



# **Factors Associated with Sexual Dysfunction among Married Men in Aba Metropolis, Abia State**

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## **Authors' contributions**

*This work was carried out in collaboration among all authors. All authors read and approved the final manuscript.*

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## **ABSTRACT**

This study investigated the factors associated with sexual dysfunction among married men in Aba metropolis, Abia State. Five objectives, five research questions and four hypotheses were formulated to guide the study. The descriptive research design was adopted with a population of 473, 940 men in the four local government areas in Aba metropolis, Abia State with a sample size of 400 which was selected using the multi-stage sampling procedure. The instrument for data collection were sphygmomanometer, glucometer and adopted questionnaire from Rosen et al. (2002) with a reliability coefficient of 0.97. The retrieved copies of the questionnaire were coded and analyzed with the aid of SPSS using percentage, contingency value and chi-square at 0.05 level of significance. The findings of the study showed a high prevalence of sexual dysfunction (67.1%). Sexual dysfunction has a moderately significant relationship with age (c-value = 0.52,  $p < 0.05$ ), history of diabetes (c-value = 0.50,  $p < 0.05$ ), and diastolic blood pressure (c-value = 0.54,  $p < 0.05$ ).

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However, result showed no statistically significant relationship between sexual dysfunction and number of sexual partners ( $p>0.05$ ). The study concluded that married men in Aba metropolis are experiencing sexual dysfunction in varying degrees that require public health attention, with diabetes and hypertension as contributory factors. It was recommended among others that, the Government through its ministry of health should intensify community screening of men on early detection of diabetes and hypertension to minimize the impact of these health challenges on sexual functioning and sexual health of the citizens.

*Keywords: Sexual dysfunction; sphygmomanometer; erectile dysfunction.*

## 1. INTRODUCTION

“Sexuality is an essential part of life, however, sexual dysfunction (SD) has been one of the most common complaints among men with sexual health issues. It occurs in 75 to 100 million men worldwide. Incidence increases with age-62% of all men at 65years and above. Erectile dysfunction is the consistent or re-occurrent inability to attain and/or maintain penile erection sufficient for sexual activity” [1]. “The worldwide prevalence of SD seems to be high and had increased substantially in the aging populations of various regions over the past 25 years. In 1995, it was estimated that 152 million men worldwide had SD, and that by the year 2025, the number of men with SD would be ~322 million; an increase of nearly 170 million men and 56.0% of women were found to have sexual dysfunction. The greatest increases was in the developing world, such as Africa, Asia and South America” [2]. According to Kandrakonda et al. [3], “the prevalence of sexual dysfunction (SD) varies in the general population and studies conducted across different geographical regions reveal high prevalence rates”. “Studies on SD prevalence from countries across various regions of Asia, the Middle East and Africa, where socio-cultural and religious characteristics are similar, have been documented” [4-6]. “For example, in three other studies in Nigeria, prevalence rates of 57.4%, 50.7% and 43.6%, respectively”, have been reported [7-9]. Establishing the prevalence of SD is important for understanding the need for services.

“Sexual dysfunction (SD) describes the inability of an individual to participate in a sexual relationship as individuals would wish and includes lack of interest, lack of enjoyment, failure of physiological responses and/or problems with erection” [10]. Many men may experience sexual dysfunction at different times in life. Mitchell, et al [11] reported that among sexually active men, the prevalence of reporting one or more of four specific sexual dysfunction

problems was 38.2%. Similarly, McCabe et al. [12] reported that the most frequent sexual dysfunctions for men are premature ejaculation and erectile dysfunction. Sexual dysfunction could be influenced by age, occupation and medication conditions. A man is as old as his arteries [13]. “Increasing age has been associated with SD in men. The penis is also a neurovascular organ, so it is right to say that a man is same age with his penis” [13]. “Whatever affects the general systemic vasculature of the body is bound to affect the penis too” [14].

