Bulletin of Business and Economics, 12(3), 786-791
https://bbejournal.com
https://doi.org/10.61506/01.00125

Understanding When Diabetic Patients' Psychological Burden affects their Marital Satisfaction

Umar Hayat[1], Noor ul ain Ahmad[2], Iqra Fida[3], Zainab Kausar Khan[4], Huzaifa Nasreen[5], Sonia Riaz[6]

Abstract
The study was conducted to investigate the impact of psychological burden on marital satisfaction. Correlation research design was used to complete the study. Survey was designed as a method of data collection. Sample of 150 diabetic patients were selected through purposive sampling technique. Findings reveal that marital satisfaction is negatively correlated with psychological burden. Moreover psychological burden is a significant negative predictor of marital satisfaction. In addition, female diabetic patients reported the greater level of psychological burden and lower level of marital satisfaction as compared to male. Statistically significant difference was examined on psychological burden with respect to education of patients, type of diabetes, number of children and working status but there was no mean score difference associated with socio-economic status. The results of comparison on marital satisfaction related to patient's education, type of diabetes, number of children, working status and patient's socio-economic status were not statistically significant.
Keywords: Diabetes, depression, stress, anxiety, marital satisfaction

1. Introduction

Diabetes mellitus, a metabolic disorder, is characterized by elevated blood glucose levels, leading to potential organ damage and the development of other complications. Diabetes mellitus can be broken down into different kinds, such as type 1 and type 2 diabetes, based on how the disease affects people. Diabetes mellitus has the potential to result in several health-related consequences, including negative impacts on psychological aspects, such as an elevated prevalence of depression among those diagnosed with diabetes. In addition, women seemed to be more affected by diabetes distress because of their marital status, especially for married women (Huang et al., 2022). Based on data provided by the International Diabetes Federation (IDF), it was projected that in 2019, there were around 463 million persons between the ages of 20 and 79 living with diabetes mellitus. This figure represented 9.3% of the global population. Furthermore, projections indicate that the prevalence of diabetes is expected to rise to 10.2% (578 million) by the year 2030 and 10.9% (700 million) by 2045. While the prevalence of type 2 diabetes is on the rise globally, it is noteworthy that a significant majority of individuals with diabetes, around 79%, reside in low- and middle-income countries (Yang & Wang, 2023). Furthermore, it is anticipated that the increase in prevalence will be particularly pronounced in low-income countries (Kaiser et al., 2018). People who have diabetes have a greater risk of morbidity and mortality, in addition to increased costs associated with medical care, as comparison to the general population. According to the International Diabetes Federation (IDF), diabetes was the cause of 4.2 million deaths and at least 10% of global health expenditures in 2019 (USD 760 billion dollars) (Yang & Wang, 2023).

Diabetes is commonly regarded as a controllable condition through the use of lifestyle adjustments and medical interventions. Nevertheless, the perpetual obligations associated with diabetes management, including dietary adherence, physical fitness maintenance, blood glucose monitoring, routine medical check-ups, symptom management, and concerns over potential consequences, might contribute to heightened stress levels in individuals with diabetes. As a consequence of this, people are prone to experiencing feelings of despair, anxiety, and stress, all of which have a negative impact on their overall quality of life and their physical health (Penckofer et al., 2007). The rise in glucose level presents a bigger challenge to those attempting to keep their metabolism under control. Patients who have poor glycemic control and functional impairment due to developing diabetes complications may experience sadness and anxiety for the first time or experience a worsening of their symptoms (Khan et al., 2019). The occurrence of anxiety and depression is frequently observed in individuals diagnosed with type II diabetes, and numerous studies have provided a comprehensive overview of their incidence (Alzahrani et al., 2019).

Research found that patients with diabetes experienced much higher levels of anxiety and depression than the general population (Rajput et al., 2016). If someone has diabetes and depression at the same time, it can lead to poor glycemic control and self-management, an increased risk of diabetes complications, a decrease in overall quality of life, and a shortened life expectancy (Alzahrani et al., 2019). The global incidence of diabetes has exhibited a consistent upward trend over the course of the last thirty years (Zimmet et al., 2014). It is anticipated that the number of diabetic patients will rise from 463 million in 2019 to roughly 700 million in 2045 as a result of population growth, urbanization, and changes in lifestyle (Saeedi et al., 2019). This will cause diabetes mellitus to continue to have its destructive effects. In addition, healthcare professionals have documented that diabetes ranks among the top ten prevalent causes for individuals seeking medical care at primary healthcare facilities worldwide (Finley et al., 2018).

