving their goals overall than did controls (Dickson & Macleod, 2006). These findings suggest that increased positive affect results in an increase in motivation to invest time and effort and to overcome hurdles in pursuit of their goals and that this is, in part, because they believe they have more control over attaining their goals. In addition, depressed individuals seem to expect less control in achieving their goals.

Of the goal processes studied in Massey and colleagues’ (2009) research, perceived difficulty in goal attainment, goal related self-efficacy (the extent to which an individual believes they can achieve their goals) and goal frustration, goal related self-efficacy was most

strongly related to wellbeing. Similarly, Mouratidis & Michou (2011) found that perceived competence was negatively correlated with negative affect.

Street and colleague's (2004) paper studied the link between another goal-related cognition, conditional goal setting, and depression. Street found that children who reported higher depressive symptoms were more likely to be conditional goal setters, that is, pursuing a goal due to a belief that one will only be happy with successful attainment of that goal, than children who scored lower on the measure of depression. However, these findings came from questionnaires completed following an interview for a qualitative study and the authors acknowledge that a larger study is needed to support these findings.

Dickson and Moberly (2013) found no relationship between goal importance of approach or avoidance orientated goals and anxiety. That is, overall, all participants in this study regardless of the extent of their anxiety, rated both their approach and avoidance goals as subjectively important. Scott and colleagues (2009) also found no relationship between goal importance and depression; however, goal importance mediated the positive relationship between academic self-efficacy and depressive symptoms for older adolescents. This suggests that if older adolescents feel like they do not have the ability to achieve a goal and they view this goal as important then they are more likely to be depressed than those who do not consider the goal to be important. Predictably, Massey et al. (2009) found that goal frustration, when obstacles to goal pursuit are encountered, was negatively related to wellbeing.

Goal Facilitation and Inhibition

Dickson and Moberly (2010) asked participants to rate the extent to which a goal facilitated or inhibited another goal and found that these goal facilitation ratings were negatively correlated with distress relating to the pursuit of participants most conflicting goals. Goal facilitation was negatively related to anxiety and depression, and, distress and

rumination relating to the pursuit of participants most conflicting goals was positively related to anxiety and depression. However, upon further analysis depressive symptoms but not anxious symptoms were found to be independently associated with increased distress and repetitive thinking about conflicting goals.

Demographic and Sociodemographic Factors

Some studies have looked at the effect of sociodemographic factors upon the relationship between certain goal processes and affect or wellbeing. According to available data, the age of participants across the fifteen studies ranged from 10 to 19, with a mean age of 15.9 years. The wide age range of included participants and the substantial developmental differences between individuals at either end of the age range (ten years old and 19 years old) suggest that comparisons between studies and generalisations should be cautiously made. However, the majority of studies found no age effects with the only mention of age difference being that the relationship between goal motives and depressive symptoms was not apparent for younger adolescents (Scott et al. 2008). This suggests that age may have less effect upon the relationship between goal processes and wellbeing and emotional distress than one may expect. Many studies reported no significant effect of gender upon the relationship between goal processes and wellbeing or emotional distress, for example between anxious or depressive symptom levels and goal facilitation (Dickson & Moberly, 2010). Only two cross-cultural studies met the inclusion criteria of this study. These two studies included samples from China, USA and Canada (Lekes et al. 2010; Pomerantz & Qin, 2013) and generally found comparability between cultures with regards to goal motives and the link between these and wellbeing. However, Pomerantz and Qin (2013) highlight a limitation of their research that the included samples used are not representative of the diversity of the United States and China.

Discussion

In concordance with the findings of previous research, results of this review suggest that specific goal processes are related to wellbeing and emotional distress in a multitude of ways. Generally, the included studies found that, compared to controls, individuals who scored highly on subjective measures of anxiety generated more avoidance goals and do not differ on their capacity to generate approach goals. Whereas, in the main, studies found those individuals who scored highly on measures of depression generated fewer approach goals and more avoidance goals than controls. These findings are consistent with research in the adult literature (e.g., Elliot, Sheldon, & Church, 1997) and with Gray and McNaughton's BIS-BAS theory (2003). That is, anxiety is characterised by increased activation of the BIS, hence the generation of more avoidance goals, and in depression the BAS system is inhibited, illustrated by the findings that these individuals endorse less approach goals than controls. There was, however, contention in the findings with regards to the theory that depression is characterised by activation of the BIS. Some studies found no greater endorsement of avoidance goals by depressed individuals (Dickson & Macleod, 2004a, 2004b) and some studies found that individuals scoring higher on measures of depression did generate more avoidance goals than controls (Dickson & Macleod, 2006; Kuroda & Sakurai, 2011; Sideridis, 2005). These findings may be particularly pertinent in the context of therapy goals as adult clinical populations have been found to generate more avoidance goals than controls (Grosse Holtforth, Bents, Mauler, & Grawe, 2006).

With regards to the link between goal motives and wellbeing or emotional distress, the findings of the included studies corresponded to results of research with an adult population (e.g., Levesque et al., 2004), in that, they generally found that the greater an individual is motivated to pursue their goals for autonomous reasons, the greater they score on measures of positive affect and subjective wellbeing (Lekes et al., 2010) and the lower

they score on measures of sadness, shame, fear, guilt and anger (Pomerantz & Qin, 2013). One study, however, found no relationship between autonomous motivation and anxiety (Dickson & Moberly, 2013). There was consensus between studies that pursuit of goals for controlled reasons is positively related with unpleasant affect such as anxiety and depression (Dickson & Moberly, 2013; Scott et al., 2008). These findings are consistent with the adult literature (Levesque et al., 2004; Miquelon & Vallerand, 2006) and can be accounted for by SDT, as autonomous reasons for goals pursuit fulfil an individual's need for autonomy and so are conducive to optimal functioning and wellbeing. This is as opposed to being motivated by controlled reasons which violates a person's need for autonomy. Future research would benefit from an investigation of the differences in the relationship between goal motives and wellbeing and emotional distress according to the specific goal motives (intrinsic, identified, introjected and external motivation). Do the different goal motives map onto continuums of wellbeing and distress or are they discrete concepts that each have an idiosyncratic relationship with wellbeing and distress?

Wrosch and Miller (2009) use evolutionary theory to conceptualise their findings that depression is not related to goal disengagement at baseline but it predicts goal disengagement capacity over time. They suggest that depression has evolved to allow us to cope with situations through goal disengagement when a person's behaviour is a wasted effort or is likely to put them in danger. Wrosch and Miller's (2009) findings suggest it is important to reinforce an individual's goal disengagement capacities as this adaptive process allows a person to manage difficult life circumstances and is linked to a reduction in depressive symptoms. These findings contradict the emphasis in the treatment of depression to promote engagement in activities and goal attainment. This approach for the treatment of depression is recommended by the National Institute of Clinical Excellence (NICE, 2009) in the form of behavioural activation. As noted above Wrosch's findings are based on a very specific

sample and so cannot be generalised; however, this is an interesting conceptualisation of the potential adaptive nature of depression and so it would be useful to establish whether similar research with a general adolescent sample produces comparable results. Future research should explore these findings further with a broader sample and ideally with a clinical sample as the findings seem to contradict a dearth of literature that identifies goal disengagement or avoidance as a characteristic of several psychological difficulties (Ottenbreit, Dobson, & Quigley, 2014). This has led several therapeutic modalities to address avoidance in the course of treatment, for example experiential avoidance in acceptance and commitment therapy (Hayes, Strosahl, & Wilson, 1999), safety behaviours with a primary aim of avoidance in cognitive behavioural therapy (Salkovskis, 2007) and defences such as sublimation and regression in psychodynamic psychotherapy (Shedler, 2006). Given the strong evidence base for addressing avoidance in depression it is unlikely that Wrosch's 2009 findings tell the whole story. Indeed, Wrosch's earlier study (Wrosch et al., 2003) with a non-clinical adult sample found that *both* disengagement from unattainable goals and reengagement in new goals were related to wellbeing. Future research into goal disengagement and reengagement is required to further elucidate this issue.

Recently studies have begun to consider the interaction between goal processes when examining the relationship between goal processes and anxiety and depression. The relationships between goal motives, goal expectancy, anxiety and depression differ depending upon whether one is focusing upon approach or avoidance goals (Dickson & Macleod, 2006; Dickson & Moberly, 2013). When considered in isolation goal importance does not appear to be related to anxiety or depression (Dickson & Moberly, 2013; Scott et al., 2008). However, goal importance has been identified as a mediating factor between self-efficacy and depression, that is, the extent to which an individual believes they can attain a goal is only related to depression if they view that goal as important (Scott et al., 2008). The impact of

interactions between goal processes upon wellbeing and affect should be investigated in future research to further understand what is likely to be a complex relationship between goal processes and wellbeing and emotional distress.

A limitation of several of the included studies is that their cross-sectional design does not allow the inference of causation (e.g., Lekes et al., 2010; Massey et al., 2009; Mouratidis & Michou, 2011). Longitudinal or experimental studies are necessary to examine causal relationships. Four studies included in this review used a longitudinal methodology (Haase et al., 2012; Kuroda & Sakurai, 2011; Pomerantz & Qin, 2013; Wrosch & Miller, 2009). Wrosch and Miller's (2009) findings were suggestive of a circular relationship in that depression predicted goal disengagement and increased goal disengagement capacities led to a reduction in depressive symptoms. Similarly, Pomerantz and Qin's (2013) and Haase et al.'s (2012) findings were suggestive of a circular relationship with autonomous motivation predicting reduced unpleasant affect which was also predictive of autonomous motivation and primary control striving predicting and predicted by positive affect. As suggested by the findings from these longitudinal studies and previous research (e.g., Carver, 2004; Linnenbrink & Pintrich, 2002) it is likely that specific goal processes contribute to the development of anxiety and depression *and* that depression and anxiety bias cognitively mediated aspects of motivation such as goal expectancy. That is, goal processes and affect are intertwined (Johnson et al., 2010). This, along with Schmuck and Sheldon's (2001) assertions that the constructs in this type of research (i.e., idiographic goals, wellbeing and affect) cannot easily be manipulated in experimental research designs, mean that it is extremely difficult to describe the exact nature of this complex and multi-directional relationship.

A number of the included studies were concerned with specific types of goals such as social (Mouratidis & Michou, 2011), career (Haase et al., 2012) or academic (Scott et al., 2008; Sideridis, 2005) goals and even more specifically goals within a physical education

class (Mouratidis & Michou, 2011). This means that findings cannot be directly compared with studies looking at other types of goals including the broader category of life goals.

There are likely to be a several potential confounding variables in the arena of motivation, cognition and affect. For example, there is a generally accepted link between negative thinking and depression (Beck, 1976) and so it could be that propensity to think negatively could be a mediating factor between the characteristics of goals an individual generates and depression and/or wellbeing. However, few studies consider such confounding variables, this is with the exception of Mouratidis and Michou (2011) who found that interpersonal stress was a mediating factor between goals and depression. The absence of such variables in studies of this nature is potentially because much of the literature in this area has been from the educational rather than clinical domain. Therefore, as recommended by Wrosch and Miller (2009), future research would do well to consider important theoretically sound variables such as negative thinking styles and interpersonal stress in addition to goal-related constructs when examining the link with wellbeing and mood.

Clinical Implications

As the findings of this review have shown a link between goal-related processes and emotional distress such as depression and anxiety, it is important to consider the potential implications of these findings for a clinical population. None of the included studies used a clinical sample, this is a major a limitation when attempting to infer clinical implications. However, in some studies there was a substantial sample of participants who met the threshold of a clinical population (Dickson & Moberly, 2013; Street et al., 2004). In addition, a spectrum or continuum view of mental health problems is increasingly being accepted in the mental health field, this is the view that there are not distinct differences between individuals either side of the arbitrary threshold line. These two points mean that the findings of this review can be tentatively considered in the context of a clinical population. It should

also be reiterated that none of the included research studied therapy goals and although therapy goals could be described as a subset of personal goals the two types of goals are not interchangeable.

A major implication of the findings for a clinical population relates to the treatment of individuals who are emotionally distressed. Cognitive behavioural therapy (CBT) is the recommended and most widely used therapy to treat depression and anxiety (NICE, 2009, 2011). The findings of this review would support the use of CBT in the treatment of emotional problems due to a central feature of CBT of challenging and altering individuals' "dysfunctional" beliefs which could include goal-related beliefs. Results of the included studies posit several specific areas of intervention for individuals experiencing emotional distress. Firstly, the findings suggest that clinicians should be more cognisant of the client's goals. The generation of therapy goals is a standard element of most therapies, CBT in particular, and in the context of scarce resources this aspect of therapy allows clinicians to focus on areas important to the client. However, many therapists only consider the general content of an individual's goals. Studies included in this review, highlight the importance of goal regulation processes in relation to mental health. These findings indicate that it is important that clinicians are aware of goal processes such as an individual's beliefs about goal expectancy and perceived control of goal attainment.

In the main, studies appear to agree that avoidance goals are negatively related to wellbeing. Therefore, as recommended by Michalak and Grosse Holtforth (2006) it may be beneficial for the therapist to work with the client to address avoidance goals possibly by reframing their goals to an approach orientation or preferably aiming to elicit approach goals from the offset for example using solution-focused therapy techniques. As collaborative generation of goals is crucial for therapeutic engagement the therapist should address a client's goals in a way that does not infringe upon the client's autonomy.

Similarly, autonomous rather than controlled motivation appears conducive to wellbeing. This suggests that a therapist would do well to support an individual to generate goals that are intrinsically motivating. This may include allowing the client to exert volition in selecting their goals, allowing them the freedom to alter their goals throughout the therapeutic process and emphasising intrinsic rather than extrinsic rewards of goal achievement. This point is particularly pertinent when working with children and adolescents as a therapist has to consider the added complexity of parental goals. As Lekes et al. (2010) found autonomy-supportive parenting was related to the endorsement of intrinsic goals which was associated to wellbeing. Younger children, in particular, who come to therapy with goals imposed on them by their parents are more likely to pursue their goals for external reasons or because someone else wants them to. The results of this review suggest that in these situations it is important for the therapist to invest time in supporting the child to come up with goals that they themselves believe are important to have (identified regulation) and goals which they believe, if attained, would lead to fun and enjoyment (intrinsic regulation). It may also be useful for therapists to provide psychoeducation to parents about the importance of their child pursuing intrinsically motivating goals.

This discussion has generated several areas for further research. In addition to the numerous ideas above, it would be interesting for future research to consider the effect of goal processes upon wellbeing or distress over time with regards to the general life goals and/or therapy goals of children and adolescents replicating Elliot and Church's (2002) work with adults. It would be valuable to examine further the interaction between specific goal processes, including motivation, avoidance goals and expectancy, and their relationship with wellbeing and emotional distress in order to get a clearer picture of this complex relationship. Finally, future research in this area should investigate the link between wellbeing and goal processes of both personal and therapy goals with a child and adolescent clinical sample due

to the absence of research with this population and the implications prospective findings may have for therapeutic work.

In conclusion, research suggests that goal processes are implicated in the wellbeing and distress of children and adolescents in several ways. The limited number of longitudinal studies that have examined this link between specific goal processes and wellbeing or emotional distress suggest a circular relationship. Future research should look to examining this relationship within a child and adolescent clinical population in order to develop specific recommendations for intervention.