“Age followed by the presence of a spouse, is thought to be the most significant risk factor for SD” [15]. “Studies also indicate that SD is highly prevalent in individuals with cardiovascular disease risk factors such as diabetes mellitus, dyslipidemia, hypertension and other such diseases linked with endothelial dysfunction” [16]. “In fact, men with hypertension have a 15% likelihood of developing severe SD and if they smoked, the likelihood increased to 20%” [17]. “It is currently thought that SD may serve as a sentinel marker for cardiovascular diseases” [18]. There is a common belief of a reduction in sexual activity in man as he ages, which could be worsened by certain lifestyles.

“Several studies have linked SD to some lifestyle factors and habits. These lifestyle factors are on the increase in developing countries such as Nigeria. Among the recognised factors are smoking, physical inactivity, alcohol consumption, diet, weight increase” [19]. “Their role in the development of most non communicable diseases associated with SD have already been identified. Modification of these lifestyle habits has been shown to add advantageous gain to the overall vascular system and erectile function of men and in treatment and prevention of the medical conditions” [20]. There is improved erectile function when lifestyle habits are modified in men, particularly in aged and obese men, whom are most affected with SD. However, in Africa, there is an adage that says that men do

not always cry. Thus prevalence of male sexual dysfunction record in literature may be a tip of iceberg, therefore this study sought to investigate factors associated with sexual dysfunction among married men in Aba Metropolis, Abia State.

### 1.1 Statement of the Problem

The increase in sexual dysfunction has led to low quality life, low procreative advancement, marital disharmony and lack of care in the home. Members who are affected have high risk of psychological disorders, such as anxiety, depression and antisocial behavior among children. Men who have sexual dysfunction are looked down upon by the society and referred to as not normal and called derogatory names.

In Aba metropolis, observation has shown increase in marital disharmony and some of these have attributed to not satisfying partner's marital obligations. Literature review has shown abundance of study on sexual dysfunction among males. However, there is paucity of information among males more especially in Aba metropolis. This study thus, sought to investigate the factors associated with sexual dysfunction among married men in Aba metropolis, Abia State.

### 1.2 Hypotheses

The study was guided by the following null hypotheses which were tested at 0.05 alpha level:

1. There is no significant relationship between age and sexual dysfunction among married men in Aba metropolis, Abia State
2. There is no significant relationship between history of diabetes and sexual dysfunction among married men in Aba metropolis, Abia State.
3. There is no significant relationship between history of hypertension and

sexual dysfunction among married men in Aba metropolis, Abia State.

4. There is no significant relationship between multiple sexual partner and sexual dysfunction among married men in Aba metropolis, Abia State.

## 2. METHODOLOGY

The descriptive research design was adopted for the study with a population consisting of 473, 940 men in the four local government areas (Aba South, Aba North, Obingwa and Osisioma) in Aba metropolis, Abia State with a sample size of 400 which was selected using the multi-stage sampling procedure. The first stage involved the use of simple random sampling techniques to select two Local Government Areas out of four existing Local Government Areas in Aba Metropolis; the second stage involved using stratified random sampling technique to select 250 men from Aba South Local Government Area and 150 men from Osisioma Ngwa Local Government Area. The instrument for data collection were sphygmomanometer, glucometer and adopted questionnaire from Rosen et al. [21] with a reliability coefficient of 0.97. The retrieved copies of the questionnaire were coded and analyzed with the aid of Statistical Product for Service Solution (SPSS V-25) using percentage contingency value and chi-square at 0.05 alpha level.

## 3. RESULTS

The results of the study are provided.

Table 1 showed the prevalence of sexual dysfunction among married men in Aba Metropolis. The result indicated that only 32.9% did not have sexual dysfunction but, the rest (67.1%) had sexual dysfunction; of which 31.2% had mild, 16.2% had moderate while 19.7% had severe sexual dysfunction. Thus, the prevalence of sexual dysfunction among married men in Aba Metropolis, Abia State was high (67.1%).

