

Lifestyle, Personality Traits and Anger as predictors of Psychosocial problems and Marital Satisfaction of Patients with Type 2 Diabetes

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The current study's goal was to find out how psychosocial problems are related to anger, personality traits and lifestyle and marital satisfaction in patients with type II diabetes. Purposive sampling technique was used for the selection of 400 type 2 patients of diabetes with age range of 30-60 years ($M = 49.22$, $SD = 7.68$). Design used in this research was Cross-sectional. Questionnaires used were "Psychosocial problems scale for type II diabetes, Dimensions of Anger Reactions-Revised, Couples Satisfaction Index, Big Five Inventory." Patient's lifestyles were analyzed by filling out a demographic questionnaire with questions about their "physical activity, smoking, and BMI". According to the findings, exogenous factors were responsible for 29% of the variation in marital satisfaction and 19% of the variation in psychosocial disorders. Results also suggest that exogenous variables anger, and neuroticism are significantly predicting marital satisfaction and psychosocial problems respectively, which are the endogenous variables, which shows that less anger predicts more marital satisfaction and high neuroticism predicts more psychosocial problems. On the basis of findings, it was concluded that Type 2 diabetic patients who express less anger are more likely to live a satisfied married life. Moreover, that high neuroticism predicts more psychosocial problems.

Keywords. Psychosocial problems, type 2 diabetics, path analysis

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One of the most serious medical problems of the present day is diabetes mellitus. The most prevalent kind of diabetes is type 2. Since international diabetes federation's (IDF) most recent figures were released in 2019, the prevalence of diabetes in Pakistan has considerably grown. 33 million individuals in Pakistan will have diabetes in 2021, a 70% rise from 2019. As a result, After China (141 million) and India (74 million), Pakistan now has the third-highest number of diabetic patients globally ([International Diabetes Federation \[IDF\], 2021](#)).

The growth of type 2 diabetes is influenced by several variables, including a sedentary lifestyle and the intake of unhealthy foods. Although, not all diseases may be averted, but a substantial number of fatalities can be avoided by changing one's lifestyle, particularly in the case of cardiovascular and lung diseases, as well as diabetes ([Reddy, 2017](#)). Healthy living encompasses not just illness prevention, but also biological, mental, and social well-being, and when a healthier way of living is adopted, family members, especially children, will do better following positive role models ([World Health Organization \[WHO\], 2000](#)). Various studies show that type 2 diabetes may be prevented by altering one's lifestyle, increasing physical activity, and eating a nutritious diet ([American Diabetes Association \[ADA\], 2013](#); [Boule et al., 2013](#)).

In research done by [Javed et al. \(2014\)](#) on Pakistani diabetes patients, it was discovered that 44% of participants (sometimes) and 25% of participants (always) noticed the change in their behaviour, however 31% of participants had never observed the difference in their behaviour. Less than one-third of individuals frequently see doctors to control their sickness, 48% have no hope for a cure, 40% believe they have become a liability to their coworkers, and 28% experience sadness. Only 26% are aware of the significance of exercise in disease management. More than half of the participants in the study had to alter their lives as a result of their diabetes, and fewer people (5%) felt that their condition has harmed their marriage.

Along with lifestyle, diabetic's personality tendencies make their condition worse and make it more difficult to manage since they make them more likely to have bodily reactions to their mental stress. ([Marks, 2001](#)). The way we think, feel, and act is strongly influenced by our personalities. [Allport \(1937\)](#) defines "personality is the dynamic organization within the individual of those psychophysical systems that determine his characteristics behaviour and thought" (p. 28). Studies suggest certain personality traits play a protecting role in conditions like diabetes and heart problems, some patients can thrive with these problems better with certain traits ([Geerling, 2018](#)).

