

**ADVANCE SOCIAL SCIENCE ARCHIVE JOURNAL**Available Online: <https://assajournal.com>

Vol. 5 No. 01 Jan-Mar 2026. Page#. 3912-3926

Print ISSN: [3006-2497](#) Online ISSN: [3006-2500](#)

Platform & Workflow by: Open Journal Systems

<https://doi.org/10.5281/zenodo.21298260>**Social Support, Illness Perception and Mental Health among Female Diabetic Patients****Dr. Salbia Abbas (Corresponding Author's)**

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Abstract

Diabetes is an enduring disease; it causes both physical and psychological effects on patients and impacts on women more extensively because of specific sociocultural pressures found in Pakistan. It was a quantitative correlational study used to explore the effects of perceived social support on the illness perception and psychological well-being of female diabetic patients of Pakistan. An intentional sample size of 100 female diabetic patients were approached through hospital based, community based and online means, was assessed in accordance with the social cognitive theory by Bandura and the common sense model by Leventhal. The research hypotheses stated were that perceived social support is positively correlated to mental well-being and appropriate illness perception, and the illness perception mediates the social support on the mental well-being. Results were expected to provide awareness of the importance of emotional, informational and practical social support in determining the illness perception in female patients of diabetes. Expected findings might help in developing culture-fair, gender-specific psycho-social interventions for women suffering from diabetes in Pakistan. The discussion for the healthcare professionals and policy makers is also presented.

Keywords: Social Support, Illness Perception, Mental Health Wellbeing, Diabetes, Pakistani Women, Diabetes Distress, Social Cognitive Theory, Common Sense Model.

Introduction

Diabetes mellitus is a chronic metabolic disorder characterized by persistent hyperglycemia resulting from inadequate insulin secretion, impaired insulin action, or a combination of both. Insulin is a hormone produced by the pancreas that regulates blood glucose levels by facilitating the uptake of glucose into body cells. When insulin production or utilization is impaired, elevated blood glucose levels gradually damage blood vessels, nerves, and vital organs. Common symptoms include excessive thirst (polydipsia), frequent urination (polyuria), unexplained weight loss, fatigue, blurred vision, and delayed wound healing, although symptoms may develop gradually, particularly in type 2 diabetes. If left untreated, diabetes can lead to severe complications affecting multiple organ systems (World Health Organization, 2025; American Diabetes Association Professional Practice Committee, 2025).

Diabetes has become one of the fastest-growing global public health challenges. According to the International Diabetes Federation (IDF), approximately 537 million adults aged 20–79 years were living with diabetes in 2021, and this number is projected to increase to 783 million by 2045 if current trends continue (International Diabetes Federation, 2021). Pakistan has one of the

highest diabetes burdens worldwide. The National Diabetes Survey of Pakistan estimated that approximately 26.3% of adults have diabetes or prediabetes, while the IDF ranks Pakistan among the countries with the largest diabetic populations globally (Basit et al., 2018; IDF, 2021).

The increasing prevalence of diabetes in Pakistan is attributed to rapid urbanization, sedentary lifestyles, unhealthy dietary patterns characterized by high consumption of refined carbohydrates and processed foods, obesity, physical inactivity, and genetic susceptibility common among South Asian populations (Alam et al., 2024; Basit et al., 2018). Long-term complications include diabetic neuropathy, nephropathy, retinopathy, cardiovascular disease, stroke, diabetic foot ulcers, and increased susceptibility to infections, all of which substantially reduce functional independence and quality of life while increasing healthcare costs (American Diabetes Association Professional Practice Committee, 2025; Lotfy et al., 2017).

Beyond its physical consequences, diabetes substantially affects psychological functioning. Living with diabetes requires lifelong self-management, including medication adherence, dietary regulation, blood glucose monitoring, and regular physical activity. These continuous demands often contribute to psychological distress, depression, anxiety, and reduced overall well-being (American Diabetes Association Professional Practice Committee, 2025). A systematic review conducted in Pakistan reported that approximately one-third of individuals with diabetes experience clinically significant depressive symptoms, with women showing a disproportionately higher prevalence than men (Sharif et al., 2023). Psychological distress adversely influences self-management behaviors, glycemic control, treatment adherence, and overall disease outcomes.

