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IMPACT OF PHYSICAL HEALTH AND HEALTH ANXIETY ON MENTAL HEALTH IN MEDICAL DISEASES PATIENTS

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ABSTRACT

The present study examined the impact of physical health and health anxiety on mental health in medical disease patients. The study also finds out the relationship moderating role of health anxiety in the relationship between physical health and mental health among medical diseases patients. The study was completed in one year, from 1 July 2021 to 30 June 2022. The study was based on a cross-sectional survey research design. The participants comprised 200 patients enrolled in different hospitals situated in Sargodha. Data were collected using a purposive sampling technique. Self-report measures, including Physical Health Questionnaire, Health Anxiety Inventory, and Warwick-Edinburgh Mental Well-Being Scale were used for data collection. Multiple regression analysis was applied to test the objective of the study. The findings revealed that physical health enhances the level of mental health, whereas health anxiety decreases mental health among participants.

Keywords: Physical health; Health anxiety; Mental health.
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INTRODUCTION

A person's likelihood of having a high bodily function and process is much higher when they are in good physical health. Maintaining a healthy lifestyle to lower the risk of sickness is part of being physically well (Briguglio et al., 2020). For example, preserving physical fitness will safeguard and develop the endorsement, muscle strength, flexibility, and body composition of an individual's respiratory and cardiac functions. Mental health can be defined as a person's emotional, social, and psychological well-being (Galderisi et al., 2015). Mental health is just as important as physical health when it comes to living an active lifestyle. Mental health is challenging to describe as physical health, as many psychiatric illnesses depend on an individual's perspective of his or her experience (Akhtar et al., 2022). The lack of sadness, anxiety, or any other disease not only categorizes good mental health.

Physical Health and Mental Health

In western industrial nations, the incidence of common mental illnesses has increased. Mental and physical health has been strongly linked (Cloitre et al., 2019). Even if confuses are controlled, they have considerable interactions between physical and mental health. However, the possible paths via which mental health impacts physical health are less recognized and vice versa (e.g., so-called "indirect effects"). Understanding

the variation amongst the population groups of these indirect impacts might have major consequences for health policy development (Kivimäki et al., 2020).

Many psychologies, epidemiology, and economic research have examined mediation, but none have exploited the connection between physical, mental, and the routes we see. A collection of these researches has investigated the direct and indirect impacts on the mental health of anxiety and childhood trauma. Grossman (1972) regarded health as a form of human capital from which people profit both from their consumption and their creation. Healthy time is needed for leisure activities and offers direct services, such as excellent consumption. Sanitary time also contributes to income generation. Medical treatment produces health itself and may also be consumed or created through choices of lifestyle. Other health factors such as retirement decisions, early children's investment and donations, stress, social capital, and socioeconomic status have contributed theoretical contributions since Grossman (Grossman, 2017; Zweifel, 2012).

First, via the job, physical and mental health may affect one another (Akbar et al., 2022). Worsening physical (or mental) health might involve losing salaries or productivity, which decreases access to better food and surroundings (Akbar et al., 2022; Sharifi et al., 2021). This influence on psychological (or physical) health has an undesirable effect. A lack of sleep or stress at work, linked with a mental (or physical) health issue, may also have a similar detrimental effect on your health (Contoyannis & Rice, 2001). Second, psychological health may affect individuals' decision-making processes, limiting their capacity to gain knowledge about their health, preventing it, and the quality of health care providers (Riaz et al., 2017). Third, lifestyles like physical exercise, excess alcohol, and intake of less nutrition are related to physical and mental health. Several types of research have demonstrated that physical exercise is negatively linked to depression/anxiety and bad health effects. Systematic evaluations show that exercise impacts for older adults are favorable on both mental and physical health results. A link between opposite causes can also arise when persons with higher physical and mental health are more inclined to practice. Taylor et al. (2014) contained overall evidence of reduced sadness and anxiety, and stress following quitting smoking, which was a systematic review of cessation of smoking and mental health. Reverse causation is likely to occur when individuals with depression or anxiety condition experience twice that of smoking rates.

