OPTIMISM, PERCEIVED SOCIAL SUPPORT AND HEALTH RELATED QUALITY OF LIFE AMONG TYPE II DIABETIC PATIENTS

A Research Project

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BS Psychology

By

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We certify that the research work presented in this research project, to the best of my knowledge, is our own. All the sources used, and any help received in the participation of this thesis have been acknowledged. We hereby declare that we have not submitted this material, either in whole or in part, for any other degree at this or any institution.

Signature (s):

Ahmad Hassan: _____

Mohammad Ibrahim: _____

DEDICATION

Words can hardly describe our thanks and appreciation for our parents. They have been my source of inspiration, support, and guidance. They have taught us to be unique, determined, to believe in ourselves, and to always persevere. We are truly thankful and honored to have them as our parents.

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Thesis Revision Certificate

It is to certify that Ahmad Hassan and Mohammad Ibrahim Enrolment No. 01-171192-106, 01-171192-086 respectively, Session Fall 2019 from School of Professional Psychology, Bahria University Islamabad, conducted their undergraduate thesis entitled "Optimism, perceived Social Support and Health Related Quality of Life among type II diabetic patients " under my supervision. They have revised their thesis in the light of the examiners' suggestions, and to my satisfaction. and, to the best of my belief, its standard is appropriate for acceptance. Moreover, this thesis is an excellent work in terms of scope and quality for the award of the degree of BS Psychology.

Dated 4 July 2023

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ABSTRACT

Our study aimed to investigate the association between the study variables perceived social support, optimism, and health-related quality of life among individuals with type II diabetes. The sample consisted of 219 participants, including 67 female and 152 male patients. The assessment of variables involved the utilization of scales such as LOTR, MSPSS, and WHOQOL-BREF. The results depicted that there was a significant positive correlation between optimism and perceived social support, particularly in the domains of family and friends. Additionally, perceived social support exhibited a significant positive relationship with physical health, psychological health, and the environment domains of health-related quality of life. Notably, perceived social support emerged as a strong predictor of all domains of health-related quality of life, while optimism only significantly predicted psychological health. It was observed that female patients reported higher scores in perceived social support, particularly in the areas of significant others, family, friends, and the environment. Further analysis revealed that patients who received medication for their diabetes displayed higher scores in optimism, perceived social support, significant others, friends, as well as social relationships and the environment.

INTRODUCTION

American Diabetes Association an American based diabetic organization has described the diabetes as a condition that increases with age and also associated with insulin tolerance build up by individuals. Insulin tolerance either inherited or acquired for the duration of a person's lifetime can contribute to the diagnosis of type II diabetes (Lebovitz, 1999). In most individuals developing an insulin tolerance can lead to the development of type II diabetes. The reason for developing insulin tolerance in most cases is due to obesity but in some cases, it can be acquired i.e., inherited (Lebovitz, 1999).

Recently diabetes has gained more interest as the prevalence of this disease among population has started to increase (Rad et al., 2013). In Pakistan the numbers are astonishing as Pakistan is ranked 3rd in the world in prevalence of diabetes after China and India (Azeem et al., 2022).

There are many factors that can increase the risk of type II diabetes such as hypertension, family history of diabetes, lack of physical activity and smoking(Ismail et al.,2021). In the same study it was reported that smokers, either active or passive smokers, are at more risk of developing type II diabetes. Cigarette smokers are at more risk because when nicotine enters their body it results in the reduction of muscle glucose release which leads to the development of insulin resistance and type II diabetes (Bajaj, 2012). Further evidence suggests that the effect of smoking on potential risk factors increases with the number of cigarettes smoked in day (Ismail et al., 2021). Will et al . (2001) analyzed how the difference in gender can affect the relationship between smoking and diabetes and found that the relationship between smoking and diabetes is more in males than in females.

Family history of diabetes means that there is an existing history of diabetes among family members e.g., their parents or siblings might have diabetes. The family history of diabetes can prove to be a factor that can help a clinician to assess the prognosis and give diagnosis (Yoon et al., 2002). Family history of first-degree relatives i.e., offspring, siblings and parents is proven

to be strong risk factor of diabetes (Rodriguez et al., 2010). Further detail and evidence were provided by Valdez et al . (2007) that family history in at least two first- and second-degree relatives has proven to be strong genetic risk factor for diabetes.

Gender differences have also been found among diabetic patients. These can be evident from research conducted by Misra and Lager. (2009) on type II diabetic patients that concluded that females reported higher level of support received from their social network as compared to males. But in the same study males reported positive expectation about the future. Although females reported receiving support from their peers but in another study on diabetic patients female patients reported deteriorated mental health i.e., higher frequency of depressive and anxiety and females also showed lower quality of life as compared to males (Castellano et al., 2020).

Above were some of the risk factors of type II diabetes but let us discuss certain ways in which diabetes can be managed and help reduce the impacts of this chronic illness on their life. These include glycemic control, which is very essential for management of diabetes, others are exercise, dietary modification and following a treatment plan given by the clinician (Kassahun et al .,2016). Further in the same study Kassahun et al. (2016) reported that factors associated with poor glycemic control were nonadherence to diabetes medication, inadequate economic resources, poverty, and lack of knowledge.

Diabetes is a long-term health condition impacting a vast number of people globally, necessitating continuous self-care and lifestyle modifications. Beyond medical treatments, psychological factors play a pivotal role in determining the overall welfare and quality of life for individuals living with diabetes. Among these psychological factors, optimism and perceived social support have garnered substantial interest within the context of diabetes. Gaining a deeper understanding of how optimism and perceived social support influence the prediction of health-related quality of life among individuals with diabetes can offer valuable insights for developing interventions and strategies to enhance their overall well-being.

Health Related Quality of Life

Suffering from any form of chronic illness e.g., diabetes can affect a person's life, for example their life expectancy can decrease, their quality of their life and can also affect their

family members (Nejhad et al., 2013). Many other difficulties and hardships have been associated with people that have diabetics, i.e., depression which in turn decreases the person's health-related quality of life.

Literature defines health related quality of life in many ways but one of the definitions that encompasses major part of this phenomenon is how a person functions in their daily lives and their perceived well-being, physical and mental health, and social domains of health (Hays et al., 2010). The person's functioning refers to how well they can conduct activities that they were conducting prior to the diagnosis of a disease or a condition. While well-being refers to their own subjective feelings. Existing literature has shown that factors like life stressor, social support, and medical factors like how long the person has been living with the condition and diseases, have proven to be predictors of health-related quality of life (Hays et al., 1993).

Research conducted in Sweden on diabetic patients reported an interesting discovery that individuals who are newly diagnosed with diabetes reported more problems and deteriorated quality of life (Sparring et al., 2013). Another Dutch study reported that diabetic patients who were living with their significant other reported higher health related quality of life (Hart et al.,2005). Diabetic patients who were living alone or were unemployed reported lower health related quality of life .

A qualitative study was conducted in which participants highlighted the effects of their family members behaviors towards their condition i.e., diabetic, lowered their mood. For example, a participant stated that they would feel sad if their husband wasn't there to support them (Abolghasemi et al., 2015).

For many patients of diabetes daily management of their condition can sometimes be too much of an inconvenience. Self-management or daily management can include deciding what to eat or to manage their glycaemic control i.e., optimal serum glucose level among diabetic patients (Bin et al., 2022). Furthermore, not only management of diabetes but adherence to diabetic medication can improve quality of life among diabetic patients (Alfian et al.,2016).

Annual income, economic status and age of the diabetic patients are some of the factors that were identified in determining diabetic patients' quality of life (Nejhad et al., 2013). Further economic and educational level of the patients also influences in determining the health-related

quality of life of diabetic patients, level of income has been identified as a factor that positively correlated with the health-related quality of life (Lee et al., 2014)

Perceived Social Support

Studies have shown that people who suffer from diabetes struggle with the loss of freedom especially when deciding what to eat and also view their quality of life to have been decreased as compared to prior to the diagnosis of the diabetes (Amudha et al.,2012). The role of social support is very essential even for the daily management of people who are diagnosed with diabetes as studies have shown that people who had receive better or had increased social support had better health related quality of life (Onu et al., 2022).