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Chapter 3

Empirical Paper

Goals of children entering child and adolescent mental health services: Agreement with parents and the link between goal orientation, goal motives, anxiety and depression³

³ To be submitted to the Journal of Abnormal Child Psychology which has a limit of 35 pages (see Appendix E for author guidelines for this journal)

Abstract

Goals are an important part of a child's involvement in mental health services and not simply an administrative task for clinicians. This study, the first of its kind with a child and adolescent clinical sample, aimed to establish level of agreement between parents and children on presenting problems and goals for the child's therapy and further investigate the link between children and adolescent's goal processes, such as the orientation of a goal and the motives driving the pursuit of a goal, and emotional distress. Ninety-four participants (47 parents and 47 children) participated following the child's first appointment in a child and adolescent mental health service (CAMHS). Parents and children independently freely generated the problems and goals for which the child was presenting at CAMHS and completed a measure of the child's anxiety and depression. Children also rated the extent to which they were pursuing their therapy goals for each of the four goal motives (i.e., intrinsic, identified, introjected and external motivation). In line with prediction, there was low agreement between parents and children on both the child's presenting problems and the goals for the child's therapy. In contrast with previous research, number of avoidance goals was not related to depression and number of approach goals was positively related to depressive symptomatology. Finally, against prediction, there was no significant relationship between goal motives and anxiety and depression. Limitations of the current research, potential clinical implications and ideas for future research are discussed.

Keywords: Children, Parents, Mental Health, Goal Processes, Anxiety, Depression.

Introduction

Goals for therapeutic interventions are becoming increasingly important due to growing pressure for clinicians to adapt therapies to the specific needs of each individual. There has been an emerging emphasis upon goal-orientated therapy and goal-based outcome measures such as those from CAMHS Outcomes Research Consortium (Law, 2013) and OO-CAMHS (Timimi, Tetley, Burgoine, & Walker, 2013). In addition, for some time goals have been implicated in wellbeing and distress and the development and maintenance of psychological difficulties (Austin & Vancouver, 1996) and research has shown that goals and expectations have a significant impact upon therapeutic engagement (McKay, McCadam, & Gonzales, 1996) and therapy outcomes (Schöttke, Trame, & Sembill, 2014). Yet despite this, there has been a paucity of research on psychotherapy goals with adults (Schöttke et al., 2014) and even less research in this area with children and adolescents. There is, however, an emerging area of research concerned with personal goals and wellbeing and emotional distress in non-clinical samples (Michalak & Holtforth, 2006). Nurmi and colleagues (2009) defined personal goals as internal representations of desired states. Whereas therapy goals have been defined as “intended changes of behaviour and experience [to be attained through therapy], which patient and therapist agree upon at the beginning of treatment” (Grosse Holtforth & Grawe, 2002, p. 79). Therapy goals differ to personal goals in that they are often concrete, have a defined criteria of attainment and an end-point (Dirmaier, Harfst, Koch, & Schulz, 2006).

Goals are of particular importance in adolescence because it is a time of significant motivational change where individuals begin to set their own goals independent of their parents (Nurmi, Poole, & Kalakoski, 1994) and a time that has a strong focus on setting key goals for one’s future which can have a significant impact later in life (Isomaa, Väänänen, Fröjd, Kaltiala-Heino, & Marttunen, 2013). Adolescent goals are distinct to this life stage

(Ogilvie, Rose, & Heppen, 2001) and have an important role in identity development (Nurmi, 1993).

This paper studies the therapeutic goals of a clinical sample of children and adolescents. First, the study compares parents and children's perception of the child's presenting problems and goals of therapy. Next, the study takes a closer look at the child's goals, namely how they orientate their goals, the motives they hold for their goals and the relationship between these goal processes and the child's anxiety and depression. Throughout this paper the term parents will be used to describe the main caregiver. The younger participants in this study span the child and adolescent age ranges. However, as they are often referred to in the context of the parent-child relationship in this paper, to ensure consistency, the term child will be used throughout.

Parent-Child Agreement on Presenting Problems and Therapy Goals

Parents have a substantial influence on their child's therapy through practicalities; such as getting them to appointments, supporting them with homework and their general attitudes towards the therapy expressed in conversations with their child. There is strong evidence that poor attendance rates in child and adolescent mental health services (CAMHS) are closely associated with whether parents understand and agree with the referral (Department of Health, 2004; Garcia & Weisz, 2002). If there is a lack of consensus between parents and their children of desired therapy outcomes it may reduce therapeutic engagement (Cates, Paone, Packman, & Margolis, 2006; VanFleet, 2000). Similarly, research has suggested that agreement on goals across stakeholder groups is associated with improved outcomes of care (Kendall, Panichelli-Mindel, Sugarman, & Callahan, 1997).

The first aim of this study was to establish the extent to which parents and their children agree on the child's presenting problems for which they were seeking support from mental health services. The second aim was to determine level of agreement within parent-

child dyads on the goals for the child's therapy. There has been some research into the agreement of goals between adult service users and their therapist's (e.g., Schöttke et al., 2014) but surprisingly, there has been very little research assessing the extent to which parents perceive the same presenting problems and hold the same therapy goals as their children. Early studies in this area looked at the child's symptoms and found that more than two-thirds of parent-child pairs and three quarters of child-parent-therapist triads failed to agree on a single problem for which the child needed help (Hawley & Weisz, 2003; Yeh & Weisz, 2001). The only British study of this nature by Ronzoni and Dogra (2011) found that parents and children agreed on the most important presenting problem domains (symptomatic modification and functional aspects). However, in this study agreement on domains tells us very little as they were very broad (e.g., any emotional or behavioural symptoms). Parents and children could have had entirely different opinions of the child's presenting problems despite indicating the same domain. The only study specifically addressing parent-child agreement on goals of therapy included therapists as a third stakeholder, and found that two thirds of children, parents and therapists failed to agree on a single desired outcome for the child's treatment (Garland, Lewczyk-Boxmeyer, Gabayan, & Hawley, 2004).

One may expect that agreement between parents and children would be related to the age of the child with young people becoming progressively more autonomous during their adolescent years (Dornbusch, Ritter, Mont-Reynaud & Chen, 1990). However, surprisingly none of the above studies found any age effects upon parent-child agreement on presenting problems or goals despite including wide age ranges of 7-18 years (Yeh & Weisz, 2001), 11-18 years (Garland, Lewczyk-Boxmeyer, Gabayan, & Hawley, 2004) and 6-18 years (Ronzoni & Dogra, 2011).

Approach and Avoidance Goals and Emotional Distress

There is an emerging body of evidence which suggests that goal processes are implicated in emotional distress, irrespective of the goal content. Goal processes are characteristics of a goal distinct from the content of the goal. One such goal process is the way an individual orientates their goals, namely whether a goal is approach or avoidance orientated. Elliot and Church (1997) contend that all goals are structured as approach or avoidance. Approach goals are defined as an orientation towards a positive or desired outcome such as "to develop a better relationship with my father", whereas, an avoidance goal is defined as moving away from or inhibiting a negative or undesirable outcome, for example, "to be less angry with my brother". The theoretical underpinning of approach and avoidance goals is consistent with the BIS-BAS affective motivation theory (Gray & McNaughton, 2003). In this theory the behavioural approach system (BAS) is said to mediate appetitive stimuli and modulate responses to cues for reward and the behavioural inhibition system (BIS) is responsible for the inhibition of behaviour and mediate reactivity to conditioned punishment. Fowles (1994) proposed that depression and anxiety result from an overactive BIS (avoidance) and depression is uniquely characterised by an underactive BAS (approach). In keeping with Fowles's postulations, research with adolescents suggests that a higher number of avoidance personal goals, associated with the BIS, is linked to negative affect, depression and anxiety in non-clinical adolescent samples (e.g., Kuroda & Sakurai, 2011; Sideridis, 2005). Also consistent with Fowles, studies have found that non-clinical adolescents scoring high on measures of depressive symptomatology generated fewer approach goals compared to controls (Dickson & MacLeod, 2004a, 2004b, 2006) suggesting an impairment of the BAS. With regards to therapy goals, adult's avoidance goals are negatively related to therapy success (Elliot & Church, 2002). The current study aimed to

investigate the relationship between goal orientation (approach and avoidance goals) and anxiety and depression with a clinical sample in the context of children's therapy goals.

Goal Motives and Emotional Distress

Finally, the present study aimed to gain a more in-depth understanding of the therapy goals that children generate by attempting to identify the motives underpinning their therapy goals and to determine whether there is an association between these goal motives and anxiety and depression. Several researchers have found a positive relationship between the extent to which an individual is motivated by external factors and anxiety and depression (Schmuck, 2001). Pursuit of goals for controlled (external) or autonomous (internal) reasons is also described as the extent to which someone internalises their goals. This is based on Ryan and Connell's (1989) different levels of internalisation; intrinsic and identified motives (autonomous motivation) and introjected and external motives (controlled motivation). The concept of goal internalisation is derived from Self-Determination Theory (SDT, Deci & Ryan, 2000). SDT posits that wellbeing requires three conditions; competence, relatedness and autonomy. Consistent with this view, controlled motivation has been shown to be negatively related to wellbeing, through controlled motivation violating the condition of autonomy (Ryan & Deci, 2000). In non-clinical adolescent samples pursuance of goals for autonomous reasons is positively related to wellbeing (Lekes, Gingras, Philippe, Koestner, & Fang, 2010) and negatively associated with unpleasant affect, that is, sadness, shame, fear, guilt and anger (Pomerantz & Qin, 2013). Dickson and Moberly (2013) found that autonomous motivation (intrinsic or identified motives) did not relate to anxiety. Pursuance of controlled goals has been found to be positively related to anger, shame, boredom and hopelessness (Mouratidis & Michou, 2011), depression (Scott et al., 2008) and anxiety (Dickson & MacLeod, 2013; Mouratidis & Michou, 2011). As outlined, several studies have explored this within the context of life goals in non-clinical samples but to the author's

knowledge this is the first study to look at motives underpinning therapy goals using a child and adolescent clinical sample. Previous publications have called for further research in this area with a clinical sample (Dickson & MacLeod, 2004b).

Research Questions and Hypotheses

The current study had a number of exploratory research questions. However, where there was empirical evidence or theoretical grounds then hypotheses were made. First, do children and parents differ on the number of presenting problems and goals they generate? Second, to what extent do parents and children agree on the child's presenting problems for which they were seeking support from mental health services? Third, do parents and children differ on approach and avoidance orientation of their goals for therapy? Fourth, to what extent do parents and children agree on goals for the child's therapy? Fifth, do age and gender relate to parent-child agreement for presenting problems and goals? Sixth, is there a association between parent-child agreement for presenting problems and goals and anxiety and depression? Based upon previous research with non-clinical adolescent samples it was hypothesised that a higher number of avoidance goals would be related to and predictive of depression and anxiety and a lower number of approach goals would be predictive of depression but not anxiety. Finally, concordant with past non-clinical adolescent research, it was hypothesised that controlled motivation (introjected and external motives) would be predictive of anxiety and depression and that reduced autonomous motivation would be predictive of depression, but not anxiety.

Method

Participants

Participants were recruited from four child and adolescent mental health clinics within the same National Health Service (NHS) Trust in North-West England. Participants were

children attending these clinics for a Choice (initial) appointment and the parents or main caregivers of these children. Ninety-four participants took part in the study, 47 children and 47 adults. Approximately 205 dyads were approached to take part in the study meaning that the refusal rate was high at 77%. The child sample consisted of 26 girls (55.3%) and 21 boys (44.7%), aged between eight and sixteen years old, with a mean age of 12.8 years old ($SD=2.59$). Eight (17%) of the child participants were aged between eight and nine years old, nine (19%) were aged between ten and 12 years old and 30 (64%) were aged between 13 and 16 years old. The adults in the study were the main caregiver of the child in question and were related to the child in the following ways; mother (83%), father (10.6%), female foster carer (4.3%) and step-father (2.1%).

Power Analysis

A priori power calculations were conducted using G* Power (Faul, Erdfelder, Lang, & Buchner, 2007) to establish the required sample size. According Cohen's (1988) recommendations, detection of a medium effect size ($d = 0.5$, $r = 0.3$, $f^2 = 0.15$) at a power of 0.8 with an alpha of 0.05, the analyses conducted in this study required 35 matched-pairs for a paired samples t-test, 82 participants for a correlation and 85 participants for a multiple regression comprising four predictor variables. As the correlational and regression analyses used in this study only include child or matched-pair (e.g., level of agreement within parent-child dyads) variables the latter two required participant numbers (82 and 85) refer to the number of children required for sufficient power. Post hoc power is addressed in the discussion section below.

Service Context

Similar to many child and adolescent mental health services in the UK, the services from which participants were recruited use a model of service delivery called the Choice and Partnership Approach (CAPA, York & Kingsbury, 2013). Within this model a service offers

an initial brief assessment (Choice) to triage and assess risk, followed by a longer assessment appointment (Partnership) if considered appropriate for the service.

Ethical considerations

This study was conducted in accordance with The British Psychological Society's Code of Human Research Ethics (2010), sponsored by the University of Liverpool and approved by Lancaster Research Ethics Committee and the host NHS Trust's Research and Development Department.

Measures

All of the measures used in this study can be found in Appendix F.

Revised Child Anxiety and Depression Scale and Revised Child Anxiety and Depression Scale for Parents (Chorpita, Yim, Moffitt, Umemoto, & Francis, 2000). The Revised Child Anxiety and Depression Scale (RCADS) is a 47-item self-report questionnaire for children with six subscales; separation anxiety disorder, social phobia, generalised anxiety disorder, panic disorder, obsessive compulsive disorder, and major depressive disorder. The subscales of particular interest in this study were generalised anxiety disorder and major depressive disorder. Respondents rate on a four-point scale ("never", "sometimes", "often" and "always") how much each statement applies to them/their child. The RCADS has been validated with children aged from 7½ to 18 years old (Chorpita, Moffitt, & Gray, 2005). The parent-rated version (RCADS-P) assesses the same six subscales and is validated for parent's ratings of children aged 6-18 years old (Ebesutani, Bernstein, Nakamura, Chorpita, & Weisz, 2010). In the present study, Cronbach's alpha for the self-rated child version was .83 for the general anxiety disorder scale and .92 major depressive disorder scale. The parent-rated version reliability was also high with Cronbach's alpha .89 for the general anxiety disorder scale and .84 for the major depressive disorder scale.

Strengths and Difficulties Questionnaire for Children (Goodman, Meltzer, & Bailey, 1998) and for Parents (Goodman, 1997). The Strengths and Difficulties Questionnaire (SDQ) is a behavioural screening questionnaire. The SDQ looks at 25-attributes which are divided into five scales; emotional symptoms, conduct problems, hyperactivity/inattention, peer relationship problems and pro-social behaviour. Respondents rate on a three-point scale ("not true", "somewhat true" and "certainly true") how much each statement applies to them/their child. The self-report version was designed for completion by children aged around 11-16 year olds depending on their comprehension and literacy skills. However, it has since been validated for children from the age of eight in a non-clinical sample (Muris, Meesters, Eijkelenboom, & Vincken, 2004). The parent version of the SDQ is validated for children aged 3-16 year olds.

Presenting Problems (Yeh & Weisz, 2001). This measure was designed to generate child and parent's perception of the child's presenting problems. The child/parent was requested to freely generate their/their child's presenting problems for which they were seeking support. Parents were asked to "list the presenting problems for which your child needs help" and children were asked "what problems do you have that you need help for?". Number of presenting problems was used for the analysis and matches on presenting problems within parent-child dyads were coded (see the coding section below for details).

