



LEVEL OF MENTAL HEALTH IN DIABETES PATIENTS OF GILGIT

Sakina Ali^{a*}

^aDepartment of Behavioral Sciences, Karakoram International University, Gilgit, Gilgit-Baltistan, Pakistan

*Correspondence to: Ms. Sakina Ali, Department of Behavioral Sciences, Karakoram International University, Gilgit, Gilgit-Baltistan, Pakistan.
E-mail: research.design313@gmail.com

KEYWORDS

Mental Health, Gender, Diabetes Patients

CITE THIS ARTICLE:

Ali, S. (2024). Level of mental health in diabetes patients of Gilgit. *Pakistan Journal of Mental Health*, 1(1), 7-12.

ARTICLE DETAILS:

Received on 16 Sep, 2024
Accepted on 30 Nov, 2024
Published on 25 Dec, 2024

ABSTRACT

The study was conducted to find out the level of mental health in diabetic patients living in Gilgit district. The sample of the study comprised of 60 diabetic patients (30 males & 30 females) from different hospitals in Gilgit. Mental Health Inventory MHI-38 (Jagdish & Srivastava, 1983) has been employed for data collection. Findings of the revealed that the diabetes patients exhibited a higher level of anxiety, depression, loss of behavioral and emotional control, emotional ties, and psychological distress and were lower on life satisfaction, psychological well-being, and mental health. Females exhibited a higher level of loss of emotional and behavioural control, whereas males were higher on general positive affect, emotional ties, and mental health. Non-significant gender differences were found in anxiety, depression, life satisfaction, psychological distress, and psychological well-being. The study has implications in clinical settings.

I. INTRODUCTION

Diabetes is a serious disease that arises when the pancreas does not make large amounts of insulin or when the blood cannot use the insulin (Bellamy et al., 2009; WHO, 1999). Diabetes refers to an amalgamation of diverse disorders that is usually characterized by incidences of hyperglycemia and glucose due to deficiency of insulin, defective insulin behavior, or the combination of the two (Wild et al., 2004). This leads to complications in the regulatory system of storage space and the mobilization of metabolic fuels the catabolism and anabolism of carbohydrates, lipids and proteins of the body as a result of derangement in insulin discharge, insulin action or a combination of both (Sarkar et al., 2019). Only a few studies have focused on social factor because social factor influences the diabetes (Delamater & Marrero, 2020). Diabetes complications are a negative effect in social circumstances that create the mental health issues (Riaz et al., 2016). The frequency of diabetes in young people under the age of 20 years increasing suggests that nearly 15,000 children are diagnosed with type 1 diabetes and 3,700 with type 2 diabetes each year (Goyal et al., 2019). The diagnosis of the diabetes is shocking and stressful for the young people and their families, and they try to cope with this chronic disease. While psychological distress early in diagnosis is common, it may add to an increased risk of long-term disturbance in children and families (Drapeau et al., 2012).

It is estimated that diabetes will result in more than 350 million people worldwide by 2030 (Wild et al., 2004). Recent studies propose that anxiety disorder may also be connected with loss of positive glycemic management amongst adults with diabetes (Grigsby et al., 2002). Some studies focus on social factors because these factors are directly influential in life, and most of the things are very important for coping with diabetes. Living standards and socioeconomic status as sources of social support may affect diabetes patients because a better level of social

support is required to cope with the disease (Delamater & Marrero, 2020). The psychological factors of diabetes patients were discussed in general and more specifically on emotion influence on health and emotion relative to other psychological aspects of cognition, self-regulation, self-efficacy, and behavior (Chew et al., 2011). Interventions encourage the psychological adjustment of diabetes in around 3700 patients with type 2 diabetes each year (Liese et al., 2009). The effect of anxiety on a person's diabetes management can vary (Rogers et al., 2017).