**Table 1. Prevalence of sexual dysfunction among married men in Aba Metropolis**

Sexual dysfunction	Frequency	Percentage
Severe	79	19.7
Moderate	65	16.2
Mild	125	31.2
No dysfunction	131	32.9
<b>Total</b>	<b>400</b>	<b>100.0</b>

**Table 2. Chi-square test showing relationship between age and sexual dysfunction among married men in Aba Metropolis**

Age in years	Sexual Dysfunction				df	$\chi^2$	p-value	Decision
	Severe F (%)	Moderate F (%)	Mild F (%)	Normal F(%)				
20-29	1(5.0)	0(0.00)	1(5.0)	18(90.0)	12	151.15	0.00*	H <sub>0</sub> rejected
30-39	0(0.0)	1(3.7)	11(40.7)	15(40.7)				
40-49	7(9.0)	8(10.3)	23(29.5)	40(51.3)				
50-59	13(10.2)	11(8.7)	57(44.9)	46(36.2)				
60-69	58(36.9)	45(30.2)	33(22.1)	13(8.7)				
Total	79(19.7)	65(16.2)	124(31.2)	132(32.9)				

\*Significant

Table 2 indicated the Chi-square test of relationship between age and sexual dysfunction among married men in Aba Metropolis. The result showed that there was a statistically significant relationship between age and sexual dysfunction ( $\chi^2 = 151.15$ ,  $df = 12$ ,  $p < 0.05$ ). Thus, the null hypothesis which stated that there is no significant relationship between age and sexual dysfunction among married men in Aba Metropolis, Abia State was rejected.

Table 3 indicated the Chi-square test of relationship between history of diabetes and sexual dysfunction among married men in Aba Metropolis. The result showed that there was a statistically significant relationship between history of diabetes and sexual dysfunction ( $\chi^2 = 134.78$ ,  $df = 6$ ,  $p < 0.05$ ). Thus, the null hypothesis which stated that there is no significant relationship between history of diabetes and sexual dysfunction among married men in Aba Metropolis, Abia State was rejected.

**Table 3. Chi-square test showing relationship between history of diabetes and sexual dysfunction among married men in Aba Metropolis**

Blood sugar level	Sexual dysfunction				df	$\chi^2$	p-value	Decision
	Severe F(%)	Moderate F(%)	Mild F (%)	Normal F (%)				
Normal	6(4.6)	6(4.6)	41(31.3)	78(59.5)	6	134.78	0.00	H <sub>0</sub> rejected
Prediabetes	3(6.3)	0(0.00)	18(37.5)	27(56.3)				
Diabetic	70(31.5)	59(26.6)	66(29.7)	27(12.2)				
Total	79(19.7)	65(16.2)	124(31.2)	132(32.9)				

\*Significant

**Table 4. Chi-square test showing relationship between history of hypertension and sexual dysfunction among married men in Aba Metropolis**

Hypertension Systolic BP	Sexual dysfunction				df	$\chi^2$	p-value	Decision
	Severe F(%)	Moderate F(%)	Mild F(%)	Normal F(%)				
Low	0(0.00)	3(6.5)	7(15.2)	36(78.3)	6	62.91	0.00*	H <sub>0</sub> rejected
Normal	42(17.3)	45(18.5)	82(33.7)	74(30.5)				
Hypertensive	37(33.0)	17(15.2)	36(32.1)	22(19.6)				
Total	79(19.7)	65(16.2)	124(31.2)	132(32.9)				

Diastolic BP					df	$\chi^2$	p-value	Decision
Low	Severe F(%)	Moderate F(%)	Mild F(%)	Normal F(%)				
Low	0(0.0)	2(3.8)	12(23.1)	38(73.1)	6	166.58	0.00*	H <sub>0</sub> rejected
Normal	1(0.9)	3(2.8)	37(34.3)	67(34.3)				
Hypertensive	78(32.4)	60(24.9)	76(31.5)	27(11.2)				
Total	79(19.7)	65(16.2)	124(31.2)	132(32.9)				

