Original Article

PREVALENCE AND TYPES OF SEXUAL DYSFUNCTION AMONGST FEMALE WITH DIABETES MELLITUS

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ABSTRACT

Objective: To determine the prevalence and types of sexual dysfunction (SD) amongst female with Diabetes Mellitus (DM) in Benin City, Nigeria.

Methodology: This is a cross sectional study. A total of 225 female with DM and 225 female without DM who served as controls were studied. Data obtained included age, anthropometric indexes, presence and type of sexual dysfunction.

Results: Fifteen (6.6%) subjects with DM had sexual dysfunction and four (1.7%) in the control group had SD with sexual pain disorder being the commonest SD, seen in both groups. Other SD seen was lubrication disorder and sexual arousal disorder. The prevalence of SD in diabetic female was significantly higher than in the control group (6.6% vs. 1.7% $p < 0.05$).

Conclusion: Sexual Dysfunction appears to be relatively uncommon amongst Nigerian women with Diabetes Mellitus. However diabetes care providets should address this issue during consultations with patients and provide treatment as this is a treatable condition.

KEY WORDS: Diabetes Mellitus, Female sexual dysfunction, Benin City.

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INTRODUCTION

Female sexual dysfunction (SD) amongst persons with Diabetes Mellitus (DM) is an area that has not been adequately studied. There is a dearth of data in this area and this is partly due to the fact that in the Nigerian society most people consider do not discuss their sexual lives for fear of being labelled "promiscuous". Some of the few studies done have shown that sexual dysfunction is common in female with DM, with sexual arousal disorder being the most common form of SD reported.[1] Other forms of SD seen in females include disorders of sexual pain, lubrication, orgasm, sexual desire and sexual satisfaction. The aetiology of female SD is multifactorial with vascular, neurological, endocrine and psychogenic factors, all playing a contributory role. In comparison to male SD, psychogenic factors play an important role

in female SD. Depression is said to be twice more common in women than men.[2] With the dearth of data on this topic, this study set out to determine the magnitude of female SD, types and frequencies of occurrence amongst female persons with DM being managed in a tertiary hospital in the south south zone of Nigeria.

METHODOLOGY

This was a cross sectional descriptive study. Two hundred and twenty five consenting females with DM were enrolled from the Diabetes Clinic of the University of Benin Teaching Hospital and Central Hospital, both in Benin City in the south zone of Nigeria. The study was done between June and December, 2004. It lasted for seven months.

Patients who were on drugs like Beta blockers and centrally acting drugs like alpha methyldopa known to cause female SD were excluded. Two hundred and twenty five hospital workers volunteered to be participants as controls. The subjects were interviewed by both male and female medical personnel in the diabetic unit. The subjects were informed about the research and its objectives. They were assured that confidentiality will be maintained during and after the study and information given will be used only for research purposes. Information obtained from both study and control subjects included age, drug history, type and duration of DM, history of, and type of SD, height, weight, body mass index, waist circumference.

The weight obtained was recorded in kilogrammes (kg) to the nearest 0.1kg and the height recorded in metres (m) to the nearest 0.01m. The body mass index was calculated as the weight in kg divided by the square of the height in metres.[3] The waist circumference was measured using a non stretch metric tape and taken at the mid point between the rib cage and iliac crest while hip circumference was taken as the maximal circumference of the buttocks.[4]

Sexual dysfunction in both groups was diagnosed and characterized using the female sexual function index (FSFI)[5] which is a specific, sensitive and standardized tool for diagnosing female SD. The index has six domains viz, disorder of sexual satisfaction, lubrication, orgasm, sexual desire and sexual pain. The diagnostic score criteria for the various forms of female SD using the FSFI are summarized in Table-I. Ethical approval for this study was obtained from the ethical committee of the University of Benin Teaching Hospital, Benin City.

Data analysis was done using SPSS version 10 (2000). Comparison of means was done using the student t test, while that of proportion was done using the chi square test. The level of statistical significance was taken as $p < 0.05$.

RESULTS

The clinical characteristics of the study and control groups are shown in Table-II. The female DM subjects tended to be older with greater anthropometric indices than the control group.

Fifteen (6.6%) of the subject with DM had female SD using the criteria in Table-I. Sexual pain disorder or dyspaurenia was the commonest form of SD and was seen in all of the 15 subjects, while lubrication disorder was seen in 12 (5.3%) of the 15 subjects, and sexual arousal disorder in 10 (4.4%) of the 15 subjects. No subject admitted to having disorder of sexual desire, sexual orgasm or sexual satisfaction.

