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Gender wise difference in depression level amongst patients with type 2 diabetes mellitus

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Abstract---Background: The World Health Organization estimates that 220 million individuals worldwide have diabetes mellitus, with 80% of those people living in poor nations and a death rate of 5% annually. Objective: To assess the gender wise difference in depression level amongst patients with type 2 diabetes mellitus. Methodology: The current cross sectional study was carried out at Balochistan Institute of Psychiatry and Behavioral Sciences and Bolan Medical Complex Hospital Quetta from August 2019 to August 2020. Informed consent was taken in written from all the participants. A pre-designed proforma was then used to collect all the required information's. The SPSS version 24.0 was used to input and analyze the data. Results: In our study, a total of 120 type 2 diabetes mellitus patients were enrolled. The male participants in our study were 60 (50%) while female participants were 60 (50%). The mean age (SD) in our study was 46 (12.1) years. Based on the gender wise difference of depression amongst diabetic patients, mild depression was observed amongst 36 (30%) females and 27 (22.5%) males; Moderate depression was observed amongst 18 (15%) females and 9 (7.5%) males while severe depression was observed amongst 28 (23.33%) females and 18 (15%) males. Conclusion: Our study concludes that the level of depression in females is higher and more severe as compared to males. Mental and medical health services are desperately needed to support those who are feeling hopeless and powerless about managing their illness and to help them adopt a healthy lifestyle.

Keywords---Gender, depression, type 2 diabetes mellitus.

Introduction

The World Health Organization estimates that 220 million individuals worldwide have diabetes mellitus, with 80% of those people living in poor nations and a death rate of 5% annually (1). Additionally, the International Diabetes Federation predicted that over 360 million people worldwide would have diabetes by 2030. (2). In Ethiopia, this illness affected 800,000 people in 2000, and it is predicted that number would rise to 1.8 million by 2030. (3). There were 5,217,000 cases of this metabolic disorder in Pakistan in 2000; by 2030, there will likely be 13,853,000 cases (4). According to another study, the prevalence of diabetes is predicted to be 3.5% for women and 6% for men in various urban areas of our nation (5). Self-care is a crucial component of managing this chronic condition. To achieve balanced glycemic control, it is necessary to be open to taking prescribed medications, adhering to a diet plan, and engaging in healthy exercise. If any of these requirements are not met, however, disturbance will result (7,8). Depression is one of these characteristics that is linked to poor therapeutic compliance (9,10), poor glucose control (10), and increased diabetes complications, according to previous research, which has emphasized the importance of crucial psychological aspects for treating diabetic constancy (11,12). According to results of a local study (13), female diabetes patients were more likely to experience depression. Other studies showed that depression was linked to worse quality of life in women with type 2 diabetes mellitus (T2DM) than in men with T2DM (11,14-16). (17,18). It is necessary to provide these depressed diabetes patients with intensive treatment while also enlisting the support of their families (19). According to a recent study (20), women with diabetes had a higher ratio of depression (52.7%) as compared to men (36%), whereas in Bangladesh, diabetic patients' rates of depression range from 28% to 34% (16,21,22), with significant differences in the ratio of males and females of 22% and 35%, respectively (16). Further investigation in Pakistan revealed that depression also occurred in those with T2DM when other psycho-social and demographic variables were present, such as a diabetes history and hypertension, living separately, being overweight, being married and smoking habit (23). The primary goal of this study is to examine the differences in depression severity between T2DM males and females. Their perspective and attitude towards this illness would undoubtedly provide new opportunities for mental and medical health professionals to assist such individuals in managing this illness by removing their feeling of hopelessness.