Social Support

Social support refers to the emotional, informational, instrumental, and appraisal assistance that individuals receive from family members, friends, healthcare professionals, and the wider community (House, 1981). For individuals living with diabetes, social support plays a critical role in promoting medication adherence, encouraging healthy lifestyle behaviors, improving emotional adjustment, and facilitating effective disease management. Higher levels of perceived social support have consistently been associated with better glycemic control, enhanced self-care practices, improved treatment adherence, and greater psychological well-being among people with diabetes (Baek et al., 2014; Kadirvelu et al., 2012).

Illness Perception

Illness perception refers to an individual's organized cognitive and emotional representation of an illness, including beliefs regarding its identity, causes, consequences, duration, controllability, and emotional impact. These beliefs influence how individuals respond to illness, adhere to treatment, and engage in self-management behaviors (Leventhal et al., 1984; Broadbent et al., 2006). Research has demonstrated that patients who perceive diabetes as manageable and controllable generally demonstrate greater adherence to medication, healthier lifestyle behaviors, and better psychological adjustment. Conversely, perceptions that diabetes is highly threatening, uncontrollable, or unpredictable are associated with poorer self-care, lower treatment adherence, increased emotional distress, and poorer glycemic outcomes (Mc Sharry et al., 2011; Broadbent et al., 2015).

Mental Health Well-Being

Mental health well-being among individuals with diabetes encompasses emotional well-being, psychological functioning, resilience, and successful adaptation to living with a chronic illness. Depression, anxiety, and diabetes-related distress are among the most common psychological challenges experienced by individuals with diabetes (American Diabetes Association Professional Practice Committee, 2025). Diabetes-related distress differs from clinical depression because it specifically reflects the emotional burden associated with the daily responsibilities of diabetes

management, including blood glucose monitoring, dietary restrictions, medication adherence, fear of complications, and concerns about future health (Fisher et al., 2019).

Women with diabetes are particularly vulnerable to psychological distress due to biological, psychological, and sociocultural factors. Studies consistently report higher rates of depression, anxiety, and diabetes distress among female patients compared with males. Increased caregiving responsibilities, limited autonomy, financial dependence, and gender-related social expectations further contribute to poorer mental health outcomes among women living with diabetes (Ciarambino et al., 2022; Fisher et al., 2019).

Gender-Specific Challenges in Pakistan

Women with diabetes in Pakistan encounter numerous gender-specific barriers that complicate effective disease management. Traditional cultural expectations often assign women primary responsibility for household management, childcare, and caregiving, leaving limited opportunities for prioritizing their own health needs (Bajaj et al., 2013). Restricted autonomy and limited decision-making power may reduce women's access to healthcare services, particularly in rural communities where permission or accompaniment by male family members may be necessary to attend medical appointments (Ishtiaq et al., 2025).

Educational disparities further compound these challenges. Lower literacy levels among women reduce their ability to understand medical instructions, recognize symptoms of complications, interpret blood glucose monitoring results, and adhere to prescribed treatment regimens (Hussain et al., 2019). These barriers collectively contribute to poorer diabetes self-management, delayed healthcare utilization, and adverse physical and psychological outcomes.

Theoretical Framework

The present study is guided by Bandura's Social Cognitive Theory (SCT) and Leventhal's Common-Sense Model of Self-Regulation (CSM). Social Cognitive Theory proposes that health behaviors are determined through reciprocal interactions among personal, behavioral, and environmental influences. Central to the theory is self-efficacy, defined as an individual's confidence in successfully performing behaviors necessary to achieve desired health outcomes. Self-efficacy develops through mastery experiences, vicarious learning, verbal persuasion, and interpretation of physiological and emotional states (Bandura, 1986; Bandura, 1997). Strong social support can enhance self-efficacy by providing encouragement, practical assistance, and positive reinforcement, thereby promoting effective diabetes self-management.

Leventhal's Common-Sense Model explains how individuals construct cognitive and emotional representations of illness that subsequently influence coping behaviors and health outcomes (Leventhal et al., 1980; Leventhal et al., 1984). According to this framework, patients develop beliefs concerning the identity, causes, consequences, timeline, controllability, and emotional impact of their illness. These illness perceptions guide treatment adherence, self-care behaviors, and psychological adjustment. Among Pakistani women with diabetes, limited social support, restricted healthcare access, and sociocultural constraints may negatively shape illness perceptions and diminish confidence in disease management, thereby contributing to poorer mental health and diabetes outcomes. Integrating SCT and CSM provides a comprehensive framework for understanding how social support and illness perceptions jointly influence the psychological well-being of women living with diabetes in Pakistan.

