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FEMALE SEXUAL DYSFUNCTION IN DYSGLYCAEMIC WOMEN: ASSOCIATION WITH GLYCAEMIC CONTROL AND DEPRESSION IN A CROSS-SECTIONAL STUDY

General Medicine

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ABSTRACT

Background: Female sexual dysfunction (FSD) is a common but under-recognized complication of dysglycaemia. Despite increasing prevalence of diabetes and prediabetes among Indian women, limited data exist regarding the impact of glycaemic status on sexual health. **Objectives:** To determine the prevalence of FSD among dysglycaemic women and evaluate its association with glycaemic control and depression severity. **Methods:** A hospital-based cross-sectional study was conducted among 324 women aged 18–50 years with diabetes or prediabetes attending a tertiary care center in Central India. Sexual function was assessed using the Female Sexual Function Index (FSFI), while depression was assessed using the Hamilton Depression Rating Scale (HAM-D). FSD was defined as FSFI ≤26.55. **Results:** The overall prevalence of FSD was 56.8%. Sexual dysfunction was observed in 40.5% of prediabetic women and 62.0% of diabetic women. Mean FSFI score was 18.65 ± 9.80. Orgasm dysfunction (66.7%) and arousal dysfunction (63.9%) were the most affected domains. Progressive deterioration in sexual function was observed with worsening glycaemic control. Mean FSFI declined from 25.54 in prediabetes to 14.24 among women with poor glycaemic control ($p<0.001$). Increasing depression severity was significantly associated with lower FSFI scores ($p<0.001$). **Conclusion:** Female sexual dysfunction is highly prevalent among dysglycaemic women and is strongly associated with poor glycaemic control and depression. Routine screening for sexual dysfunction should be incorporated into comprehensive diabetes care.

KEYWORDS

Female Sexual Dysfunction, Diabetes Mellitus, Prediabetes, Glycaemic Control

INTRODUCTION

Diabetes mellitus is a major public health challenge and is associated with multiple chronic complications that adversely affect quality of life. Female sexual dysfunction (FSD), characterized by disturbances in desire, arousal, lubrication, orgasm, satisfaction, and pain, remains one of the most neglected complications of dysglycaemia.

The pathophysiology of FSD in diabetes is multifactorial and involves vascular insufficiency, autonomic neuropathy, hormonal alterations, endothelial dysfunction, and psychological factors such as depression and anxiety. Although several international studies have demonstrated a higher prevalence of sexual dysfunction among diabetic women, Indian data remain limited, particularly among women with prediabetes.

This study aimed to evaluate the prevalence of FSD among dysglycaemic women and determine its association with glycaemic control and depression severity.

MATERIALS AND METHODS

This hospital-based cross-sectional study was conducted in the Department of General Medicine, LN Medical College and JK Hospital, Bhopal. A total of 324 women aged 18–50 years diagnosed with diabetes mellitus or prediabetes according to American Diabetes Association criteria were included.

Sexual function was assessed using the Female Sexual Function Index (FSFI). A total FSFI score ≤26.55 was considered indicative of sexual dysfunction. Depression severity was assessed using the Hamilton Depression Rating Scale (HAM-D).

Data were analyzed using R software. Continuous variables were expressed as mean ± standard deviation. Comparisons between groups were performed using ANOVA and chi-square tests. A p-value <0.05 was considered statistically significant.

RESULTS

Table 1. Baseline Characteristics of Participants

Variable	Value
Sample Size	324
Mean Age (years)	35.38 ± 6.82
Mean HbA1c (%)	7.61 ± 1.27
Prediabetes	24.4%
Diabetes	75.6%
Mean Disease Duration	4.99 ± 3.49 years

The overall prevalence of FSD was 56.8% (184/324 participants).

Table 2. Sexual Dysfunction by Glycaemic Status

Group	FSD Present
Prediabetes	40.5%
Diabetes	62.0%

Orgasm dysfunction was the most common domain affected (66.7%), followed by arousal dysfunction (63.9%), lubrication dysfunction (59.9%), desire dysfunction (56.2%), satisfaction dysfunction (51.5%), and pain dysfunction (46.9%).

Table 3. Mean FSFI Score According to Glycaemic Control

Group	Mean FSFI ± SD
Prediabetes	25.54 ± 7.13
Good Control	21.21 ± 9.36
Fair Control	15.94 ± 9.24
Poor Control	14.24 ± 9.90

A significant decline in sexual function was observed with worsening glycaemic control ($p<0.001$).

Table 4. Mean FSFI According to Depression Severity

HAM-D Category	Mean FSFI ± SD
Normal	25.28 ± 8.17
Mild	25.57 ± 7.62
Moderate	16.42 ± 8.90
Severe	13.20 ± 9.12

Women with severe depression demonstrated markedly lower sexual function scores compared with those without depression ($p<0.001$).

DISCUSSION

The present study demonstrated that more than half of dysglycaemic women experienced sexual dysfunction. The prevalence observed among diabetic women (62%) is comparable to findings reported in previous international studies.

A noteworthy finding was the high prevalence of sexual dysfunction among prediabetic women (40.5%), suggesting that impairment in sexual health may begin before overt diabetes develops. Progressive worsening of sexual function with increasing HbA1c levels indicates a strong relationship between metabolic control and sexual well-being.

Depression emerged as a significant determinant of sexual dysfunction. Women with moderate-to-severe depression exhibited substantially lower FSFI scores, highlighting the complex interaction

between psychological health and sexual function.

These findings emphasize the need for routine assessment of sexual health and psychological well-being in women with dysglycaemia.

CONCLUSION

Female sexual dysfunction is highly prevalent among women with diabetes and prediabetes. Poor glycaemic control and depression are strongly associated with worsening sexual function. Early identification and management of sexual dysfunction should be incorporated into routine diabetes care to improve quality of life and overall health outcomes.

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