Personality characteristics have been related to diabetes, along with emotional turmoil and marital happiness. Literature indicates that emotional instability of a spouse, as well as a lower degree of Agreeableness, Conscientiousness, and Openness, are all connected to marital unhappiness. As a result, a spouse's personality traits have a significant influence on their relation, resulting in marital relationship satisfaction or breakup or divorce. ([Stone & Shackelford, 2007](#)). In accordance with a different research, type 2 diabetes patients who scored higher on conscientiousness were more likely to take their prescriptions, self-monitor glucose levels in their blood, and were less prone towards smoking or be fat (compared to those who scored lower on this factor?). The strong relationship between neuroticism and HbA1C levels was demonstrated in a similar study. This personality trait exhibits characteristics such as anxiety, impulsivity, anger and aggressiveness, despair, self-consciousness, and vulnerability, and is typically accompanied by unpleasant emotions. The physiological effects of depression, anxiety, and anger may cause an increase in blood sugar levels, and many of these also have negative effects on the patient's self-care behaviours ([Wheeler et al., 2012](#)). As a result, the patient may be less motivated to pursue treatment.

Another study was conducted to explore Higher conscientiousness scores and lower neuroticism scores were shown to be related with increased quality of life (QOL) in the physical health domain when the connections between personality characteristics and QOL in older individuals with diabetes were examined. Greater QOL in the psychological health area was linked to higher extraversion and conscientiousness scores. In the domain of social relationships, higher agreeableness ratings were linked to better QOL. In the environment domain, increased QOL was linked to higher agreeableness ratings and lower neuroticism scores. Among senior patients with diabetes mellitus, personality characteristics were strongly correlated with all QOL dimensions ([Woon et al., 2021](#)).

Life of patients with type 2 diabetes is very difficult, especially for those who have impaired glycemic control and are undergoing intensive treatment, which can lead to psychological issues ([Karlsen et al., 2012](#)), such as frustration and anger. ([Penckofer et al., 2007](#)). Anger is a normal, universal feeling that results from unmet goals, expectations, and desires. It has the capacity to escalate into violent, catastrophic reactions that manifest as harmful behaviours ([Bodur et al., 2010](#)). The [Australian Psychological Society \(2018\)](#) states that using anger as a coping mechanism might deteriorate relationships with others.

The term "psychosocial problems of a disease" refers to how a condition affects a person's psychological as well as social functioning. Similar to this, common psychosocial issues brought by a diabetes diagnosis include "fear, crying, anger, and feelings of impotence or being out of control,⁴ negative attitudes from family members, difficulty adhering to a treatment plan, especially at work, anxiety about not being able to perform their family responsibilities etc". Type 2 diabetes Mellitus sufferers in Pakistan likewise deal with all of these issues (Ijaz & Ajmal, 2011).

Male patients experience more sexual problems and female experience more psychological problems. However, there was no discernible gender difference in the social issues faced by type 2 diabetes patients (Ijaz et al., 2020)

Through a qualitative study, the type 2 diabetes mellitus experiences of elderly Chinese Singaporean women were examined. Participants reported frequent urination, fatigue, lack of sleep, worry, powerlessness, loss of drive, and hope. They also reported a dread of needles, a high cost for strips, and a lack of compassion. It was found that some patients preferred to keep their illness a secret from their friends out of concern for how it could affect their friendship (Jiemin et al., 2013). It has been reported in another study conducted by Bukhsh et al. (2020) on Pakistani adults with type 2 diabetes mellitus, the most frequently cited barriers to adopting a healthy lifestyle were difficulties in maintaining a healthy diet, especially when socializing, and issues with sticking to their medication intake.

The current study's findings show that psychological load and marital satisfaction are adversely connected because stress, sadness, and anxiety are indicators of low marital satisfaction. Compared to males who were coping with the sickness, women had a greater burden linked to psychological health. The psychological strain and marital happiness varied significantly by gender. In addition, individuals with type 2 diabetes displayed more psychological distress and lower levels of relationship satisfaction than those with type 1 diabetes (Hussain et al., 2019)

According to Rehman et al. (2008), marital issues can be a prelude to depression as well as its aftermath. According to several research, marital discontent is a predictor of upcoming depressive symptoms (Beach & Leary, 1993). According to Rogers and May (2003), marital conflict may also put more stress on other aspects of life, such as job. According to Joo et al. (2015), marital relationships are the best predictors of a person's psychological health and level of happiness in life. According to the study's findings, males are more

likely to experience burnout when marital satisfaction levels rise. This link is more prominent in men ([Bulgakov et al. 2023](#)).