Literature Review

Diabetes as a Global and National Health Challenge

Diabetes mellitus is among the fastest-growing chronic diseases worldwide and represents a major public health challenge. According to the International Diabetes Federation (IDF, 2021), approximately 537 million adults aged 20–79 years were living with diabetes globally in 2021,

with projections indicating an increase to 783 million by 2045. More than three-quarters of these individuals reside in low- and middle-income countries where healthcare resources remain limited. Pakistan is currently experiencing one of the highest diabetes prevalence rates in the world. The National Diabetes Survey of Pakistan (NDSP) reported that nearly 26.3% of Pakistani adults have diabetes or prediabetes (Basit et al., 2018). Rapid urbanization, unhealthy dietary practices, physical inactivity, obesity, population aging, and genetic susceptibility among South Asians have substantially contributed to the increasing disease burden (Basit et al., 2018; International Diabetes Federation, 2021). Diabetes management requires continuous lifestyle modification, adherence to medication, routine blood glucose monitoring, healthy dietary habits, and regular physical activity. Maintaining these behaviors throughout life imposes considerable physical, emotional, and financial burdens on patients (American Diabetes Association Professional Practice Committee, 2025). Consequently, many individuals experience diabetes-related distress, a condition characterized by emotional exhaustion, worries about complications, frustration with disease management, and fear of treatment failure (Fisher et al., 2019).

Social Support in Diabetes Management

Social support has consistently been recognized as one of the strongest psychosocial predictors of successful diabetes management. House (1981) conceptualized social support as emotional, informational, instrumental, and appraisal assistance received from significant others. These supportive resources facilitate coping with chronic illness by reducing stress and promoting adaptive health behaviors. An early study by Toljamo and Hentinen (2001) found that patients receiving stronger family support demonstrated greater adherence to dietary recommendations, medication, and blood glucose monitoring. Similarly, Baek et al. (2014) reported that higher perceived social support significantly reduced diabetes distress and improved quality of life among adults with type 2 diabetes. A systematic review conducted by Kadirvelu et al. (2012) concluded that family support, peer encouragement, and healthcare provider involvement consistently improved medication adherence, glycemic control, and psychological well-being among individuals with diabetes. Patients receiving higher social support reported better self-care behaviors, lower emotional distress, and greater treatment satisfaction.

National Perspective

Within Pakistan, Bukhsh et al. (2020) conducted qualitative research among adults with type 2 diabetes to explore factors influencing diabetes self-management. Participants identified family encouragement, healthcare provider counseling, and diabetes education as major facilitators of effective self-care. Conversely, financial constraints, inadequate diabetes knowledge, physical limitations, and poor social support were recognized as significant barriers. Similarly, Basit et al. (2018) emphasized that strengthening family-centered diabetes education programs could substantially improve disease management in Pakistani patients where family involvement strongly influences healthcare decisions. Overall, both international and Pakistani evidence consistently demonstrates that social support enhances treatment adherence, psychological adjustment, and overall quality of life among individuals living with diabetes.

Mental Health among Women with Diabetes

Diabetes substantially increases vulnerability to psychological disorders, particularly depression, anxiety, and diabetes-related distress. The bidirectional relationship between diabetes and mental illness has been widely documented, with each condition increasing the severity and progression of the other (American Diabetes Association Professional Practice Committee, 2025). A meta-analysis by Roy and Lloyd (2012) reported that individuals with diabetes are nearly twice as likely to experience depression compared with the general population. Depression

negatively influences medication adherence, dietary compliance, physical activity, glycemic control, and healthcare utilization. Similarly, Fisher et al. (2019) distinguished diabetes distress from clinical depression, explaining that diabetes distress specifically reflects the emotional burden of continuous disease management rather than generalized psychopathology. In Pakistan, Sharif et al. (2023) conducted a systematic review and meta-analysis that reported approximately one-third of individuals with diabetes experience clinically significant depressive symptoms. Female patients consistently demonstrated higher depression prevalence than males. Furthermore, Mahmood et al. (2022) evaluated the effectiveness of Cognitive Behavioral Therapy (CBT) for diabetes-related distress among Pakistani adults. Their findings demonstrated significant reductions in diabetes distress and improvements in psychological well-being among participants receiving CBT compared with routine care, highlighting the importance of integrating psychological interventions into diabetes management. Women are particularly vulnerable because they frequently encounter additional caregiving responsibilities, financial dependency, limited healthcare autonomy, and greater emotional burden, all of which increase their susceptibility to depression and diabetes distress (Ciarambino et al., 2022).