Health Anxiety and Mental Health

Research into the effect of the mental health pandemic has been designated as a high-priority in research (Holmes et al., 2020). Preliminary evidence suggests that increased anxiety, feelings of depression, and sleep disorders are extremely prevalent. Another research on an Italian sample of 18,147 showed 37% of individuals suffering from post-traumatic stress, while 21-23% reported severe anxiety, perceived stress, sleeplessness, and problems of adaptation. During a pandemic, individuals usually receive a lot of information from the media about the virus that might increase the health worries of those sensitive to these symptoms. In particular, those with a high level of health concern before the COVID-19 pandemic have a higher risk for bad mental health results since their tendency to misunderstand body feelings (e.g., coughing) might provoke a deep worry that the virus would get transmitted (Blix et al., 2021).

Moreover, we reasoned that health anxiety in the context of a pandemic could be reduced in psychological flexibility, which, in turn, is diminished due to the research showing that trait anxiety is related to disease provenance (Fava et al., 2000) with impaired cognitive flexibility and prefrontal control. If mental health is disturbed, then our physical health is automatically disturbed. I was interested in these variables, so I chose them, and these three variables did not work together; these three are interlinked with each other. Corona has also had a profound effect on people's mental health. This research is unique, so I chose it. And for those who suffer from various diseases, if their physical health is disturbed, then their mental health is automatically affected. The objective of the current study was to investigate the impact of physical health and health anxiety as a predictor of mental health in patients with medical diseases.

METHODOLOGY

Sample

In the present study, a sample of 200 patients with the medical disease had an age range of 18 and above. According to Singleton and Straits' (2017) suggestions, the sample was deemed sufficient. Samples were gathered in Pakistan from people with medical conditions. Through the use of purposive sampling, the data was gathered. In this study, patients were selected as the population in view of the experience that they have suffering from medical diseases. The validity and reliability of the scales were first checked, and then the data's normalcy was guaranteed. Two key regression assumptions were addressed, as well as the main analysis that was conducted in the current study to examine the regression analysis hypothesis. The data's normality had to be ensured first, and then correlations between variables had to be verified. Both were guaranteed since all scales had skewness and kurtosis values less than +/- 1, indicating that the data was neither skewed nor kurtic but rather symmetrical and regularly distributed. In addition to the variables' normalcy, the correlation coefficients between them demonstrated that there was a considerable positive and negative link between them, which was what was sought.

Instruments

Physical Health Questionnaire (PHQ)

Spence et al. (1987) developed the PHQ as a reduced and modified version of the health scale for their investigation of the type a behaviour pattern. Because the health scale was not the primary subject of their research, they only talked about it briefly. According to the material in their paper, 32 items were created to access four elements of somatic health: the standard of quality of sleep, digestion problems, headaches, and respiratory problems.

Health Anxiety Inventory (HAI)

HAI was developed by Warwick and Salkovskis (1990). It is an 18-item scale; every item has four statements of health anxiety covering the fear and worries about illness**.** Although the measure performed well, the number of symptoms tested was limited, and it was decided that expanding the number of symptoms assessed would be beneficial in evaluating the whole range of health anxiety occurrences. Cronbach's alpha for these scales ranges from 0.70 to 0.82, indicating adequate reliability. Higher scores on the tool show more health anxiety issues, while lower scores show less health anxiety.

Warwick-Edinburgh Mental Well-Being Scale (WEMWBS)

Tennant et al. (2007) created the Warwick-Edinburgh Mental Well-being Scale. It is a 14-item assessment of psychological functioning and subjective well-being of the mind. Each article is nicely phrased and addresses aspects of good mental health. For each issue, the scale is assessed by summing up the replies on a 1 to 5 Likert scale. The minimum and highest scores on the scale are 14 and 70, respectively. The UK has banned the use of WEMWBS with anyone 16 and older. This scale has already been used in Pakistan (Riaz & Rafique, 2019).