Social support refers to the connections and associations one maintains with others, whether in a formal or informal capacity. These connections create a perception of being cared for and receiving assistance from others (Storm et al., 2012). Research has indicated that individuals with higher levels of social support tend to experience better overall health compared to those with lower levels of support (Thoits et al., 1985). Additionally, social support has been identified as a significant factor aiding in the recovery from chronic illnesses, as well as mitigating the impact of stressors, leading to lower levels of psychological distress (Bardach et al., 2011).

As discussed above, there is an increased risk of depression among diabetic patients; these symptoms of depression and anxiety can in turn affect the physiological health of an individual or increase the risk of any disease (Cohen et al., 1985). According to Cohen et al (1985) not only does social support works as a buffer against negative psychological issues but helps individuals to avoid negative outcome such as economic or legal issues that could increase a risk of individual to develop a disease.

Studies have indicated that social support has a positive effect on the health ooutcomes in individuals with diabetes. For instance, a study conducted by Shen et al. (2019) revealed that higher levels of perceived social support were linked to improved and better health related outcomes among patients of type II diabetes.

Evidence in prior research does suggest that social support can influence health outcomes of an individual with differing social support levels (Berkan & Syme, 1979). Increasing

evidence by Berkan and Syme (1979) suggests that people who are socially isolated or have few social contacts, in comparison individuals with higher levels of social support do have differing health outcomes in both of the groups (socially isolated and higher social support).

Research have shown that there is positive association between overall quality of life and social support among diabetic patients, individuals with better social support have shown to have better glycemic control, better medication compliance and improved quality of life (Onu et al., 2022). Not only is social support critical to quality of life but also beneficial in disease prevention and diagnosis acceptance of a medical condition (Zhang et al., 2007). All aspects that are very important in any chronic illness. Another longitudinal study concluded that social support was essential factor that was strongly associated with morality and social factor identified as that could be used as a intervention among older adults diagnosed with diabetes (Zhang et al., 2007).

Existing literature has shown that there is a positive association between the amount of social support received for diabetic patients results in following of their respective dietary plan, and better diabetic related distress (Tang et al., 2008). A study conducted on African Americans concluded that they primary support they received was from their physician, following the physician the primary source of support was concluded to be spouse and their family members (Tang et al., 2008).

Optimism

Other than social support, optimism is identified as factors that proved to have favorable effects on one's quality of life. Optimism is reported to enhance the patient's quality of life (Seligman, 2008). Dispositional optimism is defined as positive expectation relating to future outcomes. To further elaborate optimism also includes general expectations regarding the future that an individual will experience good outcomes in the future (Scheier & Carver, 1985).

While on the other hand pessimism is defined as a general attitude of hopelessness and that there will be negative consequences of their actions in the future (Scheier & Carver, 1992). For example, if a person if a person is going through stress or hardships but expects that things will work themselves out and everything will be alright in the future, they will be termed as

optimist. But if we look at pessimists, even if things are not going good for them, they will expect that soon things will get worse.

If we look at pessimists their coping response is escape and denial, which can be seen behaviorally as denying that things are not worse as they seem or simply just giving up. Escape as a coping response has also been shown to be related to increased levels of distress (Schier et al., 2010).

Recent research has suggested people who have general positive expectation life experiences and outcomes i.e., optimism have better social support and more friends and more individuals that they on rely on for support (Vollman et al., 2011). Furthermore, another study suggested that social support influences the relationship between optimism and positive health outcomes (Abend & Williamson, 2002).

Social support serves as a crucial factor that influences optimism which in turn results in positive health outcomes (Vollman et al., 20011). Moreover, the social pathway approach suggests that optimists are more favorable to be included in social groups that are supportive and optimistic individuals are more wanted socially than pessimists (Scheier & Carver, 2002).

These findings suggest that optimistic individuals have better mental and health outcomes due to them having a better and supportive social network as compared to pessimistic. This is evident from a study conducted on breast cancer patients that suggested that individuals who are optimistic are more favorable to get support from their significant other when faced with a stressor (Trunzo & Pinto, 2003).

Research among chronic illnesses i.e., type 1 diabetes and multiple sclerosis, was conducted which concluded that people with general positive expectations reported decreased fatigue (Denise et al.,2004).Not only can optimism impact the symptoms or a symptoms of illness but it can also affect one's quality of life as evident from a research conducted on chronic illness i.e., epilepsy which concluded that not only people who are optimistic have better perception of their physical health but also have a better perception of their mental health, they also concluded that people with higher levels of optimism reported better quality of life (Pais-Ribeiro et al., 2007).

Patients with diabetes are at an elevated risk of experiencing depression and depressive symptoms, as evidenced by a high prevalence of depression among this population (Campayo et al., 2011). However, optimism has been identified as a protective factor against depressive symptoms in individuals diagnosed with diabetes (Elisbeth & Rachel, 2019).

Previous studies have established that optimism plays a significant role in improving the physical and psychological well-being of individuals dealing with chronic conditions, including diabetes. These studies have highlighted that individuals with an optimistic mindset are more likely to engage in health-promoting behaviours, such as adhering to treatment plans and adopting effective self-management strategies. As a result, they experience an enhanced overall quality of life in terms of their health. It is worth noting that research findings specifically indicate a positive correlation between optimism and HRQoL in our study population (Boehm et al., 2018).

Literature Review

Health Related Quality of Life

Previous research indicates a clear link between perceived social support, optimism, and HRQoL among people diagnosed with patients. A study conducted by Boehm et al. (2015) concluded that a positive association between optimism and HRQoL among diabetic patients exists. Above included research findings suggest that higher levels of optimism are associated with an improved health among diabetic patients.

The importance of optimism as a variable closely linked to enhanced physical functioning and improved mental health among individuals with type II diabetes was highlighted in a study conducted by Tsen et al. (2015). Likewise, another study observed a positive association between optimism and health outcome in diabetic patients.

While the research on variables such as optimism, social support, and HRQoL among diabetic patients in Pakistan remains limited, a study conducted in the country yielded significant findings. According to the study by Riaz et al. (2007), a positive relationship was identified between social support and health-related self-care behavior among our study population. Furthermore, a study concluded that social support was positively correlated with the patients' overall quality of life.

Additionally, research conducted in Pakistan yielded significant findings regarding the impact of social support on diabetic patients. The study by Shahid et al. (2007) concluded that individuals who had low social support experienced increased and worese diabetic-related distress. Conversely, higher levels of social support were associated with improved health outcomes and better self-care behaviour related to diabetes. Furthermore, in another study by Jabbar et al. (2005), optimism was found to be positively associated with diabetes self-care behaviour.

Although there is a scarcity of literature specifically studying the variables included in this study in the context of diabetic patients, the existing limited research suggests a positive association exists between our study variables.

Perceived Social Support

Numerous studies have investigated the connection between perceived social support and HRQoL in individuals with type II diabetes. For instance, Zhang et al. (2019) conducted a study revealing a positive association between higher levels of perceived social support and improved HRQoL among type II diabetic patients. Similarly, Jafari et al. (2017) found that perceived social support was positively correlated with better mental health and overall general health among individuals with type II diabetes.

In people with chronic diseases such as disease social support serves as an important factor that acts as an essential environmental source of support. In the context of chronic diseases social support can be defined as the support patients get from their family members or their friends (Koetsenruijter et al., 2015). Hence, it is important to identify the relationship between diabetic related self-care activities, as previous research have shown that social support serves as crucial factor that impacts an individual's health related behavior (Miller & Dimatteo, 2013).

