Debate/Perspective/Viewpoint

The Biopsychosocial Approach and Global Mental Health: Synergies and Opportunities

Abstract

The biopsychosocial (BPS) approach proposed by Engel four decades ago was regarded as one of the most important developments in medicine and psychiatry in the late 20th century. Unlike the biomedical model, the BPS approach posits that biological, psychological, and social factors play a significant role in disease causation and treatment. This approach brought about a new way of conceptualizing mental health difficulties and engendered changes within research, medical teaching and practice. Global mental health (GMH) is a relatively new area of study and practice that seek to bridge inequities and inequality in mental healthcare services provision for people worldwide. The significance of the BPS approach for understanding mental health difficulties is being debated in the context of GMH initiatives. This paper critically evaluates strengths and weaknesses of the BPS approach to mental health difficulties and explores its relevance to GMH initiatives.

Key Words: *biomedical model, biopsychosocial approach, global mental health, mental health difficulties*

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The Biopsychosocial Approach ('BPS')

The biopsychosocial (BPS) approach was proposed as a necessary change from the biomedical model in which health was the result of the absence of disease, and where illnesses and treatment options were understood within a physiological framework.[1] Under the biomedical model illnesses were understood as having physiological aetiologies that were diagnosable through distinct biochemical markers, and were to be treated via physical interventions.[2] Engel[1] highlighted how, in order to reassert its position as a medical discipline, psychiatry in the mid-19th century adopted the biomedical model, reducing mental health difficulties to brain diseases that needed treated via pharmacological interventions targeting biological disturbances.[2,3] Engel[1] claimed that this had culminated in a crisis developing within medicine and psychiatry, where doctors were failing to fulfil their "scientific task" as well as their "social responsibility." In short, he argued that the "Western folk model of disease" based on a dualistic understanding of the mind and body had merged with the biomedical scientific model, becoming more dogma-like than scientific.[1] In being myopic to the psychosocial dimensions of disease and reducing illness to somatic parameters doctors were not only neglecting important determinants of health, but also failing to fulfil their social duty of care. He described the biomedical institutions as "cold and impersonal" and physicians who practiced biomedicine as being "preoccupied by procedures and insensitive to the personal problems of the patients and their relatives."[1] Drawing on the general systems theory from biology,[4] the BPS approach understands illness (as well as patienthood) as emerging from an individual who is part of a whole system composed of "sub-personal levels" (i.e., nervous system, organs, tissues, cells, etc.) and "supra-personal levels" (i.e., individuals living in a psychosocial context).[5] According to the BPS, the determinants for, and the prognosis of, mental health difficulties are the result of an interaction between biological, psychological, and social factors—with no factor having a "monopoly" on the explanation and/or cure.[2]

For example, a person with a major depressive disorder may have challenges at work and difficulties coping within the family. These psychosocial issues may perpetuate the mental health condition.

Evaluating the contribution of the biopsychosocial approach

At the end of the 20th century the BPS approach inferred some important advantages, e.g., in changing the way of conceptualizing "illness," opportunities existed for

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practitioners of medicine and psychiatry to be more holistic and integrative in their approach to illness, and humanistic in the delivery of health care. Individuals with health challenges were now acknowledged to be active participants in the recovery process and good health, rather than mere passive victims of deviations in physiologic functioning.[1] The BPS approach exerts a significant influence on contemporary understanding of mental health difficulties. For example, the American Psychiatric Association and the American Board for Psychiatry and Neurology recommend the BPS approach.[6] The model also features predominantly in widely used medicine textbooks such as *Human Behavior* and *Clinical Psychiatry*, by Stoudemire[7] attesting to the fact that the allures of the model remain true today.[8]