The diabetic patients also show more violence and show aggression as compared to normal people. Basically, 4 types of diabetes are categorized as type1 diabetes, type 2 diabetes and gestational diabetes and maturity onset diabetes of the young. Gestational diabetes is mostly in women diabetes patients. This diabetes sign shows in through the pregnancy. of women and create some difficulty through the delivery and after delivery This type of diabetes is apparent, and no one has set up any indication (McIntyre et al., 2019). Diabetes results in fear and adds much depression and also creates many psychological problems for the individuals. Diabetic patients feel fear about their future, and their coping strategies become weak and cannot grip any situation. Males used strong coping strategies as compared to females because males are strong and willing to handle any situation (Kelly et al., 2008). Some cultures and societies cannot accept disease conditions, so many diabetic patients cannot share their disease with other people, and they cannot be able to get treatment (Beverly et al., 2012).

II. METHOD

Participants

The current research was quantitative and sample size of research consists of 60 patients, including both males and females. Purposive sampling technique was used for data collection.

Measures

The research design was a cross-sectional survey research. The Mental Health Inventory (MHI-38) (Jagdish & Srivastava, 1983) was employed to measure the level of mental health of diabetes patients. It measures anxiety, depression, loss of behavioural and emotional control, emotional ties, life satisfaction, psychological distress, psychological well-being, and mental health. Results show that the Mental Health Inventory has satisfactory alpha reliability.

Procedure

The data was collected from different hospitals including District Headquarter Hospital, Combined Military Hospital, and Aga Khan Health Service of Gilgit district. Informed consent was taken before data collection. Sometimes patients could not cooperate and showed hesitation, and then we built trust, and then they provided us data. An ethical guideline of the American Psychological Association (APA) has been followed in the current study. The confidentiality and no harm were ensured to all participants. The data analysis was done by using SPSS version 27. Descriptive statistics and independent sample t-tests were used to test the assumptions.

III. RESULTS

Table 1: Descriptive statistics of Mental Health Inventory among diabetic patients

Variables	<i>M</i>	<i>SD</i>	Range
Anxiety	36.03	6.00	18-48
Depression	15.76	3.26	7-23
Loss of Behavioral and Emotional Control	37.62	5.41	22-50
General Positive Affect	36.86	7.41	15-48
Emotional Ties	6.68	2.78	2-10
Life Satisfaction	3.91	1.10	1-6
Psychological Distress	96.83	13.65	58-132
Psychological Well-being	49.73	10.23	33-68

Mental Health	121.35	16.95	69-161
---------------	--------	-------	--------

Table 1 shows descriptive statistics of Mental Health Inventory among diabetes patients. Results showed descriptive statistical analysis of Mental Health Inventory among diabetes patients.

Table 2: Level of mental health among diabetes patients

Variables	A	D	LBEC	GPA	ET	LS	PD	PWB	MH
Mean	37.03	15.76	37.62	36.86	6.68	3.91	96.83	49.73	121.35
Median	37.00	15.00	37.00	38.00	8.00	4.00	97.00	51.00	126.00
SD	6.00	3.26	5.41	7.41	2.78	1.10	13.65	10.23	16.95
Minimum	18.00	7.00	22.00	15.00	2.00	1.00	58.00	33.00	69.00
Maximum	48.00	23.00	50.00	48.00	10.00	6.00	132.00	68.00	161.00

Note: AN = Anxiety, D = Depression, LBEC = Loss of behavioral and emotional control, ET = Emotion ties, LS = Life satisfaction, PD = Psychological distress, PWB = Psychological well-being, MH = Mental health

Table 2 shows level of mental health among diabetes patients. Results showed that the diabetes patients were higher on anxiety, depression, loss of behavioral and emotional control, emotional ties, psychological distress, and were lower on life satisfaction, psychological well-being and mental health.