Studies have revealed a clear association between social support and HRQoL in individuals diagnosed with diabetes, indicating that higher levels of social support are associated with improved overall quality of life and well-being. This finding is supported by a study conducted by Vamos et al. (2011), which demonstrated that social support correlated with HRQoL among adults with type II diabetes. Additionally, a study further supported these findings by indicating that higher levels of social support were linked to better health-related quality of life in diabetic patients.

The provision of social support from family, friends, and healthcare professionals can positively influence various aspects of HRQoL among diabetic patients. Social support can contribute to better disease management, improved adherence to treatment regimens, and increased self-efficacy in diabetes self-care, all of which are important factors for maintaining good HRQoL (Rosland et al., 2012).

Furthermore, social support can provide emotional encouragement, reduce stress, and mitigate the negative psychological impact of living with diabetes. Diabetic patients who perceive higher levels of social support tend to experience lower levels of diabetes-related

distress, anxiety, and depression, all of which can have detrimental effects on HRQoL (Hermanns et al., 2003).

It is worth noting that social support can come from various sources, including family, friends, support groups, and healthcare professionals. Different sources and types of support may have varying effects on HRQoL. For example, the support received from peers who share similar experiences with diabetes may be particularly beneficial in terms of emotional validation and disease-specific advice (Fisher et al., 2003).

Previous literature has shown that support received from family members and friends of diabetic patients has reduced the amount of stress they felt after the diagnosis of diabetes (Baig et al, 2015; Lee et al., 2018). Two types of social support have been identified subjective and objective social support. Subjective social support refers to being supported by others such as your peers and family members, this can include that other people support you emotionally and try to understand the individual. While objective support can be defined as the tangible support that an individual receives (Xiao,1994).

Although previous researchers have identified that subjective social support was correlated with life satisfaction but receiving objective social support identified as factor that played a essential role in predicting health relating behaviors i.e., diabetic related self-care behaviors (Dumitrache et al., 2016). A possible explanation of such relationship could be that receiving tangible support from their family or friends can help them tackle the obstacles that they face when engaging in diabetic related self-care behaviors.

Optimism

Optimism, defined as a cognitive and emotional disposition characterized by positive expectations for the future, has been widely studied in the context of health and well-being.

Numerous studies have investigated the collective impact of optimism and perceived social support on HRQoL in individuals diagnosed with type II diabetes. For example, Cheng et al. (2018) conducted a study revealing a positive association between both optimism and perceived social support with improved HRQoL among type II diabetic patients. Similarly,

Gholami et al. (2018) conducted a study highlighting the significant positive effect of both optimism and perceived social support on HRQoL in individuals with type II diabetes.

Research has demonstrated the positive impact of optimism on health-related behavior in both young and older adults. A study focusing on individuals with type II diabetes revealed that optimistic patients were more inclined to employ effective problem-solving coping strategies, whereas pessimistic patients tended to focus on their emotions rather than adopting effective coping strategies (Zhao et al., 2020). This may be attributed to the fact that optimistic individuals are more likely to possess the competence necessary to develop coping strategies that contribute to improved health outcomes and attainable health goals (Brissette et al., 2002).

The relationship between optimism and HRQoL among diabetic patients can be understood through various psychological and behavioural mechanisms. Optimism may influence health behaviours, such as medication adherence, engagement in physical activity, and adherence to dietary recommendations, which in turn can have a positive impact on diabetes management and overall well-being (Scheier et al., 2009; Segerstrom, 2007). Optimistic individuals may also experience greater resilience and a more positive outlook when facing challenges associated with diabetes, leading to better adaptation and adjustment to the illness (Scheier et al., 2009).

Research findings indicate that for improving the optimism, practitioners or health care professionals should communicate diabetes in a positive and in a encouraging manner to patients as to increase their optimism regarding future outcomes (Zhao et al., 2020). In the same study Zhao et al, 2020 identified that coping strategies should be adopted to reduce the anxiety or increase the well-being that might be influenced after the diagnosis of diabetes.

Theoretical Framework

Buffer Theory of Social Support

According to the buffer theory of social support which expresses the idea if people have social support, it has a positive impact on their life and also reduces the effects not only misfortunes but also adversity (Alloway & Bebbington, 1987). This is evident from the fact that if an individual receives more or higher levels of social support, they are likely to have better overall wellbeing and mental health. The term "buffering" refers to the role of social support as "protecting" people from stressful events and situations (Cohen et al., 1985). The use of social support as a protective factor can be evident from research that suggests that people who are provided with psychological and material support from their family, friends and spouses have proven to have better health (Broadhead et al., 1983).

Optimism/Pessimism Carver and Scheier Theory

Scheier et al (2010) suggested that there are significant differences between how optimists and pessimists behave when they are faced with any stressful scenarios. These differences among levels of optimism and coping strategies determine one's consequences. Research findings have indicated that optimists engage in approach coping, while pessimists engage in avoidant coping when faced with stressful situations (Scheier et al., 2001). While talking about quality of life and general wellbeing Scheier and Carver suggest that people who are optimist tend to focus less on distress and set certain goals that have to be achieved for their recovery. Further evidence in the same study suggests that people who were optimist had reported better quality of life. Furthermore, Scheier and Carver (2002) suggested that optimist are more likely to be included social groups that are more supportive and optimistic individuals are more wanted socially than pessimistic individuals.
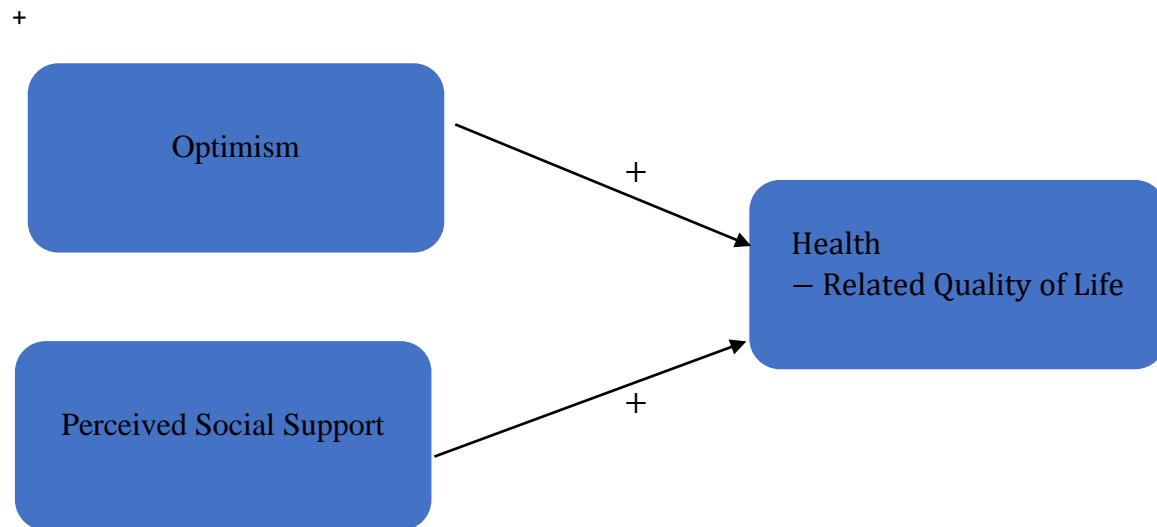
Conceptual Framework

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Figure 1: Model of the study.

Problem Statement

Diabetes, a chronic illness, has a significant impact on an individual's way of life, potentially altering their overall quality of life. This raises questions about the influence of optimism and perceived social support on the health-related quality of life of individuals with diabetes.

Solution

Social support comes from family, significant others, and friends, while optimism is the general expectation that good things would happen to them in the future. If an individual has lower levels of optimism and is not socially supported by their peers this would likely decrease their health quality of life and vice versa.

Rationale

According to the International Diabetes Federation, in 2022 almost 33 million cases of diabetes were reported. These numbers are astonishing as according to the same report almost 26.7 percent of adults in Pakistan are affected by diabetes (Azeem et al.,2022). As identified above there are several psychological and health related impacts of diabetes within individuals that are suffering from ailment.