Illness Perception and Diabetes Management

Illness perception refers to patients' organized cognitive and emotional beliefs regarding their illness, including its causes, consequences, timeline, controllability, symptoms, and emotional impact (Leventhal et al., 1984). According to the Common-Sense Model, these perceptions guide coping behaviors and influence treatment adherence. Broadbent et al. (2006) developed the Brief Illness Perception Questionnaire (Brief-IPQ), demonstrating that illness perceptions strongly predict health behaviors and treatment outcomes across chronic diseases. Mc Sharry et al. (2011) investigated illness perceptions among adults with type 2 diabetes and found that individuals believing diabetes to be manageable demonstrated greater medication adherence, healthier lifestyle behaviors, and better glycemic control. Conversely, perceptions of severe consequences and low controllability were associated with emotional distress and poorer diabetes self-management. Research consistently indicates that adaptive illness perceptions contribute to higher self-efficacy, lower psychological distress, and improved quality of life.

Self-Efficacy in Diabetes

Bandura (1997) defined self-efficacy as individuals' confidence in their ability to organize and execute behaviors necessary to achieve desired outcomes. Within diabetes care, self-efficacy predicts adherence to medication, healthy eating, physical activity, glucose monitoring, and problem-solving. Van der Bijl et al. (1999) developed the Diabetes Management Self-Efficacy Scale (DMSES), which has been extensively validated across diabetic populations. Higher diabetes self-efficacy has consistently been associated with better glycemic control, fewer diabetes complications, and improved psychological adjustment. A systematic review by King et al. (2010) concluded that self-efficacy interventions significantly improve diabetes self-management behaviors and long-term metabolic outcomes.

Interrelationships among Social Support, Illness Perception, and Mental Health

Growing evidence indicates that social support and illness perception jointly influence psychological adjustment among individuals with diabetes. Yuniarti et al. (2013) investigated 68 Indonesian adults with type 2 diabetes and found that social support significantly reduced emotional distress, whereas illness perception indirectly influenced psychological well-being through coping mechanisms. Similarly, Schüz et al. (2012) demonstrated that positive illness perceptions mediated the relationship between social support and self-management behaviors among patients with chronic diseases.

Theoretical Framework

Social Cognitive Theory (Bandura, 1986) proposes that supportive interpersonal relationships strengthen self-efficacy through verbal encouragement, observational learning, and emotional reassurance. Simultaneously, Leventhal's Common-Sense Model (Leventhal et al., 1980) suggests that social experiences shape illness beliefs, which subsequently determine coping strategies and psychological outcomes. Together, these theoretical perspectives suggest that greater social support may foster more adaptive illness perceptions, enhance confidence in diabetes management, reduce psychological distress, and ultimately improve mental health among women with diabetes.