It has been claimed that the BPS approach has contributed to a reduction in the mind-body split that has been prominent in Western medicine. This has helped to foster opportunities for mental health services to be integrated into the primary care sector and for mental health researchers to broaden the scope of their investigations. Under the biomedical model, emphasis was placed on researchers identifying potential biochemical markers of a disorder: the dopamine hypothesis for schizophrenia,[9] and the serotonin hypothesis for depression are widely known examples.[10] Unfortunately, the evidence in support of definitive biomarkers for mental health difficulties remain elusive.[11] The BPS model brought additional factors under scrutiny including the contribution that psychological processes (e.g., brooding) and/or social conditions (e.g., interpersonal difficulties) made to the emergence and maintenance of mental health difficulties. The efforts were extended from a focus on what mechanisms were underlying the individual's presentation (i.e., the "how") to incorporate explorations of the conditions that give rise to it (i.e., the "why") and to how these relate to each other.[1] This helped to stimulate cross-disciplinary avenues in mental health research and a focus on hitherto under-researched forms of distress such as psychosomatic conditions.[12,13] It is claimed that this new approach to researching mental health difficulties provided a more nuanced and comprehensive understanding of mental health determinants.[14] This included a specific focus on the doctor-client relationship. As part of the client's social environment, the doctor needs to develop an awareness of how his/her interaction with the client may influence the prognosis of the ailment,[15] and indeed, the BPS model engendered "client-centered" approaches and a renewed emphasis on the importance of the doctor-client relationship.[16,17] It allows for a multidisciplinary approach to treatment of mental health difficulties. It permits psychiatrists, psychologists, social welfare officers, psychiatric nurses, occupational therapists, and others in the healthcare team to participate in patient care. This may ultimately lead to better quality of life for the service user.[18] Unlike the biomedical model that aims to provide "one care suits all" approach, the BPS approach is designed to suit each individual's needs as his/her social and psychological environment is taken into consideration.[19]

The conceptual influence of the BPS model has spread outside the realms of medicine and psychiatry, and has highlighted that health is more than merely the absence of disease given that the psychological and social dimensions had to be accounted for rather than purely the physical. This idea has been endorsed in many academic domains such as health education, health psychology, public health, and preventive medicine as well as in public opinion.[20,21] The BPS approach is today the "conceptual *status quo*".[22] and underpins the World Health Organization's (WHO) definition of health: "A state of complete physical, mental, and social well-being, and not merely the absence of disease or infirmity."[23] With the BPS advocating a more comprehensive understanding of determinants of mental health, the responsibility of care has stretched beyond the responsibility of mental healthcare professionals alone, requiring the collaboration of diverse professionals operating at the macro-, meso-, and micro-levels.[2] Therefore, Engel's BPS model has allowed for a conceptually more holistic understanding of mental health difficulties; broadening not only the awareness of diverse determinants of mental health, but also the responsibility towards its care. However, the model is not without shortcomings and the extent to which Engel's model has succeeded in bringing about a "new medical paradigm" has been debated.

Potential Issues with the Biopsychosocial Approach

Criticisms have been levelled at the BPS approach with suggestions that it is both time-consuming and expensive to apply. Time and cost are particularly pressing issues in resource-poor settings,[24] where few healthcare professionals are available to attend to the large numbers of people experiencing mental health difficulties. It is claimed that the holistic nature of the BPS approach makes it a luxury many healthcare systems in low- and middle-income countries cannot afford.[25] The BPS approach requires that more information be gathered during the assessment procedure about an individual's socioeconomic status, culture, religion, as well as psychological factors that might affect the individual's condition. There are often insufficient training opportunities or financial resources available to support the existence of multidisciplinary teams consisting of psychiatrists, clinical psychologists, mental health nurses, and social welfare workers to allow for a full consideration of the biological, psychological, and social factors involved in the mental health difficulties, with responsibility instead often falling to physicians whose expertise may be limited to patient's biological complaints.[26]