Although medical interventions are essential for managing diabetes, the significance of psychological factors in determining HRQoL among individuals with diabetes has gained recognition. Optimism and perceived social support have emerged as notable psychological factors that can impact HRQoL outcomes in diabetics. Exploring the reasons behind studying optimism and perceived social support as predictors of HRQoL in this population can offer valuable insights into the development of interventions and strategies aimed at enhancing overall well-being and health outcomes.

Perceived social support and optimism are two psycho-social factors that have proven to play a role in the health and well being of individuals diagnosed with type II diabetes. Type II is a chronic disease that requires persistent management, and it can lead to deficit in physical and psychological well being of individuals. Thus, it is essential to identify such factors that promote better health and improve quality of life in individuals diagnosed with diabetes.

Research Objectives

1. To find out the relationship between perceived social support and health-related quality of life.
2. To find out the role of optimism and perceived social support as a predictor of health-related quality of life.
3. To find out the differences in Perceived Social Support, Optimism and Health Related Quality of Life along the demographic variables.

Research Question

How does Optimism and Perceived Social Support impact Health Related Quality of Life among type II diabetic patients.

Research Hypotheses

1. There is likely to be a positive relationship between Optimism, Perceived Social Support and Health Related Quality of Life among type II diabetic patients.
2. Optimism and perceived social support are likely to positively predict health related quality of life among type II diabetic patients.
3. There will be a difference in Optimism, Perceived Social Support and Health Related Quality of Life along the demographic variables(gender, medication, and household income) among type II diabetic patients.

CHAPTER II

METHOD

This section includes research designs, participants, inclusion and exclusion criteria, measures, operational definitions, procedure, and ethical considerations in detail. This section includes the steps that were taken to complete the study.

Research Design

Research design was based on quantitative correlational design using a survey method to collect data with convenient sampling.

Participants

The number of participants was calculated through G*power; 172. Following exclusion and inclusion criteria was used to select the participants of the study. The data was collected from 200 diabetic patients in hospitals of Islamabad and Rawalpindi.

Inclusion Criteria

Individuals with type II diabetes may be comorbid with other illnesses.

Both Females and Males with Type II diabetes.

Individuals who are able to understand English language.

Exclusion Criteria

Individuals who are diagnosed with any psychiatric illness.

Individuals that have any form of physical disability.

Measures

Informed Consent Form

Participants were provided with informed consent, granting them the choice to participate in the study voluntarily and the freedom to withdraw at any point without facing any negative repercussions. They were given the assurance that their provided information would be used exclusively for research purposes and handled with the highest level of confidentiality.

Demographic Sheet

Demographic sheeted comprised of age, gender, marital status, family system, level of education, year of diagnosis, duration of diabetes, family history of diabetes, household income, diabetic related treatment or medication, daily exercise, any other medical condition, any psychiatric illness, and any physical disability.

LOT-R (Life Orientation Test Revised) (Scheier et al., 1994)

Life orientation test revised is a classical assessment tool that measures levels of optimism and pessimism in an individual. It consists of 10 items and uses a 5-point Likert type scale where 0 strongly disagrees and 4 is strongly agree. It has reliability of .76. (Scheier et al., 1985). To obtain the overall score for this scale we summed the items 1,3,4,7,9 and 10. Rest of the items in the test were filler items that is why they were not included in the total sum score.

WHOQOL BREF (World Health Organization Quality of Life)

The World Health Organization has developed a scale to assess health-related quality of life. Initially, the scale comprised 100 items; however, a revised and condensed version now consists of 26 items. The scale encompasses four domains: physical health, psychological health, social relationships, and environmental health. The subscales demonstrate reliability of .80, .76, .66, and .80, respectively, with an overall reliability of .75 (Harper et al., 1998). For the computation of domain scores, items 3, 4, and 26 were recoded. The following formulas were utilized in SPSS to calculate each domain score. The formula for the physical health domain is: DOM1 = MEAN.6(Q3, Q4, Q10, Q15, Q17, Q18) * 4. The formula for the psychological health domain is: DOM2 = MEAN.(Q5, Q6, Q7, Q11, Q19, Q26) * 4. The formula for the social relationship domain is: DOM3 = MEAN.2(Q20, Q21, Q22) * 4. Lastly, the formula for the environmental domain is: DOM4 = MEAN.6(Q8, Q9, Q12, Q13, Q14, Q23, Q24, Q25) * 4.

MSPSS (Multidimensional Scale of Perceived Social Support) (Zimet et al., 1988)

The Multidimensional Scale of Perceived Social Support is a measurement tool that assesses social support through a series of questions related to perceptions of support from three different sources: family, friends, and a significant other. The scale utilizes a Likert-type rating system, where respondents indicate their agreement level on a scale ranging from 1 (very

strongly agree) to 7 (very strongly disagree). It consists of three subscales: family, friends, and significant others. The family subscale demonstrates reliability ranging from .83 to .90, while the reliability of the friends subscale ranges from .90 to .94. The significant other subscale exhibits reliability ranging from .98 to .90 (Zimet et al., 1990). The overall scale reliability ranges from .84 to .92 (Zimet et al., 1990). To calculate the score for the significant other subscale, items 1, 2, 5, and 10 are summed and divided by 4. Similarly, the family subscale score is obtained by summing items 3, 4, 8, and 11, and dividing the sum by 4. For the friend subscale, items 6, 7, 9, and 12 are summed and divided by 4. Finally, the total score is calculated by summing all 12 items and dividing the sum by 12.

Operational Definition

Optimism

General expectation that an individual will experience good outcomes and good things in the future .

Perceived Social Support

Being associated with individuals, these individuals can provide aid to them or care for them. These can include their family members, their spouse, and their friends.

Health-Related Quality of Life

An individual's functioning in their daily lives, and how they perceive their well-being, mental health and social domains related to health.

Procedure

The permission to conduct the research was taken from the School of Psychology, Bahria University, Islamabad campus. Permission to use the following three scales for each variable was taken from the respective authors and organizations. Data was collected from type II diabetic patients from different hospitals of Islamabad and Rawalpindi. All the participants were informed about the consent and the instructions were provided adequately to each individual before answering the questionnaire. All ethical considerations were kept in mind.

Ethical Considerations

Throughout the study, ethical considerations were carefully considered. Permissions to collect data from hospitals were obtained from the relevant authorities, ensuring adherence to ethical guidelines. The instruments used in the study were utilized with proper authorization and consent from the respective authors. The guidelines provided by the authors were followed diligently during the administration and scoring of the instruments. Questionnaires were administered to individual patients, and their informed consent was obtained, ensuring their willingness to participate in the study. Detailed information was provided to the participants regarding the study's purpose and the confidentiality of their data. They were informed about their right to withdraw from the study at any point. Any queries or confusion regarding the questions were promptly addressed, providing clear explanations during the study. Participants were assured that their information would be utilized solely for academic and research purposes.

CHAPTER III

RESULTS

   Following the completion of data collection for the study, the Statistical Package for Social Sciences (SPSS-IBM 26th Version) was used for statistical analysis. The sample size for this study was determined using G*Power. Descriptive statistics, including frequencies, means, and percentages, were utilized to analyze the demographic variables. To assess the reliability of the scales used in measuring the study variables, Cronbach's alpha was calculated. The Pearson product-moment correlation coefficient was employed to gauge the strength of the relationships between the study variables. Furthermore, multiple linear regression analysis was conducted to examine the causal relationships between the variables. The Shapiro Test was employed to assess the normality of the data, and significant results were observed. To compare differences between two groups, an independent sample t-test was conducted. Additionally, analysis of variance (ANOVA) was employed to assess differences among three or more groups.