Rationale of Research

Managing diabetes care in daily life, people with type 2 diabetes encounter complex problems that have an impact on their psychological, social, and physical wellness. The prevalence of type 2 diabetes is getting high day by day in Pakistan ([International Diabetes Federation, 2021](#)) and one of the major reasons behind this is sedentary lifestyle. In Pakistan, people no longer perform as much physical labour as they used to, because they now choose labor-saving tools like vacuum cleaners, paint sprays, tractors, etc. to the manual labour that was common before the industrial revolution or have maids at home. Nowadays, most individuals choose to watch TV, play video games, and browse the internet in their leisure time rather than performing sports or working out etc. When diabetic patients do not manage their lifestyles optimally experience changes in mood and may experience disappointment, remorse, or even rage. This could lead to avoiding medical care, denial of disease, reducing or quitting medication and also affects their marital relationships. In Pakistan, like in many other countries, cultural and social factors play a significant role in health and well-being. But in Pakistan not much indigenous work has been done to explore the predictors of psychosocial problems and marital satisfaction among type 2 diabetes. So, the purpose of this research was to find out the lifestyle, personality traits and anger as predictors of psychosocial problems and marital satisfaction of patients with type 2 diabetes in Pakistan. By understanding these factors in the context of Type 2 diabetes, interventions can be culturally appropriate and sensitive to local norms and values.

This will be helpful in identifying and providing support to diabetic patients with psychological difficulties early in the course of their illness as these concerns may impede their ability to adjust or accept the appropriate amount of responsibility for taking care of oneself and to improve their relationships. Thus, lifestyle behaviours like sedentary lifestyle and unhealthy eating are the important factors in the progression of type 2 diabetes but it can be managed or prevented through changing lifestyle, physical activity, stress management and healthy diet which ultimately reduce psychosocial problems and high marital satisfaction among type 2 patients with diabetes. This research can provide valuable insights into the multifaceted nature of diabetes management and support in Pakistan, leading to improved health outcomes, better marital relationships, and

more effective public health interventions. The objective of the present research is to find out the predictors of psychosocial problems and marital satisfaction among patients with type 2 diabetes.

Sample

Sample consist of 400 type 2 diabetic patients (200 men and 200 women). Sample size was determined through G-Power formula (Faul, 2007). Patients of 30 to 60 years old ($M = 49.22$, $SD = 7.68$) was selected through purposive sampling technique. A cross-sectional research design was used in the study. Data was collected from diabetic institute of Pakistan (DIP) and Jinnah hospital, Lahore. Most of the patients had 12 years of education. Patients who were married were selected. The study excluded “pre-diabetics, type 1 diabetics, and women with gestational diabetes.”

Table 1: *Demographic Characteristics of a Sample (N = 400)*

Variables	<i>n</i>	%
Gender		
Female	200	50
Male	200	50
Age in Years		
30y-45	180	45
46y -60	220	55
Education		
Uneducated	67	16.8
Up to FA	188	47
BA and above	145	36.3
Illness duration in Years		
1month-10	293	73.3
11y-20	95	23.8
21y-30	12	3.0
Insulin		
Oral	211	52.8
Injection	189	47.3
Duration of Marriage in years		
1-10	28	7.0
11y-20	90	22.5
21y-30	172	43.0
31y-40	110	27.5
Monthly income		
Below 50,000	326	81.5
Above 50,000	74	18.5

Instruments

Psychosocial problems scale for type 2 diabetes (PPSTD)

The psychosocial Problems Scale for Type-2 Diabetes was developed by [Ijaz et al. \(2020\)](#). It is a five point Likert scale for type 2 diabetes. The PPSTD is made up of 45 items comprising three subscales: “sexual, social, and psychological.” Each sub-scale has 7, 22, and 16 items respectively. It is a five-point rating scale where scoring options range 0 to 4. Reliability of scale is .96 and reliability of subscales are .81 (psychological), .95 (social) and .87 (sexual). Whereas KMO is .91 ([Ijaz et al., 2020](#)). 89 is the cutoff score of the scale. Higher scores indicate more psychosocial problems among patients with Type-2 diabetes.

Dimensions of Anger Reactions-Revised (DAR-R)

In 1975, Novaco developed “the Dimensions of Anger Reactions.” The scale has seven items. The response options ranged from 0 (*never*) to 4 (*very much*). DAR-R is a scale that evaluates how angry you are towards other people. The DAR-R is a psychometrically sound and reliable scale. The test-retest reliability of DAR-R items was .86. It had a correlation of .76, .65, and .61 with “PCL-C, STAXI Anger Out, and STAXI Anger In” ([Forbes et al., 2004](#)). Equal weightage was given to each item, and the scale was scored by adding the scores; higher values indicate an angrier personality ([Novaco et al., 2012](#)).