Marital satisfaction refers to the state in which partners experience a prevailing sense of contentment and fulfillment with one another (Tavakol et al., 2017). The establishment of strong connections within romantic partnerships can be assessed based on the presence of mutual affection, comprehension, and the level of concern demonstrated towards one another (Dadgari et al., 2015). A poor marital adjustment among diabetic patients can adversely affect both physical and mental health, quality of life, and the economic status of these couples (Trief et al., 2002). Marriage and its worth are two of the most important psychological factors that affect a person's health in many ways.

[1] Ph.D Scholar, National College of Business Administration and Economics Sub Campus, Multan, Pakistan, umarhayatrehmani786@gmail.com
[2] Corresponding Author, City College University Campus Multan, Pakistan, nullain428@mail.com
[3] City College University Campus Multan, Pakistan, iqrabhatti430@gmail.com
[4] Department of Psychology City College University Campus Multan, Pakistan, zainabkaykhan@gmail.com
[5] City College University Campus Multan, Pakistan, huzaifakhan5806@gmail.com
[6] City College University Campus Multan, Pakistan, soniariazriaz@gmail.com

In addition, the examination of marital quality encompasses various dimensions, including positive aspects such as marital satisfaction, adjustment, intimacy, positive supportive interaction, marital support, constructive communication, and enjoyment. It also encompasses negative dimensions such as marital stress, marital risk, marital tension, marital strain, and negative unsupportive interactions. People think that the quality of a marriage is an important part of the quality of life, which affects many parts of health. As a result of modern lifestyles, diabetes is now recognized as a major international health concern. A study done by Raval et al. (2010) in India proved that high prevalence of depression in patients with type 2 diabetes mellitus was associated with diabetic complications particularly neuropathy and diabetic foot disease.

Women are disproportionately affected by type 2 diabetes, and risk factors include low education, low social and vocational position, and low income. Higher household income has stronger effects on the risk of type 2 diabetes and is linked to a higher prevalence rate among men in developed countries (Sun et al., 2022). Moreover, the availability of healthcare services, particularly for women residing in developing nations, can provide a hindrance to adequate prevention and treatment of type 2 diabetes. In the context of Japan, there exists a significant association between higher levels of perceived stress and an elevated likelihood of developing incident diabetes. This relationship is particularly pronounced among the male population (Aviles-Santa et al., 2020).

Men are more protected by high work demands and an active employment, while women are more at risk of type 2 diabetes due to reduced decision latitude. There exists a significant association between sedentary behavior and several negative psychological outcomes, such as anxiety, depressive symptoms, increased perceived interference, and reduced self-efficacy. This relationship is more pronounced among women diagnosed with type 2 diabetes. Only women who worked at night for a long time were more likely to get Type 2 diabetes. Previous studies have documented comparable findings on the effects of shift employment on women. In conclusion, it may be inferred that psychological risk factors exert a more pronounced influence on the onset of type 2 diabetes in females as opposed to males (Chilet-Rosell et al., 2020).

1.1. Statement of the Problem

The purpose of the study was to find the relationship between psychological burden and marital satisfaction among patients of diabetic mellitus. Diabetes is a chronic disease that causes several psychological and physiological complications among patients. Many studies have been designed to explore the impact of this disease on mental health and intimacy relationships in Western culture and society. Previous studies were conducted to investigate the relationship of diabetic mellitus with marital satisfaction and psychological burden in different countries as well as in Pakistan with multiple dimensions. Much area on this perspective is still unexplored in lower Punjab Multan Pakistan so, the researcher was interested to see the long lasting effects of diabetes on psychological well-being and perceived level of marital satisfaction among married people. The aim of current study was to examine that how diabetic mellitus influences the level of marital satisfaction and psychological heath of patients and compare the differences between these variables on gender, age, education, weight, type of diabetes, years of marriage, number of children, working status and socio-economic conditions. This study will provide new horizons for the researchers to conduct such type of research in future.