Conceptual Framework

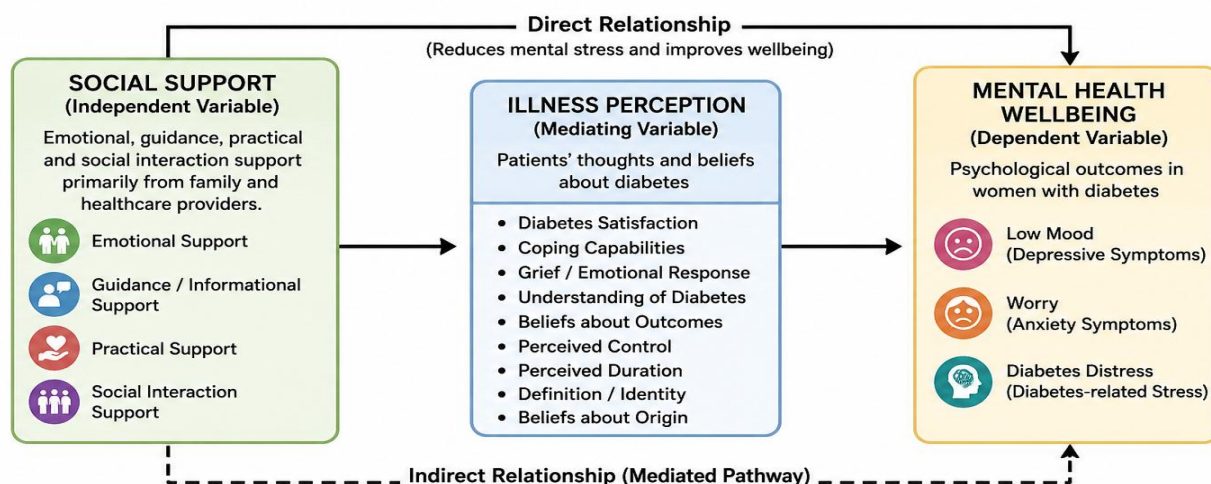


Figure 1.1 Conceptual Model of Current research

Methodology

Research Design

The present study employed a cross sectional research design along with quantitative research methodology to examine the relationships among perceived social support, illness perception, and mental well-being among women with diabetes.

Sample, Sample Size, and Sampling Technique

The study consisted of 100 female patients diagnosed with diabetes mellitus. Participants were recruited using purposive sampling, a non-probability sampling technique in which individuals are selected based on predefined inclusion criteria relevant to the study objectives. Data were collected from hospitals, community settings, and online platforms.

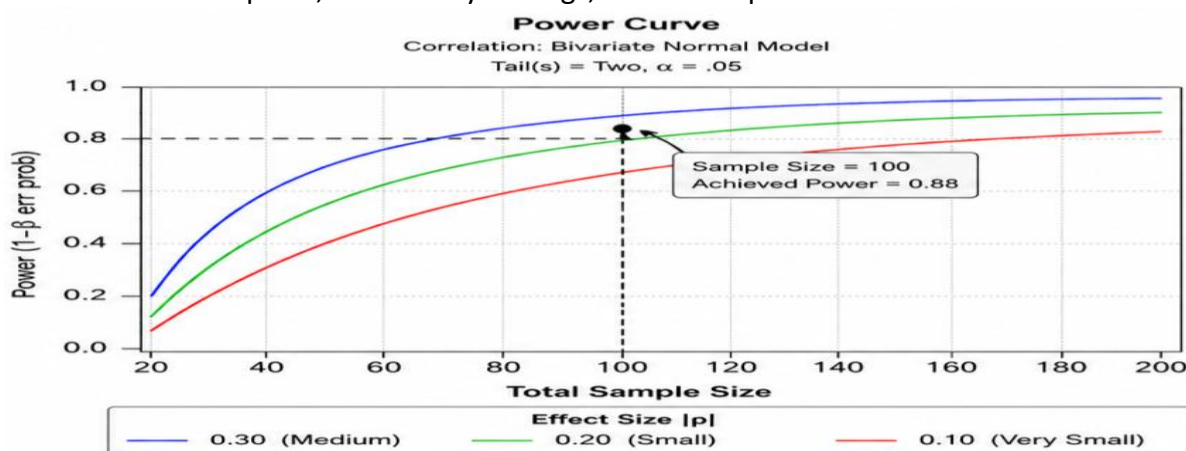


Figure 1.1 G-Power Analysis

Figure 1.1 presents a priori power analysis was conducted using G*Power 3.1.9.7 to determine the minimum sample size required for the present correlational study. The analysis was based

on a two-tailed Pearson correlation, assuming a medium effect size ($r = .30$), a significance level of $\alpha = .05$, and a desired statistical power of .80. The analysis indicated that a minimum sample of 84 participants would be sufficient to detect a statistically significant medium effect. Therefore, the study recruited 100 female patients with diabetes, which exceeded the minimum required sample size and yielded an achieved statistical power of approximately .88. This indicates that the study had adequate power to detect meaningful relationships among perceived social support, illness perception, and mental well-being while reducing the likelihood of committing a Type II error.

Measures

The study questionnaire comprised a demographic information sheet and three standardized instruments.

Demographic Information Sheet

A researcher-developed demographic form was used to collect information on participants' age, education, marital status, employment status, monthly family income, type and duration of diabetes, current treatment, diabetes-related complications, and living arrangements.

Multidimensional Scale of Perceived Social Support (MSPSS)

Perceived social support was measured using the Multidimensional Scale of Perceived Social Support (MSPSS) developed by Zimet et al. (1988). The MSPSS consists of 12 items assessing support from family, friends, and significant others. Responses are rated on a 7-point Likert scale ranging from 1 (Very Strongly Disagree) to 7 (Very Strongly Agree). Higher scores indicate greater perceived social support.

