

# Menopausal Transition and Its Association With the Sexual Quality of Life of Male Partners

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## Research

**Keywords:** Menopausal transition, Sexual function, postmenopausal

**Posted Date:** April 12th, 2021

**DOI:** <https://doi.org/10.21203/rs.3.rs-293003/v1>

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# **Abstract**

## **Background**

Sexual function in women is reported to decline with age. Menopausal transition is very important as the sexual function of women usually takes a down turn. Menopause has been associated with psychogenic factors such as anxiety, depression and stress. The decline in sexual function coupled with these psychogenic factors could trigger events that could lead to a poor sexual quality of life. The impact on the sexual function of women coupled with the onset of these psychogenic problems during menopause could affect the way women respond to sexual advances from their spouses and this could eventually compromise the sexual quality of life of their spouses.

## **Methods**

The study recruited 96 postmenopausal and 20 premenopausal participants. These women had to be in a heterosexual relationship for at least 2 years. The male partners were followed up at their homes and interviewed to obtain data on their sexual quality of life.

## **Results**

Menopausal women showed a decrease in domains of sexual function but their overall sexual function and their sexual quality of life was not affected. The sexual function of the postmenopausal women did not affect the quality of life of the male partner, nor did it affect the sexual quality of life of the partners in synergy with their menopausal status. However, menopausal status had a significant effect on the sexual quality of life of the male partners. Factors not directly linked to the sexual function of postmenopausal women but directly linked to events around their menopausal status was significantly involved in lowering the sexual quality of life of their male partners. Participant's occupational and exercise habits were significantly associated with their menopausal status. Engagements in regular exercise amongst postmenopausal women could improve their general wellbeing. This could improve their self confidence and willingness to engage in sexual activity thereby contributing to salvaging the sexual quality of life of their male partners.

## **Conclusion**

Menopausal status had an effect on the sexual quality of life of the male partners. Factors not directly linked to the sexual function of postmenopausal women but directly linked to events around their menopausal status was significantly involved in lowering the sexual quality of life of their male partners.

# **Introduction**

Sexual function is an important contributor to the quality of life of humans and is also reported to be strongly linked to an individual's mental (1) and general wellbeing (2). In young persons, sexuality is a very important determinant of how they perceive themselves with respect to satisfaction with life in

general. In women, sexual function is reported to be associated with general quality of life (3, 4) as well as their sexual quality of life (5). As women age (6) their sexual function is reported to decline. The transition into menopause is a very important stage as the sexual function of postmenopausal women (7–11) as well as their sexual relationships (12) usually takes a down turn and this is reported to be associated with anxiety (13, 14), depression (15–17) and stress (18–21). The decline in sexual function during the menopausal ages has been reported to affect their quality of life (4, 22, 23) and few studies have reported that this decline impacts on the sexual function (24) and the sexual quality of life of their partners as well (24, 25). Some studies have reported a direct link between decline in sexual function during menopause to stress (18–21), depression (15, 26) and anxiety (13, 26–28). Undoubtedly, a decreased sexual function coupled with stress, depressive moods and anxiety could ultimately compromise the way a female in menopausal transition reacts to sexual advances and sexual demands from her partner. This could consequently compromise the sexual quality of life of her male partner. If communication among such couples is not very effective, this can lead to sexual tensions and frustrations from the male partner that could affect the marital harmony that had existed before the transition into menopause. A research conducted in the U.S. by Mansfield and colleagues (29) among middle aged women reported that 40 % of women had decreased sexual function and they attributed this decrease largely to physical and emotional occurrences that was directly linked with menopause rather than events of their relationship with their partners. This study investigated how menopausal transition in women influences the sexual quality of life of their male partners. Some recent studies have reported a correlation between Hormonal Replacement Therapy in menopausal women with improvements in their sexual function as well as their partners arousal (30). It is possible that hormonal replacement therapy had restored sexual function in these women and thus improved their psychological wellbeing, self perception and depressive moods. This could improve the way they treat their partners and thus improvements in their partner's arousal could be a natural consequence of an improved relationship.