Couples Satisfaction Index (CSI-16)

[Funk and Rogge \(2007\)](#) developed CSI-16 to measure marital satisfaction with 16 items. One item has a seven-point scale: “Please indicate the degree of happiness, all things considered, in your relationship,” with 0 indicating *extreme dissatisfaction* and 6 indicating *perfect satisfaction*. The other items, on the other hand, have 6-point scales. Cronbach's coefficient was .98 for the entire scale ([Funk & Rogge, 2007](#)). The sum of the point values for each response determines the final score, which can be between 0 and 81. numbers over 51.5 indicate significant relationship satisfaction, while numbers below 51.5 indicate significant relationship discontent.

Big Five Inventory (BFI)

This scale was constructed by [John and Srivastava \(1999\)](#). The BFI's reliability was generally between .79 and .88 ([Benet-Martinez & John, 1998](#)). BFI was translated in Urdu by [Afzal et al. \(2019\)](#). It includes 44 items and assess Openness to Experience, Conscientiousness, Neuroticism, Extraversion, and Agreeableness. Out of 44 items, 16 items have reversed scoring. The items are rated on a 5-point scale, with 1 (*strongly disagree*) to 5 (*strongly agree*) as the alternatives. Alpha reliability of Urdu version was .70. Higher scores on the subscales reflected that, that trait is dominant in person's personality like if someone scores high on Extraversion indicates that person has "positive feelings (emotions) and tendency to seek company of others. Higher scores on Agreeableness indicate towards the tendency to be trusting, compliant, caring, considerate, generous, and gentle" and higher scores on conscientiousness indicates that such people are "purposeful and determined". Whereas people score higher on neuroticism experience "fear, nervousness, sadness, tension, anger, and guilt" and high scores on "openness to experience" is associated with traits like "imaginative, sensitive, original in thinking, attentive to inner feelings, appreciative of art, intellectually curious, and sensitive to beauty."

Patients' Lifestyle

Patients' lifestyles were evaluated by answering demographic questions on "physical activity, smoking, and body mass index (BMI)" Each behaviour was assigned a value of 0, 1, or 2, based on specific criteria for that behaviour. Possible range for Healthy lifestyle (HLS) is 0 to 6. (unhealthy = 0- <3, moderately healthy = 3-4, and healthy >4) ([Sternfeld et al., 2017](#)). Researcher also used a machine to measure the patients' height and weight. Weight/height² (kg/m²) was used to determine BMI. BMI was divided into "underweight, (< 18.5), normal (18.5-25), overweight (25-30) and obese (> 30)" (WHO, 2000).

Procedure

For the purpose of data collection permission was taken from the hospital administration, and also from all the participants. They've also been promised that whatever information they submit would be kept private. All the participants were given instructions on how to fill out the questionnaires, were told to provide original answers and not skip any question. They were told that the information, they provided

would be utilized solely for this study. There will be no breach of confidentiality. Each participant received their own copy of the research protocol. SPSS 21 was used to statistically analyse the data once it was collected. This research has been approved from the departmental ethical committee of Lahore College for women university, Lahore, Pakistan.

Results

Path analysis was used in this research. It is a technique for determining if three or more observable variables have a causal link. Path analysis is commonly utilised in social sciences, especially psychology and sociology (Patrick & Malone, 2019). *Analysis of Moment Structures* (AMOS) was used for path analysis. It is a statistical software. A hypothesized model was constructed by reviewing available literature, to represent the supposed causal relations between the variables, which include exogenous variable lifestyle, anger and personality, whereas endogenous variables include psychosocial problems and marital satisfaction, and control variables were gender, illness and education. As per hypothetical model marital satisfaction and psychosocial problems are influenced by personality, lifestyle, and anger.