Table 1

Descriptive statistics of participants (N=219)

Variable	Categories	f	%	M	SD
Age				37.32	11.83
	20-29	58	26.5		
	29-39	90	41.1		
	39-49	35	16		
	49-59	22	10		
	59-69	11	5		
	69-79	3	1.4		
Gender					
	Female	67	27		
	Male	152	73		
Marital status					
	Single	62	29		
	Married	149	67.5		
	Divorced	4	2		
	Widowed	4	1.5		
Family System					
	Nuclear	86	39.5		
	Joint	133	60.5		
Level of Education					
	Matric	20	9.1		
	Intermediate	20	9.1		
	Graduate	45	20.5		
	Postgraduate	127	58		
	Doctorate	7	3.2		
Occupation					
	Government Employee	16	5		
	Private Employee	174	80.5		
	Unemployed	29	14.5		
Household Income				77734.30	63269.51
Diabetic Treatment/Medication					
	Yes	124	53.5		
	No	95	46.5		
Family History of Diabetes					
	Yes	117	55.5		
	No	102	44.5		
Any other Medical Conditions					
	Yes	25	11.4		
	No	195	88.6		
Duration of Diabetes				6.79	5.08

Note: n=Total Participants, M=Mean, SD=Standard Deviations, f= frequency, %=Percentage

Table 1 revels that greater number of patients were between the ages of 29-39 (f=90,41.1%) as compared to other age ranges 20-29 (*f*=58, 26.5%), 39-49 (*f*=35, 16%), 49-59 (*f*=22, 10%), 59-69 (*f*=11, 5%) and 69-79(*f*=3, 1.4%), Greater number of male patients (f=146,

73%) participated in the study as compared to female patients (f=54, 27%). A greater number of patients were married (f=135, 67.5%) compared to single patients (f=58,29%), divorced patients (f=4, 2%) and widowed patients (f =3, 1.5%). A higher number of patients belonged to a joint family system (f=121, 60.5%) compared to patients that belonged to nuclear family system (f=79, 39.5%). A greater number of patients were postgraduates (f= 123, 61.5%) as compared to patients that had completed their matric (f=18, 44%), patients who graduated (f=41, 20.5%) and patients who were doctorate (f=7, 3.5%). A greater number of patients had a private job (f=161, 80.5%) as compared to patients that were unemployed (f=29,14.5%) and patients that had a government job (f=10, 5%). A higher number of patients had household income between the ranges of 51000-150000 (f=107, 48.9%) as compared to patients that had household income less than 50000 (f=95, 43.4%) and patients that had household income greater than 151000 (f=17, 7.8%). A greater number of patients were taking diabetic medication (f=111, 53.5%) as compared to patients that were not taking diabetic medication (f=89, 44.5%). A higher number of patients were not diagnosed with any other medical conditions (f=194, 88.6%) as compared to patients that were diagnosed with any other medical condition (f=25, 11.4%). Duration of diabetes among patients had the M=6.79

Table 2

Psychometric properties of study variables (N=219)

Scale	No of items	M	SD	Ranges	α
MSPSS	12	58.66	11.65	20-78	.90
Significant other	4	16.88	4.94	3-23	.91
Friend Subscale	4	18.15	3.64	8-23	.86
Family Subscale	4	16.52	3.88	4.-23	.82
LOTR	10	19.66	2.47	12-24	.67
WHOQOL-BREF	26	93.40	11.77	52-125	.87
Physical Health	7	13.91	2.13	5-19	.68
Psychological	6	14.12	2.04	7-19	.62
Social Relationships	3	15.02	3.16	1-.5	.44
Environment	8	14.44	2.32	9-24	.73

Note**:** α= Cronbach's Alpha, M = Mean, SD= Standard Deviation, MSPSS= Multidimensional Scale of Perceived Social Support, LOTR = Life Orientation Test Revised, WHOQOL-BREF = World Health Organization Quality of Life Brief Version

Table 2 shows the psychometric properties of the scales used in this study. The Cronbach's alpha value for MSPSS is .90. The Cronbach's alpha value for the subscales of the MSPSS ranges from .82 to .91. The Cronbach's alpha value for LOTR is .67. The Cronbach's alpha value for WHOQOL-BREF is .87, whereas for its subscales the Cronbach's alpha value ranges from .44 to .73.

Table 3

Pearson product moment correlation between Life Orientation Test Revised, Multidimensional Scale of Perceived Social Support and WHOQOL-BREF (N=219)

Variables	M	SD	1	2	3	4	5	6	7	8	9	10
1. LOTR	19.66	2.47	-	.30***	.13	.34***	.30***	.13*	.27***	.09	.14*	-.10
2. MSPSS	58.66	11.65		-	.80***	.83***	.80***	.26**	.28	.38***	.39***	-.06
3. Significant Other	16.88	4.94			-	.45***	.39**	.19*	.07	.32***	.32***	-.00
4. Family Subscale	18.15	3.64				-	.70***	.17*	.27***	.23***	.42***	-.13
5. Friend Subscale	16.52	3.87					-	.29***	.42***	.37***	.48***	-.04
6. Physical Health	13.91	2.13						-	.58***	.68***	.47***	.03
7. Psychological	14.12	2.04							-	.51***	.58***	.11
8. Social Relationships	15.02	3.16								-	.52***	-.07
9. Environment	14.44	2.32									-	.04
10. Household Income	77734.30	63269.51										-

Note: ***p<.001,** p<.01, *< .05 LOTR = Life Orientation Test Revised, MSPSS = Multidimensional Scale of Perceived Social Support

Table 3 reveled that LOTR has significant positive correlation with MSPSS (r=.30, p<.001), family subscale (*r*=.34, *p*<.001), friend subscale (r=.31, p<.001), physical health (r=.13, p<.05), psychological (r=.27, p<.001) and environment (r=.14, p<.05). Significant other has significant positive correlation with family subscale (r=.45, p<.001), friend subscale (r=.39, p<.001), MSPSS (r=.80, p<.001), physical health (r=.19, p<.01), social relationships (r=.32, p<.001) and environment (r=.32, p<.001). Family subscale is

significantly positively correlated with friend subscale (r=.70, p<.001), MSPSS (r=.83, p<.001), physical health (r=.17, p<.05), psychological (r=.27, p<.001), social relationships (r=.23, p<.01) and environment (r=.42, p<.001). Friend subscale has significant positive correlation with MSPSS (r=.80, p<.001), physical health (r=.29, p<.001), psychological (r=.43, p<.001), social relationships (r=.37, p<.001) and environment (r=.49, p<.001). MSPSS has significant positive correlation with physical health (r=.26, p<.001), psychological (r=.29, p<.001), social relationships (r=.38, p<.001) and environment (r=.49, p<.001). Physical health has significant positive correlation with psychological (r=.58, p<.001), social relationships (r=.68, p<.001) and environment (r=.47, p<.001). Psychological has significant positive correlation with social relationships (r=.51, p<.001) and environment (r=.58, p<.001). Social relationships is significantly positively correlated with environment (r=.52, p<.001).

Table 4

Multiple Linear Regression analysis to health-related quality of life and its domain by Optimism and Perceived Social Support (N=219)

Variables	B	SE	β	*p*	95% CI
Constant	60.72	6.03		.00	[48.82,72.62]
LOTR	.37	.30	.07	.21	[-.21,.97]
MSPSS	.43	.06	.42	.00	[.30,.55]
Physical health					
Constant	10.229	1.1		.00	[7.89,12.56]
LOTR	.05	.05	.05	.39	[-.06,.16]
MSPSS	.04	.01	.25	.00	[.02,.07]
Psychological health					
Constant	8.49	1.10		.00	[6.31,10.66]
LOTR	.16	.55	.20	.00	[.06,.27]
MSPSS	.03	.01	.22	.00	[.01,.06]
Social Relationships					
Constant	10.23	1.38		.00	[7.50,12.97]
LOTR	-.02	.06	-.21	.74	[-.15,.11]
MSPSS	-.08	.01	.38	.00	[-.05,.11]
Environment					
Constant	8.78	1.16		.00	[6.48,11.08]
LOTR	-.00	.05	-.00	.91	[-.12,.10]
MSPSS	.09	.12	.49	.00	[.07,.12]

Note: LOTR = Life orientation test revised, MSPSS = Multidimensional scale of perceived social support, β = standardized regression coefficient, R^2 = R square, ΔR^2 = Adjusted R square

Table 4 shows that health related quality of life was significantly predicted by perceived social support with β=.42. The value of R^2 of .20 shows that there is 20% variance in the outcome variable. The model fit is significant (*F*=28.40,*p*=.000). Physical health was significantly predicted by perceived social support with β=.25. The value of R^2 of .07 shows that there is a 7% variance in the outcome variable. The model fit is significant (*F*=8.72,*p*=.000).