## Methods

### Study Participants

This study was a cross sectional study conducted at the Ho Teaching Hospital in Ghana. A consecutive sampling method was employed in recruiting participants into the study. The study recruited 116 females with 96 being postmenopausal and 20 being premenopausal participants. These women had to be engaged in a heterosexual relationship for at least 2 years before the onset of the study. The male partners of the recruited women were followed up at their homes and interviewed to obtain data on their sexual quality of life. Partners who were not available were scheduled for another appointment date and were then subsequently interviewed. Participants and partners were interviewed separately. Voluntary and informed consent was obtained from both participant and their partners. Ethical clearance for the study was obtained from the University of Health and Allied Sciences Research and Ethics Committee (UHAS-REC).

### Questionnaires

A semi-structured self-designed questionnaire was used to obtain sociodemographic and anthropometric data from the study participants. The sexual function of the female participants was obtained using the Golombok Rust Inventory for Sexual Satisfaction for Females (GRISS-F). The subscales of the various domains of sexual function particularly makes the GRISS a very useful tool in providing a profile for diagnosing the pattern of sexual functioning within couples. The GRISS-F is a 28 item questionnaire with each question answered on a five point likert-type scale ranging from always to usually, hardly ever to never. The overall scores were then converted into a stanine score with 1 being the least, with scores of 5 and above indicating sexual dysfunction. Various subscales are also derived from the GRISS which categorizes sexual dysfunction into the domains of vaginismus, anorgasmia, non-sensuality, avoidance, dissatisfaction, non-communication and infrequency. Both participating couples were also evaluated for their sexual quality of life using the Sexual Quality of Life (SQoL) Questionnaire. The male partners were evaluated using the SQoL-Male questionnaire, which has 11 items, with each item on a 6 point likert-type scale ranging from completely agree (1) to completely disagree (6). The female subjects were evaluated with the SQoL-Female questionnaire, which has 18 items with each item on a 6 point likert-type scale also ranging from completely agree (1) to completely disagree (6). Raw scores were then transformed into a standardized scale of 0 to 100, with 100 indicating the highest sexual quality of life.

## **Sample Collection**

Sociodemographic data obtained from the participants included age, income levels, marital status, occupation, educational status and exercise habits. Anthropometric data was obtained from participants using standardized methods. Blood samples were obtained from the female participants in the early morning hours of the day between 8:00 am and 10:00 am in the fasting state. Fasting blood sugar and lipid profile assays were done using the BT5000 chemistry analyser.

## **STATISTICAL ANALYSIS**

Data collected from the questionnaires and results from the laboratory was checked for correctness and entered into Microsoft Excel software. The compiled data was analyzed using Statistical Package for Social Science (SPSS) version 23.0. Descriptive statistics was then used to calculate the median, minimum and maximum, frequency and percentages of study participants (pre-menopausal and post-menopausal women) with respect to their socio-demographic characteristics. Additionally, binary logistic regression analysis was used to determine predictors of sexual problems among women with sexual dysfunction compared with sexually healthy women. P-value less than 0.05 were considered statistically significant.

## **Results**

### **Sociodemographic features of the study participants stratified by menopausal status**

This study recruited 116 women, 96 postmenopausal and 20 premenopausal. The general median age was 56 (33–78) years. The preponderance of the participants (81.9%) earned below 300 Ghana cedis per month, were married (92.2%) at the time of the study and belonged to the informal workforce category (52.6%). Only 6.9% of the participants were able to make it up to their secondary education level, the greater proportion, 91.4% were basic school leavers. Few of the women, 12.9% exercised between one to five times a week while the majority did not exercise. The median age (years) of the post-menopausal women was 58 (min = 49; max = 78). Most of them, 81.9% earned between GH₵100.00- GH₵300.00 each month and were married (92.7%). A little below half of them vis-à-vis 46.9% and 40.6% worked in the informal sector and were retired respectively. A rather sad occurrence was observed as the greater proportion of the post-menopausal women (90.6%) were only able to make it up to their basic education level and did not engage in any exercise (87.5%). Similar observations were made among the pre-menopausal women. Meanwhile participants occupational and exercise habits were significantly associated with their menopausal status ( $p < 0.05$ ) (Table 1).

The mean anthropometric, hemodynamic and biochemical characteristics of the study participants are presented in Table 2. Premenopausal participants had a higher pulse rate and a higher height in comparison with postmenopausal women.