2. Method

2.1. Participants

The study was designed to predict the relationship between psychological burden and marital satisfaction among patients of diabetic mellitus. Sample size was 150 diagnosed diabetic patients in which 75 married males and 75 were married females were intentionally chosen to observe the changes in the responses with demographic variables. The population was unknown the researcher used the non-probability sampling technique. Sample was approached through purposive sampling method. All diabetic patients were selected from public hospitals and private clinics of Multan Division, Pakistan. The Nishtar Hospital Multan, Combined Military Hospital Multan and City Hospital Multan and it was focused to their gender, age, education, type of disease, working status and socio-economic condition.

2.2. Instruments

There are two research instruments were used in study.

- Depression, Anxiety and Stress Scales (DASS-21).
- Index of Marital Satisfaction (IMS).

2.3. Depression, Anxiety and Stress Scales (DASS-21)

The Depression, the Anxiety and Stress Scales (Lovibond, 1995) is used in the study to measure and assess the psychological burden in life of diabetic patients. It is a quantitative measure of distress with 3 axes stress, anxiety and depression and not used for clinical diagnoses as a categorical measure. DASS is useful for assessing the disturbance and lot of other complication. It has 21 items that indicates and describes the level of depression, the anxiety and stress and the responses on this scale are listed as; 0 score means, it is statement of response which is not applied for that person. 1- Responses which are given on 1 number denote the situation that is matched with person sometimes and at some extend. The responses on the situation 2 express the statement about the individual for a good time. Responses on this category have 3 numbers, which finds the condition that is related to close to the person. The normal score of the depression is ranged from (0-4), and as well as anxiety is separated from (0-3) and stress is moving the value from (0-7). The mild score of the depression of the people is start from the figure (5-6), while the anxiety is situated between these numbers (4-5) and the stress as well as is comes between this group (8-9). The moderate score of depression is ranging from (7-10), and the anxiety that is categorized between such type of values (6-7) and the stress values are ranged into this condition that is lies between these values (10-12). Severe and chronic level of the depression is categorized into these numbers (11-13), and the severe condition of anxiety lies between this group (8-9) and the stress is divided for it severity is ranged between such condition (13-16) while the extreme scores of the depression is indicated to this particularly is (14+), anxiety is related to this figure (10+) and the stress severe level is always indicates this category of score (17+). Scores of the individuals do not mean appropriate interventions.

2.4. Index of Marital Satisfaction (IMS)

The index of the marital satisfaction that is given by (Hudson, 1981) and was designed to measure the partner marital relationship and spouse problems related marital life and assess the degree and severity of marital issues during marital relationship. The ultimate purpose of IMS is to measure the degree of satisfaction and dissatisfaction between couple during marital relation with each other. Total number of the items are 25 among them some items are presented through some different way like as these have reversed scoring. Reversed item are twelve 12 which have these numbers; 1, 8, 3, 9, 16, 11, 21, 13, 16, 23, 19, 20, 21, and 17. Each item of this scale that is used to measure the satisfaction in couple life is scored with five different categories; 1 states the responses are not occur for any time, 2 figure indicates these responses are comes not on regular time, 3 figure is considered this response is occurred Sometime, 4 categories expresses the responses which are part of that person of life, 5 number means these are part of people life. The reverse scoring of the following items 5 is converted into the category 1, 4 is segregated into this number 2, 3 is will remains the same value, while 2 becomes the response 4 and 1 converted into 5 category. Lower scores of the scale describe the marital satisfaction on this scale whenever higher scores indicate the dissatisfaction among marital relationship among people.

2.5. Procedure

Hospital authority was approached and informed to get permission for conducting the research on their diabetic patients and the purpose of the study was explained to them. After getting permission, they were requested to give separate room for the administration of the scale in order to maintain confidentiality. Authority of the hospital was very cooperative in this regard. A booklet of scales was given to those diabetic patients who were educated give the responses honestly. A complete instruction was provided to them for complete the scales by the researcher. Responses were taken from uneducated diabetic patients through reading the questions by researcher. It was ensured that their information will be kept confidential and used for only research purpose.