Materials and Methods

The current cross sectional study was carried out at Balochistan Institute of Psychiatry and Behavioral Sciences and Bolan Medical Complex Hospital Quetta. The study duration was one years from August 2019 to August 2020. The study approval was taken from IRB of the institute. The calculated sample size based on WHO sample size calculator was 120. The inclusion criteria of our study were all the patients of both the gender and age range of 18-60 years diagnosed with type 2 diabetes mellitus and willing to participate in our study. The exclusion criteria were all the patients with severe medical conditions like HIV, myocardial infarction. Informed consent was taken in written from all the participants. Depression was assessed by using Siddique Shah Depression Scale (24). A pre-designed proforma was then used to collect all the required information's. The

SPSS version 24.0 was used to input and analyze the data. Frequencies and percentages were used to represent qualitative variables. In terms of Mean SD, quantitative variables were represented.

Results

In our study, a total of 120 type 2 diabetes mellitus patients were enrolled. The male participants in our study were 60 (50%) while female participants were 60 (50%). The mean age (SD) in our study was 46 (12.1) years. Based on age distribution, 10 (8.33%) patients were in age group 18-30 years, 26 (21.67%) patients were in age group 31-40 years, and 50 (41.67%) patients were in age group 41-50 years while 34 (28.33%) patients were in age group 51-60 years. Based on the gender wise difference of depression amongst diabetic patients, mild depression was observed amongst 36 (30%) females and 27 (22.5%) males; Moderate depression was observed amongst 18 (15%) females and 9 (7.5%) males while severe depression was observed amongst 28 (23.33%) females and 18 (15%) males.

