ORIGINAL ARTICLE

Sexual Satisfaction and Its Associated Factors among Married Women in Northern Ethiopia

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ABSTRACT

BACKGROUND: ***Sexual satisfaction is an essential component of overall health related quality of life. However, the epidemiology of sexual satisfaction among Ethiopian women is largely unknown. Hence, the present study was undertaken to investigate the sexual satisfaction and its associated factors among married women.***
METHODS: ***Community-based cross-sectional study with mixed approach was conducted from March 1 to April 30, 2019 in Kewot District, Northern Ethiopia on a sample of 397 married women. Quantitative data was collected on a face-to-face interview using a pre-tested questionnaire while qualitative data was collected using in-depth interviews. The new sexual satisfaction scale was used to assess sexual satisfaction of the women. Descriptive statistics and ordinal logistic regression analysis were performed using SPSS version 23.***
RESULTS: ***The findings showed that half of the participants (50.4%) expressed moderate sexual satisfaction, and only 39% of the participants reported greatest sexual satisfaction. Poor partner communication (AOR = 0.30, 95% CI; 0.11- 0.79], poor sexual self-esteem (AOR = 0.17, 95% CI; 0.08 - 0.36), absence of social responsibility (AOR = 6.52, 95% CI; 3.32 - 12.80), poor sexual function (AOR = 0.36, 95% CI; 0.21 - 0.61), no previous information about sexuality (AOR = 0.06, 95% CI; 0.00 - 0.62) and perception of sexual talk as taboo (AOR = 7.15, 95% CI; 3.86 - 13.26) were significantly associated with sexual satisfaction.***
CONCLUSION: ***Several factors could affect sexual satisfaction of married women. Therefore, development of educational programs, pre-marriage counseling and continuous education should be conducted.***
KEYWORDS: ***Sexual satisfaction, associated factors, Married women, Ethiopia***

INTRODUCTION

Satisfaction with one's marriage or relationship tends to be crucial in overall happiness (1). Marital relationship is influenced by various factors, of which, sexual satisfaction is mentioned to be one of the most important contributing factors (2). Sexual satisfaction is a very

personalized feeling, powerfully related to previous sexual practices, existing anticipations and upcoming ambitions (3). Lawrance and Byers defined sexual satisfaction as "an emotional response to a subjective evaluation of positive and negative aspects related to sexual life" (4). It is a key factor in individuals' sexual health and overall life satisfaction (5,6). Moreover, having a satisfactory sexual life is the basis of a happy marriage and family, being an essential component of health-related quality of life (7).

Sexual dissatisfaction is one of the causes of divorce and connection difficulties between couples, and it is considered to be one of the most significant factors affecting women's health (8). Globally, sexual dissatisfaction is a more frequent problem in women as compared to men. A study showed that 15% to 50% of women are not satisfied with their sexual activity, and 50% of divorces between couples are mainly due to sexual dissatisfaction (9). Sexual dissatisfaction is also a common problem of African women. Studies conducted in Nigeria (10) and Ghana (11) reported that only less than half of the women (45.8% and 34% respectively) had pleasurable sexual activity.

A number of factors could be associated with sexual satisfaction. For example, higher educational status (12), better state of physical and psychological health (13,14), higher socio-economic status (15) and good relationships with the family (16) have been associated with high sexual satisfaction. Similarly, sufficient sexual information (17), high partners' relationship (18), small age difference between couples, good sexual functioning (19) and social support (19,20) have been associated with greater sexual satisfaction. Some studies have found a relationship between drug addiction and less sexual satisfaction (21,22). Other factors that could influence sexual satisfaction is religiosity. Low religious belief has been associated with greater sexual satisfaction (23). However, a study has found no difference in sexual satisfaction between religious and non-religious couples (24).

Sexuality is an important aspect of quality of life that is often neglected in research studies (25-26). Because of social customs and culture, clients and their clinicians often avoid discussing about sexual satisfaction. Community-based studies on sexual satisfaction and associated factors are almost lacking in Ethiopia. Hence, the epidemiology of sexual satisfaction in Ethiopian women is largely unknown. Understanding the sexual satisfaction and its associated factors would facilitate efforts to promote the quality of life among Ethiopian women. Hence, this study was undertaken to investigate the sexual satisfaction and its associated factors among married women.