Goals Task (Dickson & MacLeod, 2004a). This task assessed the child and parent's freely generated desired goal outcomes. Dickson and MacLeod's (2004a) goal task was adapted to focus on eliciting goals for attending CAMHS as opposed to general life goals and to request participants to freely generate these goals rather than specifically eliciting approach and avoidance goals. The child/parent was requested to freely generate the desired outcomes of their/their child's involvement with CAMHS. Parents were asked to "generate the goals you hope your child to reach through attending CAMHS" and children were asked "what

goals do you have for coming here to CAMHS?". Number of goals generated by each participant was calculated, goals were coded as approach or avoidance and matches on goals within parent-child dyads were also coded (see coding section below for details).

Goal Internalisation Ratings (Ryan & Connell, 1989). This measure of goal internalisation was included to assess children's motives for pursuing each of their therapy goals. The measure was based upon Ryan & Connell's (1989) continuum of increasing internalisation and, therefore, consisted of four questions. Two questions assess whether the child is pursuing a goal for autonomous reasons (intrinsic motivation, "for the fun and enjoyment a goal provides", and identified motivation, "because it is an important goal to pursue"). Two questions assess the extent to which a child is pursuing their goals for controlled reasons (introjected motivation, "because I would feel ashamed, guilty or anxious if I didn't", and external motivation, "because someone else wants me to or because the situation demands it"). The child rated on a 9-point likert scale how much each of these statements applied to each of their goals. As children generated differing numbers of goals a mean score was calculated for each of the four goal motives for each child. Consistent with more recent views (e.g., Koestner, Otis, Powers, Pelletier, & Gagnon, 2008) each level was looked at individually rather than creating a composite self-concordance score used in earlier research (e.g., Sheldon & Elliot, 1999) by subtracting scores for controlled motivation (external plus introjected motivation) from scores for autonomous motivation (intrinsic plus identified motivation). Intercorrelations outlined in the results section supported this decision.

Goal Importance (Winch, Dickson, & Moberly, in press). To check that both children and parents were generating goals that were subjectively important to them, goal importance was assessed using a 7-point likert scale ranging from 1 (not important) to 7 (extremely important). Mean responses of 5.88 for children and 6.72 for parents and a modal

response for both groups of seven (i.e., extremely important), indicates that participants were generating goals that they considered important.

Procedure

Parents and children were sent participant information sheets (Appendices G-I) with their Choice appointment letter. At the end of their appointment they were asked by their clinician if they would like to participate in the study. If they wished to participate, parents were asked to complete a consent form for themselves and an informed permission form for their child (Appendices J and K). Children gave verbal assent to take part. Parents were given questionnaires to complete independently and the children were supported by the author to complete the measures in a separate room. This support consisted of reading out the questions and scribing the child's responses. Participation took approximately 10-15 minutes. After completing the measures each parent and child were given a £5 voucher to thank them for their time and commitment in taking part in the research.

Data Coding

For this study three coding schemes were used. Two separate coding schemes were designed for this study to establish the extent to which parent-child dyads agreed on presenting problems and goals for the child's therapy. The third coding scheme used Dickson & MacLeod's (2004a) criteria to code the orientation of each goal as either approach oriented (i.e., moving towards a desired outcome) or avoidance oriented (i.e., moving away from, or inhibiting, an aversive outcome).

Parent-Child Agreement of Presenting Problems. In this coding scheme a match was coded if a parent and child generated the same content for a presenting problem which indicated the same presentation (e.g., anxiety). So for example, clearly the presenting problems "eating too much" and "eating too little" would not be a match because although they share the same content they do not describe the same presentation. Whereas, "not eating

enough food” and “eating too little” would be coded as a match (see Appendix L for more details). A second independent researcher, blind to the study hypotheses, coded the matches between all of the parent-child dyads. Inter-rater reliability between the author and the independent researcher was high with a Cohen’s Kappa reliability co-efficient (K) of .96. Level of agreement within child-parent dyads was calculated by determining the proportion of matches. That is, number of matches relative to total number of different presenting problems (e.g., if there were three matches and six different presenting problems within a dyad, agreement would be 0.5 or 50%) a scoring example can be found in Appendix L.

Parent-Child Agreement of Goals for the Child’s Therapy. Goals were coded as a match within a parent-child dyad if they included the same content and resulted in the same outcome. So, clearly “more low mood” and “less low mood” would not be a match because although they both have the same thematic content they would not result in the same outcome. Whereas, “reduce my anger” and “to get less angry” would be coded as a match because they represent the same thematic content and share a similar outcome (see Appendix M for further details about this coding scheme). Agreement between the two raters on parent-child agreement of goals of the child’s therapy was high with a Cohen’s Kappa reliability co-efficient (K) of .95. Level of agreement was established by calculating proportion of matches, that is, number of matches divided by total number of different goals generated within a dyad (e.g., if there were two matches and a total of five different goals within a dyad, agreement would be 0.4 or 40%).

Goals. Goals were coded as either approach-oriented (e.g., “to develop a better relationship with my family”) or avoidance-oriented (e.g., “to be less depressed”). Coding a goal as approach or avoidance is based upon two aspects of the goal; (i) orientation and (ii) outcome/focus. So, an approach goal represents moving towards a positive/desired outcome and an avoidance goal represents moving away from, or inhibiting, a bad or negative

outcome. An independent researcher, again blind to the study's hypotheses, independently coded all of the freely generated goals as approach or avoidance. Agreement between the author and this researcher was high ($K = .97$). As a different number of goals were generated within parent-child dyads, in order to compare how parents and children orientate their goals, proportion of avoidance goals (which can be inversely interpreted as proportion of approach goals) was calculated. For example, if four of a participant's goals were approach and one was avoidance then their proportion of approach goals would be 0.8 or 80% and their proportion of avoidance goals would be 0.2 or 20%.

Results

The results section is presented in two parts. The first section examines differences between parents and children's perceptions of the child's presenting problems. It also aims to establish whether there are differences between parents and children on the goals they hold for the child's therapy. The second section takes a closer look at the child's goals in order to establish what is motivating children to pursue their therapy goals and then goes on to investigate whether these goal motives and the child's approach and avoidance goals are predictive of anxiety and depression in a child and adolescent clinical sample.

Data were screened to check for missing data, to ensure correct data entry and to check parametric assumptions (see Appendix N for details). All relevant data were normally distributed with skew z -scores less than 3.29 (Field, 2009), with z -scores ranging from z -0.53 to z 2.75, except for three variables 'level of agreement for goals' ($z = 4.32$), 'identified motivation' ($z = -5.36$) and 'parent's number of avoidance goals' ($z = 4.29$). Following square root transformation level of agreement for goals was normally distributed (skewness z -score .35). Transformation did not improve the skewness of the variable identified motivation; square root and log transformation resulted in skewness z -scores of -7.48 and -10.14,

respectively. However, closer examination showed two extreme univariate outliers in the identified motivation variable and one extreme univariate outlier in the variable number of parent's avoidance goals with z-scores between 3.06 and 3.83. As per Tabachnick and Fidell's (2001) recommendations the three extreme outliers found within these two variables were changed to one unit below the next lowest score on this variable. Following these procedures the variables identified motivation and parent's number of avoidance goals were normally distributed (skewness z-scores of -2.92 and 2.95 respectively). As a result of the changes described above the data met parametric assumptions and so parametric tests were used.

Parents and Children's Perceptions of the Child's Presenting Problems and Goals for the Child's Therapy

Descriptive statistics for the parent and child variables of number of presenting problems, anxiety, depression, parent-child agreement on presenting problems, number of goals, proportion of avoidance goals and parent-child agreement on the child's goals of therapy are presented in Table 1.

Table 1

Means, mean proportions and standard deviations (in parenthesis) for study variables for parents and children.

	Children	Parents
	<i>M (SD)</i>	<i>M (SD)</i>
Number of presenting problems	3.00 (1.14)	3.00 (1.52)
Anxiety	8.87 (4.09)	7.38 (4.31)
Depression	13.66 (6.94)	11.06 (5.47)
SDQ	17.72 (5.73)	17.23 (7.82)
Parent-child agreement on presenting problems		.26 (.24)
Number of goals	2.49 (1.00)	2.53 (1.08)
Proportion of avoidance goals	0.45 (0.34)	0.33 (0.38)
Parent-child agreement on goals		.18 (.22)

As shown in Table 1, on average children ($M=3.00$, $SD=1.1$) did not differ from their parents on number of presenting problems ($M=3.00$, $SD=1.52$), $t(46)=-.15$, $p=.88$. Parent-child dyads matched on 25.71% of presenting problems and 13 (27.70%) parent-child dyads did not match on a single presenting problem. Agreement within parent-child dyads ranged from 0% (no agreement) to 100% (complete agreement). Children and parents also differed in their ratings of the presence and severity of the child's anxiety and depression as measured by their ratings on the RCADS. Children reported significantly higher levels of depressive symptomatology ($M=13.66$, $SD=6.94$) than their parents rated their child's depressive symptomatology ($M=11.06$, $SD=5.47$), $t(46)=2.62$, $p=.01$, $r=.36$. Children reported higher levels of anxious symptomatology ($M=8.87$, $SD=4.09$) than parent's ratings of their child's anxious symptomatology ($M=7.38$, $SD=4.31$). However, this difference did not reach significance, $t(46)=1.86$, $p=.07$. There was no significant difference within parent-child dyads on total SDQ scores, $t(46)=-.42$, $p=.68$.

Children did not differ significantly on the number of goals generated ($M=2.49$, $SD=1.00$) compared to their parents ($M=2.53$, $SD=1.08$), $t(46)=-.19$, $p=.85$. Children's proportion of avoidance goals, relative to approach goals, was higher than their parents as 45% of children's goals and 33% of parent's goals were avoidance orientated but this difference was not statistically significant, $t(46)=1.57$, $p=.12$. Both parents ($t(46)=3.04$, $p=.004$, $r=.41$) and children ($t(46)=2.00$, $p=.05$, $r=.28$) generated significantly more approach goals than avoidance goals. Twenty-three (48.94%) parent-child dyads did not match on a single goal and dyads matched on an average of 17.67% of their freely generated goals. Agreement on goals of the child's therapy ranged from 0% (no agreement) to 100% (complete agreement) within parent-child dyads.

Correlational analyses showed that age was not related to level of agreement for presenting problems, $r(45)=.08$, $p=.60$, or goals, $r(45)=-.06$, $p=.70$. Point biserial correlations

revealed that gender was not related to level of agreement for goals, $r_{pb}=.15$, $p=.32$, but gender did significantly relate to level of agreement for presenting problems, $r_{pb}=.33$, $p=.02$, suggesting that girls were more likely than boys to agree with their parents about their presenting problems. Level of agreement for presenting problems was not related to anxiety, $r(45)=.11$, $p=.48$, or depression, $r(45)=.10$, $p=.52$. Similarly, level of agreement for goals was not related to anxiety, $r(45)=.07$, $p=.64$, or depression, $r(45)=.02$, $p=.90$. Level of agreement for presenting problems, $r(45)=.23$, $p=.13$, or goals, $r(45)=.11$, $p=.45$, was not related to self-report SDQ scores. Nor were parent-rated SDQ total scores related to level of agreement for presenting problems, $r(45)=-.06$, $p=.70$, or goals, $r(45)=-.02$, $p=.88$. Bootstrapping was performed for all correlational analyses conducted as it is more robust and less reliant upon assumptions. Appendix O outlines the 95% confidence intervals based on 10000 bootstraps, these support significance as indicated by alpha.

Given that it is children who are attending therapy it is important to understand their goals and the impact of these goals upon their levels of distress. For this reason the next section takes a closer look at the goals of the young people in the study and how these relate to their levels of anxiety and depression.

Goal orientation, Goal Motives⁴, Anxiety and Depression

Another aim of the study was to establish children's underlying motives for pursuing their goals of therapy and to investigate whether the number of children's approach and avoidance goals and children's motives for goal pursuit are associated with anxiety and

⁴ As noted in method the four goal motives were looked at separately instead of creating a controlled and autonomous motivation scores or a single self-concordance score. Correlations supported this decision because, as shown in Table 2, although intrinsic and identified motivation and introjected and external motivation were significantly positively correlated there was also a strong significant relationship between identified (autonomous) and introjected (controlled) motivation. This suggests that intrinsic and identified and, introjected and external motivation cannot be aggregated into two distinct constructs of autonomous and controlled regulation respectively.

depression. Means, standard deviations and effect sizes for Pearson's correlation analyses for age, goal processes (number of approach goals, number of avoidance goals and goal motives), anxiety and depression (according to the child/self-rated RCADS scores) are shown in Table 2. Children were more likely to be motivated to pursue their therapy goals for identified reasons ($M=7.46$, $SD=1.78$) and less likely to be motivated for intrinsic reasons ($M=5.51$, $SD=2.73$). The only goal motive significantly correlated with age was intrinsic motivation, $r(45)=-.35$, $p=.02$, which suggests that as children get older the less likely they are to pursue therapy goals for intrinsic reasons. Age was not related to anxiety, $r(45)=-.02$, $p=.88$, or depression, $r(45)=.22$, $p=.14$. Point-biserial correlations were conducted to examine relationships between the goal variables and gender. The only goal motive significantly related to gender was identified motivation, $r_{pb}=.30$, $p=.04$, that is, girls were more likely to be motivated for identified reasons. Gender was significantly related to anxiety, $r_{pb}=.35$, $p=.02$, and depression, $r_{pb}=.40$, $p=.01$, accounting for 12% variance in anxiety ($r^2=.12$) and 16% of the variance in depression ($r^2=.16$). The positive correlation coefficient suggests that girls were more likely to report higher levels of anxiety and depression.

The number of approach goals a child generated was not related to anxiety $r(45)=.24$, $p=.10$, but interestingly it was significantly positively related to depression, $r(45)=.35$, $p=.02$. This suggests that the more approach goals an individual generates the more depressive symptomatology they report. Whereas, the number of avoidance goals was not significantly related to anxiety, $r(45)=.03$, $p=.86$, or depression, $r(45)=-.20$, $p=.19$. None of the four goal motives were significantly correlated with anxiety or depression.

GOALS OF CHILDREN ENTERING CHILD AND ADOLESCENT MENTAL HEALTH SERVICES

Table 2

Means, standard deviations and Pearson's correlations for child's age, child's gender, child's number of approach and avoidance goals, goal motives (intrinsic, identified, introjected and external motivation), anxiety and depression.

	Mean	SD	1	2	3	4	5	6	7	8	9	10
1. Child's age	12.9	2.59	-	.31*	.19	.03	-.35*	.14	.09	.14	-.02	.22
2. Child's gender^a	-	-		-	.14	.00	-.02	.30*	.22	-.05	.35*	.40**
3. Number of approach goals	1.45	1.02			-	-.44**	.14	.11	.10	.07	.24	.35*
4. Number of avoidance goals	1.00	.78				-	.07	.15	.03	.01	.03	-.20
5. Intrinsic	5.51	2.73					-	.31*	.25	.22	.21	-.08
6. Identified	7.46	1.78						-	.51**	.20	.13	-.10
7. Introjected	5.90	2.28							-	.55**	.14	.06
8. External	6.21	2.59								-	.17	.04
9. Anxiety	8.87	4.09									-	.61**
10. Depression	13.66	6.94										-

* $p < .05$, ** $p < .01$.