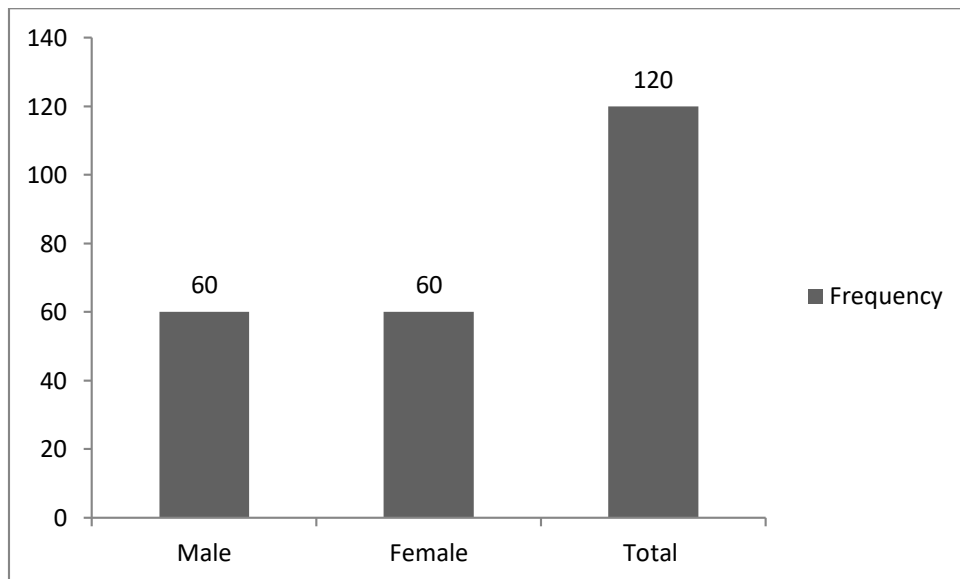


Figure 1: Gender wise distribution of patients

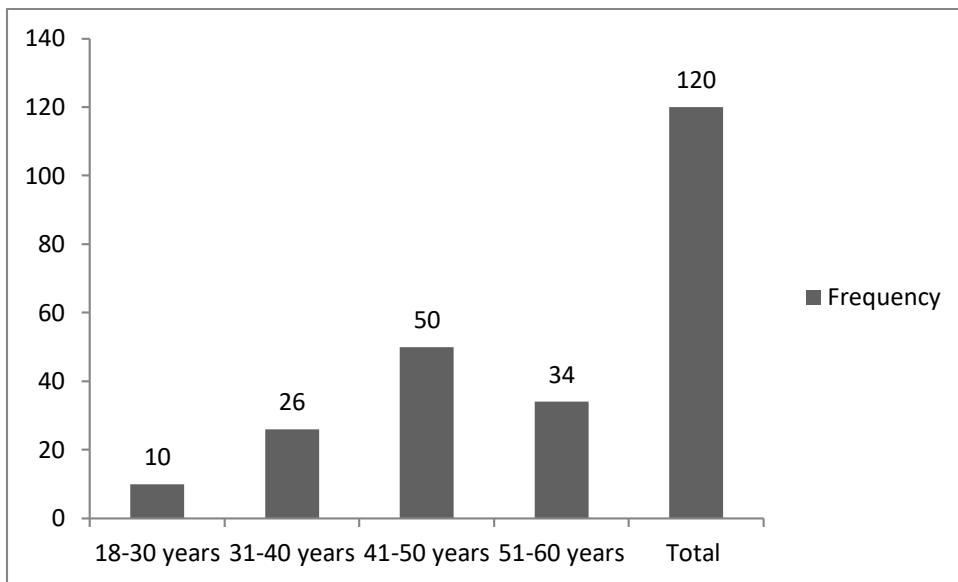


Figure 2: Age wise frequency of participants

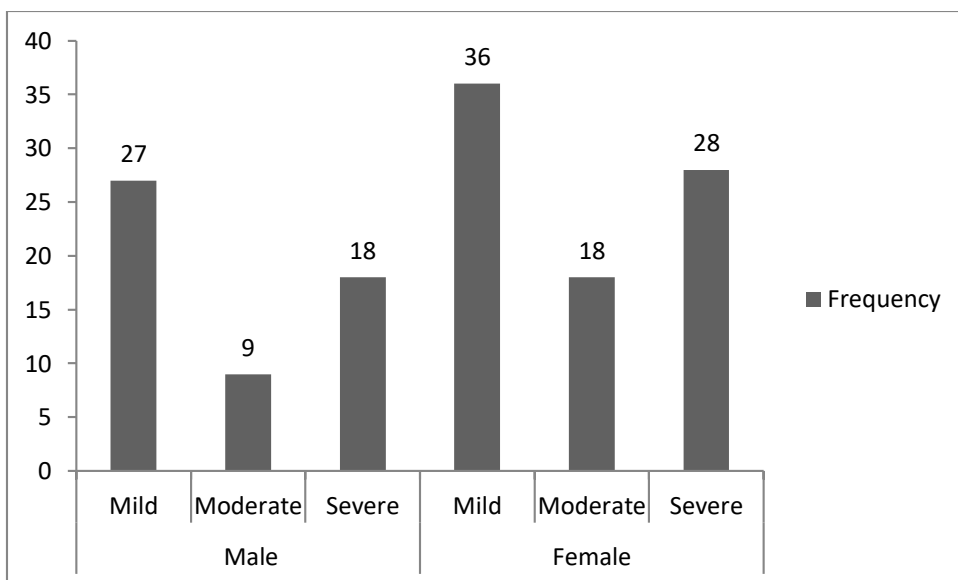


Figure 3: Gender wise difference of depression amongst type 2 diabetic patients

Discussion

It was noted during clinical practice and an informal interview prior to data collection that both male and female patients with diabetes experience worry, continuous tension, and fear regarding everyday stresses. They develop inappropriate coping mechanisms for dealing with stress, and they have pessimistic attitudes concerning this chronic illness. They were eventually led to depression by this, which made them feel hopeless.

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Unfortunately, this psychological strain and ongoing stress put women at higher danger than men (26). However, it is also clear that other psychosocial elements, such as being a housewife, the family's financial situation, social support, and the coping mechanism itself, have a substantial role in increasing stress in women (27, 28, 29).

Conclusion

Our study concludes that the level of depression in females is higher and more severe as compared to males. Mental and medical health services are desperately needed to support those who are feeling hopeless and powerless about managing their illness and to help them adopt a healthy lifestyle.

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