MATERIALS AND METHODS

Study setting and design: The study was conducted in Kewot District of North Shoa Zone, Northern Ethiopia. The district is located at about 225 km north of Addis Ababa. According to Kewot District Administrative Office report, currently, the total population of the district was estimated to be 92,670 with 48,188 males and 44,481 females. Of the total population, about 45,093 were married . A community-based cross-sectional study with mixed approach was conducted from March 1 to April 30, 2019.

Study population and sampling techniques: The participants of this study were married women who lived in the randomly selected kebeles and who fulfilled the inclusion criteria. The inclusion criteria for this study were married women who lived in the study area for at least 6 months, married before at least one year and were living with their husbands and those who were volunteered to participate in the study Married women with mental illness, difficulty of communicating and those who were seriously sick during data collection were excluded from the study.

The required sample size for collecting quantitative data was estimated using a single population proportion formula by taking the proportion (p) as 50%, 95% CI, 5% marginal error and 10% non-response rate. Hence, a total sample size was estimated to be 422. Using the sampling frame of the district kebele lists, sample kebeles were selected randomly. Thus, 6 kebeles (Medina, Debrinajegole, Abayatir, Sefiberet, Yelen and

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Tere) were selected from 18 kebeles of Kewot District. Then, the total sample size was allocated to the selected kebeles based on probability proportional to size sampling and systematic sampling method was employed to select study participants. In addition, 15 participants were selected using purposive sampling method for in-depth interview. The participants were selected in collaboration with local leaders and health extension worker by considering the skills to communicate their experiences and feelings in a fluent, open and reflective way.

Data collection procedure and operational definitions: Before the actual data collection, a structured questionnaire was prepared. The questionnaire had different parts for collecting data about socio-demographic characteristics, level of sexual satisfaction, physical and psychological health conditions, substance use, sexual information, partner relationship factors, social and cultural factors. The data were collected on a face-to-face interview by trained data collectors.

Questions that were asked to measure participants' self-esteem (27), sexual self-confidence (28), sexual attitude (29), sexual attachment (30) and partner relationship (31) were measured on a 5-point Likert scale ranging from "strongly disagree" to "strongly agree". Female sexual function Index (32) was used as a measuring tool for evaluating the sexual function which comprised desire, personal arousal, lubrication, orgasm and pain in intercourse. Total scores were obtained by summing individual items and taking average. Thus, those women who scored ≥ mean and < mean in each of the above factors (i.e self-esteem, sexual self-confidence, sexual attitude, sexual attachment, partner relationship and sexual function) were considered as good and poor in each factors, respectively.

We used the new sexual satisfaction scale short form, which is a 12-item scale that measures sexual satisfaction regardless of gender, sexual orientation, or relationship status. This instrument is found to be reliable and valid compared to the full scale (33). The new sexual satisfaction questionnaire has been used as a valid tool to assess sexual satisfaction in both research and clinical practice (5). Women rate each question on a 5-point Likert scale: not at all, a little, moderately, very or extremely satisfied; these are scored 1, 2, 3, 4 and 5 respectively. Higher scores indicate women who were more satisfied in their sexual activity. Accordingly, sexual satisfaction was classified into five categories as: not satisfied, a little satisfied, moderately satisfied, very satisfied and extremely satisfied based on the median score of 1, 2, 3, 4 and 5 respectively.

Qualitative data were collected using in-depth interview by trained female reproductive health professionals. In-depth interview was conducted to collect qualitative data from the married women who were not participated in the quantitative interview. Note paper and audio recorder were used to record the participants' responses and the interview took nearly one hour. Overall, the aim for bringing together both qualitative and quantitative data in this study was to develop a more comprehensive understanding of a problem, to develop a harmonizing image, to compare and to validate or triangulate results.

To ensure the data quality, intensive training was given to the data collectors. Moreover, the questionnaire was pre-tested on 5% of the total sample in Kure Beret Kebele (i.e out of the actual study site) prior to the actual data collection. Then, the contents and order of the questions were reviewed and corrected accordingly. Continuous supervision of the data collection process was carried out to check data completeness and consistency.

