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Sexual health literacy and associated factors in pregnant women

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Abstract

Sexual health literacy is very important for the development of both sexual and reproductive health. This study aims to determine the sexual health literacy and associated factors in pregnant women living in the Central Anatolia region in Türkiye. This is a cross-sectional study and was carried out with 172 pregnant women who applied to primary care clinics in the Central Anatolia region in Türkiye between July and September 2023. Personal Information Form and Sexual Health Literacy Scale (SHLS) were used to collect data. The data were analyzed using arithmetic mean, standard deviation, percentage values, independent sample t-test, One-Way ANOVA, Post hoc Tamhane's T2 test. The total mean SHLS score of the pregnant women was found to be 57.5±5.8. It was found that the frequency of sexual relationship of the pregnant women was once a week with 55.2% and the majority used different positions during sexual relationship. The sexual health literacy in pregnant women who were high school graduates and had been married for 1-3 years was high *(Afr J Reprod Health 2025; 29 [2]: 140-150)*

Keywords: Pregnancy; sexual health; literacy

Résumé

Les connaissances en matière de santé sexuelle sont très importantes pour le développement de la santé sexuelle et reproductive. Cette étude vise à déterminer les connaissances en matière de santé sexuelle et les facteurs associés chez les femmes enceintes vivant dans la région de l'Anatolie centrale en Turquie. Il s'agit d'une étude transversale qui a été réalisée auprès de 172 femmes enceintes qui ont postulé dans des cliniques de soins primaires de la région de l'Anatolie centrale en Turquie entre juillet et septembre 2023. Un formulaire de renseignements personnels et une échelle de connaissances en matière de santé sexuelle (SHLS) ont été utilisés pour collecter des données. . Les données ont été analysées à l'aide de la moyenne arithmétique, de l'écart type, des valeurs en pourcentage, du test t pour échantillon indépendant, de l'ANOVA unidirectionnelle et du test T2 post hoc de Tamhane. Le score SHLS moyen total des femmes enceintes était de 57,5 ± 5,8. Il a été constaté que la fréquence des relations sexuelles des femmes enceintes était d'une fois par semaine avec 55,2% et que la majorité utilisait différentes positions pendant les relations sexuelles. Les connaissances en matière de santé sexuelle des femmes enceintes diplômées du secondaire et mariées depuis 1 à 3 ans étaient élevées. *(Afr J Reprod Health 2025; 29 [2]: 140-150).*

Mots-clés: Grossesse, santé sexuelle, alphabétisation

Introduction

World Health Oraganisation (WHO) defines sexual health as the emotional, social, and mental well-being of people in relation to sexuality and that sexual health is an important component for a quality life.[1] Sexual health literacy is described as the capability of understanding information about sexual health and applying this information, reducing the likelihood of contracting sexually transmitted infections (STIs), and attaining other benefits in addition to health.[2] This form of literacy opens the door to the development of new understandings, especially by increasing the participation of women in sexual and reproductive health and rights.[3]

Sexual health literacy is known to be affected by factors such as age, gender, sexual education status, sexual experience, place of birth, religious beliefs, and culture.[4,5] However, the barriers preventing societies from accessing sexual health literacy cause the burden of STIs to increase disproportionately and negatively affect sexual and reproductive health outcomes (unwanted

pregnancies, unwanted sexual activity, unhealthy abortions, etc.).[6,7] Therefore, increasing sexual health literacy is extremely important in improving sexual and reproductive health.[5,8] Sexuality is an important and integral part of every woman's life at every period[9] and one of these periods in a woman's life is pregnancy. Physiological and psychological changes while pregnant affect the body's hormonal environment and the woman's sexual desires, responses, and practices.[10]

Many factors such as the fear that having sexual intercourse while pregnant will harm the fetus, concerns about abortion, cultural norms and beliefs are also sources of concern in society and are widely experienced.[10-12] This situation actually suggests that sexual health literacy while pregnant is not at the desired level in societies. The fact that the rate of an adult woman encountering a problem related to her sexual health at some point in her life is approximately 40-45% in studies is regarded as another indicator that sexual health literacy is not at the desired level.[13,14] It is stated that while pregnant, pregnant women are affected by factors such as self-awareness about sexuality, shyness, education level of their partners, and their attitudes towards sexuality while pregnant in the relevant literature.[13,15]