^aBinary coding for gender variable, males = 0, females = 1

Four separate regression analyses were conducted in order to determine the unique contribution of (i) child's number of approach goals and number of avoidance goals and (ii) goal motives (intrinsic, identified, introjected and external) in predicting anxiety and depression, respectively. Separate regression analyses for goal orientation variables and goal motive variables were conducted due to the relatively small sample size. The data met assumptions for regression analyses (see Appendix P). Familywise Type I error rate increases with multiple comparisons; however, this is mitigated when a small set of theoretically-driven a priori predictions are made (Keppel, 1991). Therefore, no corrections were made for multiple comparisons, instead p -values are reported and implications are outlined in the discussion section. The results for these regressions are presented in Table 3 and include bootstrapped confidence intervals.

The first multiple regression consisted of the two predictors, child's number of approach goals and child's number of avoidance goals and the dependent variable anxiety.

This regression model was not significant $F(46)=1.95, p=.15$. Next, the same two predictor variables were regressed with depression and again this model did not reach significance, $F(46)=2.04, p=.06$. However, child's number of approach goals did significantly predict depression, $t=-2.16, p=.05$.

The third multiple regression assessed whether each of the four goal motives (intrinsic, identified, introjected and external) predicted anxiety. The regression model was not significant, $F(46)=.71, p=.59$. Finally, the regression model for the same four predictors (goal motives) and the dependent variable depression was not significant, $F(46)=.31, p=.87$.

In the majority of cases bootstrapped confidence intervals paralleled the findings in terms of significance for the unbootstrapped data. However, as shown in Table 3, in the regression with anxiety as the dependent variable the bootstrapped confidence intervals for child's number of approach goals did not cross zero despite an alpha level for this variable of greater than .05. This finding implies that number of approach goals was significantly predictive of anxiety.

GOALS OF CHILDREN ENTERING CHILD AND ADOLESCENT MENTAL HEALTH SERVICES

Table 3

Results from regression analyses for anxiety and depression based on child's number of approach goals and child's number of avoidance goals (regression 1 and 2) and goal motives, intrinsic, identified, introjected and external motivation (regression 3 and 4).

Predictors	Anxiety				Depression			
	Unstandardised	Standardised β	<i>p</i> -values	Bootstrapped	Unstandardised	Standardised β	<i>p</i> -values	Bootstrapped
	Beta-coefficients (β)			Confidence Intervals	β			Confidence Intervals
First Regression								
Child's number of approach goals	1.27	.32	.06	.09 to 2.52	2.19	.32	.047*	.34 to 4.09
Child's number of avoidance goals	.87	.17	.31	-.47 to 2.94	-.50	-.06	.72	-2.51 to 1.90
<i>F</i>	1.95	-	.15	-	3.05	-	.06	-
<i>R</i> ²	.08	-	-	-	.12	-	-	-
Adjusted <i>R</i> ²	.04	-	-	-	.08	-	-	-
Second Regression								
Intrinsic motivation	.26	.17	.29	-.21 to .65	-.17	-.07	.69	-1.02 to .53
Identified motivation	.13	.05	.80	-1.00 to 1.16	-.73	-.15	.42	-2.57 to 1.01
Introjected motivation	.02	.01	.97	-.66 to .90	.45	.15	.49	-.69 to 1.87
External motivation	.19	.12	.54	-.49 to .74	.02	.01	.97	-1.05 to .81
<i>F</i>	.71	-	.59	-	.31	-	.87	-
<i>R</i> ²	.06	-	-	-	.03	-	-	-
Adjusted <i>R</i> ²	-.03	-	-	-	-.06	-	-	-

**p* < .05.

Discussion

In addition to investigating parent-child agreement on presenting problems and therapy goals, the present study extends previous work by assessing whether goal orientation and goal motives are related to anxious and depressive symptomatology in a child and adolescent clinical sample. On average children and parents did not differ on the number of presenting problems they generated; however, agreement on presenting problems within parent child-dyads was low. Children were also found to rate themselves higher on measures of anxiety and depression than their parents, although this difference was not significant for anxiety. Children and parents did not differ on the number of goals for the child's therapy they generated. A high proportion of these goals were avoidance orientated for both parents and children. On average, children generated more avoidance goals than parents but this did not reach significance. Similar to the findings for the child's presenting problems, there was low agreement on goals of therapy within parent-child dyads. Age was not related to anxiety, depression or level of agreement for presenting problems or goals. However, gender was related to anxiety, depression and level of agreement for presenting problems and goals, with girls reporting higher levels of both anxiety and depression and more likely to agree with their parents on presenting problems but not goals than their male counterparts. Against prediction, number of avoidance goals was not related to, or predictive of, anxiety and depression whereas number of approach goals was positively related to, and predictive of, depression. Counter to expectation, the findings of this study suggest that in a child and adolescent clinical sample none of the goal motives predict depression or anxiety.

The finding of low agreement between parents and their children is concordant with previous research for presenting problems (Yeh & Weisz, 2001). It is difficult to explain why there was such low agreement, one suggestion from Yeh and Weisz (2001) is that it is due to actor-observer bias (Jones & Nisbett, 1971). Actor-observer bias is a type of attribution bias

that claims that individuals (in this context, children) tend to attribute their own actions to external causes whereas observers (parents) commonly attribute other's (children's) actions to internal causes. Therefore, both parents and children are cognisant of the problematic behaviour of the child (e.g., angry outbursts) but according to this theory, parents are more likely to attribute the behaviour to internal causes (e.g., an inability to control aggression) whereas, children are likely to attribute their actions to external causes (e.g., problems with relationships within the family). This results in two very different presenting problems. However, the finding that children rated themselves higher on anxious and depressive symptomatology than the parent's ratings, could contradict the actor-observer supposition. This is because it suggests that children identify that they have a higher level of internal difficulties (anxiety and depression) than their parent's perceptions of their problems.

In the current study parents and children did not differ significantly on total SDQ scores. This is concordant with findings of many previous studies that have found that parents and children score similarly on the informant-rated and self-report rated SDQ respectively (e.g. Arman, Amel & Maracy, 2013; Goodman, 2001; Klasen et al., 2000). However, the current findings do contradict some studies that have found limited agreement between parents and children on the SDQ (e.g. van der Meer, Dixon & Rose, 2008).

Ratings of depression and anxiety on the RCADS, were considerably higher than previous research with a clinical sample with a similar mean age, 12.3 years (Chorpita et al., 2005). This difference may be explained by the fact that Chorpita and colleagues had a higher proportion of males (67.4%) compared to the current study (44.7%) as findings of the present study suggest girls were more likely to report higher levels of anxiety and depression. This is consistent with research with non-clinical (Chorpita et al., 2000) and clinical (Chorpita et al., 2005) child and adolescent samples.

The average number of freely generated goals for both parents and children was three. This is lower than the average number of life goals generated by non-clinical adolescents in previous research (Massey, Gebhardt, & Garnefski, 2009). The findings of the current study are in line with findings from previous research into therapy goals in adult samples which found that on average each participant generated 3.8 goals (Schöttke et al., 2014). Therapy goals are a subset of life goals and so one would expect fewer therapy goals than broader life goals. The finding that on average parents and children did not differ significantly in the number of goals they generated suggests that both parents and children had specific aims that they wished to achieve through attending CAMHS. This challenges a common misconception that it is parents, not children, who have strong ideas about what they hope to gain from attending CAMHS. It also demonstrated that children had the ability to generate the same number of goals as their parents.

Concordant with previous research both parents and children generated significantly more approach goals than avoidance goals. Proportion of avoidance goals, relative to approach goals, generated by parents and children (33% and 45% respectively) was higher than findings from previous research which has found that adults generally frame 10-25% of their life goals as avoidance goals (Elliot et al., 2012; Elliot, Sheldon, & Church, 1997). The higher proportion of avoidance goals in the current study may be explained by the difference between life goals and goals of therapy. Psychotherapy clients have been found to pursue more avoidance goals than controls (Grosse Holtforth, Bents, Mauler, & Grawe, 2006; Grosse Holtforth & Grawe, 2002). Those who seek therapy are often experiencing undesired states or circumstances that they wish to avoid, which translates to the generation of more avoidance orientated goals such as “to be less depressed” (Schöttke et al., 2014). This seemed to also apply to parents in the current study. The tendency for children with psychological difficulties and, in the context of this study, parents, to generate a higher proportion of

avoidance relative to approach goals than non-clinical samples could be accentuated by problem-focused as opposed to solution-focused or recovery-focused mental health services. Problem-focused services emphasise identification and reduction of presenting problems rather than building on strengths to improve wellbeing.

The very low agreement between parents and children of self-generated therapy goals is concordant with previous research by Garland and colleagues (2004). As discussed, low agreement for therapy goals between parents and children is linked to reduced engagement and therapy outcomes and therefore has strong implications that clinicians should be cognisant of, these will be discussed further in the clinical implications section below.

As discussed in the introduction it makes sense that parent-child agreement would reduce as the child or adolescent gets older given a young person's increasing autonomy particularly during adolescence. However, the current study found no relationship between age and level of agreement for presenting problems or goals. This is concordant with previous research which also found no age effects upon level of agreement between parents and children on presenting problems and goals (Garland, Lewczyk-Boxmeyer, Gabayan, & Hawley, 2004; Ronzoni & Dogra, 2011; Yeh & Weisz, 2001). This could be explained by Dornbusch and colleagues (1990) findings that although autonomy increases with age, adolescents were found to, in the main, make decisions about personal issues in the context of parental input and guidance.

Against prediction, the number of avoidance goals generated by children was not related to, or predictive of, anxiety or depression. In contrast, and against prediction, an increased number of approach goals did significantly relate to and predict depression, that is, an increased number of approach type therapy goals was related to increased depressive symptomatology. This contradicts Fowles's (1994) view that depression is uniquely characterised by an *impairment* of approach motivation. The current findings are the inverse

of previous research with non-clinical adolescent samples which have found that depression is associated with approach goal impairment (Dickson & MacLeod, 2004b, 2006). The findings also differ to other research with non-clinical adolescents (Kuroda & Sakurai, 2011) and clinically depressed adults (Dickson, Moberly, & Kinderman, 2011) who found no relationship between number of personal approach goals and depression. The reasons for the unexpected findings of the current study are unclear. However, a closer look at the data in this study revealed that the approach orientated therapy goals often implied escape from an undesired state. Even though these therapy goals were framed as approach goals there frequently appeared to be an underlying avoidance motivation underpinning the goal. For example, the underlying motivation of the approach goal was that the child wanted to avoid the current adverse state they were in. So, the goals “to be happy again”, “to have better concentration” suggest that these children were unhappy and had poor concentration, respectively, and no longer wanted to be in these positions. This avoidance element of approach goals may explain the positive relationship between number of approach goals generated and depression. However, this elucidation is a post hoc explanation of an unexpected finding. The supposition that the reason approach goals were related to depression is due to the element of avoidance with these goals means one would expect a relationship between depression and goals which were explicitly avoidance orientated, which was not the case with the current data. There may have also been other features of the children’s approach goals that were problematic. Approach goals tend to be less specific with a more abstract plan for achievement (e.g. “to be happier”) than avoidance goals. Specificity of goals and goal plans have been linked to anxiety and depression (Dickson & MacLeod, 2004b; Emmons, 1992).

The correlational finding that children were less motivated to pursue goals for intrinsic reasons as they got older, is in keeping with previous research that found as children

get older they are motivated less by choice than pressure (Corpus, McClintic-Gilbert, & Hayenga, 2009; Wigfield, Eccles, Schiefele, Roeser, & Davis-Kean, 2006). However, age did not correlate significantly with any other goal motives in the current study and considering Wigfield and colleagues' findings one would expect external motives to be positively related to age. Furthermore, contrary to the current study's findings, developmental theory would assert that children become more autonomously motivated (intrinsic and identified motives) as they mature (Nurmi et al., 1994) and research has found the proportion of intrinsic goals relative to extrinsic goals to increase across the life span (Morgan & Robinson, 2013).

In this study none of the four goal motives predicted anxiety or depression which contradicts previous research that has consistently found that for children and adolescents' life goals, controlled motivation is positively related and autonomous motivation is negatively related to anxiety and depression (Dickson & MacLeod, 2013; Scott et al., 2008). Differences between the findings of the current study and previous studies could be attributed to the focus upon therapy goals as opposed to life goals. For example, the statement used to establish the extent of intrinsic motivation "I am pursuing this goal for the fun and enjoyment it provides" is less likely to be applicable to therapy goals. However, this does not necessarily mean that overall therapy goals are any less intrinsically motivating than life goals, despite results which may indicate this.

Another finding of note in relation to goal motivation is that children's ratings were generally high across all levels of internalisation, with means scores all greater than 5.51 on the four goal motives. Due to a lack of research with an adolescent clinical sample it is difficult to establish whether this finding is unique to the sample studied. The high scores suggest children were pursuing their goals for both autonomous and controlled reasons.

Clinical Implications

The findings of this study are well placed on which to draw clinical implications. The finding that agreement between parents and children on both presenting problems and therapy goals was low has important clinical implications. As previously stated, lack of agreement between parents and children regarding presenting problems and goals of therapy can have a significant effect upon therapeutic engagement and the success of therapy (Cates et al., 2006; VanFleet, 2000). Clinicians may argue that they already develop collaborative therapy goals with parents and children. However, the findings from the current study suggest a lack of agreement despite the fact that it was collected following an initial session, which aimed to establish a collaborative understanding of the child's current difficulties. The power difference between parent, child and therapist within the therapy room must be acknowledged. To address this it may be useful to establish a child's goals separately to the parent's goals for their child and then make a "true" three-way (parent, child and therapist) collaborative understanding of presenting problems and decision about goals of therapy. It may be that differences between the parent and child cannot be reconciled. As Hawley and Weisz (2003) suggest it is the task and responsibility of the therapist to work to acknowledge both parent's and children's goals of therapy and not, as they found in their study, just "trust" the parent's and disregard the child's goals. Indeed, one goal of therapy may be to enhance understanding of each other's perspective.

Contrary to the findings of the current study, previous studies have found that avoidance goals are linked to emotional distress in non-clinical adolescents (Kuroda & Sakurai, 2011) and adults (Vergara & Roberts, 2011) and that a higher number of avoidance goals are linked to less therapeutic change (Elliot & Church, 2002). These findings have led to suggestions that therapists should support their client's to generate approach goals and to work with their client's to reframe their avoidance goals. There has even been training, Goal

Setting and Planning (GAP) Training, developed to do this, among addressing other aspects of goals (MacLeod, Coates, & Hetheron, 2008). This training had a positive effect for adults experiencing depression (Coote & MacLeod, 2012). At face value, the findings of the present study would contradict such interventions. However, before concrete clinical implications are made future research is needed with a similar clinical child and adolescent sample to further clarify the unexpected findings. In particular, it would be useful for future research to explore whether the finding that approach goals are predictive of depression is due to the problematic aspects of approach orientated therapy goals such as their avoidance element, overgeneralisation and vague plans for goal achievement. If these suppositions are supported it may be important for clinicians to help children develop specific approach goals and find concrete, effective pathways towards achieving these.