Table 3: Gender differences in mental health among diabetes patients

Variables	Female (n= 30)		Males (n= 30)		t(58)	p	Cohen's d
	M	SD	M	SD			
Anxiety	35.06	6.93	37.00	4.82	1.25	.21	.32
Depression	16.13	3.57	15.40	2.93	.86	.38	.22
Loss of Behavioral and Emotional Control	39.00	6.59	36.30	3.60	1.96	.05	.50
General Positive Affect	34.00	6.51	39.73	7.22	3.22	.00	.83
Emotional Ties	5.56	2.66	7.80	2.46	3.37	.00	.87
Life Satisfaction	3.76	1.13	4.06	1.08	1.04	.29	.27
Psychological Distress	103.00	8.62	95.40	14.31	1.34	.18	.64
Psychological Well-being	47.50	9.57	50.33	10.47	.69	.49	.28
Mental Health	117.00	18.74	125.56	14.09	1.98	.05	.51

Table 3 shows gender differences in mental health among diabetes patients. Results showed that females were higher on loss of emotional and behavioural control whereas males were higher on general positive affect, emotional ties and mental health. No gender differences were found on anxiety, depression, life satisfaction, psychological distress and psychological well-being.

IV. DISCUSSION

In this research it was found that the diabetic patients' mental health was weak as compared to normal people. They are very receptive and live in upset. In this study psychological distress was also found in female diabetes patients. Anxiety is an unpleasant internal disturbance that is usually marked with nervous conduct, including stuffing back and forth somatic grievances and reproduction (Seligman, 2004). That is the gender difference in psychological Distress exists with higher levels of anxiety in women compared to men (McLean & Anderson, 2009). Depression, anxiety, and somatic complaints are mental disorders that are linked to gender (Bashir, 2024). Gender was also significant in the emergence of mental illness since certain individuals perceive female and gender discrimination as the cause of mental illness. In the same manner, men at times are not able to reveal their feelings. In other instances, the women exhibited less instances of mental illness generally in instances where such factors were out-lawed (Rosenfield et al., 2000).

Findings revealed that females were higher on loss of emotional and behavioural control whereas males were higher on general positive affect, emotional ties and mental health. Moreover, males and females' express

different scores on the level of mental health because their coping strategies are different from one another, as male express negative emotions externally but women express aggression internally (Rosenfield et al., 2000; Sansone & Sansone, 2011). The difference in the average IQ between men and women is of a small scale and contradictory in terms of direction (Baumeister, 2012; Deary, 2020). Males are the ones most likely to be the recipients of aggression and frustration more than females (Bettencourt & Miller, 1996; O'Brien et al., 2010). Girls are also expected to express kindness both in the form of facial emotional display and forceful behavior (Zahn-Waxler et al., 2015). Anxiety and eating disorders are also general in diabetes. Diabetes also causes posttraumatic stress disorder, anxiety, and borderline personality, and sometimes eating disorders, and these are found to be higher in men. Although there is less information on the eating disorders in male diabetic patients, it is a significant issue among diabetic women, with type 1 diabetes. Their chance of having a full-blown eating disorder is twice and a 1.9-fold chance of having a sub-entrance eating disorder when compared to non-diabetics (Melville et al., 2014).

Depression is a most common and very severe medical disease, with a lifetime prevalence of depression in high- to low-income countries because their socioeconomic situation is not good, and their living standard is low, and the rate of depression in low-income countries is 11% (Germine et al., 2022). A study shows that depression is a greater risk factor for diabetes and causes anxiety in people who have awareness about their disease because after knowing about the disease, they feel fear and live upset (Eckstein et al., 2016). Theoretically, depression could be greater than before by anti-diabetic treatment (Berge et al., 2015). The diabetes patients are the triple risk factor of bipolar disorder in the general population (Fagionlini et al., 2005). Type 1 and type 2 are psychological disasters for the patients. and their whole families, and they suffered both in this disease. It interferes. with quality of life and is a risk factor for diabetes-related suffering as well as the psychiatric complications. Challenges complementary to the diagnosis of diabetes include modification to the disease, commitment to the treatment routine, and psychological difficulties at both a personal and interpersonal level (Goebel, 2018). Stress deficient social support and develop negative thinking about the disease and also negative attitude towards the disease (Haugland et al., 2016).

V. CONCLUSION

Findings of the study revealed that diabetes patients scored higher on anxiety, depression, loss of behavioral and emotional control, emotional ties, psychological distress, and scored less on life satisfaction, psychological well-being and mental health. Gender differences revealed that females scored higher on loss of emotional and behavioural control whereas males were higher on general positive affect, emotional ties and mental health. The findings of this research has psychological implications for diabetes patients.