Psychological Health was significantly predicted by optimism and perceived social support with $\beta = .20$ and $\beta = .22$ respectively . The R^2 value of .11 reveals that predictors explained 11% variance in the outcome variable. The model fit is significant ($F = 14.77$, $p = .000$). Social relationship was significantly positively predicted by perceived social support with $\beta = .38$. The value of R^2 shows that there is 14% variance in the outcome variable. The model fit is significant ($F = 18.51$, $p = .000$). Environment was significantly predicted by perceived social support with $\beta = .49$. The value of R^2 shows that there is a 24% variance in the outcome variable. The model fit is significant ($F = 34.37$, $p = .000$).

Table 5

Independent Sample t-test Analysis between genders on the variables Optimism, Perceived Social Support and Health Related Quality of Life (N=219)

Variables	Male (n=152)		Female (n=67)		t(217)	p	Cohen's d
	M	*SD*	*M*	*SD*			
LOTR	19.54	2.56	19.93	2.24	-1.06	.28	0.16
MSPSS	56.72	12.77	63.06	6.84	-3.82	.00	0.61
Significant other	16.52	5.32	17.68	3.89	-1.60	.07	0.24
Family Subscale	17.51	3.77	19.60	2.85	-4.04	.00	0.62
Friend Subscale	15.67	4	18.45	2.75	-5.15	.00	0.80
Physical Health	13.76	2.23	14.25	1.84	-1.57	.11	0.23
Psychological	13.93	2.42	14.56	1.67	-2.12	.03	0.30
Social Relationships	3.69	.67	3.81	.59	-1.23	.52	0.09
Environment	14.02	2.35	15.40	1.97	-4.17	.00	0.63

LOTR = Life Orientation Test Revised, MSPSS = Multidimensional Scale of Perceived Social Support, M= Mean, SD=Standard Deviation

Table 12 revealed significant differences among males and females on MSPSS with t (217) = -3.82, p<.001. Finding showed that female patients had higher scores in MSPSS (M=63.06,SD=6.84) as compared to males (M=56.72, SD=12.77). The value of Cohen's d was 0.61 (<0.08) which depicted medium effect size. There is a significant difference among male and female on family subscale with t (217)= -4.04, p<.001. Findings show that female patients scored high on family subscale (M=19.60, SD=2.85) as compared to males (M=17.51, SD=3.77). The value of Cohen's d was 0.62 (<0.08) which shows medium effect size. Further findings revealed that there were significant differences among males and females in friend subscale with t(217)= -5.15, *p*<.001. Females exhibited higher scores in friend subscale (M= 18.45, SD= 2.75) as compared to males (M= 15.67, SD=4). The value of Cohen's d was 0.80

which indicated a large effect size. Further, results revealed significant differences among males and females on psychological health with t (217) = -2.12, p<.05. Finding revealed that female patients had higher scores in psychological health (*M*=13.93,*SD*=2.24) as compared to males (*M*=14.56, *SD*=1.67). The value of Cohen's d was 0.09 (<0.03) which indicated small effect size. There is a significant difference among males and females on environment with t(217) = -4.17, p<.001. Findings revealed that females exhibit higher score on environment (M=15.40, SD=1.97) as compared to males (M=14.02,SD=2.35). The value of Cohen's d was 0.63 (<0.8) which indicated a medium small effect size.

Table 6

Independent Sample t-test Analysis between individuals who take diabetic medication and who do not on the variables Optimism, Perceived Social Support and Health Related Quality of Life (N=219)

Variables	Medication (n=124)		No Medication (n=95)				Cohen's
	M	SD	M	SD	t(217)	p	d
LOTR	20.28	2.02	18.84	2.76	4.44	.00	0.59
MSPSS	60.52	10.38	56.24	12.77	2.73	.00	0.36
Significant other	17.78	4.38	15.69	5.39	3.16	.00	0.42
Family Subscale	18.32	3.55	17.93	3.77	.77	.43	0.10
Friend Subscale	17.03	3.60	15.86	4.13	2.22	.03	0.30
Physical Health	14.02	2.12	13.77	2.15	.85	.39	0.11
Psychological	14.31	1.99	13.87	2.45	1.56	.12	0.19
Social Relationships	15.39	3.57	14.54	2.45	1.97	.04	0.27
Environment	14.75	2.14	14.04	2.50	2.25	.02	0.30

LOTR = Life Orientation Test Revised, MSPSS = Multidimensional Scale of Perceived Social Support, M= Mean, SD=Standard Deviation

Table 14 revealed significant differences among individuals who take medication and individuals who do not in LOTR with t (217) = 4.44, p<.001. Finding revealed that medicated individuals exhibited higher scores in LOTR (M=20.28,SD=2.02) as compared to non-medicated individuals (M=18.84, SD=2.76). The value of Cohen's d was 0.59 (<0.8) which indicated medium effect size. There is a significant difference among individuals who take medication and individuals who do not in MSPSS with t (217)=2.73, p<.05. Findings show that medicated individuals exhibited higher scores in MSPSS (M=60.52, SD=10.38) as compared to non-medicated individuals (M=56.24, SD=12.77). The value of Cohen's d was 0.36 (<0.5) which

indicated small effect size. Further findings revealed that there were significant differences among individuals who take medication and individuals who do not in significant with $t(217)$, $p<.05=3.16$. The medicated individuals exhibited higher scores in significant other (M= 17.78, SD= 4.38) as compared to non-medicated individuals (M=15.69, SD=5.39). The value of Cohen's d was 0.4 (<0.5) which indicated a small effect size. There were significant differences among individuals who take medication and individuals who do not in friend subscale with $t(217) = 2.22$, $p<.05$. Findings revealed that medicated individuals exhibited higher scores on friend subscale (M=17.03, SD=3.60) as compared to non-medicated individuals (M=15.86,SD=4.13). The value of Cohen's d was 0.30 (<0.5) which indicated small effect size. There were significant differences among individuals who take medication and individuals who do not in social relationships with $t(217)=1.97$, $p<.05$. Findings revealed that medicated individuals exhibited higher scores in social relationships (M=15.39, SD=3.57) as compared to non-medicated individuals (M=14.54,SD=2.45). The value of Cohen's d was 0.27 (<0.3) which indicated a small effect size. There were significant differences among individuals among individuals who take medication and individuals who do not in environment with $t(217)=2.25,p<.05$. The finding revealed that medicated individuals exhibited higher scores in environment (M=14.75,SD=2.14) as compared to non-medicated individuals (M=14.04,SD=2.50). The value of Cohen's d was 0.30(<0.5) which indicated a small effect size.

CHAPTER IV

DISCUSSION

The objective of the current study was to explore the nature of relationships between perceived social support, optimism, and HRQoL among patients of type II diabetes. This study explore the how the study variables associate and the nature of their relationship.

The reliability of coefficients was determined after running reliability analysis on the scales and subscales of Life Orientation Test Revised, Multidimensional Scale of Perceived Social Support and WHOQOL-BREF. After running reliability analysis, evidence of appropriate reliability was observed (Table 2) on the scales and subscales of Life Orientation Test Revised, Multidimensional Scale of Perceived Social Support and WHOQOL-BREF except that of social relationships that is domain of health-related quality of life which as consistent with another research which reported low reliability (Nedjat et al., 2008). These findings revealed that our data was reliable and consistent enough that we could measure and score the data provided by our participants.