Four persons (1.7%) in the control group had sexual dysfunction. Sexual pain disorder was

Table-I: FSFI domain scores for diagnosing sexual dysfunction

Domain	*Range of Scores*	*Score for SD*
Sexual satisfaction disorder	2-15	<8
Lubrication disorder	0-20	<10
Arousal disorder	0-20	<10
Sexual desire disorder	2-10	<4
Orgasm disorder	0-15	<8
Sexual pain disorder	0-15	<10

Table-II: Comparison of clinical characteristics of female diabetics and non-diabetics

Variables	*DM Subjects (n=225)*	*Non DM Subjects (n-225)*	*p-value*
Age (years)	48.8+8.3	46.6+5.8	>0.05
BMI (kg/m2)	25.4+3.1	24.6+3.1	<0.05
WCE (cm)	81.4+10.9	80.96+14.2	>0.05
WHR	0.94+0.09	0.91+0.06	<0.05

BMI – Body Mass Index; WCE = waist hip ratio; WHR = Waist circumference.

reported by the four persons, while three out of the four persons had lubrication disorder and sexual arousal disorder. The prevalence of female SD (6.6%) in the DM persons was significantly higher than in the control group. (6.6% v 1.7% $p < 0.05$). The distribution of the various forms of female SD and their domain score in both control and DM subject are shown in Table-III.

DISCUSSION

Diabetes Mellitus (DM) results in several medical, psychological and sexual dysfunctions, sexual dysfunction.[6] Sexual dysfunction (SD) is known to be prevalent in both men and women with DM, but the sexual problems of women with Diabetes Mellitus have received much less attention in research and practice.[7] Studies have shown that women with DM are also at increased risk for sexual dysfunction. Common types of SD in females include decreased arousal and lubrication.[8,9] There are also decreased sexual desire and dyspaurenia but the problems of orgasm appear to be no more frequent than in the general population.[9] Psychosexual factors are also important in the aetiology of female sexual dysfunction.

The prevalence of female sexual dysfunction in DM in this study was 6.6%. This is much lower than the rate of 27%, reported by Enzlin et al[10] in the population they studied. This may not be surprising considering the fact that the taboo placed on discussion of sex in the African society may not be applicable in the western world, where their study was carried out. Newman and Betelson's in their study reported a much higher prevalence rate of 47% in their study population.[11]

Table-III: FSFI scores for study and control subjects

Domain	*Study subjects*	*Control subjects*
Sexual pain disorder	4.5±1.0	6.8±1.4
Lubrication disorder	5.3±0.6	5.4±2.0
Arousal disorder	5.5±1.5	5.8±1.2

Another reason that has been adduced for the apparently low prevalence of female SD is that discussions on sex and sexuality amongst women is still regarded as a taboo in several quarters, therefore most women may not be comfortable discussing their sexual problem for fear of being labelled promiscuous. Sexual relations especially amongst the womenfolk in the Nigerian setting are usually seen mainly for procreation. Little attention is paid to whether there is sexual satisfaction on the part of the woman so far as she is able to have children. Many of the women involved in this study did not divulge information on sexuality with a male doctor and possibly might have been more at ease on this issue with fellow women medical personnel.

Only four(1.7%) of the subjects in the control group admitted to having sexual dysfunction showing that female SD is much more common amongst female diabetics. Our findings are similar to reports by Enzlin et al[10] who reported that significantly more women with DM (27%) than control subject (15%) has sexual dysfunction. They also reported that most of the female did not readily divulge information about their sexuality similar to the finding in this study.

The most common sexual dysfunction in our study was sexual pain disorder (dyspaurenia), lubrication disorder and sexual arousal disorder. There are however, very few studies that have been done on female sexual dysfunction amongst persons with DM. Enzlin et al[10] identified sexual arousal, sexual desire and sexual

pain disorders (dyspaurenia) as the most common forms of female SD in their study. In an earlier study by Jensen[12], the most frequently reported problem was decreased vaginal lubrication. On the other hand, Newman and Betelson's in their study reported that the most common sexual dysfunction were lubrication disorder (32%), decreased sexual desire (21%), sexual pain disorder (21%) and problems with orgasm (15%). Most of the women in their study (85%) also reported that their sexual problem started after their diagnosis of diabetes mellitus. Most of these studies have shown that diabetic women are at a higher risk of sexual dysfunction with the arousal phase being predominantly affected.[1]

Psychological problems are also very important in the aetiology of diabetic female sexual dysfunction. Women suffer depression twice as frequently as men.[2] Diabetic women suffer an even greater prevalence of depression than non diabetic women.[13,14] A women with a chronic disease like diabetes may be so preoccupied with the disease that the other aspect of life are secondary and this would adversely affect her sex life hence psychotherapy is an important component in the management of these patients.

Limitations of the study: The questionnaire used is a self report diagnostic tool, and its interpretation may reduce the accuracy of the responses given, and some of the subjects were not comfortable discussing sexual issues with male medical personnel who were involved in this study. Another limitation was that psychiatric assessment of the subjects was not done and this could affect the responses given as depression is recognized as an underlined problem in sexual disorders.

CONCLUSION

The prevalence of sexual dysfunction amongst female persons with DM has not been adequately studied. Sexuality is an important aspect of life and women with DM are at increased risk for sexual dysfunction. Sexual dysfunction can put a high psychological burden on the patient and have a negative impact on the marital relationship. Recognition of this issue by DM care provides will make them to address this issue during consultations with their patients so as to offer adequate treatment and counseling to their patients. We therefore recommend that DM care providers should address this important issue during consultations with their patient so as to offer adequate treatment since this condition is treatable.

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