Limitations

Some methodological limitations deserve comment. In order to have minimal impact upon each young person's involvement with CAMHS, recruitment took place after the child's initial appointment. This meant the parent and child had had a session talking about the child's current difficulties with a clinician immediately prior to participation. It is interesting that despite this, parent-child agreement of presenting problems and goals was still low. In the current study the young person had support from a researcher whereas parents completed the measure alone. This means that the young people's responses are more likely to have been biased by the social desirability effect. Yet, children did report higher levels of anxiety and depression and a higher proportion of avoidance goals than their parents suggesting that they may have not been inhibited in their responses by the presence of a researcher. Although the term parent has been used throughout, the majority (83%) of parents included in the study were mothers. This may simply reflect that mothers are more likely to bring their child to therapy, however, it means that the findings cannot be generalised across mothers and fathers

as they may differ significantly in the extent to which they agree with their child on presenting problems and goals of therapy. Indeed Davé, Nazareth, Senior and Sherr (2008) found that mothers and fathers significantly differed on the way they scored the SDQ for their child.

Correction for multiple comparisons is a controversial issue within statistics particularly for multiple regressions. Most key statistics texts recommend some form of adjustment when post hoc tests are performed following a significant ANOVA, yet many do not advocate for any adjustment of alpha for tests of the partial regression coefficients in a multiple regression analysis (e.g., Field, 2009; Galambos & Simonelli, 1996). It is recognised that as suggested by Mundfrom and colleagues (2006) the decision not to correct for multiple comparisons in this study increased the risk of finding a significant result by chance (Type I error). However, a priori predictions based on theory and previous research were made which moderates this risk.

Finally, failure of some of the analyses to reach the statistical significance may be due, in part, to limited statistical power as a result of the modest sample of children ($N=47$). Post hoc power analyses revealed that for the dependent t-tests the statistical power for detecting a medium effect ($d=.50$) was acceptable, according to Cohen's (1988) recommendations, at .92. Statistical power for detecting a medium effect in the regression analyses ($f^2=.15$) was .63 and .49 for two (child's number of approach goals and child's number of avoidance goals) and four (the four goal motives) predictor variables, respectively. These are both lower than Cohen's recommended power level of .80. However, statistical power for detecting a large effect ($f^2=.35$) was more than adequate at .95 and .88 for two and four predictors, respectively. Future studies should examine a larger sample to allow the detection of smaller effects. In addition, the cross-sectional nature of this study means one cannot infer causation. Further clinical research employing experimental or longitudinal

designs is required to elucidate the nature of the relationship between a child's goal motives, goal orientation and anxiety and depression with a child and adolescent clinical sample in the context of therapy goals.

In sum, this is the first study of this nature to be conducted with a child and adolescent clinical sample. Findings suggest that there is very low agreement between parents and children on the child's presenting problems and goals for therapy despite parents and children generating similar numbers of each. Interestingly, against prediction avoidance goals were not related to anxiety and depression whereas approach goals were positively related to depression. Again, counter to prediction, goal motives were not related to anxiety or depression. The novel findings of this study suggest that the therapy goals of children and adolescents may have some important differences to general life goals in the link between goal motives, approach and avoidance goals and anxiety and depression. Exploration of the contradictions found in the current study and previous research, along with the important potential clinical implications highlighted, give rise to strong rationale to further research in this area which addresses the limitations outlined above.

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Appendices

Appendix A

Developmental Review Author Guidelines

Relevant author guidelines for submission to Developmental Review are reproduced below.

For full author information pack see: <http://www.elsevier.com/journals/developmental-review/0273-2297/guide-for-authors>

DEVELOPMENTAL REVIEW GUIDE FOR AUTHORS

Article structure

Subdivision - unnumbered sections

Divide your article into clearly defined sections. Each subsection is given a brief heading. Each heading should appear on its own separate line.

Introduction

State the objectives of the work and provide an adequate background.

Material and methods

Provide sufficient detail to allow the work to be reproduced.

Theory/calculation

A theory section should extend, not repeat, the background to the article already dealt with in the Introduction and lay the foundation for further work.

Results

Results should be clear and concise.

Discussion

This should explore the significance of the results of the work, not repeat them. Avoid extensive citations and discussion of published literature.

Conclusions

The main conclusions of the study may be presented in a short Conclusions section, which may stand alone or form a subsection of a Discussion.

Appendices

If there is more than one appendix, they should be identified as A, B, etc.

Abstract

A concise and factual abstract is required. The abstract should state briefly the purpose of the research, the principal results and major conclusions.

Keywords

Immediately after the abstract, provide a maximum of 6 keywords, using American spelling.

Footnotes

Footnotes should be used sparingly. Number them consecutively throughout the article, using superscript Arabic numbers.

Table footnotes

Indicate each footnote in a table with a superscript lowercase letter.

Tables

Number tables consecutively in accordance with their appearance in the text. Place footnotes to tables below the table body and indicate them with superscript lowercase letters.

References

Reference style

Text: Citations in the text should follow the referencing style used by the APA.

List: references should be arranged first alphabetically and then further sorted chronologically if necessary.

Appendix B

Example Search Strategy

Scopus Title and Keyword Search (January 1990 to May 2014)

	Search Term	Hits
1	goal*	52475
2	wellbeing or “well being” or “well-being”	26502
3	distress*	94932
4	mood*	61771
5	anxiet*	198522
6	depress*	416122
7	dysphori*	6135
8	happiness	8261
9	#2 OR #3 OR #4 OR #5 OR #6 OR #7 OR #8	675676
10	child*	2110709
11	adolescen*	1779793
12	teenager*	5648
13	“young people” or “young person”	3660
14	“school age*” or “school-age*”	122895
15	#10 OR #11 OR #12 OR #13 OR #14	3032679
16	#1 AND #9 AND #15	294
17	sport	105123
18	competition	146175
19	coaching	3255
20	disease	5642062
21	“physical health”	83181
22	pain	588108
23	injury	953524
24	undergraduate	44181
25	university	220734
26	#17 OR #18 OR #19 OR #20 OR #21 OR #22 OR #23 OR #24 OR #25	7101433
27	#16 NOT #26	192

Appendix C

Inclusion and Exclusion Criteria

Inclusion Criteria

1. Published between 1990 and 2014
2. Main text written in English
3. Empirical research (i.e. not a discussion paper or review) with quantitative methodology
4. Includes a sample of participants who are children and adolescents up to the age of 19 years old
5. Assesses the link between goal-related processes and wellbeing and/or distress

Exclusion Criteria

1. Papers which do not include a goal-related construct as a central tenet
2. Papers which focus solely on goal content as opposed to goal processes
3. Papers that focus on health compromising and/or delinquent behaviour rather than internal processes such as wellbeing and/or distress
4. Papers which focus solely on sport-related goals or goals relating to a specific disease or physical health problem.

Appendix D

Quality Assessment Tool for Studies with Diverse Designs (QATSDD) Scoring and Breakdown of Quality Rating Scores

Table 1

QATSDD scoring⁵

0= Not at all	1 = Very slightly	2 = Moderately	3 = Complete
----------------------	--------------------------	-----------------------	---------------------

1. Dickson and MacLeod (2004a)	9. Massey et al., (2009)
2. Dickson and MacLeod (2004b)	10. Mouratidis and Michou (2011)
3. Dickson and MacLeod (2006)	11. Pomerantz and Qin (2013)
4. Dickson and Moberly (2010)	12. Scott et al., (2008)
5. Dickson and Moberly (2013)	13. Sideridis (2005)
6. Haase et al. (2012)	14. Street et al., (2004)
7. Kuroda and Sakurai (2011)	15. Wrosch and Miller (2009)
8. Lekes, et al., (2010)	

Table 2

QATSDD breakdown of quality rating scores

	Paper Number														
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
Explicit theoretical framework	3	3	3	2	3	3	3	3	0	3	3	1	3	3	3
Statement of aims/objectives	3	3	3	3	3	3	2	1	3	3	3	3	3	1	3
Clear description of research setting	3	3	3	3	3	3	3	3	3	3	3	3	1	3	3
Sample size considered	0	0	3	0	0	0	1	0	0	0	0	0	0	0	0
Representative sample of target group of a reasonable size	3	3	3	3	2	3	1	3	3	3	3	2	2	2	3
Description of procedure for data collection	3	3	3	2	2	2	2	3	3	2	3	0	3	1	1
Rationale for choice of data collection tool(s)	2	2	3	3	3	1	3	1	2	1	3	3	3	1	3
Detailed recruitment data	1	1	3	2	2	2	2	1	2	2	3	0	1	1	2
Statistical assessment of reliability and validity of measurement tool(s) (Quantitative only)	2	2	0	2	3	2	3	2	2	0	3	2	2	2	2
Fit between stated research question and method of data collection (Quantitative)	3	3	3	3	3	3	2	3	3	3	3	3	3	1	3
Fit between research question and method of analysis	3	3	3	3	3	3	3	3	3	3	3	3	3	2	3
Justification for analytical method selected	0	0	0	0	0	0	0	0	0	0	0	0	0	1	3
Evidence of user involvement in design	0	0	1	0	0	0	0	0	0	0	0	1	0	0	0
Strengths and limitations critically discussed	2	3	2	2	1	2	3	3	3	3	2	0	1	0	3
Total	28	29	33	28	28	27	28	26	27	26	32	21	25	18	32

⁵ For a detailed description of scoring for each criteria see Sirriyeh, Lawton, Gardner and Armitage (2012)

Appendix E

Journal of Abnormal Child Psychology Author Guidelines

Relevant author guidelines for submission to the Journal of Abnormal Psychology are reproduced below. For full guidelines see:

<http://www.springer.com/psychology/child+%26+school+psychology/journal/10802>

JOURNAL OF ABNORMAL CHILD PSYCHOLOGY GUIDE FOR AUTHORS

Abstract

Please provide an abstract of 150 to 250 words.

Keywords

Please provide 4 to 6 keywords.

MANUSCRIPT FORMAT

All JACP manuscripts should be submitted in 12-point Times New Roman with standard 1-inch borders.

APA Style

Page length: **35 pages**; Text must be double-spaced; APA Publication Manual standards must be followed.

References

Citation

Cite references in the text by name and year in parentheses.

Reference list

The list of references should only include works that are cited in the text and that have been published or accepted for publication. Reference list entries should be alphabetized by the last names of the first author of each work.

TABLES

- All tables are to be consecutively numbered using Arabic numerals.

GOALS OF CHILDREN ENTERING CHILD AND ADOLESCENT MENTAL HEALTH SERVICES

- For each table, please supply a title explaining the components of the table.

Appendix F

Measures Used in the Study

Participant Number P.....



Goal characteristics of children referred to CAMHS: Concordance with parents, goal internalisation and expectancy

Demographic Information

What is your relationship to your child? (please select)

- Mother Father Legal Guardian Other

If other please state relationship.....

How old is your child?.....

What is your child's gender? Male/Female (please delete as appropriate)

GOALS OF CHILDREN ENTERING CHILD AND ADOLESCENT MENTAL HEALTH SERVICES

RCADS (page 100-101) REMOVED FOR COPYRIGHT REASONS

RCADS-P (page 102-103) REMOVED FOR COPYRIGHT REASONS

SDQ (page 104) REMOVED FOR COPYRIGHT REASONS

SDQ-P (page 105) REMOVED FOR COPYRIGHT REASONS

Participant Number C.....

Child/Young Person Version



Goal characteristics of children referred to CAMHS: Concordance with parents, goal internalisation and expectancy

Response Form for Child/Young Person

Presenting Problems "What problems are you having that you need help for?"
1.
2.
3.
4.
5.
6.

GOALS OF CHILDREN ENTERING CHILD AND ADOLESCENT MENTAL HEALTH SERVICES

Goal “What goals do you have for coming here to CAMHS?/What do you want to get out of coming to CAMHS?”	Level of Internalisation (see rating sheets)	Importance (see rating sheet)
	1. Intrinsic 1 2 3 4 5 6 7 8 9 2. Identified 1 2 3 4 5 6 7 8 9 3. Introjected 1 2 3 4 5 6 7 8 9 4. External 1 2 3 4 5 6 7 8 9	1 2 3 4 5 6 7
	1. Intrinsic 1 2 3 4 5 6 7 8 9 2. Identified 1 2 3 4 5 6 7 8 9 3. Introjected 1 2 3 4 5 6 7 8 9 4. External 1 2 3 4 5 6 7 8 9	1 2 3 4 5 6 7
	1. Intrinsic 1 2 3 4 5 6 7 8 9 2. Identified 1 2 3 4 5 6 7 8 9 3. Introjected 1 2 3 4 5 6 7 8 9 4. External 1 2 3 4 5 6 7 8 9	1 2 3 4 5 6 7
	1. Intrinsic 1 2 3 4 5 6 7 8 9 2. Identified 1 2 3 4 5 6 7 8 9 3. Introjected 1 2 3 4 5 6 7 8 9 4. External 1 2 3 4 5 6 7 8 9	1 2 3 4 5 6 7
	1. Intrinsic 1 2 3 4 5 6 7 8 9 2. Identified 1 2 3 4 5 6 7 8 9 3. Introjected 1 2 3 4 5 6 7 8 9 4. External 1 2 3 4 5 6 7 8 9	1 2 3 4 5 6 7



Goal characteristics of children referred to CAMHS: Concordance with parents, goal internalisation and expectancy

Presenting Problems/Symptoms

Instructions - Please list the presenting problems for which your child needs help.

- 1.....
- 2.....
- 3.....
- 4.....
- 5.....
- 6.....



Goal characteristics of children referred to CAMHS: Concordance with parents, goal internalisation and expectancy

Goals

Instructions - Please generate the goals you hope your child to reach through attending CAMHS.

Goal 1.....

.....

Please rate how important you feel it is that your child reaches this goal:

Not Important								Extremely Important
1	2	3	4	5	6	7		

Goal 2.....

.....

Please rate how important you feel it is that your child reaches this goal:

Not Important								Extremely Important
1	2	3	4	5	6	7		

Goal 3.....

.....

Please rate how important you feel it is that your child reaches this goal:

Not Important								Extremely Important
1	2	3	4	5	6	7		

GOALS OF CHILDREN ENTERING CHILD AND ADOLESCENT MENTAL HEALTH SERVICES

Goal 4.....
.....

Please rate how important you feel it is that your child reaches this goal:

Not Important							Extremely Important
1	2	3	4	5	6	7	

Goal 5.....
.....

Please rate how important you feel it is that your child reaches this goal:

Not Important							Extremely Important
1	2	3	4	5	6	7	

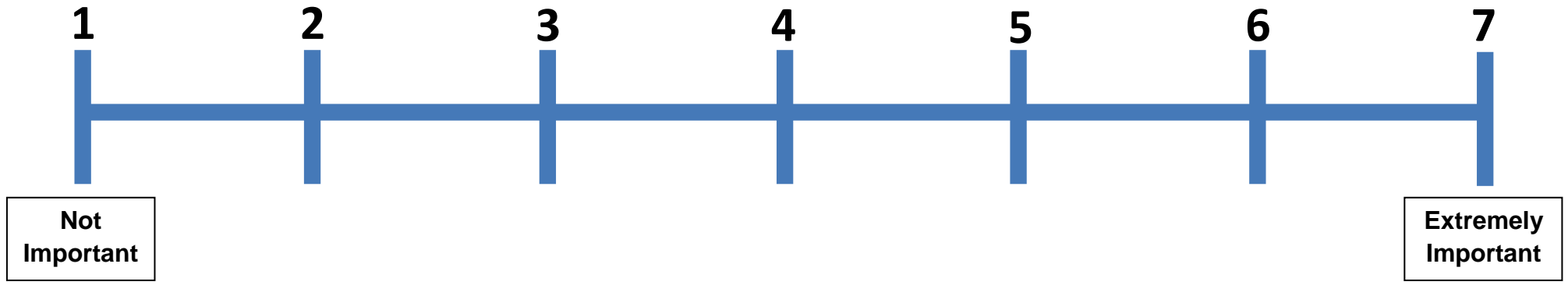
Goal 6.....
.....