This study provided psychometric evidence that variables Optimism, Perceived Social Support and HRQoL could be studied together and further relationship between these variables can be studied.

The initial hypothesis made in this study was that a connection would exist between optimism, perceived social support, and HRQoL. The outcomes of the research (Table 3) confirmed this hypothesis, indicating a significant positive correlation between optimism and various domains of HRQoL, namely physical health, psychological well-being, and environmental factors. These findings align with previous research by Segovia et al. (2015), which demonstrated a strong correlation between optimism and both physical and psychological health. Additionally, the study's results indicated a significant positive correlation between

perceived social support and HRQoL, further supporting previous literature findings that established a link between social support and overall well-being (Farajzadeh et al., 2017).

The second hypothesis in this study posited that both optimism and perceived social support would serve as predictors of HRQoL among diabetic patients. The research findings of this study demonstrated that perceived social support and its domain friend subscale, significantly predicted health-related quality of life. However, significant others within perceived social support domain only predicted social relationships and the environment domains of HRQoL. These outcomes align with previous research, such as the study by Zhou et al. (2008), which indicated that individuals who received social support experienced improvements in their quality of life.

While research findings showed that optimism only predicted psychological domain. These findings were consistent with existing literature which suggested that optimism directly influences psychological health (Desrumaux et al., 2015). Furthermore, optimism did not predict physical health, social relationships and environment. A possible explanation for these results can be through a study that concluded that there was a negative relationship between cellular immunity and optimism when stressors were either persistent or long term, as they are in chronic diseases (Segerstrom 2005). This could be the reason that optimism did not predict physical health among diabetic patients.

The third hypothesis of this study was that there will be differences among male and female diabetic patients on variables optimism, perceived social support and HRQoL. The research findings were consistent with our hypothesis (Table 8) as female patients were found to have better perceived social support, support from their family and friends. These findings were consistent with existing literature that concluded women had higher levels of social support and perceived family support was also found to be greater than men (Hasanpour et al.,2014)

Female diabetic patients were also found to have better psychological health and environment. The possible explanation for these finding could be that women are less stigmatized and seek help regarding mental health issues (Judd et al., 2008).

The third hypothesis of this study was that there will be difference in optimism, perceived social support and health related quality of life who take diabetic related medication and who do

not. The study's results (Table 14) depicted those patients who took diabetic related medication had higher levels of optimism as compared to patients who did not. A possible explanation for this finding can be that optimistic individuals are likely to engage in healthy behaviors (Boehm et al., 2108). In another study optimistic individuals were likely to have superior cardiovascular health as they engaged in better healthier behaviors e.g., exercise and healthy diet (Amonoo et al., 2021). This indicates that optimistic individuals are likely to engage in behaviors that promote or benefit their health, in turn increasing their health-related quality of life.

This study also indicated that patients who took diabetic related medications received better social support, also scored high on significant other and friend subscale, social relationship, and environment as compared to patients who did not take medication. Diet control and glucose monitoring are essential behaviors in diabetes management, both have been found to be highly associated with social support (Schiøtz et al.,2012) .

Conclusion

In conclusion, our findings support the correlation hypothesis put forth in our study, indicating a significant positive correlation between optimism, perceived social support, and health-related quality of life. Moreover, our results indicate that perceived social support may be a stronger predictor of health-related quality of life compared to optimism. Specifically, we found that perceived social support was a significant predictor of health-related quality of life.

Limitation and Future Considerations

The sample size of female and male patients was not equivalent and permission exclusively from diabetic center could not be granted, this limitation can be incorporated into future studies. Future studies could explore the relationship between optimism and health related quality of life extensively.

Implications

- The results of this study can be useful in recognizing the relation between perceived social support and health-related quality of life.
- Healthcare professionals can use the results of this study to better help diabetic patients to enhance their quality of life.

- Results have shown that the role of social support is essential in predicting better health outcomes.

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APPENDICES

APPENDIX A- Consent Form

This study is being conducted by students (Ahmad Hassan and Muhammad Ibrahim) of Bahria University, Department of Professional Psychology, Islamabad under the supervision of Ms. Iqra Fatima. The purpose of this research is to find the relationship between optimism, perceived social support, and health related quality of life among type II diabetic patients. These questionnaires will only take 10 to 15 minutes to complete. You are requested to answer each question honestly as these will affect the outcomes of the study. Information provided by you will exclusively be used in this study and will be kept confidential. If you are interested in knowing the results or have any questions regarding this study, you may email us on the email provided below.

"I hereby confirm my participation in this research project, in which my identity will be kept confidential. I have the right to withdraw my participation in this research project at any point without any penalties."

Signature: _____

Date: _____

Email: ahmadhassan2228@gmail.com

iqrafatima.buic.@bahria.edu.pk

APPENDIX B-Demographic Information Sheet

Age	
Gender	Male
	Female
Marital Status	Single
	Married
	Divorced
	Widowed
	Nuclear Family
	Joint Family
Level of Education	Matric
	Intermediate
	Graduate
	Post-graduate
	Doctorate
Occupation	
Household Income	
Duration of Diabetes	
Diabetic Treatment/Medication	Yes
	No
Family History of Diabetes	Yes
	No
Any other Medical Condition	Yes
	No
Any Physical Disability	Yes
	No
Any psychiatric disorder	Yes
	No

APPENDIX C -Permission to use WHOQOL-BREF

ID: 392760 Permission authorization for WHO copyrighted material Inbox ×

permissions@who.int   Thu, Apr 6, 5:10 PM
to me, permissions ▾

Dear Mr Hassan,

Thank you for submitting the online form and for your interest in World Health Organization (WHO) Quality of Life materials.

On behalf of WHO, we are pleased to authorize your request to reproduce, reprint and/or translate WHOQOL tools and instruments as detailed in the form below, subject to the terms and conditions of the non-exclusive licence below.

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We thank you for your interest in WHO published materials.

Kind regards,
WHO Permissions team

APPENDIX D- Permission to use Multidimensional Scale of Perceived Social Support

Zimet Gregory D   Apr 6, 2023, 5:10 PM ☆ ↩ ⋮
to me, permissions ▾

Dear Mr Hassan,

You have my permission to use the Multidimensional Scale of Perceived Social Support (MSPSS) in your research. I have attached several documents: 1. A copy of the original English version of the scale, with scoring information on the 2nd page, 2. A document listing several articles that have reported on the reliability and validity of the MSPSS (references #19, #24, and #29 all report on Urdu versions of the scale); 3. A chapter on the MSPSS, and 4. Copies of two Urdu translations and an article on the Tonsing translation (you have my permission to use the Tonsing translation). If you wish to use the Urdu translation labeled "MSPSS - Urdu Translation - 2014" you should email the translator, Dr. Rukhsana Kausar (rukhsana saddul@gmail.com). I hope your research goes well. Best regards, Greg Zimet

APPENDIX E – Permission to use Life Orientation Test Revised

Title
Life Orientation Test

Acronym
LOT

Digital identifier ⓘ
DOI: 10.1037//0022-3514.67.6.1063

Creator
Scheier, Michael F.
Carver, Charles S.
Bridges, Michael W.

Description
The Life Orientation Test (LOT) was developed by Scheier & Carver in 1985 to assess individual differences in generalized optimism versus pessimism. A decade later it was revised as the LOT-R to improve the scale's accuracy in measuring optimism.

The LOT is a brief measure of how optimistic or pessimistic individuals feel about the future and has been widely used in research on the impact of optimism and pessimism research. Assessment is conducted through a 10-item Likert Scale questionnaire. Its brevity makes it ideal for use in projects in which many measures are being used. The LOT and LOT-R are not intended for clinical applications. There are no "cut-offs" for optimism or pessimism; and the authors use it as a continuous dimension of variability.