Brief Illness Perception Questionnaire (Brief IPQ)

Illness perception was assessed using the Brief Illness Perception Questionnaire (Brief IPQ) developed by Broadbent et al. (2006). The instrument includes eight rating-scale items and one open-ended item assessing beliefs regarding the consequences, timeline, personal control, treatment control, identity, concern, understanding, and emotional impact of diabetes. Higher scores indicate stronger illness perceptions.

Warwick–Edinburgh Mental Well-being Scale (WEMWBS)

Mental health well-being was measured using the Warwick–Edinburgh Mental Well-being Scale (WEMWBS) developed by Tennant et al. (2007). The scale consists of 14 positively worded items rated on a 5-point Likert scale ranging from 1 (None of the time) to 5 (All of the time). Higher scores reflect better mental well-being.

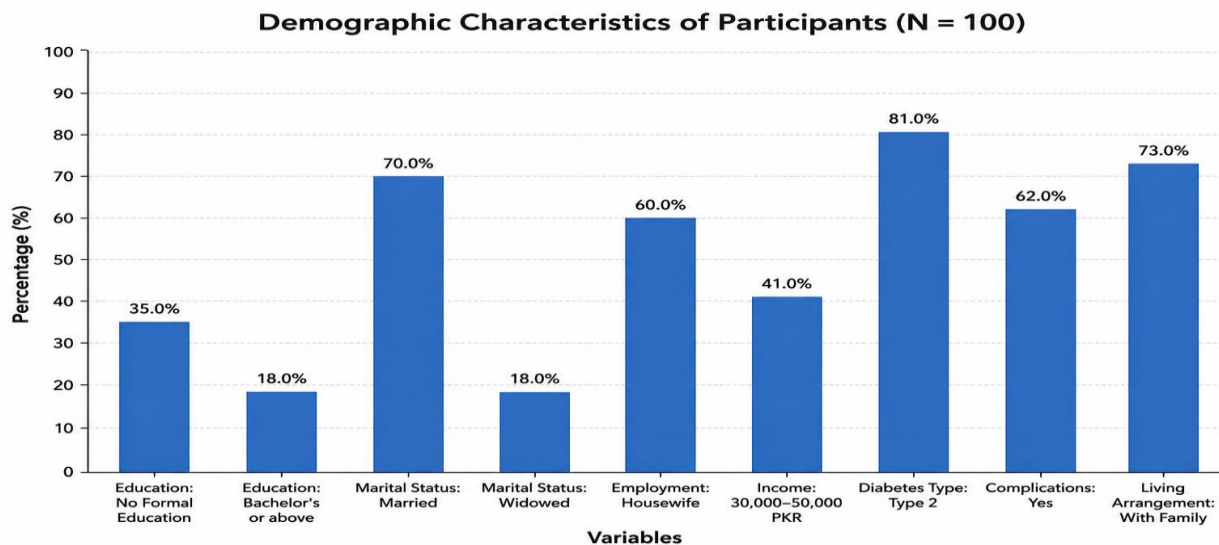
Procedure

Prior to data collection, informed consent was obtained from all participants after explaining the purpose and procedures of the study. Participants completed the questionnaire individually in hospitals, community settings, or through an online survey. The questionnaire included the demographic information sheet, MSPSS, Brief IPQ, and WEMWBS. Completed questionnaires were coded and entered into IBM SPSS Statistics (Version 26) for analysis.

Ethical Considerations

Ethical principles were observed throughout the study. Participants provided informed consent prior to participation and were assured that participation was voluntary. Confidentiality and anonymity were maintained by assigning identification codes instead of names, and participants were informed of their right to withdraw from the study at any time without any consequences. All data were used solely for research purposes and remained accessible only to the researcher and supervisor.

Results



Note. Values represent frequencies (n) and percentages (%). Only dominant categories are shown for brevity.

Figure 2.1 presents the demographic characteristics of the study participants (N = 100). The findings indicate that the majority of participants were married (70%), housewives (60%), and living with their families (73%). Most participants were diagnosed with Type 2 diabetes (81%), while 62% reported having one or more diabetes-related complications. Regarding educational attainment, 35% had no formal education, whereas 18% had completed a bachelor's degree or higher. In terms of socioeconomic status, 41% of the participants reported a monthly family income between PKR 30,000 and 50,000. Overall, the sample primarily comprised married, non-employed women living with family support, with a high prevalence of Type 2 diabetes and diabetes-related complications.