Moreover, it is stated that sociodemographic (age, marriage duration, employment status, education level of pregnant women and their spouses, income status, etc.) and obstetric (e.g., status of having a planned pregnancy, gestational week, number of pregnancies) characteristics also affect sexual health literacy levels in women [16] Studies in the literature on sexual health literacy while pregnant advocate investigating the associated factors for pregnant women and increasing sexual health literacy. Although there are studies in the literature on parameters that affect women's sexual health literacy levels, the number of studies examining the levels of sexual health literacy in pregnant women with associated factors in detail is limited.[8,10,13,16] Therefore, pilot studies are needed in Türkiye to increase the sexual health literacy in pregnant women and to raise awareness. It is thought that increasing sexual health literacy while pregnant can be possible by identifying the obstacles and taking the necessary precautions. Therefore, a better understanding of the problem is needed for designing and implementing efficacious intervention programs to enhance literacy in sexual and reproductive health as well as health outcomes.[17] Therefore, the study results are thought to make contribution to the literature on sexual health literacy while pregnant from a different perspective by determining the circumstances that affect the sexual health literacy in pregnant women. This study was conducted to examine sexual health literacy in pregnant women and associated factors.

Research questions

Answers were sought to the following research questions:

1.What are the sexual health literacy levels of pregnant women?

2.What are the circumstances that affect the sexual health literacy of pregnant women?

Objectives

The aim of this study is to investigate sexual health literacy and associated factors in pregnant women.

Methods

Study design and participants

This descriptive study was planned as cross-sectional one on pregnant women registered in primary care clinics affiliated with a provincial health directorate in the Central Anatolian region in Türkiye. The population comprised registered, pregnant, and married women who applied to primary care clinics between July and September 2023 and consented to take part in this study. According to data received from the provincial health directorate, there are 24 primary care clinics in the center and the total number of pregnant women over the age of 18 in these primary care clinics is 306. Each family health center was considered as a stratum, and it was decided to include 5 of them (20.8%) according to their sociodemographic characteristics. The size of the sample needed for the study was found using the OpenEpi Version 3 program.[18] When it was accepted that (N):306, (p):%50+/-5, confidence limits(d)=±0.05, confidence level 95%, at least 171 people were included in the sample, and the study

was finalized with 172 people. Women in all trimesters took part in the sample. The study included women over 18 years of age and women with normal pregnancies.

The pregnant women who applied to the primary care clinics were explained the aim and scientific basis of the research process, and those agreeing to participate were contacted by phone and asked to fill out the data collection forms after signing the Informed Consent Form on the link prepared via Google Documents and shared online, and the data were collected online. A personal information form consisting of 13 questions and developed by the researchers and the Sexual Health Literacy Scale consisting of 17 items were used to obtain data.

Personal information form

The form, consisting of 13 items created by the researchers, is a form that involves the socio-demographic characteristics of women and their spouses and information about women's pregnancy and sexuality.[1,2,7,11,12,15,19]

Sexual health literacy scale (SHLS)

The SHLS developed by Üstgörül (2022) consists of 17 items.[19] It is a 5-point Likert-type scale in which each item is scored from Strongly Disagree (1) to Strongly Agree (5). The last 5 items are inversely scored. The scale has two factors, which are sexual knowledge and sexual attitude. The sexual knowledge subscale has 12 items, and its score range is 12-60. The sexual attitude subscale has five inversely scored items, and its scores vary in the range of 5-25. Higher scores on the scale and its dimensions indicate positive attitudes towards sexual health information and higher levels of sexual health literacy.[19] While the Cronbach's alpha internal consistency coefficient of the SHLS was reported as 0.88[19], it was calculated as 0.861 in this study.

Ethical considerations

Before starting the study, the necessary approvals were received from the Non-Invasive Clinical Research Ethics Committee of a university (numbered B.30.2.ATA.0.01.00/497), and official permission was obtained from the institution in which the study was performed (numbered E-73192166-604.02.02-220426810).

