

Rethinking Health Care Approach: From A Bio-Psychosocial Perspective

Author

Ms Aditi Bhartiya*

PhD Scholar, Amity Institute of Behavioural and Allied Sciences, Amity University Rajasthan

Co-Author

Dr. Komal Verma**

Professor, Amity Institute of Behavioural and Allied Sciences, Amity University Haryana

Abstract

In today's world, one of the most grappling concerns is health care. According to WHO, 'health is not only absence of disease but also taking care of physical, mental and social wellbeing'. This review article is to understand different health models that contributes to well-being. Bio-medical model is found to be the most dominated approach, even though it is unidirectional and considers 'physicality' as the basic principle for the treatment. Research has been done to incorporate biological, psychological and social factors in treatment modalities in order to provide holistic health care. This paper aims to explore how the biopsychosocial model can be used in the health care field with the help of empirical evidence.

Key words: *Holistic health, Biopsychosocial model, prevention, management*

Introduction

A very common but important saying, 'Health is wealth' goes with everyone's life. Being healthy is not only about having proper physical health but it also involves mental and social stability. A healthy person is capable of living life to the fullest and can face life challenges in much better way. For many years health is used to be defined as the absence of any disease but recently WHO, defines health as not only about freeing from any illness or disease but to have holistic comfort that includes taking care of physical, mental and social wellbeing (Deep, 1999). Everyone can relate to the term 'health' and is achieved when

there is optimal balance between all aspects of health (physical, mental, social, and spiritual). Professionals from various fields and expertise have started focusing on approaches that supports overall wellbeing. Research indicates that certain health behavior increase the risk of developing illnesses, mode of illness onset, morbidity, and mortality (Njoku, 2009). Integrated health models have been implemented to an extent, which are proving to be beneficial for all the stake holder. The important health models are:

Health belief model. Health belief Model (HBM) helps to understand the belief of a patient with respect to his/her health. It

requires understanding of vulnerability level of patient and patient's perception of severity of illness. This model also helps to recognize whether a patient will follow the recommendation given to him/her by doctors or not. It depends on the patient's perceived benefits of treatment. (Jones et al., 2015). It implies, if patient feels that there is scope of benefit then the required actions will be taken by them. It is recommended that consideration of HBM dimensions should be a part of health education (Janz & Becker, 1984).

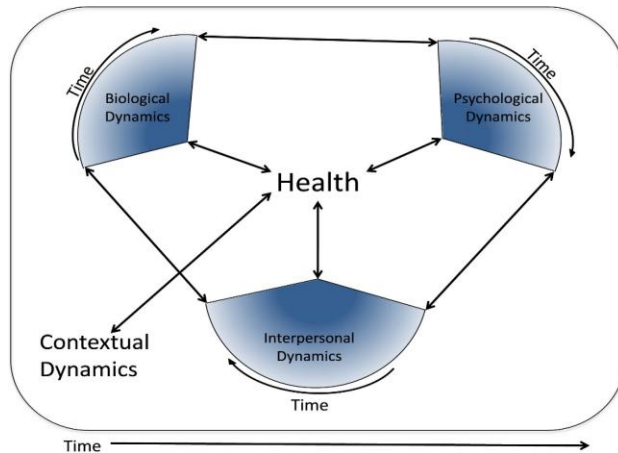
Biomedical model. This is a scientific model devised for the study of disease which believes in dealing with diseases using measurable biological variables independently, leaving social and psychological variables. It assumes that language of chemistry and physics can only be used to understand the biological bases of a disease. This model separates mental from somatic experiences and focuses on explaining biological phenomena to treat any disease. Hence, it can be concluded that the core principle of biomedical model is physicality.