Disclosure Statement

No potential conflict of interest was reported by the author.

Funding

The author received no funding from any organizations.

VI. REFERENCES

- Bashir, M. M. (2024). Relationship between gender discrimination, gender stereotype and bullying affect among teenagers. *Pakistan Journal of Positive Psychology*, 1(1), 38-43.
- Baumeister, R. F. (2012). Need-to-belong theory. *Handbook of theories of social psychology*, 2, 121-140.
- Bellamy, L., Casas, J. P., Hingorani, A. D., & Williams, D. (2009). Type 2 diabetes mellitus after gestational diabetes: a systematic review and meta-analysis. *The lancet*, 373(9677), 1773-1779.

- Berge, L. I., Riise, T., Tell, G. S., Iversen, M. M., Østbye, T., Lund, A., & Knudsen, A. K. (2015). Depression in persons with diabetes by age and antidiabetic treatment: a cross-sectional analysis with data from the Hordaland Health Study. *PLoS One*, *10*(5), e0127161.
- Bettencourt, B., & Miller, N. (1996). Gender differences in aggression as a function of provocation: a meta-analysis. *Psychological bulletin*, *119*(3), 422.
- Beverly, E. A., Ganda, O. P., Ritholz, M. D., Lee, Y., Brooks, K. M., Lewis-Schroeder, N. F., ... & Weinger, K. (2012). Look who's (not) talking: diabetic patients' willingness to discuss self-care with physicians. *Diabetes care*, *35*(7), 1466-1472.
- Chew, B. H., Shariff-Ghazali, S., & Fernandez, A. (2014). Psychological aspects of diabetes care: Effecting behavioral change in patients. *World journal of diabetes*, *5*(6), 796.
- Deary, I. J. (2020). *Intelligence: A very short introduction* (Vol. 39). Oxford University Press, USA.
- Delamater, A. M., & Marrero, D. G. (2020). *Behavioral diabetes*. Springer International Publishing.
- Drapeau, A., Marchand, A., & Beaulieu-Prévost, D. (2012). Epidemiology of psychological distress. *Mental illnesses-understanding, prediction and control*, *69*(2), 105-106.
- Eckstein, M., Scheele, D., Patin, A., Preckel, K., Becker, B., Walter, A., ... & Hurlemann, R. (2016). Oxytocin facilitates Pavlovian fear learning in males. *Neuropsychopharmacology*, *41*(4), 932-939.
- Fagiolini, A., Forgione, R., Maccari, M., Cuomo, A., Morana, B., Dell'Osso, M. C., ... & Rossi, A. (2013). Prevalence, chronicity, burden and borders of bipolar disorder. *Journal of affective disorders*, *148*(2-3), 161-169.
- Fagiolini, A., Frank, E., Scott, J. A., Turkin, S., & Kupfer, D. J. (2005). Metabolic syndrome in bipolar disorder: findings from the Bipolar Disorder Center for Pennsylvanians. *Bipolar disorders*, *7*(5), 424-430.
- Germine, L. T., Joormann, J., Passell, E., Rutter, L. A., Scheuer, L., Martini, P., ... & Kessler, R. C. (2022). Neurocognition after motor vehicle collision and adverse post-traumatic neuropsychiatric sequelae within 8 weeks: initial findings from the AURORA study. *Journal of affective disorders*, *298*, 57-67.
- Goebel, Y. S. (2018). *Risk Perception: The Influence of Maltreatment and Self-efficacy*. Palo Alto University.
- Goyal, J., Kumar, N., Sharma, M., Raghav, S., & Bhatia, P. S. (2019). Factors affecting glycemic control among patients with type 2 diabetes at a tertiary health care center of western up region: A cross-sectional study. *International Journal Health Science Research*, *9*(3), 12-20.
- Grigsby, A.B., Anderson, R.J., Freedland, K.E., Clouse, R.E., & Lustman, P.J. (2002). Prevalence of anxiety in adults with diabetes: a systematic review. *J Psychosom Res*, *53*, 1053-1060.
- Haugland, T., Wahl, A. K., Hofoss, D., & DeVon, H. A. (2016). Association between general self-efficacy, social support, cancer-related stress and physical health-related quality of life: a path model study in patients with neuroendocrine tumors. *Health and quality of life outcomes*, *14*, 1-7.
- Jagdish, D., & Srivastava, A. K. (1983). Mental health inventory. *Varanasi: Manovaijyanik Parikshan Sansthan*.
- Kelly, M. M., Tyrka, A. R., Price, L. H., & Carpenter, L. L. (2008). Sex differences in the use of coping strategies: predictors of anxiety and depressive symptoms. *Depression and anxiety*, *25*(10), 839-846.
- Liese, A. D., Weis, K. E., Schulz, M., & Toozé, J. A. (2009). Food intake patterns associated with incident type 2 diabetes: the Insulin Resistance Atherosclerosis Study. *Diabetes care*, *32*(2), 263-268.
- McIntyre, H. D., Catalano, P., Zhang, C., Desoye, G., Mathiesen, E. R., & Damm, P. (2019). Gestational diabetes mellitus. *Nature reviews Disease primers*, *5*(1), 47.
- McLean, C. P., & Anderson, E. R. (2009). Brave men and timid women? A review of the gender differences in fear and anxiety. *Clinical psychology review*, *29*(6), 496-505.
- Melville, J. L., Reed, S. D., Russo, J., Croicu, C. A., Ludman, E., LaRocco-Cockburn, A., & Katon, W. (2014). Improving care for depression in obstetrics and gynecology: a randomized controlled trial. *Obstetrics & Gynecology*, *123*(6), 1237-1246.
- Norman, R. E., Byambaa, M., De, R., Butchart, A., Scott, J., & Vos, T. (2012). The long-term health consequences of child physical abuse, emotional abuse, and neglect: a systematic review and meta-analysis. *PLoS medicine*, *9*(11), e1001349.
- O'brien, K. E., Biga, A., Kessler, S. R., & Allen, T. D. (2010). A meta-analytic investigation of gender differences in mentoring. *Journal of Management*, *36*(2), 537-554.
- Riaz, M. A., Fatima, G., Riaz, M. N., & Batool, N. (2016). Psychological Predictors of Depression in Diabetes. *Pakistan Journal of Medical Research*, *55*(1), 25.