Data analysis: Data entry was made using Epi-info version 7 and then exported to SPSS version 23 for analysis. Descriptive statistical methods were used to describe socio-demographic and other characteristics of the participants. Ordinal logistic regression analysis was performed to identify the predictors of sexual satisfaction. The variables that had significant ($p \leq 0.25$) associations with the outcome variable in the univariable analysis were further included in the multivariable ordinal logistic regression model to control the effect of confounding variables. A p-value < 0.05 was considered to be statistically significant. For qualitative data, primarily data from note papers and audio recorder were transcribed Then, the data were classified, categorized into similarly labeled

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data (cluster), and similar clusters were refined and relabeled into codes (coding). After that, the codes were organized into themes, and then the themes were revised and refined by checked data if there were numerous illogicalities within a theme. Finally, the themes were explained, and interpretations were drawn by triangulating both qualitative and quantitative results.

Ethical approval and consent to participate: Ethical approval was obtained from Ethical Review Committee of College of Health Science, Debre Birhan University. Then, a letter of permission to conduct the study was obtained from Kewot District Health Ooffice. Detailed explanations about the process, study objectives and benefits were given to the study participants. Data was collected after obtaining verbal informed consent from the participants; confidentiality was maintained throughout the study.

RESULTS

Socio demographic characteristics: A total of 397 married women were participated in the study with 94% response rate. The majority, 321(80.9%), of the participants were in the age group of 15-19 years. The majority of the women were Orthodox Christians (Table 1).

Table 1: Socio-demographic characteristics of married women in Kewot District, Northern Ethiopia, 2019 (n = 397)

Variables		n (%)
Age (in years)	15-19	321(80.9)
	20-24	48(12.1)
	≥ 25	28(7.1)
Ethnicity	Amhara	354(89.2)
	Oromo	9(2.3)
	Tigre	13(3.3)
	Gurage	2(5.3)
Religion	Orthodox	306(77.1)
	Muslim	87(21.9)
	Protestant	4(1.0)
Educational Status	Illiterate	312(78.6)
	Primary school	58(14.6)
	High School	14(3.5)
	≥ Certificate	13(3.3)
Occupational Status	Government employee	30(7.6)
	Private employee	76(19.1)
	House wife	279(70.3)
	Others	12(3)

Frequency of sexual satisfaction related factors: None of the participants were chewed khat and almost all of the participants (99.7%) had no history of smoking. Regarding to sexuality information, majority of them (97.2%) had no any information about sexuality. Most of the respondents (92.9%) and more than half of them (58.2%) had good partner communication and good sexual attachment, respectively (Table 2).

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Table 2: Frequency of sexual satisfaction related factors among married women in Kewot District, Northern Ethiopia, 2019 (n = 397)

Variables	n(%)	Variables	n(%)
Medical Problem		**Social responsibility**	
Yes	21(5.3)	Yes	109(27.5)
No	376(94.7)	No	288(72.5)
Surgical Problem		**Sexual attachment**	
Yes	45(11.3)	Poor	166(41.8)
No	352(88.7)	Good	231(58.2)
Pregnancy		**Partner communication**	
Yes	36(9.1)	Poor	28(7.1)
No	361(90.9)	Good	369(92.9)
Post-Partum		**Sexual self-attitude**	
Yes	43(10.8)	Poor	371(93.5)
No	354(89.2)	Good	26(6.5)
Infertility		**Sexual function**	
No	397(100)	Poor	249(62.7)
Circumcision		Good	148(37.3)
Yes	294(74.1)	**Sexual self-confident**	
No	103(25.9)	Poor	358(90.2)
Alcohol Consumption		Good	39(9.8)
Yes	66(16.6)	**Sexual self esteem**	
No	331(83.4)	Poor	310(78.1)
Cigarette Smoking		Good	87(21.9)
Yes	1(0.3)	**Married by family pressure**	
No	396(99.7)	Yes	252(63.5)
Khat Chewing		No	145(36.5)
No	397(100)	**Sexual talk is taboo**	
Sexual information		Yes	56(14.1)
Yes	11(2.8)	No	238(59.9)
No	386(97.2)	Unknown	103(25.9)

Level of sexual satisfaction: Regarding the level of sexual satisfaction, half of the total participants (50.4%) were moderately satisfied followed by extremely satisfied (39%). Only 1.3% of the married women scored a little satisfied and not satisfied (Figure 1). Out of the participants within the age group of 15-19 years, 141(43.9%) and 140(43.6%) of them had moderate and extreme level of sexual satisfaction, respectively (Table 3).