Please rate how important you feel it is that your child reaches this goal:

Not Important							Extremely Important
1	2	3	4	5	6	7	

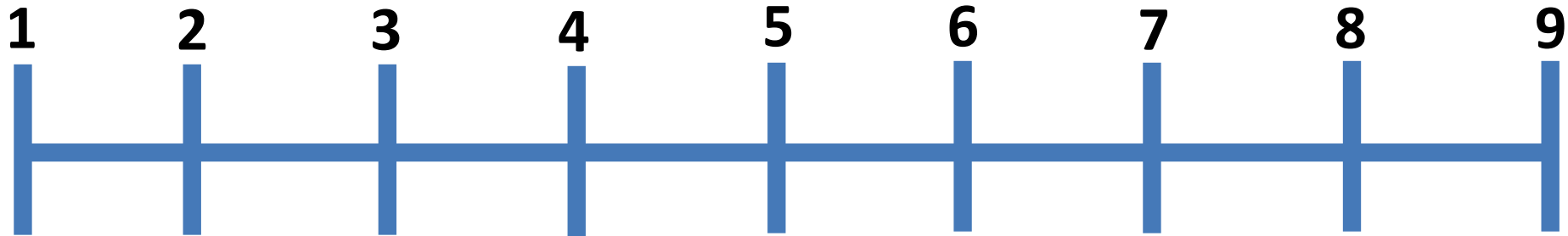
Goal Importance Rating Sheet

How important is it that you reach this goal?



Goal Internalisation Rating Sheets

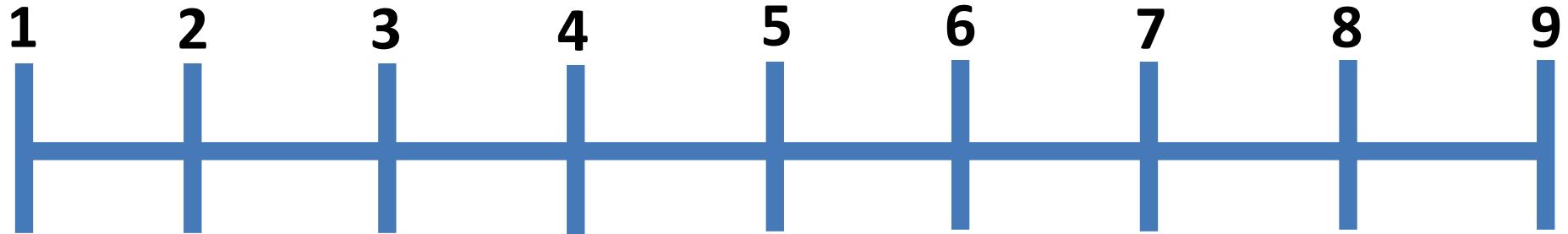
1. I am pursuing this goal because of the fun and enjoyment it provides me.



Does not apply to this goal

Definitely applies to this goal

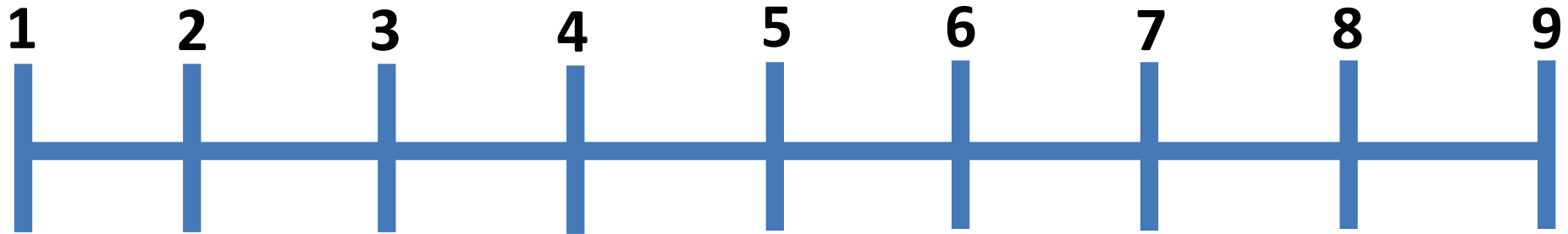
2. I am pursuing this goal because I believe it is an important goal to have.



Does not apply to this goal

Definitely applies to this goal

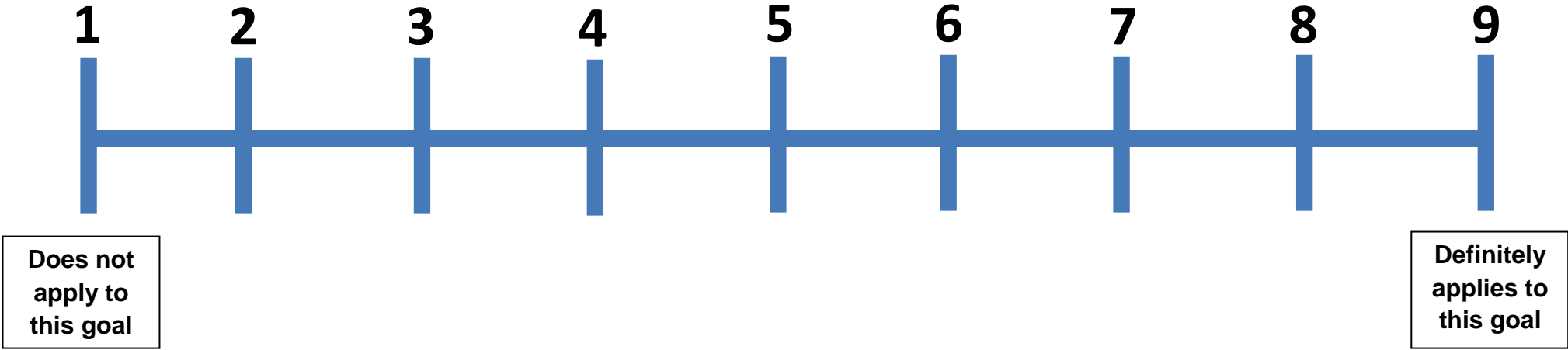
3. I am pursuing this goal because I would feel ashamed, guilty or anxious if I didn't.



Does not apply to this goal

Definitely applies to this goal

4. I am pursuing this goal because someone wants me to or because the situation demands it.



Appendix G

Information Sheet for Parents



Goal Characteristics of Children Entering CAMHS: Concordance with parents, goal internalisation and expectancy

PARTICIPANT INFORMATION SHEET FOR PARENTS

Thank you for taking the time to consider participating in this research project. Before you decide whether you would like to take part it is important for you to understand why the research is being done and what it will involve. Please take time to read the following information carefully.

This information sheet explains the purpose of the study and what will happen if you take part. If there is anything that is not clear or if you would like more information before you make a decision, please ask the researcher.

What is the purpose of the study?

Parents have a substantial influence on their child's therapy through practicalities; such as getting them to appointments, supporting them with homework and their general attitudes towards the therapy expressed in conversations with their child. If there is a lack of consensus between parents and their children of desired therapy outcomes this could have an effect on the child's progress in therapy. It is surprising, therefore, that very little is known about the extent to which parents and their children agree on goals of therapy.

This study aims to assess the level of agreement of presenting problems and goals between children presenting at Child and Adolescent Mental Health Services (CAMHS) and their parent's. The child's reasons for pursuing each of their goals will be explored by establishing the extent to which the child internalises the goal (goal internalisation). That is, whether they are pursuing each goal for autonomous (e.g. pursuing the goal because of the fun and enjoyment it provides) or controlled (e.g. pursuing the goal because the situation demands it) reasons. The relationship between goal internalisation and level of agreement of goals with parents will be established.

Why have I been asked to take part?

You have been asked to take part because your child has been referred to your local Child and Adolescent Mental Health Service, which has agreed to be a recruitment site for this research project. If two main caregivers are intending to attend the appointment, you can decide which of you would like to take part.

Do I have to take part?

No. You can decide not to take part in the study. Your participation is entirely voluntary and you or your child can stop taking part at any point without giving a reason. The results you have given up to the point you decide to withdraw may be used unless you request that they are destroyed. Your decision to take part or not will have no detrimental effect on your child's therapy or the service you receive from the Child and Adolescent Mental Health Service.

What would it involve?

If you agree to take part you will be asked to complete three short questionnaires and asked to identify presenting problems and goals of therapy for your child. The three questionnaires are demographic information, Revised Child Anxiety and Depression Scale and the Strengths and Difficulties Questionnaire the latter two questionnaires ask specific questions about the difficulties your child is currently experiencing. Participation is expected to take about twenty minutes. If you decide to take part you can complete the measures after your child's initial appointment if this is convenient for you, or, if you prefer you can arrange another appointment to complete the measures.

With your child's agreement and your permission, your child will complete similar questionnaires and identify their presenting problems and goals of therapy with the support of the researcher (Kelly-Marie Swift).

Will my taking part in the study be kept confidential?

Yes. All information you provide will be kept completely confidential. All personal information (e.g. your name, your child's name, the name of the service) or anything else which might identify you will be removed so that no-one will know who you are. The information that you provide will **not** be shared with your child's therapist or anyone in the service. No names will be used in any reports that are written.

The only exception to confidentiality is if the information that you or your child provides suggests that you, your child or someone else may be at risk of harm. In the extremely rare circumstances when this does happen the researcher will make every effort to discuss this with you first.

Are there any benefits to taking part in the research?

As a thank you to you for agreeing to take part, you and your child will be given a £5 high street voucher each.

Are there any risks/disadvantages to helping with this research?

There are no known risks to taking part in this research the only disadvantage to you will be the time it takes to participate which is estimated to be about 20-minutes.

Who has reviewed the study?

All research in the NHS is looked at by independent group of people, called a Research Ethics Committee, to protect your interests. This study has been reviewed and approved by Lancaster Research Ethics Committee.

Who has funded this study?

This study has been funded by the Northwest Strategic Health Authority via the Doctorate of Clinical Psychology Programme, Division of Clinical Psychology, University of Liverpool.

What will happen to the results of the study?

The results of this study will be written up as a thesis which is in partial fulfilment of the principal researcher's qualification of Doctor of Clinical Psychology. In addition, it is hoped that it will be written up as publication in a relevant scientific journal and presented at a conference. However, you will not be identifiable in any publication that is produced.

At the end of your participation the researcher will ask you whether you would like to be sent a summary of the results when the research has been completed. If you would like a copy of the results she will take an address from you.

What if I am unhappy or if there is a problem?

If you are unhappy, or have a problem, please contact Kelly-Marie Swift on (kmswift@liverpool.ac.uk) and she will try her best to answer your questions. If you remain unhappy you can contact Dr Joanne Dickson (Kelly-Marie Swift's research supervisor) via 0151 794 5534 or via email (jdickson@liverpool.ac.uk). If you remain unhappy and wish to complain formally, you can contact the Patient Advice and Liaison Service (PALS) on 01925 664450 or email dennis.dewar@5bp.nhs.uk.

Who can I contact if I have further questions?

Please contact Kelly-Marie Swift via phone (0151 7945534) or email (kmswift@liverpool.ac.uk) if you have any further questions.

Appendix H

Information Sheet for Young People (aged 13-16)



Goal Characteristics of Children Entering CAMHS: Concordance with parents, goal internalisation and expectancy

PARTICIPANT INFORMATION SHEET



Hi, my name is Kelly-Marie Swift. I am doing a research project in Child and Adolescent Mental Health Services (CAMHS). You have given this information sheet to give you the details about the study for you to decide if you want to take part in the research.

What is the purpose of the study?

We know from previous research that the goals of children or young people are really important because they can have an effect on the outcome of therapeutic input. This study aims to look at the goals of children and young people entering CAMHS. The things we will be looking at are; whether young people and their parents have the same goals, how important the goals are to the young person, how much they expect to achieve the goal and the reasons they want to reach their goals.

Why have I been asked to take part?

You have been asked to take part because you are attending a Child and Adolescent Mental Health Service. The service you are attending has said that it is okay if I ask you whether you would like to take part in the research.

Do I have to take part?

No. You can refuse to take part in the study and if you decide to take part you can decide to stop taking part at any point without giving a reason. Whether you take part or not it will have no effect on the service you receive from CAMHS.



What would it involve?

If you agree to take part you will be supported by a researcher (Kelly-Marie Swift) to think of the difficulties you are having at the minute, the goals you want to reach by attending the Child and Adolescent Mental Health Service, how important these goals are and how likely you will reach these goals. You will then be supported to complete a questionnaire about the difficulties you are currently having. It is thought that participation will take about 20 minutes.

Will my information be kept private?

Yes. All information you give will be kept private. This promise will only be broken if you tell the researcher anything that they feel means that you or anyone else is at risk of harm. Your name will not be connected to any of the information you give. This research will be written

~~NAME~~

up as an assignment for the researcher and published for other clinicians to read but no names will be used in any reports that are written and so no-one, apart from the researcher, will know you have taken part.

Are there any benefits to taking part in the research?

As a thank you to you for taking part, you and your parent or caregiver will be given a £5 high street voucher each.



Are there any risks/disadvantages to helping with this research?

There are no known risks to taking part in this research the only disadvantage to you will be the time it takes to participate which will be about 20-minutes.

Who can I contact if I have further questions?

Please contact Kelly-Marie Swift via phone (0151 7945534) or email (kmswift@liverpool.ac.uk) if you have any further questions.

Appendix I

Information Sheet for Children (aged 8-12)



Research Project: Goal Characteristics of Children Entering CAMHS

INFORMATION SHEET

<p>Who am I?</p>	<p>Hello, my name is Kelly.</p>	
<p>What is it?</p>	<p>I am doing an investigation looking at children's goals. This will include finding out whether your parent has the same goals as you.</p>	
<p>What would you have to do?</p>	<p>If you want to take part, you will be asked about what you want from coming to CAMHS and about the problems, you may be having.</p>	
<p>What happens to the things you tell me?</p>	<p>Your name will not be used with the things that you tell me. So no one will know what you have said. I would only have to tell someone if you told me something that I thought meant you or someone else was in danger.</p>	
<p>Do you have to take part?</p>	<p><u>No</u>. You can choose whether you want take part or not.</p>	
<p>Do you get anything for taking part?</p>	<p>As a thank you for taking part, you and your parent or caregiver will be given a £5 voucher each.</p>	
<p>What to do if you have more questions?</p>	<p>You can contact me if you have any questions about taking part in this investigation. My number is 0151 7945534.</p>	

Appendix J

Consent Form for Parents



PARTICIPANT CONSENT FORM FOR PARENTS

Title of Research Project: Goal Characteristics of Children Entering CAMHS:
Concordance with parents, goal internalisation and expectancy

Researcher: Kelly-Marie Swift

**Please
initial box**

1. I confirm that I have read and have understood the information sheet for the above study. I have had the opportunity to consider the information, ask questions and have had these answered satisfactorily.