This study assessed the distribution and prevalence of various domains of sexual dysfunction among the stratified menopausal status groups. This study revealed that postmenopausal women reported significantly higher scores for Vaginismus, Non-Communication and Infrequency in sexual activity. The rest of the sexual dysfunction domains were comparable among the two category of women assessed ( $p > 0.05$ ). Generally, except for Anorgasmia which recorded a higher prevalence rate of 65.5%, the other sexual dysfunction domains recoded a prevalence rate of less than 50.0%. The prevalence rates of all the sexual dysfunction domains were predominant among the postmenopausal women than the premenopausal women. The male partners of the postmenopausal women recorded lower sexual quality of life in comparison with partners of the premenopausal women (Table 3).

A binary logistics regression analysis was performed to determine which of the demographic variables predicts the occurrence of sexual glitches among women with sexual dysfunction as against women with healthy sexual function. The regression analysis tested the power of participant's age, menopausal status, marital status, occupation, educational status, income and exercise habits to predict the manifestation of sexual difficulties. The outcome of the analysis indicates that none of the demographic variables assessed significantly predicted sexual problems ( $p > 0.05$ ) among women with sexual dysfunction as against women with healthy sexual function nevertheless, married and unemployed women were approximately three times ( $\text{EXP}(\beta) = 3.038$ ; 95% CI: 0.599–15.399) and twice ( $\text{EXP}(\beta) = 2.166$ , 95% CI: 0.861–5.453) more likely to develop sexual problems compared to single and employed women respectively (Table 4).

This study assessed whether or not participant's menopausal status and overall sexual dysfunction score (SD-Sc) had a main effect and a synergistic effect on the sexual quality of life of the women (SQoL-F)

and that of their male partners (SQoL-P). The interaction effect analysis showed that SQoL-F was not affected by the participant's menopausal status or SD-Sc individually but was however insignificantly affected synergistically. The women's SD-Sc did not demonstrate a main effect on the SQoL-P neither did it together with the woman's menopausal status interactively affects the SQoL-P. On the other hand, their menopausal status alone had a main effect on the SQoL-P (Table 5).

## Discussion

The postmenopausal women in this study had developed higher scores for vaginismus, a poorer partner communication and increased infrequency in sexual activity. The Sexual quality of life of these females was also not significantly affected. Thus, despite a decline in some domains of sexual function amongst this group of postmenopausal women, their overall sexual quality of life was not significantly compromised. However the sexual quality of life of their male partners was significantly affected by their spouse's menopausal status. Male partners of the postmenopausal women had recorded a decreased sexual quality of life. Possibly, even though these cohort of postmenopausal women still retained their overall sexual quality of life, other factors not necessarily linked to the decline in their sexual quality of life could have contributed to the decreased sexual quality of life of their partners. Menopause has been reportedly linked to stress, anxiety and depression, even though these factors are largely psychogenic and are not necessarily related to their sexual function, these factors could affect how these females respond to sexual advances and the sexual needs of their male partners thereby impacting and reducing the sexual quality of life of these male partners. Thus factors likely related to psychogenic and emotional changes during the postmenopausal stages but not directly related to the sexual function of postmenopausal women could be the key reason why their partners could report a decreased sexual quality of life. When logistic regression models were computed to assess whether the menopausal status and overall sexual function (SD) had a main effect and a synergistic effect on the sexual quality of life of the women and that of their male partners, the results showed that the sexual quality of life of the postmenopausal women was neither affected by their menopausal status nor by their sexual function (SD). Even when a synergistic effect was recorded against the sexual quality of life of the menopausal women by both their menopausal status and their sexual function, this effect did not reach a level of significance. Also, the sexual function of the postmenopausal women did not affect the quality of life of the male partner, nor did it affect the sexual quality of life of the partners in synergy with her menopausal status. However, menopausal status of the women alone had a significant effect on the sexual quality of life of the male partners, thus it is evident from this study that factors not directly linked to the sexual function of these postmenopausal women but directly linked to events around their menopausal status was significantly involved in lowering the sexual quality of life of their male partners. It is possible that psychogenic events related to stress, mood changes and depressive symptoms that have largely been reported among postmenopausal women, could have resulted in poorer reception towards sexual advances from their male partners, and this could have impacted on the sexual quality of life of these male partners, as they are unable to cope with the rejection from their female partners. In this study, the menopausal status of participants was strongly associated with domains of Non-communication and