Biopsychosocial model. Biopsychosocial (BPS) model suggests that human health is impacted by biological factors (example: hormone disturbance), psychological factors (like stress, anxiety) and social factors (like family support, family environment). This model in addition to biomedical approach looks into patient health with holistic perspective (Engel, 1977). It focuses on the patient and clinician relationship with psychological aspects like positive and

negative affect, emotions etc. From social perspective it focuses on the environment that surrounds patient (Dodge & Pettit, 2003). BPS approach holds the "biological, psychological, social, and structural processes operate in a matrix of nested and inextricably connected subsystems that influence all aspects of mental and physical health" (Suls, Krantz, & Williams, 2013). It encompasses internalization of the fact that every patient is more than just a biological being.

This is the model that adds multiple approaches with medicines in treating and making the patient well by looking at all over well-being. Over the years, Biopsychosocial model has been discussed, debated, critiqued, and utilized in all specialties of medicine. Though various critics point to its shortcomings, the model has stood the test of time. BPS model has been highly accepted and appreciated within academic and institutional contexts but its execution into medical practices is taking longer to emerge. Execution of this practice is still a challenge within areas of medicine. The model has been used to obtain a better understanding of the disease process, but its acceptance and incorporation into medical

practice is taking longer to emerge.



Source: *Rethinking the Biopsychosocial model of health: understanding health as a dynamic system* (Lehman, David & Gruber, 2017).

Transactional Model of Stress and Coping (TMSC). The TMSC looked into the relationship between person and environmental variables to understand the reason of stress. Person variables deals with personal attributes such as emotional health and Environmental variables are the factors that is present in patient's surrounding such as social support (Blocker, 2017). This allows analysis of factors contributing of stress and thus, helps in preparing individual to cope with it.

Programming Ecological systems theory. This theory suggests that an individual is a part of macrosystem, exosystem, mesosystem, and microsystem. These systems influence the outcomes of an individual. The outermost level of the ecological model is macrosystem. It includes values, ideologies, institutional patterns, and cultural characteristics. The exosystem captures social groups and institutions that

exert influence on the individual, such as community service. Mesosystem consists of interrelationships between microsystems and the microsystem that influence individual in a specific context (Njoku & Gloria, 2015).

Integrated Health care model. Integrated behavioral healthcare focuses on biomedical and behavioral health care services. These services are dependent on the need of patient and medical setting. This model includes varieties of services like therapies, co-visits with care providers, providing psycho-education, management calls and peer support (Blocker, 2017). Thus, this approach helps in overall wellbeing by providing other psychological and social variables.

Review of Literature

Health is the combination of biological, psychological and social wellbeing. All these variables are directly or indirectly impacting each other and are inseparable (Suls & Rothman, 2004). To measure the health of a person it is important to see both biological and subjective health. How a person feels about his/her health helps to evaluate person's bodily and mental state (Nordenfelt, 2007).

Subjective health contributes in understanding of life satisfaction (Gwozdz & Sousa-Poza, 2010) that includes feeling of happiness and sense of purpose (Steptoe, Deaton & Stone, 2015). It is found that life satisfaction is the determinants of good health, high motivation and interpersonal relationships (Sigmund et.al, 2014). Research also shows that higher level of

happiness make the health better and vice versa (Graham, 2008).

Studies indicate that it is important to view health from different perspective as it influences and get influenced by different important factors of one's life. Health and medical care being the very important part of one's life plays a major role in improving the quality of life (Rosén & Haglund, 2001) and directly or indirectly impacting the progress of country (Anand, 2016). It is important to see the relation of social aspects including the distribution of the resources that promote the development of physical and psychological facets of life of individual (Bolton & Gillett, 2019)

Review related to different model of health contribute in understanding of various components of health. Out of which biological, psychological and behavioral factors have a huge implications on health (Hatala, 2012). Engel suggested that if health is understood using Biopsychosocial model (BPS) then there is greater chance of improvement in health conditions (Hatala, 2012). Many researchers like Segal and colleagues developed a treatment pattern for diabetes using the principles of BPS model for better understanding of the illness (Juarez et.al, 2009). Hauptman emphasizes that recent rise in prevalence of obesity is the result of combined effect of biological, psychological and social factors. . Research shows that there is a need to develop more creative approach for the treatment of obesity that includes more eclectic approach. Research in the field of thyroid disease suggested that the application of the

Biopsychosocial model may help in dealing with this chronic condition by focusing on the symptoms of disease. Similarly, in case of infertility various factors are involved that impact the health of the individual. Social and psychological factors has clear relation on the health of individual. Researches have suggested that use of Biopsychosocial model can contribute in addressing all the crucial aspects involved in infertility and can help in understanding and treating the infertile couple.