Table 2: *Fit Indices for the Initial Model and Good-Fitting Model (N = 400)*

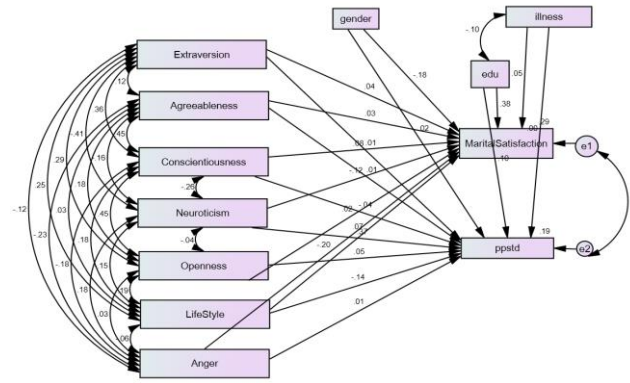
Model	χ^2	df	χ^2/df	GFI	NFI	CFI	RMSEA
Hypothesized model	35.17	25	1.40	.98	.94	.99	.03
First modification	30.16	24	1.25	.98	.95	.99	.02
Best-fitting model	25.78	23	1.12	.98	.96	.99	.01

Note. GFI = goodness of fit index, NFI = normed fit index, CFI = comparative fit index, RMSEA = Root Mean Square Error of Approximation.

The results of fit indices indicated for personality, lifestyle, anger, marital satisfaction and psychosocial problems while controlling the effect of gender, illness and education. Table indicate that chi-square was non-significant ($\chi^2=30.16$, $p =.17$) in the hypothesized model. “CMIN/df = 1.40, NFI = 0.94, CFI = 0.99, GFI = 0.98, and RMSEA = 0.03” were the other fit metrics in the original model. CFI, GFI, and NFI are three often used fit indices by experts to measure the model's goodness of fit and their values should be equal to or better than 0.9. RMSEA less than 0.05 also indicates the best fit

index (Steiger, 1990). In AMOS, Chi-square is given as CMIN, and an insignificant chi-square value implies a strong model fit and that the suggested model is consistent with the data (Wuensch, 2017). The model was good fitted as per the standard criteria in the initial model. Threshold for modification indices was set at four, which indicate that minimal level of chi-square change is required to include any path in the indices for modification (Arbuckle, 2010). On the basis of suggested modification indices (MI), covariance was drawn between error terms e1 and e2 (MI = 4.97, Par Change = 21.95). This was the biggest MI available. According to Arbuckle (2012) Covariances can be added as directed by modification indices between the error terms of endogenous variables that's why covariances were drawn between psychosocial problems and marital satisfaction because literature indicates that psychosocial problems and marital satisfaction are correlated with each other {(Lower *marital satisfaction* cause low *psychological well-being* (Bafrani et al., 2023; Robles et al., 2014) and vice versa (Downward et al., 2022). Moreover, perceived higher social support is positively associated with marital adjustment (Qadir et al., 2013). Furthermore, according to Family Systems Theory (Bowen, 1978), individuals within a family system are interconnected, and issues in one area (e.g., marital dissatisfaction) can affect other areas (e.g., psychosocial problems). This interconnectedness can justify error covariance. The Biopsychosocial Model of Health (Engel, 1977) also supports the idea that physical, psychological, and social factors are interconnected. Poor marital satisfaction might impact psychosocial health, leading to covariance between these constructs. After first modification values were "CMIN/*df* = 1.25, NFI = 0.95, CFI = 0.99, GFI = 0.98 and RMSEA = 0.02." Estimates were again calculated and on the basis of MI, covariance was drawn between two control variables i.e., illness and education (MI = 4.35, Par Change = .038). Here the suggested approach is to pick the most meaningful MI, rather than the highest MI (Joreskog & Sorbom, 1993). After drawing covariance between two controlled variables (illness and education), values improved and chi-square was found to be non-significant ($\chi^2 = 25.78$, $p = .31$) in the good-fitting model. While other fit metrics of a good-fitting model also highlight the model's quality of fit to the data, NFI and RMSEA values showed minimal improvement "CMIN/*df* = 1.12, NFI = 0.96, CFI = 0.99, GFI = 0.98 and RMSEA = 0.01."

Figure 1. A Good-Fitting Path Diagram Representing Standardized Regression Coefficients of Type 2 Diabetes (N = 400)



The estimates to be evaluated for direct effects of personality, lifestyle, anger, marital satisfaction, and psychosocial problems of type 2 diabetic patients with 5000 bootstrapped sample (Hayes, 2013) after achieving the model fit on the tested data (See Table 2).