Infrequency in sexual activity. Thus transition into menopause coupled with poor communication amongst the couple as well as a decreased frequency of sexual activity could contribute to this milieu of events that compromises the sexual quality of life of the male partners in this study. Thus postmenopausal women need adequate treatment, support and care in their menopausal transition in order to salvage them from the psychological events that characterize their transition into menopause, this will help in restoring their confidence in engaging in sexual activity, improve on the communication within the relationship and give them the right frame of mind to be receptive towards sexual advances from their male partners. This invariably will help improve on the frequency of sexual activity and could help salvage the sexual quality of life of their male partners. Also recorded in this study was the fact that the female participant's occupational and exercise habits were significantly associated with their menopausal status. It is thus suggested that treatment regimens for postmenopausal women should include regular exercise, which could improve on the negative impacts of menopause on their lives and subsequently improve their general wellbeing. This could invariably impact their self confidence to engage in sexual activity thereby contributing to salvaging the sexual quality of life of their male partners.

## Conclusion

Menopausal status had an effect on the sexual quality of life of the male partners. Factors not directly linked to the sexual function of postmenopausal women but directly linked to events around their menopausal status was significantly involved in lowering the sexual quality of life of their male partners.

## Abbreviations

BMI	Body Mass Index
GRISS-M/F	Golombok-Rust Inventory for Sexual Satisfaction-Male/Female
SD	Sexual Dysfunction
SQoL-F	Sexual Quality of Life-Female
SQoL-P	Sexual Quality of Life-Partner

## Declarations

### CONFLICT OF INTEREST:

All authors declare that they have no conflicting interests.

### AUTHORS' CONTRIBUTIONS:

HA, NA, AKD, ATB, ATL developed the concept and designed the study. HA, PKK, ATL, ATB, AAY, AKD and NKK administered the questionnaire, analyzed and interpreted the data. HA, NA, ATB, PKK, AAY and ATL performed all the assay procedures. HA, NA, ATL, ATB, AAY, and AKD drafted the manuscript. HA, NA,

PPMD, ATL, ATB and NKK revised the manuscript for intellectual content. All authors read and approved the final manuscript.

#### **ETHICS APPROVAL AND CONSENT FOR PARTICIPATION:**

Ethical clearance for the study was obtained from the University of Health and Allied Sciences Research and Ethics Committee (UHAS-REC). . All participants gave an informed and signed consent to partake in this study.

#### **CONSENT FOR PUBLICATION:**

All participants gave an informed and signed consent to partake in this study and for this research to be used for publication.

#### **AVAILABILITY OF DATA AND MATERIALS:**

Data will be provided upon reasonable request.

#### **FUNDING:**

The study was privately funded by the authors.

#### **ACKOWLEDGEMENT:**

Not Applicable

## **References**

1. Daneshkhah F, Allahverdipour H, Jahangiri L, Andreeva T. Sexual function, mental well-being and quality of life among Kurdish circumcised women in Iran. Iranian journal of public health. 2017;46(9):1265.
2. Davison SL, Bell RJ, LaChina M, Holden SL, Davis SR. PSYCHOLOGY: The relationship between self-reported sexual satisfaction and general well-being in women. The journal of sexual medicine. 2009;6(10):2690-7.
3. Nik-Azin A, Nainian MR, Zamani M, Bavojdan MR, Bavojdan MR, Motlagh MJ. Evaluation of sexual function, quality of life, and mental and physical health in pregnant women. Journal of family & reproductive health. 2013;7(4):171.
4. Nazarpour S, Simbar M, Ramezani Tehrani F, Alavi Majd H. Quality of life and sexual function in postmenopausal women. Journal of women & aging.30(4):299-309.
5. Shahraki Z, Tanha FD, Ghajarzadeh M. Depression, sexual dysfunction and sexual quality of life in women with infertility. BMC women's health. 2018;18(1):1-4.
6. Hawton K, Gath D, Day A. Sexual function in a community sample of middle-aged women with partners: effects of age, marital, socioeconomic, psychiatric, gynecological, and menopausal factors.