3. Results

Table 1: Relationship between Psychological Burden and Marital Satisfaction among patients of Diabetes Mellitus

	Psychological Burden	Marital Satisfaction
Psychological Burden	1	-.609**

Correlation is significant (p<0.05).

Table 2: Regression analysis showing the Impact of Psychological Burden on Marital Satisfaction among diabetic patients

Predictor	B	Std. Error	Beta	t-test	p-value
Constant	113.433	4.237		26.775	.000
Psychological Burden	-1.184	.127	-.960	-9.336	.000

Adjusted R Square .371, F-87.166, p <0.05

Table 3: Mean, Standard Deviation, t-value and scores of psychological burden scale between male and female diabetic patients

Variable	Gender	N	M	SD	t-test	df	p-value
Psychological Burden	Male	75	23.8267	9.23913	-9.411	148	0.000
	Female	75	38.5067	9.85623			

Table 4: Mean, Standard Deviation, t-value and scores of marital satisfaction scale between male and female diabetic patients

Variable	Gender	N	M	SD	t-test	df	p-value
Marital Satisfaction	Male	75	93.8667	15.50007	13.517	148	0.000
	Female	75	59.1733	15.93091			

Table 5: Mean, Standard Deviation, t-value and scores of psychological burden scale between educated and uneducated diabetic patients

Variable	Education	N	M	SD	t-test	df	P-value
Psychological Burden	Educated	84	28.8690	10.25081	-2.692	148	0.008
	Uneducated	66	34.0909	13.50638			

Table 6: Mean, Standard Deviation, t-value and scores of marital satisfaction scale between educated and uneducated diabetic patients

Variable	Education	N	M	SD	t-test	df	p-value
Marital Satisfaction	Educated	84	77.5238	21.67085	.591	148	0.555
	Uneducated	66	75.2424	25.57767			

Table 7: Mean, Standard Deviation, t-value and scores of psychological burden scale between type 1 and type and type 2 diabetic patients

Variable	Type	N	M	SD	t-test	df	p-value
Psychological Burden	Type 1	53	28.2075	10.73520	-2.256	148	0.026
	Type 2	97	32.7835	12.44842			

Table 8: Mean, Standard Deviation, t-value and scores of marital satisfaction scale between type 1 and type and type 2 diabetic patients.

Variable	Type	N	M	SD	t-test	df	p-value
Marital Satisfaction	Type 1	53	80.2075	23.67598	1.431	148	0.155
	Type 2	97	74.5052	23.14633			

Table 9: Mean, Standard Deviation, t-value and scores of psychological burden scale between number of children (1-3) and above (3) of diabetic patients.

Variable	Children	N	M	SD	t-test	df	p-value
Psychological Burden	1-3	80	28.8125	11.93770	-2.610	148	0.010
	Above 3	70	33.8571	11.65853			

Table 10: Mean, Standard Deviation, t-value and scores of marital satisfaction scale between number of children (1-3) and above (3) of diabetic patients.

Variable	Children	N	M	SD	t-test	df	p-value
Marital Satisfaction	1-3	80	77.8750	23.96959	.757	148	0.451
	Above 3	70	74.9741	22.83905			

Table 11: Mean, Standard Deviation, t-value and scores of psychological burden scale between working and non-working diabetic patients.

Variable	Working	N	M	SD	t-test	df	p-value
Psychological Burden	Working	61	22.8689	10.56642	-2.843	148	0.005
	Non-working	89	33.4270	12.50899			

Table 12: Mean, Standard Deviation, t-value and scores of marital satisfaction scale between working and non-working diabetic patients.

Variable	Working	N	M	SD	t-test	df	p-value
Marital Satisfaction	Working	61	79.9344	20.75624	1.484	148	0.140
	Non-working	89	74.1798	24.91967			

Table 13: Mean, Standard Deviation, t-value and scores of psychological burden scale between low and high economic status of diabetic patients.

Variable	SES	N	M	SD	t-test	df	p-value
Psychological Burden	Low	76	31.4605	12.31524	.302	148	0.763
	High	74	30.8649	11.81979			

Table 14: Mean, Standard Deviation, t-value and scores of marital satisfaction scale between low and high economic status of diabetic patients.