Table 1.1 Pearson product moment correlation analysis for study variables (N = 100)

Variable	M	SD	1	2	3	4	5
Age	46.52	13.35	—				
Diabetes Duration	6.66	4.83	.559**	—			
Social Support (MSPSS)	52.67	14.20	-.101	-.434**	—		
Illness Perception (BIPQ)	53.64	6.56	.248*	.089	.001	—	
Wellbeing (WEMWBS)	39.04	12.34	-.314**	-.500**	.725**	-.121	—

Note. * $p < .05$. ** $p < .01$. MSPSS = Multidimensional Scale of Perceived Social Support; BIPQ = Brief Illness Perception Questionnaire; WEMWBS = Warwick-Edinburgh Mental Wellbeing Scale. Table 1.1 explores Pearson product-moment correlation analysis revealed a significant positive correlation between age and diabetes duration, $r = .559$, $p < .01$, indicating that older participants had lived with diabetes for a longer period. Age was also positively correlated with illness perception, $r = .248$, $p < .05$, suggesting that increasing age was associated with stronger perceptions of illness. Conversely, age demonstrated a significant negative correlation with mental well-being, $r = -.314$, $p < .01$, indicating that psychological well-being decreased with

increasing age. The relationship between age and perceived social support was not statistically significant ($r = -.101$, $p > .05$). Diabetes duration showed a significant negative correlation with perceived social support, $r = -.434$, $p < .01$, and mental well-being, $r = -.500$, $p < .01$, indicating that women with a longer duration of diabetes perceived lower social support and reported poorer mental well-being. However, diabetes duration was not significantly associated with illness perception ($r = .089$, $p > .05$). Perceived social support exhibited a strong positive correlation with mental well-being, $r = .725$, $p < .01$, indicating that higher levels of perceived social support were associated with better psychological well-being. However, the relationship between perceived social support and illness perception was not statistically significant ($r = .001$, $p > .05$). Finally, illness perception was not significantly correlated with mental well-being ($r = -.121$, $p > .05$). Overall, the findings indicate that perceived social support is strongly associated with better mental well-being, whereas longer diabetes duration is associated with lower social support and poorer mental well-being. Illness perception was not significantly related to either perceived social support or mental well-being in the present sample.

Table 2.1 Linear Regression Analysis: Social Support Predicting Mental Health Wellbeing ($N = 100$)

Variable	B	SE B	β	t	p
Constant	5.837	3.298		1.770	.080
Social Support (MSPSS)	.630	.060	.725	10.424	<.001

Note. $R^2 = .526$, Adjusted $R^2 = .521$, $F(1, 98) = 108.665$, $p < .001$. Dependent variable: Mental Health Wellbeing

Table 2.1 presents the results of the simple linear regression analysis examining whether perceived social support predicts mental health well-being among women with diabetes. The overall regression model was statistically significant, $F(1, 98) = 108.67$, $p < .001$, indicating that perceived social support significantly predicted mental health well-being. Perceived social support emerged as a significant positive predictor of mental health well-being ($\beta = .725$, $B = .630$, $SE = .060$, $t = 10.42$, $p < .001$). This finding indicates that higher levels of perceived social support were associated with higher levels of mental well-being among female patients with diabetes. Specifically, for every one-unit increase in perceived social support, mental well-being increased by 0.63 units. The model explained approximately 52.6% of the variance in mental health well-being ($R^2 = .526$; Adjusted $R^2 = .521$), suggesting that perceived social support is a substantial predictor of psychological well-being in women with diabetes. Overall, the findings support the hypothesis that greater perceived social support contributes to better mental health well-being among female diabetic patients.

Discussion

The findings indicated that female diabetic patients perceived moderately high levels of social support, with family members serving as the primary source of emotional, informational, and practical assistance. This finding reflects the collectivistic nature of Pakistani society, where family plays a central role in providing care and assistance to individuals with chronic illnesses. The findings are consistent with previous international research. Kadirvelu et al. (2012) concluded that family and healthcare support significantly improve diabetes self-management, treatment adherence, and psychological well-being. Similarly, Molla et al. (2022) reported that emotional and informational support were the most commonly perceived forms of support among individuals with diabetes, with family members serving as the primary support providers. The present findings are also supported by Pakistani evidence. Bukhsh et al. (2020) reported that family support, peer encouragement, and healthcare provider guidance were essential facilitators of diabetes self-management among Pakistani adults. Together, these findings highlight the importance of strengthening family involvement in diabetes education and long-