- Archives of sexual behavior. 1994;23(4):375-95.
7. Gonzalez M, Viafara G, Caba F, Molina E. Sexual function, menopause and hormone replacement therapy (HRT). *Maturitas*. 2004;48(4):411-20.
  8. Dennerstein L, Alexander JL, Kotz K. The menopause and sexual functioning: a review of the population-based studies. *Annual Review of Sex Research*. 2003;14(1):64-82.
  9. Avis NE, Stellato R, Crawford S, Johannes C, Longcope C. Is there an association between menopause status and sexual functioning? *MENOPAUSE-NEW YORK-*. 2000;7(5):297-309.
  10. Sarrel PM, Whitehead MI. Sex and menopause: defining the issues. *Maturitas*. 1985;7(3):217-24.
  11. Dombek K, Capistrano EJM, Costa ACC, Marinheiro LPF. Risk factors associated with sexual dysfunction in Brazilian postmenopausal women. *International journal of impotence research*. 2016;28(2):62-7.
  12. Bello FA, Daramola OO. Attitude to the menopause and sex amongst middle-aged women in a family medicine clinic in Ibadan, Nigeria. *Obstetrics and gynecology international*. 2016.
  13. Sagsoz N, Oguzturk A, Bayram M, Kamaci M. Anxiety and depression before and after the menopause. *Archives of gynecology and obstetrics*. 2001;264(4):199-202.
  14. Schnatz PF, Whitehurst SK, O'Sullivan DM. Sexual dysfunction, depression, and anxiety among patients of an inner-city menopause clinic. *Journal of Women's Health*. 2010;19(10):1843-9.
  15. Yangin HB, Soezer GIA, Azengan N, Kukulu K. The relationship between depression and sexual function in menopause period. *Maturitas*. 2008;61(3):233-7.
  16. Gallicchio L, Schilling C, Miller SR, Zcur H, Flaws JA. Correlates of depressive symptoms among women undergoing the menopausal transition. *Journal of psychosomatic research*. 2007;63(3):263-8.
  17. Richardson TA, Robinson RD. Menopause and depression: a review of psychologic function and sex steroid neurobiology during the menopause. *Primary care update for Ob/Gyns*. 2000;7(6):215-23.
  18. Hamilton LD, Meston CM. Chronic stress and sexual function in women. *The journal of sexual medicine*. 2013;10(10):2443-54.
  19. Yazdanpanahi Z, Beygi Z, Akbarzadeh M, Zare N. To investigate the relationship between stress, anxiety and depression with sexual function and its domains in women of reproductive age. *International Journal of Medical Research & Health Sciences*. 2018;5(10):223-31.
  20. Papaefstathiou E, Apostolopoulou A, Papaefstathiou E, Moysidis K, Hatzimouratidis K, Sarafis P. The impact of burnout and occupational stress on sexual function in both male and female individuals: a cross-sectional study. *International journal of impotence research*. 2020;32(5):510-9.
  21. Yazdanpanahi Z, Nikkholgh M, Akbarzadeh M, Pourahmad S. Stress, anxiety, depression, and sexual dysfunction among postmenopausal women in Shiraz, Iran, 2015. *Journal of family & community medicine*. 25(2):82.
  22. Nappi RE, Lachowsky MI. Menopause and sexuality: prevalence of symptoms and impact on quality of life. *Maturitas*. 2009;63(2):138-41.

23. Gozuyesil E, Gokyildiz Surucu S, Alan S. Sexual function and quality-of-life-related problems during the menopausal period. *Journal of Health Psychology*. 23(14):1769-80.
24. Khalesi ZB, Jafarzadeh-Kenarsari F, Mobarrez YD, Abedinzade M. The impact of menopause on sexual function in women and their spouses. *African Health Sciences*. 20(4):1979-84.
25. Kingsberg SA. The impact of aging on sexual function in women and their partners. *Archives of sexual behavior*. 2002;31(5):431-7.
26. Channon LD, Ballinger SE. Some aspects of sexuality and vaginal symptoms during menopause and their relation to anxiety and depression. *British Journal of Medical Psychology*. 1986;59(2):173-80.
27. Maki PM. Menopause and anxiety: immediate and long-term effects. LWW; 2008.
28. Bremer E, Jallo N, Rodgers B, Kinser P, Dautovich N. Anxiety in Menopause: A Distinctly Different Syndrome? *The Journal for Nurse Practitioners*. 15(5):374-8.
29. Alarie M, Carmichael JT. The Cougar phenomenon: An examination of the factors that influence age hypogamous sexual relationships among middle aged women. *Journal of Marriage and Family*. 77(5):1250-65.
30. Borissova AM, Kovatcheva R, Shinkov A, Vukov M. A study of the psychological status and sexuality in middle-aged Bulgarian women: significance of the hormone replacement therapy (HRT). *Maturitas*. 2001;39(2):177-83.