Variable	SES	N	M	SD	t-test	df	p-value
Marital satisfaction	Low	76	76.8553	21.16015	.177	148	0.860
	High	74	76.1757	25.66825			

4. Discussion

The aim of study was to predict the psychological burden and marital satisfaction among patients of diabetic mellitus. Diabetes mellitus is growing rapidly in the world. Its complications threat the people's life with chronic consequences. The victims of diabetes mellitus were reported 285 million around the world in 2010 and will be increased in the coming years (Kaul et al., 2012). Patients with diabetes mellitus have many health problems. Diabetes is associated with poor psychological well-being, depression, marital dissatisfaction, mood disturbance, stress, social interaction anxiety, sexual problems, life satisfaction and anxiety disorders. Diabetes mellitus is increasing dangerously in the world that causes health challenging issues among people. Prevalence and incidence rate is not fair in the future till 2030. The researchers predict that the number of patients will become doubled in coming time because it is common disease in Pakistan. Lack of awareness and screening adequacy leads this disease on international level complications associated with it. Pakistan is developing country which has no appropriate treatment interventions for its causes which disturb people in many ways. It creates sexual impairments that directly damage the marital satisfaction among married couples and cause profound effects on mental health like as stress, anxiety and depression, social anxiety, life satisfaction and general happiness. It

distorts the pattern of normal behaviour among individuals. It has main two types which influence the health in different modes of severity. Type 1 is considered less harmed as compared to type 11 diabetes because it is easily managed and controlled by proper diet and exercise. Type 11 has severe complications because it is caused by low level of insulin in the liver and patients are dependent on insulin and become conscious about the level of insulin to remained balance.

Table 1 shows that psychological burden have a negative effect on the satisfaction level of marriage among the patients of diabetes. It means that marital satisfaction is significantly effected through the independent variable like as psychological burden and where the dependent variable is considered the marital satisfaction which is affected. Table 2 shows the significant negative correlation between the psychological burden and marital satisfaction. These variables have an opposite direction among patients because one is in increasing and second is decreasing that means, when disturbances like depression, stress and anxiety related to disease are managed and controlled then the level of satisfaction with marital life is increased. Results are significant and support the researcher hypothesis. Table 3 describes the comparison between male and female diabetic patients on psychological burden that indicates the significant difference among them. Females patient are more stressed, depressed and anxious about their illness and chronic disease as compared to male diabetic patients. Females are naturally sensitive and emotional in life incidents so, they are not able to manage and control disease. Males are harder and have potential to cope with, problems, hardships and diseases than females. Findings of the study are significant and support the hypothesis that states female have higher level of psychological burden than male diabetic patients. Table 4 shows that there is a significant difference between male and female on marital satisfaction scale. Hypothesis states that level of marital satisfaction is greater in male patients than females. Results reveal that males are more satisfied in their marital relationship as compared to female diabetic patients. Due to lot of responsibilities and psychological burden of disease females patients are not happy and do not feel pleasure in their marriage relation. Findings are significant and hypothesis is accepted.

Table 5 describes the comparison between educated and uneducated diabetic patients on psychological burden. It was hypothesized that level of psychological burden is lower in educated patents as compared to uneducated patients. Results are significant and show that uneducated patients are more anxious, stressful and depressive from their disease, because they have lack of awareness about diabetes to cure, manage and to cope with it. Findings of the study describe that level of psychological burden is higher among uneducated patients as compared to educated patients. Education leads the people to desensitize about life threatening challenges. Table 6 indicates the comparison on marital satisfaction with respect to educated and uneducated diabetic patients. It was constructed that marital satisfaction is greater in educated patients than uneducated but the results are not significant and there is no difference between educated and uneducated on marital satisfaction. Findings do not support the researcher hypothesis. It means that education does not influence marital satisfaction in those people who suffer diabetes mellitus and this disease have equal effects on patients life even they are educated as well as uneducated.