Table 3: Standardized Estimates of Direct Effects of Exogenous Variables on the Endogenous Variables

Variables	Psychosocial problems		Marital satisfaction	
	β	SE	β	SE
Agreeableness	.01	.15	.03	.18
Extraversion	.01	.11	.03	.14
Conscientiousness	-.04	.13	.08	.17
Openness	.04	.12	.02	.15
Neuroticism	.37**	.12	-.11	.15
Anger	.00	.09	-.19**	.12
Lifestyle	-.13	.47	.07	.59
R^2	.19*		.29*	

Note. * $p < .05$. ** $p < .01$.

Table 2 shows that the squared multiple correlation (R^2 value) for the standardized direct effect of psychosocial problems and marital satisfaction was .19 and .29, respectively, indicating that exogenous variables could account for 29 percent of variance in marital satisfaction and 19 percent of variance in psychosocial problems. Results also suggest that exogenous variables anger, and neuroticism are significant predictors of endogenous variables marital satisfaction

and psychosocial problems respectively, which shows that less anger predicts more marital satisfaction and high neuroticism predicts more psychosocial problems.

Discussion

Chronic diseases like diabetes greatly affect physical activity and social performance of individuals ([Centers for disease control and prevention \[CDC\], 2002](#)). Various diseases cause physical stress in patients, but the relationship difficulties they face are unexpectedly similar ([Lyons, 1999](#)). They can alter the dynamics of illness, economy, social activities, and dealings ([Kaye & Gracely, 1993](#)). Results of the current research revealed that personality traits and anger are significant predictors of psychosocial problems. According to the findings, a significantly positive indicator of psychosocial issues is neuroticism; high neuroticism predicts more psychosocial problems. Previous research supports these findings, high neuroticism is associated with feelings of hopelessness, anger, anxiety, sorrow, guilt, and frustration, as well as a reduced capacity to cope with stress ([Lane et al., 2000](#)). Another study found that extraversion, Agreeableness and Neuroticism are significantly associated with the symptoms of depression. This suggests that people with type 2 diabetes mellitus may experience depression symptoms differently depending on their personality ([Yasui-Furukori et al., 2019](#)). It was also found from the previous literature that persons exhibiting high levels of neuroticism are more vulnerable to mental illness and are more receptive to stressful information ([Yang et al., 2020](#)). Moreover, low neuroticism was associated with less diabetes distress, according to a longitudinal research ([Sanatkar et al., 2020](#)), which raises the possibility that neuroticism specifically causes diabetes distress.

Similar results were obtained from a research by [Huang et al. \(2021\)](#), which showed that neuroticism was positively connected with diabetic distress, anxiety, and cognitive fusion. Additionally, people with diabetes who are getting treatment for various mental health issues have been shown to be angrier than people without diabetes ([Kolbasoysky, 2004](#)). Results of the current research also revealed that personality traits and anger are significant predictors of marital satisfaction. Previous literature also supports the findings that lifestyle and marital contentment are shown to be positively connected ([Alipour et al., 2015](#)). Similar study was done by [Javed et al. \(2014\)](#) to explore the attitudes and behaviors of adult Pakistani diabetic patients towards their disease and found 44% (sometimes) and 25% (always) acknowledged the change in their behavior, but 31% of never noticed

the change in their behavior. The study also pointed out that 50% of participants had to alter their lives as a result of their diabetes, and fewer (5%) individuals think that their condition has impacted their marriage. With reference to the association between personality characteristics and marital satisfaction. Studies have shown that marital happiness is significantly predicted by the core personality traits of neuroticism, extroversion, and conscientiousness (Najarpourian et al., 2012). Results indicate that type 2 diabetic patients who express less anger are more likely to live a satisfied married life. Similar findings have been found from the previous literature that showed disease causes psychological problems (Franks et al., 2012; Hagedoorn et al., 2008) like both partners' experience marital strife (Badr & Taylor, 2009). To investigate the effects of psychological strain on patients' levels of marital life, Trief et al. (2001) conducted correlational study. The study's findings suggest that diabetes patients' psychological burden considerably affects their level of marital satisfaction. Along with this, it was determined that there was a strong relationship between psychological burden and marital satisfaction in relation to participant demographics including gender, illness type, education level, and employment position. In contrast to male patients, female patients were shown to have lower levels of marital satisfaction while having higher stated levels of psychological stress. A study on the effect of psychological pressure on marital satisfaction in Pakistan was carried out by Hayat et al. in 2024. The results show a negative correlation between psychological strain and marital satisfaction. In addition, psychological burden is a strong inverse predictor of marital satisfaction.