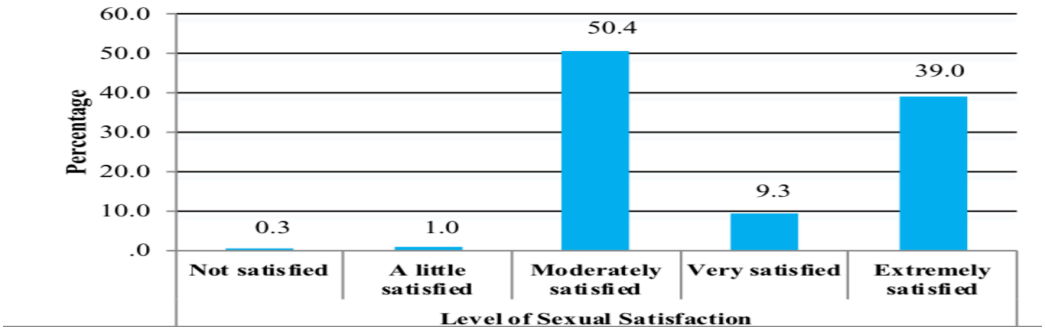

***Figure 1**: Level of sexual satisfaction among married women in Kewot District, Northern Ethiopia, 2019 (n = 397)*

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Table 3: Frequency of some selected factors in relation to level of sexual satisfaction among married women in Kewot District, Northern Ethiopia, 2019 (n = 397)

Variables		Level of sexual satisfaction, n (%)				
		Not satisfied	A little satisfied	Moderately satisfied	Very satisfied	Extremely satisfied
Age (in years)	15 - 19	1(0.3)	4(1.2)	141(43.9)	35(10.9)	140(43.6)
	20 - 24	0(0.0)	0(0.0)	40(83.3)	1(2.1)	7(14.6)
	≥ 25	0(0.0)	0(0.0)	19(67.9)	1(3.6)	8(28.6)
Pregnancy	No	1(0.3)	3(0.8)	194(53.7)	37(10.2)	126(34.9)
	Yes	0(0)	1(2.8)	6(16.7)	0(0)	29(80.6)
Post-partum	No	1(0.3)	2(0.6)	182(51.4)	32(9.0)	137(38.7)
	Yes	0(0)	2(4.7)	18(41.9)	5(11.6)	18(41.9)
Circumcision	Yes	1(1.0)	0(0)	49(47.6)	13(12.6)	40(38.8)
	No	0(0)	4(1.4)	151(51.4)	24(8.2)	115(39.1)
Alcohol- consumption	No	0(0)	4(1.2)	176(53.2)	30(9.1)	121(36.6)
	Yes	1(1.5)	0(0)	24(36.4)	7(10.6)	34(51.5)
Cigarette smoking	No	0(0)	4(1.0)	200(50.5)	37(9.3)	155(39.1)
	Yes	1(100.0)	0(0)	0(0)	0(0)	0(0)
Khat chewing	No	1(0.3)	4(1.0)	200(50.4)	37(9.3)	155(39.0)
Information on-	No	1(0.3)	4(1.0)	199(51.6)	37(9.6)	145(37.6)
Sexuality	Yes	0(0)	0(0)	1(9.1%)	0(0)	10(90.9%)
Medical history	No	1(0.3)	4(1.1)	191(50.8)	35(9.3)	145(38.6)
	Yes	0(0)	0(0)	9(42.9)	2(9.5)	10(47.6)
Surgical history	No	1(0.3)	4(1.1)	183(52.0)	36(10.2)	128(36.4)
	Yes	0(0)	0(0)	17(37.8)	1(2.2)	27(60.0)

Associated factors of sexual satisfaction: Various variables were included in the univariable analysis and all variables that had p-value ≤ 0.25 in the univariable analysis were included in the multivariable analysis. Partner communication, self-sexual esteem, sexual attachment, social responsibility, self sexual attitude, sexual function, self sexual confidence, previous information on sexuality and perception of sexual talk as taboo were candidate variables for multivariable analysis. After adjusting for these variables, had no social responsibility and no perception of sexual talk as a taboo were significantly associated with higher sexual satisfaction (Table 4).