2. I understand that my participation is voluntary and that I am free to withdraw at any time without giving any reason, without my rights or my child's treatment being affected.

3. I understand that, under the Data Protection Act, I can ask for access to the information I provide and I can also request the destruction of that information, if I so wish.

4. I understand that confidentiality would be broken if information I gave suggested that I or someone else was at risk of harm.

5. I agree to take part in the above study.

Participant Name

Date

Signature

Researcher

Date

Signature

Appendix K

Informed Permission Form



INFORMED PERMISSION FORM

In the eyes of the law, children under 18 are not adults; therefore, legal permission for their participation must be given by parents or guardians.

Title of Research Project: Goal Characteristics of Children Entering CAMHS:
Concordance with parents, goal internalisation and expectancy

Researcher: Kelly-Marie Swift

**Please
initial box**

1. I confirm that I have read and have understood the information sheet for the above study. I have had the opportunity to consider the information, ask questions and have had these answered satisfactorily.

2. I understand that my child's participation is voluntary and that they are free to withdraw at any time without giving any reason, without mine or my child's rights and treatment being affected.

3. I understand that, under the Data Protection Act, I can ask for access to the information I provide and I can also request the destruction of that information, if I so wish.

4. I understand that confidentiality would be broken if information I or my child gave suggested that I or someone else was at risk of harm.

5. I agree that my child can take part in this study

Child/Young Person's Name

Parent/Guardian's Name

Date

Signature

Researcher

Date

Signature

Appendix L

Coding for Parent-Child Agreement of Presenting Problems

Each of the independent coders who coded agreement on presenting problems, agreement on goals and approach and avoidance goals were trained by the author. This consisted of giving them definitions of key concepts, giving them coding instructions and working through examples to ensure that they understood the task.

As outlined in the paper, presenting problems generated by children and parents were coded as a match if they included (i) the same content (e.g. eating) which indicated (ii) the same presentation (e.g. “not eating enough”). Coding had to include both content and presentation because even if the content remained the same (eating), parents and children could generate the two presenting problems “eating too much” and “eating too little”. Although these two presenting problems contain the same content are clearly not a match as they indicate two completely different presentations.

Table 3 provides examples of goals generated in the study within parent child dyads and whether they were coded as a match or non-match. There was high agreement between raters for coding matches on presenting problems within parent-child dyads ($K = 0.96$).

Table 3

Examples of presenting problems generated by parents and children and agreement coding

Child Example	Parent Example	Coding
Self-harming	Self-harming	Match
Seeing things	Seeing ghosts	Match
Losing temper	Hearing voices in his head	Non-match
Low mood	Panic attacks	Non-match
Difficulties with sleeping	Depression	Non-match

Once presenting problems were coded as a match or a non-match, level of agreement for presenting problems was calculated for each parent-child dyad by establishing the proportion of presenting problems within a parent-child dyad that matched. So using the example in Table 4 for this parent-child dyad there are two clear matches (“depression” and “eating disorder”) but a presenting problem (“anxiety”) not generated by the parent. Therefore, there were two matches but three different presenting problems generated within that dyad and so level of agreement for this dyad would be 2/3 or 67%.

Table 4

An example of presenting problems generated by a parent-child dyad in the study

Child	Parent
Depression Eating disorder Anxiety	Depression Eating disorder

Appendix M

Coding for Parent-Child Agreement of Goals

Goals within a parent-child dyad were coded as a match if (i) they had the same content (e.g. self-harm) and (ii) they indicate the same outcome (e.g. “stop self-harming”). Again, it was important to include two steps within this coding scheme because the two goals “to lose weight” and “to increase weight” clearly do not match despite sharing the same content (weight), as they would result in completely different outcomes.

Table 5 provides examples of goals generated in the study within parent-child dyads and whether they were coded as a match or a non-match. There was high agreement between raters for coding matches on goals within parent-child dyads ($K = 0.95$).

Table 5

Examples of goals generated by parents and children and agreement coding

Child Example	Parent Example	Coding
Be more confident	Get her confidence back	Match
Be happy again	Be less unhappy	Match
Lose weight	Learn to manage emotions	Non-match
Increase confidence	Ease anxiety	Non-match
Feel better about myself	Be happy	Non-match

Once goals were coded as a match or a non-match, level of agreement for goals was calculated for each parent-child dyad by establishing the proportion of goals within a parent-child dyad that matched. So using the example in Table 6 there were two goals that the parent and child agreed on (“gaining more confidence” and “stop making herself sick”); however, there was a goal generated by the child and not the parent (“start eating properly”) and a goal generated by the parent and not by the child (“stop being bullied”). Therefore, there were two matches and four different goals generated resulting in a level of agreement of 2/4 or 50%.

GOALS OF CHILDREN ENTERING CHILD AND ADOLESCENT MENTAL HEALTH SERVICES

Table 6

An example of goals generated by a parent-child dyad in the study

Child	Parent
Get more confidence Stop making self-sick Start eating properly	Gain more confidence Stop making herself sick Stop being bullied

Appendix N

Procedure for Data Screening and Testing Parametric Assumptions

Data Screening

Frequency tables for all of the study variables were created using SPSS in order to check for any missing data. Histograms were generated to examine the distribution of the data and check for correct data entry. Boxplots were generated to identify the participant number of any obvious outliers and the raw data was referred to check whether each of these data items were “true” outliers or if they had just been entered incorrectly. Any data entered incorrectly was corrected.

Parametric Assumptions

The four main parametric assumptions are:

- Interval level (continuous) data
- Independence
- Homogeneity of variance
- Normality

As this is a repeated measures/matched pairs design, obviously data within dyads (between parent and child) was non-independent; however, data between different participants (i.e. different children) was independent. All variables were measured to at least the interval level, therefore, the data met the assumptions of data measured at the interval level and the assumption of independence. As matched-pairs tests were used a Pitman Morgan test (Gardner, 2001) was used to assess homogeneity of variance (see Table 7). The score from this test indicated that none of the variables violated the assumption of homogeneity of variance.

Table 7

Homogeneity of variance according to the Pitman-Morgan Test

	<i>t</i>	<i>df</i>	<i>p</i>
Amount of presenting problems	0.97	46	0.34
Amount of goals	1.77	46	0.08
Proportion of avoidance goals	0.73	46	0.47
RCADS – General Anxiety Disorder	1.18	46	0.86
RCADS - Major depressive Disorder	0.88	46	0.38

*variable violates assumption of homogeneity of variance

The final parametric assumption is the assumption of normality. This assumption does not mean that the data need to be normally distributed rather it means that the sampling distribution, the confidence intervals around a parameter estimate and the residuals need to be normally distributed. However, if data is normally distributed then one can reasonably assume that these are also normally distributed (Field, 2009). In order to assess the significance of the “true” outliers and use these to determine the normality of each variable, standardised scores were created using SPSS, that is, *z*-scores were created for every data item which was to be analysed. Outliers found for each of the variables can be found in Table 8. For *z*-scores an absolute value greater than 1.96 is significant at $p < .05$, above 2.58 is significant at $p < .01$ and above 3.29 are significant at $p < .001$. According to Field (2009) in a normal distribution one would expect no *z*-scores to be greater than 3.29, about 1% to have scores greater than 2.58 and 5% of *z*-scores to be greater than 1.96. There were only three outliers with *z*-scores above 3.29 and these were in the variables parent’s number of avoidance goals, level of agreement for goals and identified motivation. A description of how these outliers were dealt with can be found below.

Table 8

Study variables with outliers (z-score higher than 1.96)

	Outliers (z-score higher than 1.96)	Significant Outliers (z-score higher than 3.29)
Parent's Number of Presenting Problems	p17, p27	-
Level of Agreement for Presenting Problems	P1, p14	-
RCADS Subscale - General Anxiety Disorder	p22, p26	-
RCADS-P Subscale - General Anxiety Disorder	p37, p43	-
RCADS Subscale - Major Depressive Disorder	p2, p22	-
RCADS-P Subscale - Major Depressive Disorder	p43	-
SDQ (self-report)	p2, p18, p22	-
SDQ (SDQ informant rated)	p21, p43	-
Child's Number of Goals	p15	-
Parent's Number of Goals	p35	-
Level of Agreement for Goals	P2, p10	P10
Child's Number of Approach Goals	p8	-
Child's Number of Avoidance Goals	P14, p15	-
Parent's Number of Avoidance Goals	P8, P35	P35
Identified Motivation	P21, P37	P37
Introjected Motivation	P11, p21, p37, p38	-
External Motivation	P11, p14, p29, p37, p38	-

Normality was also assessed by looking at the histograms and box plots to gauge the shape and distribution of the data. Both the histograms and box plots suggested that some of the variables were skewed and so skewness of all of the variables was assessed statistically. Kurtosis and skewness statistics were calculated using SPSS and, to standardise these, z-scores for skewness and kurtosis were calculated using the following equations:

$$Z_{\text{skewness}} = \frac{S - 0}{SE_{\text{skewness}}} \quad Z_{\text{kurtosis}} = \frac{K - 0}{SE_{\text{kurtosis}}}$$

The value for these statistics can be found in Table 9. The same significance values as cited above apply to all z-scores (1.96, 2.58 and 3.29). Three variables had skewness z-scores

above 3.29, z -scores of 4.32, 4.29 and -5.36 for the variables level of agreement for parent's number of avoidance goals and identified motivation, respectively. This indicates significant skew and therefore non-normality of these three variables.

Table 9

Kurtosis and skewness statistics of the study variables

	Kurtosis (std. error)	Kurtosis z -score	Skewness (std. error)	Skewness z -score
Age	-.923 (.681)	-1.36	-.549 (.347)	-1.58
Child's Number of Presenting Problems	-.585 (.681)	-.86	-.183 (.347)	-.53
Parent's Number of Presenting Problems	-.894 (.681)	-1.31	.231 (.347)	.67
Level of Agreement on Presenting Problems	.726 (.681)	1.07	.953 (.347)	2.75 [^]
RCADS Subscale - General Anxiety Disorder	-.642 (.681)	-.94	-.150 (.347)	-.43
RCADS-P Subscale - General Anxiety Disorder	-.336 (.681)	-.49	.608 (.347)	1.75
RCADS Subscale - Major Depressive Disorder	-.048 (.681)	-.07	.494 (.347)	1.42
RCADS-P Subscale - Major Depressive Disorder	-.200 (.681)	-.29	.699 (.347)	2.01*
SDQ (self-report)	1.315 (.681)	1.93	.465 (.347)	1.34
SDQ (informant rated)	-.607 (.681)	-.89	.479 (.347)	1.38
Child's Number of Goals	-.386 (.681)	-.57	.374 (.347)	1.08
Parent's Number of Goals	.865 (.681)	1.27	.508 (.347)	1.46
Child's Proportion of Avoidance goals	-.870 (.681)	-.69	.269 (.347)	1.70
Parent's Proportion of Avoidance goals	-1.101 (.681)	-1.62	.676 (.347)	1.95
Child's Number of Approach Goals	-.458 (.681)	-.67	.280 (.347)	.81
Child's Number of Avoidance goals	.270 (.681)	.40	.574 (.347)	1.65
Parent's Number of Approach Goals	-.813 (.681)	-1.19	.319 (.347)	.92
Parent's Number of Avoidance goals	3.084 (.681)	4.53**	1.488 (.347)	4.29**
Level of Agreement on Goals	2.872 (.681)	4.22**	1.498 (.347)	4.32**
Intrinsic Motivation	-1.257 (.681)	-1.85	-.390 (.347)	-1.12
Identified Motivation	4.002 (.681)	5.88**	-1.861 (.347)	-5.36**
Introjected Motivation	-.269 (.681)	-.40	-.740(.347)	-2.13*
External Motivation	-.495 (.681)	-.73	-.822 (.347)	-2.37*

* significant ($p < .05$) kurtosis or skewness **significant ($p < .001$) kurtosis or skewness

Correcting variables that violate parametric assumptions

The variable level of agreement for goals was normally distributed following square root transformation. The extreme outliers (with z -scores ranging from 3.06 and 3.83) of the other two non-normally distributed variables, parent's number of avoidance goals (one extreme outlier) and identified motivation (two extreme outliers), were adjusted to one unit below the next lowest score within the variable as per Tabachnick and Fidell's (2001) recommendations. Following this procedure the variables of parent's number of avoidance goals and identified motivation were normally distributed (see Tables 10 and 11 for outliers and skewness and kurtosis statistics following the alteration of outliers). As a result of the changes described above the data met parametric assumptions and so parametric tests were used throughout.

Table 10

Outliers for the variables parent's number of avoidance goals and identified motivation after outliers altered and level of agreement for goals following square root transformation

	Outliers (z -score higher than 1.96)	Outliers (z -score higher than 3.29)
Parent's Number of Avoidance Goals	P8, p35	-
Identified Motivation	P20, p37	-
Level of Agreement for Goals	P10	-

Table 11

Kurtosis and skewness statistics for the variables parent's number of avoidance goals and identified motivation after outliers altered and level of agreement for goals following square root transformation

	Kurtosis (std. error)	Kurtosis z -score	Skewness (std. error)	Skewness z -score
Parent's Number of Avoidance Goals	.534 (.681)	.78	1.024 (.347)	2.95
Identified Motivation	.151 (.681)	.22	-1.013 (.347)	-2.92
Level of Agreement for Goals	-1.309 (.681)	-1.922	.346 (.347)	.10

GOALS OF CHILDREN ENTERING CHILD AND ADOLESCENT MENTAL HEALTH SERVICES

Appendix O

Bootstrapped Confidence Intervals for Correlations

Table 12

Bootstrapped confidence intervals for study variables analysed using Pearson's Correlation

	1	2	3	4	5	6
1. Child's age	-	.033 to .55*	-.218 to .348	-.345 to .243	-.282 to .238	-.017 to .457
2. Child's Gender		-	.079 to .547*	-.132 to .408	.089 to .583*	.137 to .615*
3. Level of agreement for presenting problems			-	.291 to .716*	-.145 to .378	-.154 to .348
4. Level of agreement for goals				-	-.241 to .371	-.292 to .313
5. Anxiety					-	.330 to .799
6. Depression						-

*confidence interval does not cross zero and therefore indicates a significant result

Table 13

Bootstrapped confidence intervals for study variables analysed using Pearson's Correlation

	1	2	3	4	5	6	7	8	9	10
1. Child's age	-	.026 to .553*	-.137 to .489	-.282 to .355	-.594 to -.063*	-.200 to .442	-.247 to .374	-.193 to .451	-.285 to .238	-.028 to .453
2. Child's Gender		-	-.136 to .412	-.287 to .289	-.321 to .270	.002 to .548*	-.080 to .467	-.349 to .232	.090 to .581*	.140 to .610*
3. Child's number of approach goals			-	-.655 to -.182*	-.155 to .401	-.226 to .403	-.193 to .373	-.249 to .370	-.064 to .513	.060 to .585*
4. Child's number of avoidance goals				-	-.229 to .341	-.095 to .395	-.194 to .239	-.309 to .306	-.249 to .329	-.418 to .065
5. Intrinsic					-	.004 to .604*	-.080 to .546	-.104 to .524	-.046 to .486	-.324 to .177
6. Identified						-	.178 to .739*	-.150 to .515	-.142 to .401	-.313 to .134
7. Introjected							-	.264 to .781*	-.077 to .354	-.167 to .271
8. External								-	-.101 to .433	-.206 to .279
9. Anxiety									-	.330 to .801*
10. Depression										-

*confidence interval does not cross zero and therefore indicates a significant result

Appendix P

Assessing Assumptions for Regression Analyses

Overview of the Assumptions for Regression Analyses

Regression analyses have several assumptions, each of these assumptions will be addressed in turn below:

- Linearity
- Independent errors
- Homoscedasticity
- Normally distributed errors
- Variable types
- No perfect multicollinearity
- Non-zero variance

Linearity

The assumption of linearity means that one assumes that the relationship of each regression analysis is a linear one. Partial plots in Figures 1-4 show there are no clear non-linear relationships between the dependent variables and independent variables in each of the four regressions. Therefore, it would seem that this assumption has been met.