According to Papp et al. (2007), psychiatric disorders in couples, such as depression and anxiety, are concurrently linked to disputes and elevated negative emotions including sorrow, anger, and grief. Additionally, depressed people withdraw more from one another during marital problems, which may potentially be a factor in the depression symptoms they experience. Physical issues that worsen over time result in decreased quality of life, poor psychosocial coping with the disease, difficulties with daily tasks and social interactions, changes in life plans, sexual dysfunction, and decline in performance at workplace (Rezapour et al., 2017). Literature also indicates that married patients face more diabetic discomfort than single individuals. A substantial correlation between diabetic distress and patients' marital status was also found. The pressures and challenges married patients encounter in juggling their diabetes treatment with their family obligations and tasks may be the cause of this important correlation. It also shows difficulties patients may face in restoring

normalcy to their personal lives and overcoming the negative effects that diabetes has had on their marriage (Sakhar et al., 2013; Sherbini & Abdou, 2014).

Agreeableness, extraversion, Conscientiousness, openness to experience and lifestyle were not found significant predictors of psychosocial problems and marital satisfaction in the current study. But the previous literature indicates extraversion and agreeableness as protective factors, and neuroticism as a risk factor for depression in Type 2 diabetes (Yasui-Furukori et al., 2019). However, according to Najarpourian et al. (2012), extroversion, neuroticism, and conscientiousness are significant predictors of marital satisfaction. However, studies done in 2015 by Alipour et al. (2015) also revealed a positive relationship between marital happiness and lifestyle.

Predictors of marital satisfaction and psychosocial problems among patients with type 2 diabetes have been ignored previously. Especially in Pakistan most of the research work covers psychological aspect. The lack of significance of personality traits in predicting marital satisfaction and psychosocial problems in Pakistan could be due to cultural factors, where family and social support outweigh individual traits. Limited awareness and focus on psychological aspects of diabetes, coupled with economic and healthcare stressors, may also diminish the impact of personality on these outcomes. Additionally, collective coping mechanisms, such as religious and family support, could overshadow the role of traits like extraversion or conscientiousness in managing diabetes-related challenges. The most important steps in advancing towards better marital relationships and psychosocial care for diabetics include gathering data from Pakistan regarding the marital quality and psychosocial factors affecting patients with type 2 diabetes, raising awareness of the issue, and developing an effective strategy to carry out the plan.

Limitations and Suggestions

Some limitations of the study included that the sample of the study was only selected from Lahore and from patients who were married. Due to these constraints, data from other Pakistani cities should be used as the study's generalizability is compromised. Patients were reluctant to provide information about their sexual life satisfaction. Clients also faced problems in understanding instructions because they did not have enough knowledge about diabetes-related complications. It is therefore recommended to arrange community workshops to provide educational forums where diabetes and related problems are addressed for the general public (urban and rural) about

diabetes. It is also suggestable to promote a multidisciplinary approach to patient care.

Implications

The study findings could be helpful for medical doctors, diabetologists, psychiatrists, and psychologists. This study also emphasizes the importance of collaboration among healthcare professionals in managing type 2 diabetes. The results also have implications for designing counseling programs that educate patients about managing their diabetes-related stress and caring for their condition, aiming to improve medication compliance and habits that promote health. The research highlights the need for developing support systems that engage partners in the diabetes management process, fostering a sense of shared responsibility and enhancing both individual and relational well-being. The research underscores the importance of providing education and counseling for couples dealing with type 2 diabetes, helping them navigate the emotional challenges of the disease and improve their relationship dynamics. Moreover, appropriate management and recommended lifestyle modifications can avoid or postpone the onset of diabetes-related problems.

Conclusion

Type 2 diabetic patients who express less anger are more likely to live a satisfied married life. Moreover, high neuroticism predicts more psychosocial problems.

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