Papadimitriou (2017), suggested that psychological and environmental factors play a major role in the patient's severity of illness. Biopsychosocial model can be of help in treating mental disorders as this approach uses holistic approach that includes focusing on genetic susceptibility, with the patient's social context by being empathetic and compassionate. Peyrot, McMurry, and Kruger (1999) suggested a model of glycemic control to treat diabetes patients that is based on BPS principle. Suls and Rothman (2004) explored the biological, social and psychological aspects of health in which study revealed that four areas need more attention - research, training programs, practice and intervention, and policy making. This helps to utilize the link between psychological, biological and social aspects of Biopsychosocial model efficiently (Margolis et.al, 2001).

Another study used the integrating behavioral health professional approach to address the hopes that would yield positive health outcomes. This includes working on

consequences of poor health and patient's experience of the treatment. This results in enhancing satisfaction of patient without focusing much on cost (Blocker, 2017). Application of Transactional Model of Stress and Coping (TMSC), address the problem (problem-focused) or reduce the emotional reaction (emotion focused). This model helps to add contextual factors that creates stress or worry (Blocker, 2017). Understanding the background and emotions of the patient help to strengthen doctor-patient relation, which is the core belief of Biopsychosocial approach of treatment. This impact of power of physician on patient influences the health of a patient. Thus it can be established that relationship between patient and care taker plays an important role in the treatment.

Few studies show that biases among the care takers can have negative results in the treatment process, for example if a care taker get biased by the race or sex of the patient, can decide to not work with the patient in order to avoid any complications (Borrell-Carrió, Suchman & Epstein, 2004). Hence, both role of social factors and personal factors play a vital role in the recovery of disease. Researchers have found that biopsychosocial factors have a strong association with depression and anxiety (Bond et al., 2020). Any physical problem can leads to psychological issue if not focused in the psychological aspects. Thus, holistic approach towards different diseases like mental disorders, diabetes, thyroid, infertility, obesity etc. can help in better health recovery.

The World Health Organization (WHO) has projected that the rate of prevalence for various diseases are increasing in epidemic proportions especially in developing countries like India. The National Mental Health Survey was taken in twelve states across six regions of India- North, South, East and West in the year 2015-2016. The prevalence rate for any mental morbidity was found to be 13.7% lifetime and 10.6% current mental morbidity. It was dreadful to see that the gap in treatment ranged between 70% and 92% for different mental disorders (Murthy, 2017). Rate of prevalence for Diabetes given by national Indian Council of Medical Research was highest in Chandigarh that has the maximum GDP (Anjana et.al, 2017). Other diseases like Thyroid is common worldwide (Unnikrishnan & Menon, 2011), infertility affects up to 15% of reproductive-aged couples across the world and is being ignored usually. WHO estimates the overall prevalence of primary infertility in India is between 3.9 to 16.8% (Adamson et.al, 2011). Another serious public health concern throughout the world is regarding weight. Obesity is a risk factor for wide range of serious non communicable diseases. 5% of Indian population is obese and it is found to be predominant among women (62%) than men (59.7%) (Prasad, Rani, Shylaljkamari & Kandasamy, 2017). More detailed prevalence rate of various diseases is as follows:

Mental Health	common mental disorder (India)	85.00%
	severe mental disorder (India)	73.6%;
	Psychosis (India)	75.50%
Diabetes	Bihar	4.30%
	Punjab	10.00%
	Urban areas	11.20%
	Rural areas	5.20%
	Mainland states	8.30%
	North East	5.90%
	Chandigarh	13.60%
Thyroid	42 Million	
Weight	Over-weight	14.40%
	Obesity	60.46%
Infertility	Uttar Pradesh, and	3.70%
	Maharashtra,	3.70%
	Andhra Pradesh	5%
	Kashmir	15%
	Himachal Pradesh	3.70%

Note. Data of prevalence rate on various mental disorder from Murthy (2017), rate of prevalence of diseases with respect to area for Diabetes from Anjana et.al (2017), for thyroid from Unnikrishnan & Menon (2011), for weight from Prasad, rani, shylalalijkaumari & Kandasamy(2017), and for infertility from Adamson et.al (2017).

These diseases result in major psychological and social problems like worry and distress in both male and female. Hence, it is important to help individual to become

equipped in dealing with stressful situation by taking care of holistic health and development. With increase rate of prevalence, it is important to control those potential factors that can impact the health rather than just focusing on treating diseases. To achieve this purpose, self-awareness and understanding of health from holistic perspective (biological, psychological and social aspects) is required. Though there are lot of challenges in applying this model in to real practice but research emphasis that health and wellness should remain the essence of Biopsychosocial model (Frazier,2020).

Conclusion

This review paper suggests that the overall wellbeing of an individual is a combination of biopsychosocial factors which enhances their quality of life. In order to provide holistic health care to the individual there is a requirement for paradigm shift. Hence it is important to use eclectic modalities in preventing and managing diseases. Thus, it is vital for the health care professionals to focus beyond the biomedical approach and to aim at improving overall wellbeing, quality of life and life satisfaction of people suffering from health issues.

References

- [1].Anand, P. (2016). Happiness, well-being and human development: the case for subjective measures.
- [2]. Anjana, R. M., Deepa, M., Pradeepa, R., Mahanta, J., Narain, K., Das, H. K., ... & Bhansali, A. (2017). Prevalence of diabetes and

- prediabetes in 15 states of India: results from the ICMR–INDIAB population-based cross-sectional study. *The lancet Diabetes & endocrinology*, 5(8), 585-596.
- [3].Blocker, D. J. (2017). Sugar high: Psychosocial factors of patients with Type 2 Diabetes in an integrated care setting.
- [4].Bolton, D., & Gillett, G. (2019). *The Biopsychosocial Model of Health and Disease: New Philosophical and Scientific Developments*. Springer.
- [5].Bond, L., Carroll, R., Mulryan, N., O'dwyer, M., O'Connell, J., Monaghan, R., ... & McCarron, M. (2020). Biopsychosocial factors associated with depression and anxiety in older adults with intellectual disability: results of the wave 3 Intellectual Disability Supplement to The Irish Longitudinal Study on Ageing. *Journal of intellectual disability research*, 64(5), 368-380.
- [6].Borrell-Carrió, F., Suchman, A. L., & Epstein, R. M. (2004). The biopsychosocial model 25 years later: principles, practice, and scientific inquiry. *The Annals of Family Medicine*, 2(6), 576-582.
- [7].Deep, P. (1999). Biological and biopsychosocial models of health and disease in dentistry. *Journal-Canadian Dental Association*, 65, 496-497.
- [8].Dodge, K. A., & Pettit, G. S. (2003). A biopsychosocial model of the development of chronic conduct problems in adolescence. *Developmental psychology*, 39(2), 349.
- [9].Dogar, I. A., Rasool, G., Ahmad, M., Haider, N., Naseem, S., Bhatti, A., & Hashmi, S. (2009). Anxiety and Depressive Disorders as Psychiatric Co-Morbidity in Hepatic Diseases.
- [10]. Engel, G. L. (1977). The need for a new medical model: a challenge for biomedicine. *Science*, 196(4286), 129-136.
- [11]. Frazier, L. D. (2020). The past, present, and future of the biopsychosocial model: A review of The Biopsychosocial Model of Health and Disease: New philosophical and scientific developments by Derek Bolton and Grant Gillett. *New Ideas in Psychology*, 57, 100755.
- [12]. Graham, C. (2008). Happiness and health: Lessons—and questions—for public policy. *Health affairs*, 27(1), 72-87.
- [13]. Gwozdz, W., & Sousa-Poza, A. (2010). Ageing, health and life satisfaction of the oldest old: An analysis for Germany. *Social Indicators Research*, 97(3), 397-417.
- [14]. Hatala, A. R. (2012). The status of the “biopsychosocial” model in health psychology: Towards an integrated approach and a critique of cultural