Procedure

The present study is intended to explore the impact of physical health on mental health and the role of health anxiety on patients with medical diseases. Purposive sampling was used to identify study-eligible participants from among the hospitals in Sargodha, Pakistan, and make contact with them. Participants were given instructions on how to complete the questionnaires and details about the study's objectives. They were also told that there was no time restriction for completing the scales. The participants were asked to respond honestly and completely, and they were made aware that their answers would stay private because they were solely intended for study. Participants were thanked for taking part in the study at the conclusion.

RESULTS AND DISCUSSION

The psychometric features of the scale employed in this study are shown in Table 1. The alpha for measuring physical health, mental health, and health anxiety ranged from .81 to .91 (>.80), indicating higher reliabilities in all scales.

Table 1. Psychometric Properties for Scales (N = 200).

Scales	*M*	*SD*	Range	Cronbach's α
Physical Health	40.51	10.42	18-74	.81
Mental Health	30.81	7.84	1-52	.89
Health Anxiety	42.68	10.99	18-65	.91

Table 2. Regression Coefficients of Physical Health on Mental Health (N = 200).

Variables	*B*	β	*SE*
Constant	21.96***	-	2.14
Physical health	.21***	.29	.051
R^2	.29		

Note: N = 200, ***p < .001.

The impact of physical health on mental health in medical disease patients is seen in Table 2. With {F (1, 198) = 18.19, p < .001}, the predictor variable explained.29 percent of the variance in the outcome variable, according to the R^2 value of .29. Physical health was found to be a significant positive predictor of mental health (β = .29, p < .001).

Table 3. Regression Coefficients of Health Anxiety on Mental Health (N = 200).

Variables	*B*	β	*SE*
Constant	45.33***	-	1.97
Health anxiety	-.34***	.29	.05
R^2	.48		

Note: N=200, ***p< .001.

The impact of health anxiety on mental health in medical disease patients is seen in Table 3. {F (1, 198) = 58.10, p < .001}, indicating that the predictor variable explained .48 percent of the variance in the outcome variable. Health anxiety was found to be a significant negative predictor of mental health (β =.29, p < .001).

Discussion

The reliability of the scale that was used in the present study was examined. The scales included Physical Health Questionnaire, Warwick-Edinburgh Mental Well-being Scale, and Health Anxiety Inventory. Alpha reliability analysis was used to ensure the reliability of the scales. Alpha coefficients for physical health were .81, health anxiety was .91, and mental health was .89, which indicated higher internal consistency for each scale and confirmed its suitability for the current investigation. It was recommended that the reliability coefficients for the behavioural measurements should be at least .70 (Tan, 2009).In the correlational hypothesis, it was anticipated that physical health and health anxiety would predict mental health among medical disease patients. The current study provided evidence in favor of the theory. Regression analysis results showed that mental health is improved by physical health. Research has shown that people's mental health may influence how they make decisions, making it more difficult for them to access information about their physical health, prevention, and the caliber of healthcare providers (Mani et al., 2013). When mental health disturbs, then physical health is automatically affected. Due to ill health, we are not able to perform our daily activities properly. It disturbs both our personal life and professional

life, which affects our mental health (Shakir et al., 2021). Patients with various diseases are also affected by the fact that they are not able to do their job. This thing has more effect on their mental health. The hypothesis was supported in the present study.

Our study findings suggest that medical issues, including chest discomfort, palpitations, and a fast heartbeat can all be symptoms of anxiety disorders. Heart disease and excessive blood pressure may also be more common in patients with medical diseases. Anxiety problems might make a patient more likely to experience a coronary event if he or she already has heart disease (Bandelow & Michaelis, 2022; Bandelow et al., 2022). We are far more likely to experience mental health issues if we have physical health issues, and vice versa. A long-term physical health condition is most often accompanied by a mental health issue, most frequently depression or anxiety (Hamdani et al., 2020).

CONCLUSIONS

The current study aimed to check the impact of physical health and health anxiety on the mental health of patients with medical diseases. Physical health and health anxiety were found to be significant predictors of mental health, just like previous literature reported. The investigation gives knowledge in seeing how health anxiety influences the patients' life.

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