Theme
Mental health;Wellbeing

Subject
Dispositional optimism, pessimism, coping, self-regulation

Permission to use
Free to use

Permission details
The LOT-R is openly available from Charles S. Carver on the website of the Department of Psychology at the University of Miami (see link at bottom of page). The authors must be acknowledged and cited in any new publication which uses the LOT or LOT-R.

APPENDIX F – Permission for Data Collection

Bahria University
Discovering Knowledge

03-Apr-2023

TO WHOM IT MAY CONCERN

REQUEST FOR DATA COLLECTION

It is stated that **Mr. Ahmad Hassan** Enrollment No. 01-171192-106 is a student of BS Psychology (8th Semester) Bahria University Islamabad Campus conducting research on **"Relationship between optimism, perceived social support and health related quality of life among type II diabetics"** under supervision of undersigned. It is requested that kindly allow him to collect the data from your esteemed institution.

Regards,

Iqra Fatima
Lecturer
Bahria School of Professional Psychology (BSPP)
Bahria University
E-8 Islamabad

DR. ALIA FAROOQ
FCPS-II PGR Internal Medicine GMTI
Pakistan Institute of Medical Sciences
(PIMS) Islamabad

12/4/23

Department of Professional Psychology Shangrilla Road E-8 Islamabad
Tel: 051-9260002 Ext. No. 1406 Fax: 051-9260889

Bahria University
Discovering Knowledge

03-Apr-2023

TO WHOM IT MAY CONCERN

REQUEST FOR DATA COLLECTION

It is stated that **Mr. M. Ibraheem** Enrollment No. 01-171192-084 is a student of BS Psychology (8th Semester) Bahria University Islamabad Campus conducting research on "**Relationship between optimism, perceived social support and health related quality of life among type II diabetics**" under supervision of undersigned. It is requested that kindly allow him to collect the data from your esteemed institution.

Regards,

Iqra Fatima
Lecturer
Bahria School of Professional Psychology (BSPP)
Bahria University
E-8 Islamabad

DR. ALLIA FAROOQ
FCPS-II, PGR Internal Medicine GMT1
Pakistan Institute of Medical Sciences
(PIMS), Islamabad

02/4/23

Department of Professional Psychology Shangrilla Road E-8 Islamabad
Tel: 051-9260002 Ext. No. 1406 Fax: 051-9260889

APPENDIX G-Life Orientation Test Revised (LOTR)

Instructions:

Please answer the following questions about yourself by indicating the extent of your agreement using the following scale:

|0| = strongly disagree
|1| = disagree
|2| = neutral
|3| = agree
|4| = strongly agree

Be as honest as you can throughout, and try not to let your responses to one question influence your response to other questions. There are no right or wrong answers.

_____ 1. In uncertain times, I usually expect the best.
_____ 2. It's easy for me to relax.
_____ 3. If something can go wrong for me, it will.
_____ 4. I'm always optimistic about my future.
_____ 5. I enjoy my friends a lot.
_____ 6. It's important for me to keep busy.
_____ 7. I hardly ever expect things to go my way.
_____ 8. I don't get upset too easily.
_____ 9. I rarely count on good things happening to me.
_____ 10. Overall, I expect more good things to happen to me than bad.

APPENDIX H – Multidimensional Scale of Perceived Social Support (MSPSS)

Circle the "1" if you **Very Strongly Disagree**
Circle the "2" if you **Strongly Disagree**
Circle the "3" if you **Mildly Disagree**
Circle the "4" if you are **Neutral**
Circle the "5" if you **Mildly Agree**
Circle the "6" if you **Strongly Agree**
Circle the "7" if you **Very Strongly Agree**

		Very Strongly Disagree	Strongly Disagree	Mildly Disagree	Neutral	Mildly Agree	Strongly Agree	Very Strongly Agree
1.	There is a special person who is around when I am in need.	1	2	3	4	5	6	7
2.	There is a special person with whom I can share joys and sorrows.	1	2	3	4	5	6	7
3.	My family really tries to help me.	1	2	3	4	5	6	7
4.	I get the emotional help & support I need from my family.	1	2	3	4	5	6	7
5.	I have a special person who is a real source of comfort to me.	1	2	3	4	5	6	7
6.	My friends really try to help me.	1	2	3	4	5	6	7
7.	I can count on my friends when things go wrong.	1	2	3	4	5	6	7
8.	I can talk about my problems with my family.	1	2	3	4	5	6	7
9.	I have friends with whom I can share my joys and sorrows.	1	2	3	4	5	6	7
10.	There is a special person in my life who cares about my feelings.	1	2	3	4	5	6	7
11.	My family is willing to help me make decisions.	1	2	3	4	5	6	7
12.	I can talk about my problems with my friends.	1	2	3	4	5	6	7

APPENDIX I – WHO Quality of Scale Bref (WHOQOL-BREF)

Please read each question, assess your feelings, and circle the number on the scale for each question that gives the best answer for you.

		Very poor	Poor	Neither poor nor good	Good	Very good
1(G1)	How would you rate your quality of life?	1	2	3	4	5

		Very dissatisfied	Dissatisfied	Neither satisfied nor dissatisfied	Satisfied	Very satisfied
2 (G4)	How satisfied are you with your health?	1	2	3	4	5

The following questions ask about **how much** you have experienced certain things in the last two weeks.

		Not at all	A little	A moderate amount	Very much	An extreme amount
3 (F1.4)	To what extent do you feel that physical pain prevents you from doing what you need to do?	1	2	3	4	5
4(F11.3)	How much do you need any medical treatment to function in your daily life?	1	2	3	4	5
5(F4.1)	How much do you enjoy life?	1	2	3	4	5
6(F24.2)	To what extent do you feel your life to be meaningful?	1	2	3	4	5

		Not at all	A little	A moderate amount	Very much	Extremely
7(F5.3)	How well are you able to concentrate?	1	2	3	4	5
8 (F16.1)	How safe do you feel in your daily life?	1	2	3	4	5
9 (F22.1)	How healthy is your physical environment?	1	2	3	4	5

The following questions ask about **how completely** you experience or were able to do certain things in the last two weeks.

		Not at all	A little	Moderately	Mostly	Completely
10 (F2.1)	Do you have enough energy for everyday life?	1	2	3	4	5
11 (F7.1)	Are you able to accept your bodily appearance?	1	2	3	4	5

12 (F18.1)	Have you enough money to meet your needs?	1	2	3	4	5
13 (F20.1)	How available to you is the information that you need in your day-to-day life?	1	2	3	4	5
14 (F21.1)	To what extent do you have the opportunity for leisure activities?	1	2	3	4	5

WHOQOL-BREF
Page 4

		Very poor	Poor	Neither poor nor good	Good	Very good
15 (F9.1)	How well are you able to get around?	1	2	3	4	5

The following questions ask you to say how **good or satisfied** you have felt about various aspects of your life over the last two weeks.

		Very dissatisfied	Dissatisfied	Neither satisfied nor dissatisfied	Satisfied	Very satisfied
16 (F3.3)	How satisfied are you with your sleep?	1	2	3	4	5
17 (F10.3)	How satisfied are you with your ability to perform your daily living activities?	1	2	3	4	5
18 (F12.4)	How satisfied are you with your capacity for work?	1	2	3	4	5
19 (F6.3)	How satisfied are you with yourself?	1	2	3	4	5
20 (F13.3)	How satisfied are you with your personal relationships?	1	2	3	4	5
21 (F15.3)	How satisfied are you with your sex life?	1	2	3	4	5
22 (F14.4)	How satisfied are you with the support you get from your friends?	1	2	3	4	5
23 (F17.3)	How satisfied are you with the conditions of your living place?	1	2	3	4	5
24 (F19.3)	How satisfied are you with your access to health services?	1	2	3	4	5
25 (F23.3)	How satisfied are you with your transport?	1	2	3	4	5

The following question refers to **how often** you have felt or experienced certain things in the last two weeks.

		Never	Seldom	Quite often	Very often	Always
26 (F8.1)	How often do you have negative feelings such as blue mood, despair, anxiety, depression?	1	2	3	4	5