## Tables

Table 1  
Sociodemographic features of the study participants stratified by menopausal status

Parameters	Total(116)	Menopausal Status		p-v
		Postmenopause	Premenopause	
		(96)	(20)	
Age[median (min-max)]	56 (33–78)	58 (49–78)	45 (33–49)	
Income/month GH₵				
< 100	10 (8.6)	77 (80.2)	16 (80.0)	0.8416
100<300	95 (81.9)	78 (81.3)	17 (85.0)	
300<800	8 (6.9)	7 (7.3)	1 (5.0)	
≥ 800	3 (2.6)	3 (3.1)	*	
Marital Status				
Married	107 (92.2)	89 (92.7)	18 (90.0)	0.7562
Single	8 (6.9)	6 (6.3)	2 (10.0)	
Cohabiting	1 (0.9)	1 (1.0)	*	
Occupation				
Formal	4 (3.4)	4 (4.2)	*	<b>0.0022</b>
Informal	61 (52.6)	45 (46.9)	16 (80.0)	
Unemployed	12 (10.3)	8 (8.3)	4 (20.0)	
Retired	39 (33.6)	39 (40.6)	*	
Educational Status				
Basic	106 (91.4)	87 (90.6)	19 (95.0)	0.7492
Secondary	8 (6.9)	7 (7.3)	1 (5.0)	
Tertiary	2 (1.7)	2 (2.1)	*	
Exercise Habit				
1-5X/Week	15 (12.9)	9 (9.4)	6 (30.0)	<b>0.0124</b>
> 5X/Week	5 (4.3)	3 (3.1)	2 (10.0)	
Don't Exercise	96 (82.8)	84 (87.5)	12 (60.0)	
Data are presented as frequency and percentages in parenthesis.				

**Table 2: Anthropometric, Hemodynamic and Biochemical Parameters of Participants and Menopausal Status.**

PARAMETERS	TOTAL (n = 116)	Menopausal Status		P VALUE
		Postmenopause	Premenopause	
AGE (years)	56 (33–78)	58(49–78)	45(33–49)	< 0.0001
SBP (mmHg)	160.8 ± 25.42	161.8 ± 25.45	156.2 ± 25.4	0.3697
DBP (mmHg)	58(101–201)	99(58–201)	103(77–141)	0.3472
PULSE (bpm)	9(83–134)	83(9-134)	88.5(68–112)	0.0437
WEIGHT (kg)	36.6(75.8-173.5)	75.9(36.6-173.5)	74.5(55.6–168.0)	0.9552
HEIGHT (m)	1.00(1.60–1.86)	1.60(1-1.73)	1.63(1.53–1.86)	0.0186
BMI ( $\text{kgm}^{-2}$ )	14.7(30.5-174.6)	30.8(14.7-174.6)	27.4(19.5–63.2)	0.4147
HC (cm)	11(109–199)	109(84–199)	103(11–146)	0.1027
WC (cm)	66(105–190)	105(66–190)	99(66–130)	0.1533
WHR	0.69(0.96–9.09)	0.97(0.69–1.05)	0.95(0.69–9.09)	0.6138
TC (mg/dL)	75(159–408)	165(80–408)	149(75–286)	0.3327
TG (mg/dL)	24(73–394)	73(24–394)	70(34–177)	0.6358
HDL-C (mg/dL)	20(45–283)	47(20–283)	41(23–89)	0.3473
LDL-C (mg/dL)	100.5 ± 34.53	101.1 ± 32.89	97.7 ± 42.39	0.6823
FBS (mg/dL)	79(144–288)	144(85–288)	142(79–233)	0.5096
BP ≥ 130/85 mmHg	97 (83.6)	81(83.5)	16(16.5)	
WC ≥ 88 cm	110 (94.8)	91(82.7)	19(17.3)	
FBS ≥ 100mg/dL	100 (86.2)	85(85)	15(15)	
TG ≥ 150mg/dL	8 (6.9)	7(87.5)	1(12.5)	
HDL < 50mg/dL	70 (60.3)	56(80)	14(20)	

Data are presented as frequency and percentages in parenthesis for categorical variables, mean±SD for continuous parametric variables and median (min-max) for continuous nonparametric variables, SBP- Systolic Blood Pressure; DBP- Diastolic Blood Pressure; BMI- Body Mass Index ; HC- Hip Circumference; WC- Waist Circumference; WHR- Waist-to-Hip Ratio; TC- Total Cholesterol; TG- Triglyceride; HDL-C- High Density Lipoprotein Cholesterol; LDL-C- Low Density Lipoprotein Cholesterol ; FBG-Fasting Blood Glucose. P-value is significant at <0.05.