term disease management. The results indicated that participants demonstrated a moderate level of illness perception, suggesting that they generally recognized the seriousness, chronic nature, and consequences of diabetes while maintaining a realistic understanding of disease management. Participants neither underestimated nor catastrophized their illness, indicating relatively balanced cognitive and emotional representations of diabetes. These findings are consistent with Leventhal's Common-Sense Model, which proposes that illness perceptions influence how individuals understand and respond to chronic diseases (Leventhal et al., 1984). Similar findings were reported by Yuniarti et al. (2013), who observed that illness perception represents an important cognitive component of diabetes management but does not necessarily predict behavioral or psychological outcomes independently. Their findings suggest that illness perceptions may operate alongside other psychosocial resources such as coping strategies and social support. The findings demonstrated that participants reported moderate levels of mental health well-being. Although living with diabetes presents continuous physical and psychological challenges, most women maintained relatively positive emotional functioning, including optimism, self-confidence, and a sense of purpose. This suggests that many participants possessed adaptive psychological resources that supported their adjustment despite the burden of chronic illness. These findings are comparable with previous national and international studies. Roy and Lloyd (2012) reported that individuals with diabetes experience elevated risks of depression and anxiety, although psychological adjustment varies considerably according to available coping resources. Likewise, Sharif et al. (2023) found that approximately one-third of Pakistani individuals with diabetes experience depressive symptoms, with women being particularly vulnerable. Furthermore, Mahmood et al. (2022) demonstrated that cognitive behavioral therapy significantly reduced diabetes-related distress among Pakistani patients, highlighting the importance of psychological interventions in diabetes care. Pearson correlation analysis revealed no significant relationship between perceived social support and illness perception among women with diabetes. This finding suggests that receiving greater emotional or practical support does not necessarily alter how women cognitively interpret or understand their illness. Illness perceptions may instead be shaped by factors such as disease severity, symptom experience, diabetes education, health literacy, and personal beliefs rather than interpersonal support alone. This finding is partially consistent with Yuniarti et al. (2013), who found that illness perception did not directly predict diabetes self-management, whereas social support and self-acceptance were more closely associated with emotional adjustment. Similarly, Broadbent et al. (2006) suggested that illness perceptions are relatively stable cognitive representations that may require structured educational interventions rather than emotional support alone to change. From a theoretical perspective, the findings suggest that social support primarily facilitates emotional adaptation and coping, whereas illness perceptions represent cognitive beliefs that may develop independently of perceived social support. Consequently, interventions designed to improve illness perceptions may need to emphasize diabetes education, cognitive restructuring, and psychoeducation in addition to strengthening social support networks.

Conclusion

The present study examined the relationships among perceived social support, illness perception, and mental health well-being among women with diabetes in Pakistan. The findings demonstrated that perceived social support is a significant contributor to psychological well-being, with women reporting higher levels of social support also reporting better mental health.

Study Implications

This study carries certain implications. First, it indicates the significance of incorporating not just the physical aspects of the management of diabetes, but also the social and emotional aspects for the well-being of female diabetics. Secondly, family support is likely very significant, therefore diabetes management education programs for women should incorporate their families. Third, there seems to be a necessity of assessing the mental health status of female diabetic patients routinely, as psychological adjustments can affect their health and life satisfaction. Lastly, this study fills in a gap in the literature concerning the aspect of diabetes, social support, illness perception and well-being among women in Pakistan.

Recommendations

Based on the above study results, it can be concluded that:

- Psychosocial assessment should be an integral part of regular diabetes care among women by healthcare providers.
- Family members should be included in the sessions on education and counseling about diabetes so that they can assist women in the support and care.
- Hospitals and clinic centers may be providing counseling services to women under emotional stress concerning their diabetes.
- Awareness programs may be launched in order to promote the knowledge about diabetes and their psychological impacts among women.
- A study must be undertaken on larger and varied samples of diabetic women of different regions of Pakistan.
- Additional factors may be incorporated into subsequent studies like coping, self-efficacy and diabetes distress to gain in-depth knowledge about the psychological adjustment in diabetes.
- Longitudinal studies should be conducted to assess the changes in the levels of social support and illness perception over the period of time.

In summary, this study points to the value of social support in the mental health wellbeing of women with diabetes. Even though social support was not significantly related with illness perception, yet it might still be a significant predictor among women dealing with diabetes. A comprehensive approach integrating medical management with emotional and social support could lead to betterment of outcome and well-being among diabetic women.

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