- Rogers, J. M., Ferrari, M., Mosely, K., Lang, C. P., & Brennan, L. (2017). Mindfulness-based interventions for adults who are overweight or obese: a meta-analysis of physical and psychological health outcomes. *Obesity reviews*, 18(1), 51-67.
- Rosenfield, S., Vertefuille, J., & McAlpine, D. D. (2000). Gender stratification and mental health: An exploration of dimensions of the self. *Social psychology quarterly*, 208-223.
- Sansone, R. A., & Sansone, L. A. (2011). Gender patterns in borderline personality disorder. *Innovations in clinical neuroscience*, 8(5), 16.
- Sarkar, B. K., Akter, R., Das, J., Das, A., Modak, P., Halder, S., ... & Kundu, S. K. (2019). Diabetes mellitus: A comprehensive review. *Journal of Pharmacognosy and Phytochemistry*, 8(6), 2362-2371.
- Seligman, R. A. (2004). *Sometimes affliction is a door: A bio-psycho-cultural analysis of the pathways to Candomblé mediumship*. Emory University.
- Wild, S., Roglic, G., Green, A., Sicree, R., & King, H. (2004). "Global prevalence of diabetes: Estimates for the year 2000 and projections for 2030". *Diabetes Care*. 27 (5) 1047–53. <http://doi:10.2337/diacare.27.5.1047>.
- World Health Organization. (1999). Definition, Diagnosis and Classification of Diabetes Mellitus and Its Complications. Part 1. Report of WHO consultation. Geneva.
- Zahn-Waxler, C., Crick, N. R., Shirtcliff, E. A., & Woods, K. E. (2015). The origins and development of psychopathology in females and males. *Developmental psychopathology: Volume one: Theory and method*, 76-138.