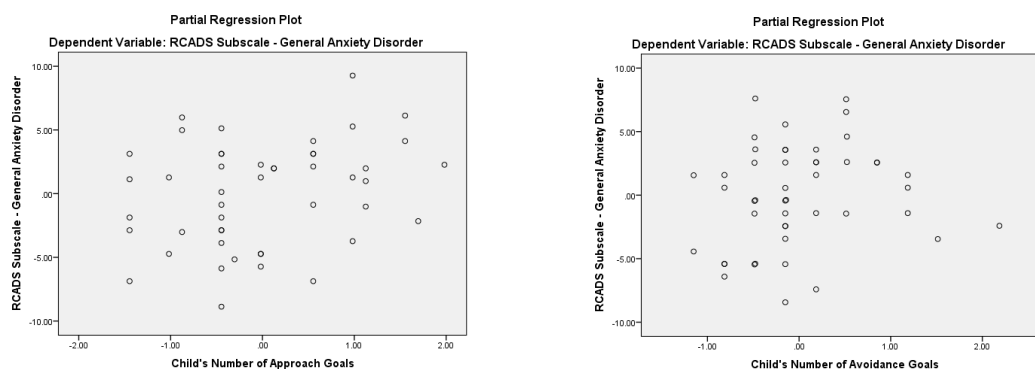


Figure 1

Partial Plots for Each of the Independent Variables in Regression One

GOALS OF CHILDREN ENTERING CHILD AND ADOLESCENT MENTAL HEALTH SERVICES

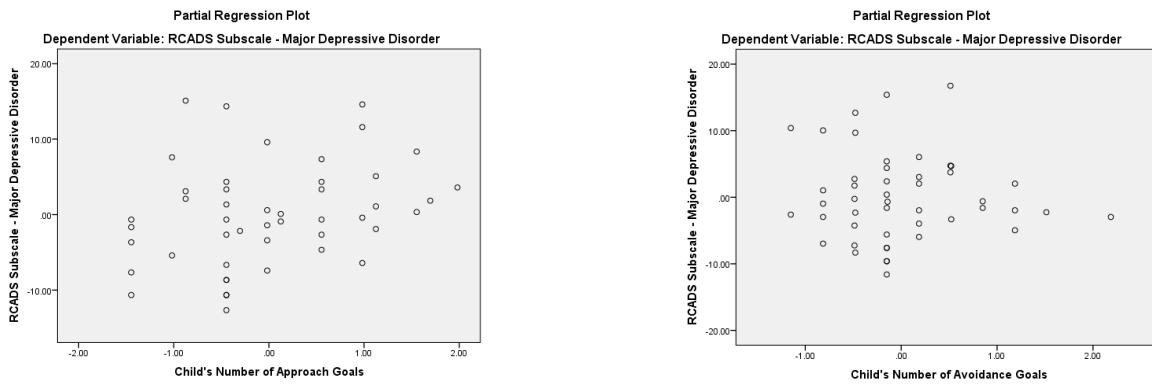


Figure 2

Partial Plots for Each of the Independent Variables in Regression Two

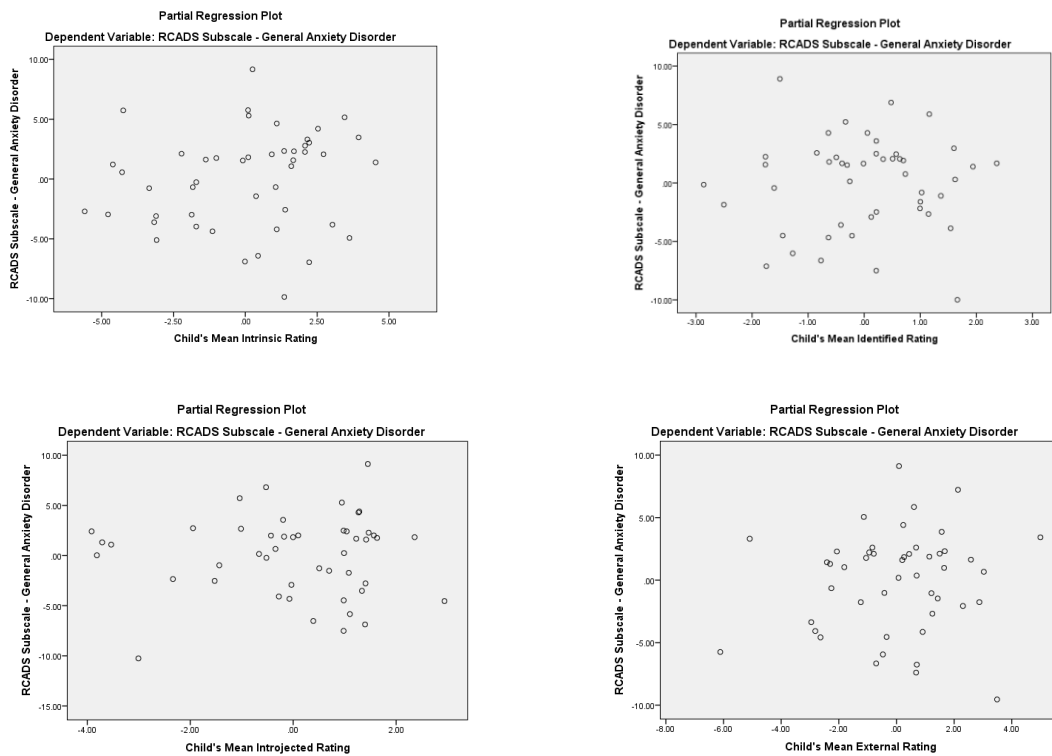


Figure 3

Partial Plots for Each of the Independent Variables in Regression Three

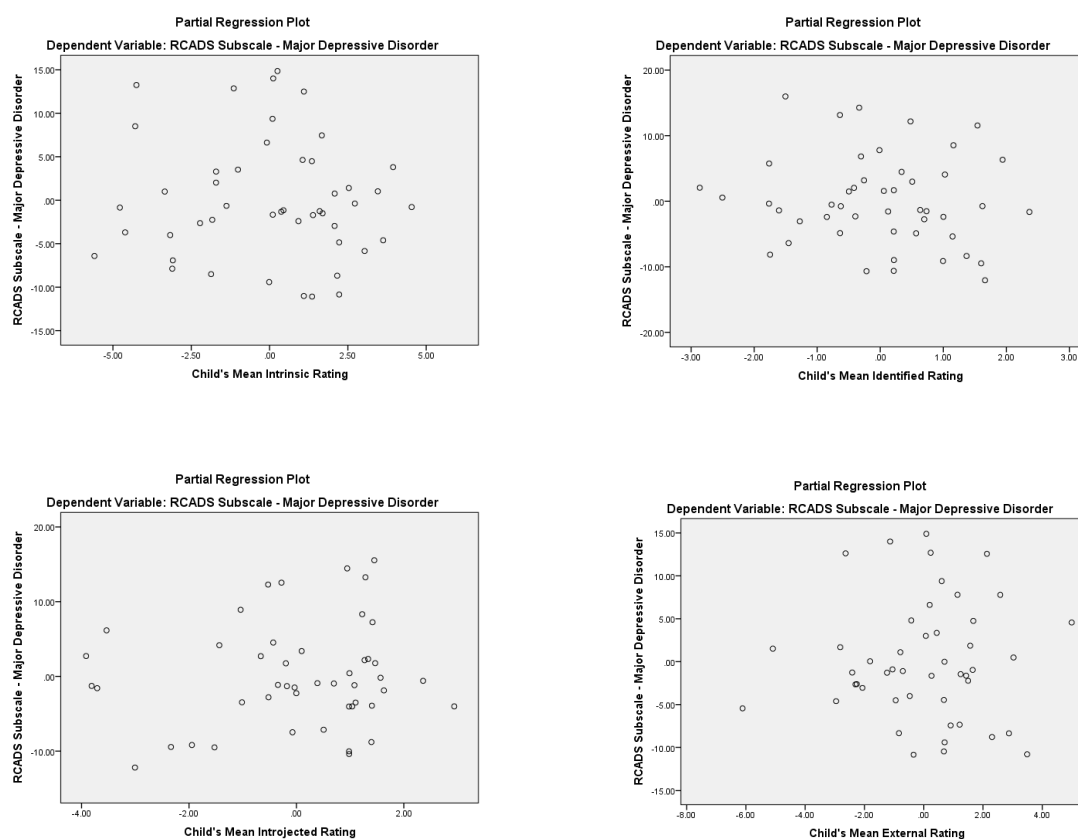


Figure 4

Partial Plots for Each of the Independent Variables in Regression Four

Independent errors

For any two observations the residual terms should be uncorrelated (or independent). The Durbin-Watson test statistic varies between 0-4, Field (2009) suggests values of less than one or greater than three are a cause for concern. For the two regressions which included number of approach and avoidance goals the Durbin-Watson test statistic was 1.39 and 1.82 for the dependent variables anxiety and depression, respectively. For the regression which included goal motives as independent variables the Durbin-Watson test statistic was 1.33 and 1.66 for the two dependent variables. Suggesting that this assumption has been met for all regression analyses conducted.

Homoscedasticity

At each level of the predictor variables, the variance of the residual terms should be constant. This means that the residuals at each level of the predictors should have the same variance (homocedasticity); when the variances are very unequal there is said to be heterocedasticity. Each of the regression analyses only had 1-2 cases with standard residuals outside of the +/-2 range. Ordinary sample would expect 95% of cases to have standard residuals within +/-2 (Field, 2009) and so for this data the assumption of homocedasticity appears to have been met.

Normal Distribution of Dependent Variables and Normally Distributed Errors

The skewness and kurtosis of the dependent variables anxiety and depression were within an acceptable range (see Table 14) suggesting that they are normally distributed.

Table 14

Statistics assessing the kurtosis and skewness of the independent variables anxiety and depression

	Kurtosis (std. error)	Kurtosis z-score	Skewness (std. error)	Skewness z-score
RCADS Subscale - General Anxiety Disorder	-.642 (.681)	-.94	-.150 (.347)	-.43
RCADS Subscale - Major Depressive Disorder	-.048 (.681)	-.07	.494 (.347)	1.42

* significant ($p < .05$) kurtosis or skewness

The histograms of the regressions standardised residuals below (Figures 7-10) suggest that the residuals in the models are random, normally distributed variables with a mean of zero. Suggesting that the data meet this assumption.

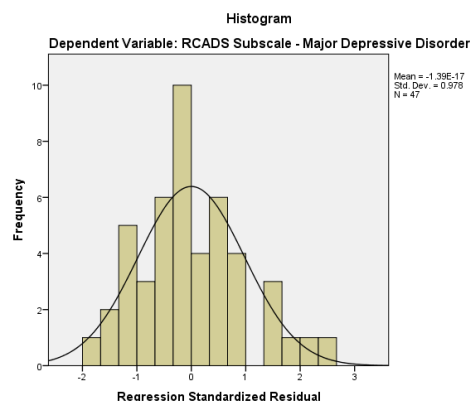
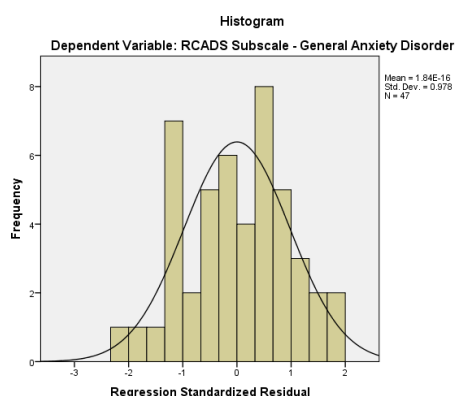


Figure 7

Histogram of the Standardised Residuals for Regression One

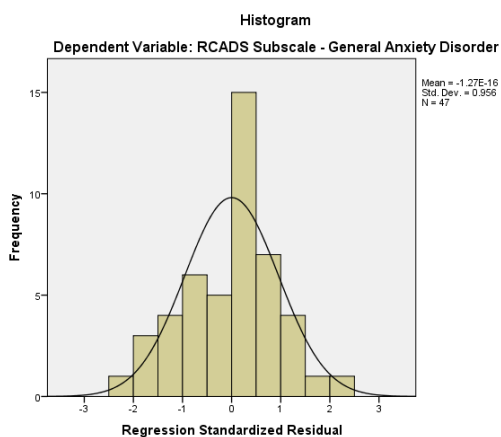


Figure 9

Histogram of the Standardised Residuals for Regression Three

Figure 8

Histogram of the Standardised Residuals for Regression Two

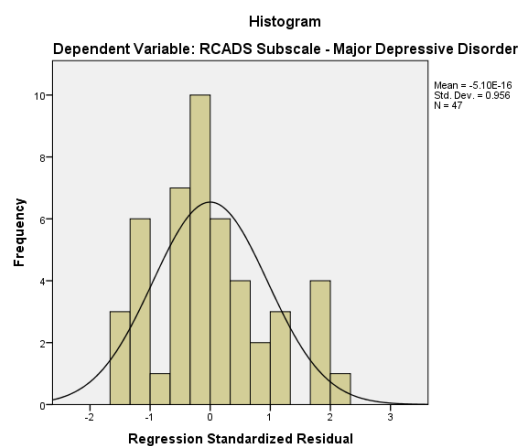


Figure 10

Histogram of the Standardised Residuals for Regression Four

Outliers

As described in Appendix N the only variable with significant outlier included in the regression analysis was identified motivation. Although predictor variables do not need to be normally distributed, significant outliers can mean that the overall regression model is not a representative model. Therefore, the variable of identified motivation with corrected outliers was used in the regression analyses.

Variable types

All predictor variables are quantitative and the outcome variables are quantitative, measured to at least the interval level, continuous and unbounded. Therefore, the data met this assumption.

No perfect multicollinearity

There is no perfect linear relationship between predictors variables with no correlations of predictor variables higher than $r = .55$. VIF values for regressions one and two (dependent variables number of approach goals and number of avoidance goals) were under

10 (both 1.24) and for regression models three and four (dependent variables the four goal motives) VIF values were below ten (1.14, 1.44, 1.88, 1.48) which suggests that multicollinearity is not a problem within these models (Myers, 1990). Average VIF was 1.24 for regressions one and two and 1.49 for regressions three and four as these values are not substantially greater than one it suggests that multicollinearity is not biasing these models (Bowerman & O'Connell, 1990).

Non-zero variance

The predictors all have some variation in value (i.e. they do not have variances of 0).

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