A table 7 shows that there is significant difference between type 1 diabetic patients and type 2 diabetic patients on psychological burden. It was hypothesized that patients with type 1 diabetes have lower level of psychological burden as compared to type 2 diabetes. Findings of the study show that people with type 2 are more psychologically disturb and depressed, worry and stressful due to their disease than type 1 diabetic patients. Type 2 patients have no energy to control it through exercise and diet and they depend on insulin regularly. Their age and responsibilities increase the level of psychological burden than type 1 who are young and have the greater control and manage diabetes through daily exercise and proper diet. Results are significant and hypothesis is accepted. Table 8 describes that there no difference between type1and type diabetic patients on marital satisfaction. It was constructed by the researcher that satisfaction level of marital relationship is higher among type 1 diabetes as compared to type 2 diabetes. Results do not show any difference on marital satisfaction in relation to types of diabetes and reject the hypothesis that means types did not influence marriage relationship and disease have an equal effects on patients marriage life. Table 9 reveals that patients who have above 3 numbers of children possess the greater level of psychological burden as compared to those who have 1-3 numbers of children. Findings of the study show the comparison between1-3 and above 3 children in relation to depression, stress and anxiety that is significant. Individuals with large family are more anxious and stressful about the disease because it is difficult to nourish them properly. Diabetes makes them weak to earn handsome income for their children, so these patients live with severe psychological disturbance. Results support the hypothesis of the study because family size is significant on psychological burden.

Table 10 describes the difference between patient's numbers of children that are divided into two groups like as one is 1-3 and second is above on marital satisfaction. Patients with 1-3 children are more satisfied in their marital relationship than those who have above 3 numbers of children. Findings reveal that difference is not significant among patients in relation to their family size on marital satisfaction that means numbers of children have no impact on relationship among diabetic patients. Results do not support the researcher s' hypothesis minor difference is exist but it is not significant to accept the construct that states people with small number of children are highly satisfied as compared to people with more children. Table 11 shows that working status is significant with psychological burden among patients of diabetic mellitus. It was constructed by the researcher that level of psychological is lower in working patients as compared to non-working. Results indicate that non-working people with diabetes mellitus have greater tendency to depress, sadness, emotionally disturb and stressful due to chronic disease than working patients. It is stated that outcomes are significant on psychological burden in relation to working status of patients. Working people are able to cope with conditions and their body maintains the balance in any disease. Table 12 describes the comparisons between working and non-working diabetic patients on marital satisfaction. Those people who are engaged with productive activities in life with disease are more tend to satisfied in marriage life as compared to those who live without working activities. According to results difference is exist but it is not significant for accepting the hypothesis of study. It was considered that working status of diabetic patients does not influence the marital satisfaction. Table 13 explains the difference between patients with low economic status and as well as high economic status on psychological burden. This table shows that there is no difference among patients in relation to their economical standard on distress and consequences of the disease because they are equally disturb due to diabetes even they are poor or as well as rich.

Results find that socio-economic status is not significant with psychological burden and findings are unable to accept the hypothesis of study. Table 14 shows the difference between low and high socio-economic status among diabetic patients on marital satisfaction. According to this table results are not significant with respect to economic conditions. It means that economic stability and economic crisis did not play any vital role among patient‘s marital satisfaction. It was hypothesized that patients with high socio-economic status are more satisfied as compared to those who have low economic conditions. Findings are opposite according to researcher claim, so the hypothesis was not accepted on the basis of these outcomes.

5. Conclusion

It was concluded that psychological burden have a significant negative impact on the marital satisfaction among people who have diabetes. Marital satisfaction is negatively correlated with psychological burden among patients of diabetic mellitus. Findings show that following demographic variables like male and female diabetic patients, education of patients, type of diabetes, number of children and working status are significant on psychological burden and differences between these variables are also significant, while there was no difference between socio-economic conditions of diabetic patients on psychological burden. Males are more satisfied with their marital life than female patients. The results of comparisons among patient’s education, type of diabetes, number of children, working status and patient’s socio-economic standard are not significant on marital satisfaction.

References

Alzahrani, A., Alghamdi, A., Alqarni, T., Alshareef, R., & Alzahrani, A. (2019). Prevalence and predictors of depression, anxiety, and stress symptoms among patients with type II diabetes attending primary healthcare centers in the western region of Saudi Arabia: a cross-sectional study. *International journal of mental health systems*, *13*(1), 1-7.