The results of in-depth interview also showed that there are many cultural factors that have a negative influence on the sexual satisfaction which is still practiced by the community. Of these, early marriage, female circumcision, great age difference between couples and marriage by family pressure were mentioned by the participants. A 32 years old woman explained that *"I know a girl whose age was 15 years and forced by her family to marry 45 years old man. She repeatedly came back to her family and asked to live with them. Finally, after a year, she become divorced related with her illness"*. Another 25 years old woman also explained that *"Even though most people have a great understanding about the badness of female circumcision, a significant number of mothers and fathers didn't know the disadvantage of female circumcision still now*".

In addition, poor self-sexual esteem, poor partner communication, poor sexual function and no previous information about sexuality were less likely to be entered into the highest level of sexual satisfaction as compared to their counterparts (Table 4). These findings are also supported by the qualitative data. The result of qualitative data showed that freedom and self-confidence had great effects on sexual satisfaction. According to the participants' responses, restriction of wife's freedom by the husband can make the women be unhappy which leads to sexual dissatisfaction. Most of the participants believed that hugging and kissing are good for both partners' sexual

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satisfaction. Moreover, the respondent mentioned that having painless sexual intercourse and good relationship among family, friends or any other people will lead to higher level of sexual satisfaction.

Table 4: Multivariable ordinal logistic regression analysis of factors associated with level of sexual satisfaction among married women in Kewot district, Northern Ethiopia, 2019

Variables (n = 397)		Level of sexual satisfaction, n (%)						
		Not satisfied	A Little satisfied	Moderately satisfied	Very satisfied	Extremely satisfied	AOR (95% CI)	p- value
Social-responsibility	No	0 (0)	0(0)	121(42.0)	35(12.2)	132(45.8)	6.52(3.32-12.80)	**< 0.001**
	Yes	1(0.9)	4(3.7)	79(72.5)	2(1.8)	23(21.1)	1	
Sexual-attachment	Poor	1(0.6)	4(2.4)	102(61.4)	5(3.0)	54(32.5)	0.67(0.37-1.23)	0.205
	Good	0 (0)	0 (0)	98(42.4)	32(13.9)	101(43.7)	1	
Sexual self-esteem	Poor	1(0.3)	4(1.3)	188(60.6)	31(10.0)	86(27.7)	0.17(0.08-0.36)	**< 0.001**
	Good	0 (0)	0(0)	12(13.8)	6(6.9)	69(79.3)	1	
Partner-communication	Poor	1(3.6)	1(3.6)	20(71.4)	1(3.6)	5(17.9)	0.30(0.11-0.79)	**0.015**
	Good	0(0.0)	3(0.8)	180(48.8)	36(9.8)	150(40.7)	1	
Sexual self-attitude	Poor	1(0.2)	4(1.0)	199(53.6)	37(9.9)	130(35.0)	0.16(0.01-1.74)	0.134
	Good	0(0)	0(0)	1(3.8)	0(0)	25(96.1)	1	
Sexual-function	Poor	0(0)	3(1.2)	158(63.4)	24(9.6)	64(25.7)	0.36(0.21-0.61)	**<0.001**
	Good	1(0.6)	1(0.6)	42(28.3)	13(8.7)	91(61.4)	1	
Self-sexual-confidence	Poor	1(0.2)	4(1.1)	194(54.1)	36(10.0)	123(34.3)	0.34(0.07-1.56)	0.168
	Good	0(0)	0(0)	6(15.3)	1(2.5)	32(82.0)	1	
Information-on sexuality	No	1(0.3)	4(1.0)	199(51.6)	37(9.6)	145(37.6)	0.06(0-0.62)	**0.018**
	Yes	0(0.0)	0(0.0)	1(9.1)	0(0.0)	10(90.9)	1	
Talk about-sexuality-as taboo	Yes	0(0)	4(7.1)	46(82.1)	46(10.7)	0(0)	0.55(0.18-1.68)	0.299
	No	1(0.4)	0(0)	82(34.4)	11(4.6)	144(60.5)	7.15(3.86-13.26)	**<0.001**
	Unknown	0(0)	0(0)	72(69.9)	20(19.4)	11(10.6)	1	

AOR: Adjusted odds ratio, numerical data in bold indicates statistically significant

DISCUSSION

This study was done to determine the level of sexual satisfaction and its associated factors among married women in Kewot District, Northern Ethiopia. Accordingly, this study revealed that half of the respondents (50.4%) had a moderate level of sexual satisfaction. Studies conducted in Nigeria (10) and Ghana (11) found a moderate level of sexual satisfaction in 45.8% and 34% of the participants, respectively. The level of sexual satisfaction reported from Nigeria and Ghana is lower than one in the present study. However, studies conducted in Iran (34), Chile (35) and Germany 36) reported as 56.4%, 66% and 70% of the participants were engaged in pleasurable sexual activity, respectively. The reasons for the observed differences might be the difference in the study population, cultural factors, access to sexuality related information, study design and variability in the sample size. In this study, several factors have been identified to influence sexual satisfaction of married women: previous information about sexuality, sexual function, sexual self-esteem,

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partner communication, perception of sexual talk as taboo and social responsibility.