\*Significant

**Table 5. Chi-square test showing relationship between multiple sexual partner and sexual dysfunction among married men in Aba Metropolis**

Number of sexual partner	Sexual dysfunction				Df	$\chi^2$	p-value	Decision
	Severe F (%)	Moderate F (%)	Mild F (%)	Normal F (%)				
One	72(21.5)	58(17.3)	102(30.4)	103(30.7)	6	10.82	0.09*	H <sub>0</sub> not rejected
Two	5(8.6)	7(12.1)	20(34.5)	26(44.8)				
≥3	2(50.0)	0(0.00)	1(25.0)	1(25.0)				
Total	79(19.7)	65(16.2)	124(31.2)	132(32.9)				

\*Not significant

Table 4 showed the Chi-square test of relationship between history of hypertension and sexual dysfunction among married men in Aba Metropolis. The result showed that there was a statistically significant relationship between history of hypertension and sexual dysfunction (systolic -  $\chi^2 = 62.91$ , df = 6,  $p < 0.05$ ; diastolic -  $\chi^2 = 166.58$ , df = 6,  $p < 0.05$ ). Thus, the null hypothesis which stated that there is no significant relationship between history of hypertension and sexual dysfunction among married men in Aba Metropolis, Abia State was rejected.

Table 5 indicated the Chi-square test of relationship between history of multiple sexual partner and sexual dysfunction among married men in Aba Metropolis. The result showed that there was no significant relationship between multiple sexual partner and sexual dysfunction ( $\chi^2 = 10.82$ , df = 6,  $p < 0.05$ ). Thus, the null hypothesis which stated that there is no significant relationship between multiple sexual partner and sexual dysfunction among married men in Aba Metropolis, Abia State was not rejected.

#### 4. DISCUSSION

The findings of this study in Table 1 showed a high prevalence of sexual dysfunction among men (67%). The high prevalence is surprising as most families in Nigeria seem intact. This findings may be attributed to prevailing economic situation resulting in high level of stress among the populace. The findings of this study is in line with the findings of Abu et al. [22] where prevalence of 66.4% was recorded. Also the study findings is in line with the findings of Olamoyegun et al. [23] on the frequency and determinants of erectile dysfunction among type 2 diabetes patient with a prevalence of 69.50%. The result of this study is at variance with the findings of Osasona and Elimigba [24] on sexual

dysfunction among patients with mental illness with where the prevalence was 48.9% (2015) where the prevalence was 58.9%. The variance observed could be due to the fact that Osasona and Elimigba study focused on patients from specialized institution with health challenges while that of Oyelade et al. [25] looked at only first a type of sexual dysfunction. Another plausible reason could be due to the study design and setting of the study.

The result in Table 2 showed a moderate relationship (C = 0.52) between age and sexual dysfunction ( $P < 0.05$ ). The findings showed that those aged 60-69 years had severe sexual dysfunction compared to the younger age groups. This is not surprising as physiologically as individual age their sexual function decreases. The findings is in line with that of Oladiji et al. [26] whose study on the influence of socio-demographic characteristics on prevalence of erectile dysfunction in Nigeria showed that 40-64 years old more affected. The findings of this study corroborate that of Abu et al. [22] whose study on prevalence of erectile dysfunction and awareness of its treatment in Abuja, Nigeria reviewed higher prevalence of SD among other correspondents. The findings of this study is in consonance with Ugwumba et al. [27] whose study on prevalence and risk factors of dysfunction in male type 2 diabetic outpatient attendees in Enugu South East Nigeria showed that older respondents were more affected. The findings of this study is in line with Asefa et al. [28] whose study on prevalence of sexual dysfunction and related factors among diabetes mellitus patient in South West Ethiopia showed that older age was associated with sexual dysfunction. The findings of this study gives credence to that of Mutagaywa et al. [29] whose study on prevalence of erectile dysfunction and associated factors among diabetic men attending clinic at Muhimbili national hospital in Dar-es-salaam, Tanzania revealed that SD increase with age. The similarity between the previous studies

and the present one might be due to the similar features in the study location.