More recently, scepticism has sprung among mental health professionals surrounding the influence of the BPS approach in clinical practice.[21] Scholar-practitioners have accused the model's circular nature for failing to provide straightforward guidelines for clinical treatments or rules for prioritization in clinical practice.[27,28] Some contend that a lack of clarity regarding whether biological, psychological, or social factors should be prioritized, have resulted in eclecticism in clinical practice and this "eclectic freedom borders on anarchy."[21] Although clinicians may find the approach to be a useful heuristic[5] and helpful for understanding clinical phenomena,[19] its relevance for guiding clinical practice and alleviating distress remains ambiguous.[19] There is also the lack of scientific evidence to support the approach; McLaren described the model as a myth as it has no theory backing it up.[29] Ghaemi[21] opined that it is wrong to view the BPS approach as a concept and scientific fact. It is important to have empirical evidence of the effectiveness of the approach before regarding it as superior to other models before and after it. Critical voices posit the lack of implementation of the BPS approach as being due to an unwillingness to change among those who have power and influence in the mental health system.[2] Whether due to shortcomings in the model or an unwillingness to change paradigms, the continuous commitment towards the biomedical paradigm within clinical practice is evidenced by the fact that the psychological and social factors are: "Often relegated to the role of triggers of an underlying genetic time bomb";[30] a diagnosis is considered most accurate if symptoms can be linked to physical anomalies and the effectiveness of psychosocial interventions is often measured in terms of medication adherence.[31,32] Furthermore, medical students in the US receive very limited amount of classes in psychosocial subjects compared to biomedical-oriented courses.[33] This hierarchical dichotomization between the biological factors and the psychosocial ones, have led some to argue the BPS model serves to mask the biomedical model,[21,34] and is in fact a "bio-bio-bio model."[30] The mismatch between the "conceptual *status quo*"[21]and mental health care *praxis* has led to concerns being raised as to whether the BPS approach is a fully integrative framework, or whether it merely brings attention to three coexisting factors affecting health.[35] The lack of BPS integration in practice has also been noted in health psychology; empirical and theoretical integrations of the BPS domains remain slim despite the conceptual endorsement of the BPS approach.[36] In addition, individualized and "intrapsychic" approaches to particular forms of distress (such as somatization) have been argued to reflect merely a Western cultural orientation.[37] An additional criticism made by Sulmasy[38] highlighted concerns that the BPS approach neglects the relational aspect a person has with transcendental factors, and calls for a "biopsychosocial-spiritual model" to truly account for the whole person. The influence that the BPS approach has had on understanding potential determinants of mental health has been considerable. Although Engel's work brought about a conceptual change surrounding mental health difficulties, in practice a dichotomization between the biological factors and the psychosocial remains with a bias towards treating the biomedical disturbances. As such, a persisting focus on treating mental health difficulties within the realm of biomedicine constitutes an egocentric and ethnocentric approach that is rooted in Western "folk model" of personhood. The implications this has for potentially limiting the validity, relevance, and applicability of the BPS approach for understanding and responding to mental health difficulties worldwide is the discussion we now turn to.

Relevance of the Biopsychosocial Approach to Global Mental Health Initiatives

Increasingly, Global Mental Health (GMH) initiatives are being undertaken worldwide in the hope of improving mental health inequities and inequalities and closing the "treatment gap" that exists between those that need mental health services through the "scaling-up" of evidence-based treatments.[39,40] International organizations such as the World Health Organization (WHO) that endorse the BPS approach have played a leading role in these efforts. The multiplicity of factors that the BPS purports to be linked to mental health difficulties provides firm support for multisectorial approaches for tackling mental health issues. Indeed, the WHO encourages working in partnership between the public sector (e.g., health, education, employment, judicial, housing, etc.) and the private sector as well as the involvement of a wide range of stakeholders including international non-governmental organizations (INGOs), local NGOs, national governments, communities, amongst other relevant stakeholders.[22] Further, the BPS approach provides important opportunities to link mental health outcomes to development approaches (e.g., using microfinance projects) that aim to alleviate poverty and marginalization.[41] The INGO called Basic Needs utilizes a development model for mental health that comprises of five modules that are all geared towards addressing the biological, sociocultural, and psychological factors affecting individuals with mental disorders.[42] The organization has reached 640,700 people with mental health difficulties, their carers and family members in 12 countries in Africa (Kenya, Ghana, South Sudan, Uganda, and Tanzania) and Asia (India, Vietnam, Sri Lanka, Pakistan, Nepal, Laos).

Other programmes such as The Mental Health and Poverty Project, designed and funded by the Department for International Development (DFID), have succeeded in improving access to treatment of mental disorders in Ghana, South Africa, Uganda, and Zambia by combating poverty.[43] Therefore, there are many examples of GMH initiatives implicitly endorsing the BPS approach that have yielded positive results surrounding mental health interventions and outcomes. This approach would seem appropriate and

laudable given that 80% of people suffering from mental health difficulties live in low- and middle-income countries where social and economic inequalities are particularly pressing issues.[44] However, rather than fully utilizing sources of strength that may be present in social groupings and communities, the majority of efforts have been centered around treating individuals within the context of existing or newly developed medical frameworks looking for example to "improve access" to mental health services.[45-47]

The Biopsychosocial approach and "Culture"