This study found that married women who had no previous information about sexuality were less likely to be entered into higher level of sexual satisfaction as compared to those women who had previous information about sexuality. In agreement with the current findings, other study showed that sexual information has a positive impact on sexual satisfaction by promoting sexual functioning and healthy sexual relationship (17). Moreover, a study conducted in Iran showed that increase in sexual knowledge is associated with enhancement of sexual satisfaction (37). The lack of sexual knowledge leads to an increase in conflicts and sexual dissatisfaction (38).

This study also found a significant association between sexual function and level of sexual satisfaction. Married women who had poor sexual function were 0.36 times less likely to be entered into higher level of sexual satisfaction as compared to those married women who had good sexual function. In-depth interview results of this study also showed that hugging and kissing are good for both partners' sexual satisfaction. In line with our findings, other studies reported that the rate of orgasm, emotional sexual activity (like cuddling, kissing, rubbing), sexual function and sexual self-confidence are the highest prognosticator of sexual gratification (20,39). However, absence of vaginal lubrication, erectile dysfunction, premature ejaculation, incapability to reach orgasm, and discomfort in the course of intercourse are related with lesser sexual pleasure (40).

In the present study, sexual self-esteem had a strong association with level of sexual satisfaction. Married women who had poor self-sexual esteem were 0.17 times less likely to be entered into higher level of sexual satisfaction as compared to those women who had good self-sexual esteem. The participants of in-depth interview also mentioned that freedom and self-confidence had great effects on sexual satisfaction. These findings are in line with the findings of other study, which indicated that good sexual attitude and self-esteem had significant relationships with high level of sexual satisfaction (23).

The present study also revealed that level of sexual satisfaction was significantly associated with partner communication. Married women who had poor communication with their sexual partners were 0.30 times less likely to be entered into higher level of sexual satisfaction as compared to those women who had good communication with their sexual partners. Moreover, our qualitative result showed that worthy connection of married women with others will have productive influence for their sexual satisfaction. Other study also suggested that smooth relationship between spouses can yield conducive and sound sexual life (18).

We found that married women who did not perceive sexual talk as a taboo were more likely to be entered into higher level of sexual satisfaction. The participants of in-depth interview also identified some cultural and traditional values that lead to sexual dissatisfaction among married women. These include early marriage, female circumcision, great age difference between couples and marriage by family pressure. Moreover, the current study showed that social role had strong correlation with level of sexual satisfaction. Married women with no social responsibility were approximately 7 times more likely to be entered into higher level of sexual satisfaction as compared to their counterparts. This is probably due to the presence of heavy workload and insufficient time for enjoying with sexual partners among women who had social responsibility. In contrast to the current findings, other studies showed that social roles have direct relation with sexual satisfaction (19,20).

This study assessed the level of sexual satisfaction and its associated factors among married women. However, this study had some limitations. First, the participants of this study were only married women which limits the generalizability of the findings to other groups of populations. Second, the study was based on self-reported data which may contain errors. Finally, the new sexual satisfaction questionnaire has not been validated on Ethiopians; further large scale studies are required to pre-validate the questionnaire in the Ethiopian context. Nevertheless, this study provides valuable

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information about the sexual satisfaction and its associated factors among married women in Kewot district, Ethiopia.

In conclusion, this study has shown that the majority of the participants expressed moderate sexual satisfaction rate. Several factors have been identified to influence sexual satisfaction of married women: previous information about sexuality, sexual function, sexual self-esteem, partner communication, perception of sexual talk as taboo and social responsibility. Hence, sexual information before marriage that could be achieved by providing sexual education is very important to improve the couple's sexual satisfaction thereby preventing emotional distress and relationship problems. Further, large scale studies with more diverse samples are needed to elucidate the impact of other factors on sexual satisfaction.

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