**Table 3: Distribution and Prevalence of Components of Sexual Dysfunction, SQoL among participants Stratified by Menopausal status.**

Parameters	Total	Menopausal Status		P-value
		Postmenopause	Premenopause	
<b>Sexual Dysfunction</b>				
Mean ± SD	5.06 ± 1.79	5.50 ± 1.85	4.97 ± 1.77	0.2289
Prevalence, n(%)	46(39.7)	36(78.3)	10(21.7)	0.3006
<b>Vaginismus</b>				
Mean ± SD	5.20 ± 1.94	6.00 ± 2.58	5.03 ± 1.75	<b>0.0416</b>
Prevalence, n(%)	39(33.6)	27(69.2)	12(30.8)	0.2481
<b>Anorgasmia</b>				
Mean ± SD	5.40 ± 1.63	5.30 ± 1.56	5.42 ± 1.65	0.7724
Prevalence, n(%)	76(65.5)	63(82.9)	13(17.1)	0.9575
<b>Non-sensuality</b>				
Mean ± SD	4.79 ± 1.61	4.90 ± 1.65	4.77 ± 1.61	0.7461
Prevalence, n(%)	39(33.6)	32(82.2)	7(18.0)	0.8864
<b>Avoidance</b>				
Mean ± SD	5.07 ± 1.96	4.70 ± 1.69	5.15 ± 2.01	0.3557
Prevalence, n(%)	40(34.5)	32(80.0)	8(20.0)	0.8373
<b>Dissatisfaction</b>				
Mean ± SD	4.76 ± 1.7	5.00 ± 1.52	4.71 ± 1.74	0.4882
Prevalence, n(%)	51(44.0)	41(80.4)	10(19.6)	0.5518
<b>Non-communication</b>				
Mean ± SD	5.24 ± 1.83	6.10 ± 1.52	5.06 ± 1.85	<b>0.0204</b>
Prevalence, n(%)	47(40.5)	33(70.2)	14(29.8)	<b>0.0033</b>
<b>Infrequency</b>				
Mean ± SD	5.22 ± 1.38	5.65 ± 1.23	4.33 ± 1.38	<b>0.0428</b>
Prevalence, n(%)	28(24.1)	27(96.4)	1(3.6)	<b>0.0286</b>
<b>SQoL-F</b>				

Data are presented as frequency and percentages in parenthesis for categorical variables, mean±SD for continuous parametric variables and median (min-max) for continuous nonparametric variables, SQoL-F/P=Sexual Quality of Life (Female/Partner)

Parameters	Total	Menopausal Status		P-value
Median(min-max)	52.8(32.2–97.8)	52.75(32.2–97.8)	54.45(34.4–93.3)	0.5624
<b>SQoL-P</b>				
Median(min-max)	58.2(29.1–100.0)	56.4(29.1–100.0)	87.3(45.5–100.0)	<b>0.0007</b>

Data are presented as frequency and percentages in parenthesis for categorical variables, mean±SD for continuous parametric variables and median (min-max) for continuous nonparametric variables, SQoL-F/P=Sexual Quality of Life (Female/Partner)

Table 4  
Binary Logistics Regression Analysis to Determine Predictors of Sexual problems among Women with Sexual Dysfunction as Against Sexually Healthy Women

Components	B	S.E.	Sig.	EXP (B)	95% CI for EXP(B) (Lower-Upper)
Age ( $\geq$ 60 years)	0.500	0.523	0.340	1.648	0.591 4.598
Menopausal Status (Post-M)	0.288	0.577	0.618	1.334	0.430 4.137
Marital Status (Married)	1.111	0.828	0.180	3.038	0.599 15.399
Occupation (Unemployed)	0.773	0.471	0.101	2.166	0.861 5.453
Educational Level (Basic)	0.503	0.736	0.495	1.653	0.391 6.998
Income (< 300)	0.183	0.785	0.816	1.200	0.258 5.594
Exercise (Don't)	-0.613	0.593	0.301	0.542	0.169 1.732
Constant	-1.291	0.400	0.001	0.275	

Due to technical limitations, table 5 is only available as a download in the Supplemental Files section.

## Supplementary Files

This is a list of supplementary files associated with this preprint. Click to download.

- [Table5.jpg](#)