In articulating the BPS model Engel acknowledged "culture" as being an important factor for understanding disease: "The boundaries between health and disease, between well and sick, are far from clear for they are diffused by cultural, social, and psychological considerations."[1] Culture has been defined as "a set of institutional settings, formal and informal practices, explicit and tacit rules, ways of making sense, and presenting one's experience in forms that will influence others."[48] Indeed, DSM-5 acknowledges that "All forms of distress are locally shaped, including the DSM disorders."[49] However, in practice culture has been relegated to the "social" factor,[36] which some have argued largely underestimates the fundamental role culture has on the experience and manifestation of an illness.[50] Anthropological work has for a long time exposed different ways of being in the world and has emphasized the importance of culture in shaping everyday life. Keeping in mind the danger of reductionism and essentialism when talking about culture, it has often been noted that there are cultures that are more individualistic and others more collectivistic in their understanding of autonomous units.[51,52] This observation has potential ramifications for the way distress is expressed and experienced. Along the same line, Fernando[53] observed that the most profound consequences in Sri Lanka after the tsunami were seen in terms of social relationships; "social isolation and difficulty performing family roles were among the greatest concern for survivors."[54] These local expressions and experiences of distress are what Nitcher[55] coined as "local idioms of distress." Therefore, while in the West the understanding of psychopathology is that it is an individual intra-psychic phenomena,[37] it is not a universal way of expressing or experiencing distress. Thus, despite the combined efforts of diverse stakeholders to alleviate "mental illness," without the inquiry into local idioms of distress, the chances of implementing a valid and effective intervention are curbed.[56] GMH initiatives would benefit from the BPS approach being extended to specifically include a focus on cultural factors to maximize engagement with people in Low and Middle Income Countries (LMIC), but there is evidence to suggest that this could also be advantageous for engaging underserved communities in high-income countries (e.g., black and minority populations).[57,58]At the conceptual level, the concerns voiced are around the lack of integration of the BPS domains and the disregard of the fundamental role culture can have on every level of the BPS approach.[36]Ample cross-cultural evidence has highlighted the existence of different idioms of distress as well as explanatory models around health and illness across the world.[59] For instance, in addition to BPS concepts, many individuals, especially those from non-Western cultures, make sense of illness within a spiritual framework.[60] In fact, when ill, 85% of people in Sub-Saharan Africa visit traditional healers before seeking help elsewhere.[61,62] These distinct explanatory models do not only indicate different understandings of health, pathology, and "normality" but also point at different ideas about what constitutes personhood. The argument has been made that although the BPS approach places the patient in a social context,[63] the individual is still the center of analysis, interpretation, and intervention[36] potentially curbing the appropriateness and relevance of the model in a global context. More cautious voices coming from medical anthropology fear that interventions blind to local contexts are not only wasteful, but also potentially harmful.[64-66] Indeed, interventions designed to alleviate distress at the level of the individual when the damage is in fact centered at the level of social relationships will struggle to prove relevant or useful.[45] The globalization of the Western explanatory model of psychopathology may not only threaten the perceived legitimacy of alternative understandings of distress and/or action to alleviate this distress, but also add to a perceived tendency to increasingly pathologize life experience.[67-71] The exact mechanisms by which this "individualization, biologization, and pathologization" can occur is beyond the scope of this essay, however readers may be interested to understand the contribution that sociological theory can make to this understanding; for example see Hacking's work focusing on the "looping effect."[70] Some commentators have pointed to the power and interests of the pharmaceutical industry in expanding the market for psychotropic medications as the main force globalizing the Western understanding of distress.[71,72] The concern here is that social factors contributing to mental health difficulties in different parts of the globe remain unaddressed in the context of an overmedicalization of issues such as poverty.[62]

Conclusions

In conclusion, the BPS approach has contributed to an eschewing of deeply ingrained features of the Western "folk model" such as the mind-body split and made an important conceptual contribution for understanding mental health difficulties in a more all-encompassing fashion. This article has highlighted a need to extend the BPS approach to include a specific acknowledgement of the central role that cultural beliefs and practices can play in understanding mental health difficulties. This will help facilitate a focus on particular idioms of distress that are highly relevant for developing interventions for mental health difficulties in different sociocultural contexts. In short, for the BPS

approach to be a truly "holistic" model it will need to be sensitive to the diversity of beliefs and practices espoused by people across the globe. A greater focus on cultural factors could also potentially address a criticism that has been made to the BPS model, i.e., a lack of specific guidance relating to how support can be operationalized and offered to clients.[22] Increased understanding about pertinent cultural factors could inform understanding about the people, processes, spaces, and places in which acceptable forms of support can be provided.

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Conflicts of interest

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