Aviles-Santa, M. L., Monroig-Rivera, A., Soto-Soto, A., & Lindberg, N. M. (2020). Current state of diabetes mellitus prevalence, awareness, treatment, and control in Latin America: challenges and innovative solutions to improve health outcomes across the continent. *Current diabetes reports*, *20*, 1-44.

Chilet-Rosell, E., Piay, N., Hernández-Aguado, I., Lumbreras, B., Barrera-Guarderas, F., Torres-Castillo, A. L., ... & Parker, L. A. (2020). Contextualizing Evidence for Action on Diabetes in Low-Resource Settings—Project CEAD Part I: A Mixed-Methods Study Protocol. *International Journal of Environmental Research and Public Health*, *17*(2), 569.

Dadgari, A., Mazloom, N., Abadi, M. R. H. F., & Bagheri, I. (2015). The relationship between marital satisfaction and compatibility with type 2 diabetes. *Iranian journal of psychiatry and behavioral sciences*, *9*(4).

Finley, C. R., Chan, D. S., Garrison, S., Korownyk, C., Kolber, M. R., Campbell, S., ... & Allan, G. M. (2018). What are the most common conditions in primary care?: Systematic review. *Canadian Family Physician*, *64*(11), 832-840.

Huang, L. C., Lin, C. L., Chang, Y. T., Chen, R. Y., & Bai, C. H. (2022). Gender impact on diabetes distress focus at medical communication concerns, life and interpersonal stress. *International journal of environmental research and public health*, *19*(23), 15678.

Kaiser, A. B., Zhang, N., & Der Pluijm, W. V. (2018). Global prevalence of type 2 diabetes over the next ten years (2018-2028). *Diabetes*, *67*(Supplement_1).

Khan, P., Qayyum, N., Malik, F., Khan, T., Khan, M., Tahir, A., & Siddiqui, A. (2019). Incidence of anxiety and depression among patients with type 2 diabetes and the predicting factors. *Cureus*, *11*(3).

Penckofer, S., Ferrans, C. E., Velsor-Friedrich, B., & Savoy, S. (2007). The psychological impact of living with diabetes women's day-to-day experiences. *The Diabetes Educator*, *33*(4), 680-690.

Rajput, R., Gehlawat, P., Gehlan, D., Gupta, R., & Rajput, M. (2016). Prevalence and predictors of depression and anxiety in patients of diabetes mellitus in a tertiary care center. *Indian journal of endocrinology and metabolism*, *20*(6), 746.

Raval, A., Dhanaraj, E., Bhansali, A., Grover, S., & Tiwari, P. (2010). Prevalence & determinants of depression in type 2 diabetes patients in a tertiary care centre. *Indian Journal of Medical Research*, *132*(2), 195-200.

Saeedi, P., Petersohn, I., Salpea, P., Malanda, B., Karuranga, S., Unwin, N., ... & IDF Diabetes Atlas Committee. (2019). Global and regional diabetes prevalence estimates for 2019 and projections for 2030 and 2045: Results from the International Diabetes Federation Diabetes Atlas. *Diabetes research and clinical practice*, *157*, 107843.

Sun, H., Saeedi, P., Karuranga, S., Pinkepank, M., Ogurtsova, K., Duncan, B. B., ... & Magliano, D. J. (2022). IDF Diabetes Atlas: Global, regional and country-level diabetes prevalence estimates for 2021 and projections for 2045. *Diabetes research and clinical practice*, *183*, 109119.

Tavakol, Z., Nasrabadi, A. N., Moghadam, Z. B., Salehiniya, H., & Rezaei, E. (2017). A review of the factors associated with marital satisfaction. *Galen medical journal*, *6*(3), 197-207.

Trief, P. M., Wade, M. J., Britton, K. D., & Weinstock, R. S. (2002). A prospective analysis of marital relationship factors and quality of life in diabetes. *Diabetes care*, *25*(7), 1154-1158.

Yang, Y., & Wang, Q. (2023). Three genes expressed in relation to lipid metabolism considered as potential biomarkers for the diagnosis and treatment of diabetic peripheral neuropathy. *Scientific Reports*, *13*(1), 8679.

Zimmet, P. Z., Magliano, D. J., Herman, W. H., & Shaw, J. E. (2014). Diabetes: a 21st century challenge. *The lancet Diabetes & endocrinology*, *2*(1), 56-64.