The findings of this study in Table 3 showed a moderate, relationship ( $C=0.5$ ) between history of diabetes and sexual dysfunction among married men. This finding is expected because diabetes can reduce erection of the penis, thereby contributing to sexual dysfunction. The findings of study is in keeping with that of Bolaji et al. [30] whose study on prevalence of erectile dysfunction and possible risk factors among men of south-western Nigeria revealed a significant relationship between diabetes mellitus and SD. The findings of this study is akin to Mekonnen et al. [31] whose study on sexual dysfunction among men with diabetes mellitus in Ethiopia revealed a statistical relationship between SD and diabetes mellitus. The similarity between this study and the present might be attributed to the homogeneity of the study population as both studies were focused on married men alone, the finding of study is in agreement with that of Thang et al. [32] whose study on prevalence and associated factors of erectile dysfunction among married men in Vietnam indicated a significant relationship between SD and disease history including diabetes. Furthermore, the finding of this study is in line with several other studies such as Olajubu et al. [33], Abu et al. (2019) and Ezeude et al. [34].

The result of this study in Table 4 revealed moderate relationship ( $c$ - value 0.54) between history of hypertension and sexual dysfunction which is significant ( $P<0.05$ ). This finding is not surprising because hypertension incapacitate other organs of the body including sexual organ. The finding of this study is in line with Deribew et al. [35] whose study on prevalence of erectile dysfunction and associated factors among hypertensive patients in Ethiopia showed significant relationship between hypertension and sexual dysfunction. This finding of this study give credence to Nyalile et al.[36] whose study on prevalence and factors with sexual among men in Tanzania showed significant relationship with SD. The similarity between the previous studies and the present one might be due to the fact that their sample size are within the same range.

The result in Table 5 revealed the low relationship ( $c$ -value=0.16,  $p<0.05$ ) between sexual partner and SD. The findings of this study is at variance with the present study because the study location varies and also the study sample. The findings of this study is also at variance with

that Mekonnen et al. [31] which showed a significant relationship between sexual partner and sexual dysfunction. The finding of this study is also at variance with Olamoyegun et al. [23] which showed relationship between having one sexual partner and sexual dysfunction. The variance between the previous studies and the present one could be attributed to the difference in study location and sample size as the other studies were conducted in other countries with larger sample size while the present study was conducted in Nigeria with a sample size of 400.

## 5. CONCLUSION

Based on the findings of the study, it was concluded that men living in Aba metropolis in Abia state generally had a high prevalence of sexual dysfunction and the factors associated with it are age, history of diabetes and hypertension among married men. There was also low relationship between multiple sexual partner and sexual dysfunction.

## 6. RECOMMENDATIONS

The following recommendations were made based on the findings of the study:

1. The Ministry of health should carryout community screening to detect sexual problems early.
2. Community stakeholders should address sexual matters during their meeting to include older men as well as younger men to reduce transgeneration sexual health problems such as sexual dysfunction.
3. Public health educators should as a matter of fact create community health programmes on how to manage and detect diabetes early enough to reduce the effect on health.
4. Nollywood actors and script writers should write and act movies on the impact of diabetes and hypertension on sexual functioning to help reduce belief that sexual dysfunction are as a result of witchcraft.
5. Policy makers should promulgate policies to prohibit multiple sexual relationship.

## CONSENT

As per international standard or university standard, Participants' written consent has been collected and preserved by the author(s).

## ETHICAL APPROVAL

As per international standard or university standard written ethical approval has been collected and preserved by the author(s).

## COMPETING INTERESTS

Authors have declared that no competing interests exist.

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