- conceptions. *Open Journal of Medical Psychology*, 1(04), 51.
- [15]. Hilton, C. E., & Johnston, L. H. (2017). Health psychology: It's not what you do, it's the way that you do it. *Health psychology open*, 4(2), 2055102917714910.
- [16]. Janz, N. K., & Becker, M. H. (1984). The health belief model: A decade later. *Health education quarterly*, 11(1), 1-47.
- [17]. Jones, C. L., Jensen, J. D., Scherr, C. L., Brown, N. R., Christy, K., & Weaver, J. (2015). The health belief model as an explanatory framework in communication research: exploring parallel, serial, and moderated mediation. *Health communication*, 30(6), 566-576.
- [18]. Juarez, D. T., Sentell, T., Tokumaru, S., Goo, R., Davis, J. W., & Mau, M. M. (2012). Peer Reviewed: Factors Associated With Poor Glycemic Control or Wide Glycemic Variability Among Diabetes Patients in Hawaii, 2006–2009. *Preventing chronic disease*, 9.
- [19]. Lehman, B. J., David, D. M., & Gruber, J. A. (2017). Rethinking the biopsychosocial model of health: Understanding health as a dynamic system. *Social and personality psychology compass*, 11(8), e12328.
- [20]. Margolis, P. A., Stevens, R., Bordley, W. C., Stuart, J., Harlan, C., Keyes-Elstein, L., & Wisseh, S. (2001). From concept to application: the impact of a community-wide intervention to improve the delivery of preventive services to children. *Pediatrics*, 108(3), e42-e42.
- [21]. Murthy, R. S. (2017). National mental health survey of India 2015–2016. *Indian journal of psychiatry*, 59(1), 21.
- [22]. Njoku, M. G. C. Behavioral Health: Application of the Biopsychosocial Model of Prevention and Treatment The First Inaugural Lecture of Godfrey Okoye University.
- [23]. Nordenfelt, L. (2007). The concepts of health and illness revisited. *Medicine, Health Care and Philosophy*, 10(1), 5.
- [24]. Papadimitriou, G. (2017). The "Biopsychosocial Model": 40 years of application in Psychiatry. *Psychiatrike= Psychiatriki*, 28(2), 107-110.
- [25]. Perdue, D. L. (2011). Effect of diabetes management program on glycemic control and quality of life in adults.
- [26]. Peyrot, M., McMurray Jr, J. F., & Kruger, D. F. (1999). A biopsychosocial model of glycemic control in diabetes: stress, coping and regimen adherence. *Journal of health and social behavior*, 40(2), 141.
- [27]. Rosén, M., & Haglund, B. (2001). Chapter 10. The Importance of Health and Medical Care for Public Health. *Scandinavian Journal*

- of Public Health*, 29(58_suppl), 219-230.
- [28]. Sigmund, M., Kvintová, J., Hřebíčková, H., Šafář, M., & Sigmundová, D. (2014). Life satisfaction, health, self-evaluation and sexuality in current university students of sport sciences, education and natural sciences. *Acta Gymnica*, 44(4), 231-241.
- [29]. Steptoe, A., Deaton, A., & Stone, A. A. (2015). Subjective wellbeing, health, and ageing. *The Lancet*, 385(9968), 640-648.
- [30]. Suls, J., & Rothman, A. (2004). Evolution of the biopsychosocial model: prospects and challenges for health psychology. *Health psychology*, 23(2), 119.