Statistical analysis

The SPSS 22 statistics package software was utilized to analyze the data. As descriptive statistics, percentages, medians, minimum and maximum values, means, and standard deviations are presented. The normal distribution assumptions of the data were tested using the kolmogorov-smirnov normality test and Q-Q plots. Because the data were normally distributed, independent-samples t-tests were used for comparisons of two independent groups, while one-way analysis of variance (ANOVA) was utilized for comparisons of more than two independent groups. The post hoc Tamhane's T2 multiple comparison test was used to determine the source of the significant differences. The threshold for statistical significance was chosen as $p<0.0.5$

Results

Among the pregnant women who were included in the study, 33.7% were aged 25-29, 36.6% of their spouses were between the ages of 35-49, and 63.4% of the pregnant women and 59.9% of their spouses were at least university graduates. 65.1% of the participants were employed, 74.4% perceived their income as equal to their expenses, and 40.7% had been married for 1-3 years (Table 1). 84.3% of the women had planned pregnancies, 48.8% had 2 pregnancies, and 45.9% had a gestational age of 27-41 weeks. It was found that 55.2% of the participants had sexual intercourse once a week while pregnant, 69.8% did not think that sexual intercourse would harm the baby, and 64% used a change of position during sexual intercourse (Table 2).

The total score obtained from the SHLS and the scale scores of its primary care clinics are shown in Table 3. Accordingly, the participants had a mean total SHLS score of 57.5±5.8. When the mean scores of the primary care clinics of the scale were examined, it was determined that the sexual knowledge primary care clinics was 40.3±7.0 and the sexual attitude primary care clinics was 17.2±3.5 (Table 3).

Table 1: Socio-demographic characteristics of pregnant women (n=172).

Characteristics		n	%
Age	18-24 years	19	11.0
	25-29 years	58	33.7
	30-34 years	57	33.1
	35-49 years	38	22.1
Age of spouse	18-24 years	31	18.0
	25-29 years	25	14.5
	30-34 years	53	30.8
	35-49 years	63	36.6
Education level	Primary school	5	2.9
	High school	27	15.7
	University	109	63.4
	University and above	31	18.0
Education level of spouse	Primary school	5	2.9
	High school	47	27.3
	University	103	59.9
	University and above	17	9.9
Employment status	Unemployed	60	34.9
	Employed	112	65.1
Income level	Income is less than expenses	12	7.0
	Income equals expenses	128	74.4
	Income is more than expenses	32	18.6
Marriage duration	Less than 1 year	10	5.8
	1-3 years	70	40.7
	4-7 years	62	36.0
	8-10 years	22	12.8
	More than 10 years	8	4.7
Total		172	100.0

Table 2: Obstetric and sexual health characteristic of pregnant women (n=172).

Characteristics		n	%
Pregnancy plan	Planned	145	84.3
	Unplanned	27	15.7
Number of pregnancies	1	75	43.6
	2	84	48.8
	3	8	4.7
	4 and above	5	2.9
Gestational week	1-13 weeks	26	15.1
	14-26 weeks	64	37.2
	27-41 weeks	79	45.9
	Over 41 weeks	3	1.7
Frequency of sexual intercourse during pregnancy	None	16	9.3
	Once a week	95	55.2
	Twice a week	45	26.2
	3 times a week	5	2.9
	4 or more times a week	11	6.4
The thought that sexual intercourse during pregnancy will harm the baby	Yes	52	30.2
	No	120	69.8
Change of position during sexual intercourse during pregnancy	No positions	16	9.3
	Yes	110	64.0
	No	46	26.7
Total		172	100.0

The distribution of the mean SHLS and its subscales scores according to the sociodemographic characteristics of pregnant women and the outcomes of the statistical tests performed to find out the statistical significance of differences are given in Table 4.

The SHLS sexual knowledge and sexual attitude subscale scores of the participants varied significantly ($p<0.05$) based on their age and education levels, the ages and education levels of their spouses, employment status, and marriage duration. There were significant differences between the SHLS sexual knowledge subscale scores of the participants according to their income levels ($p<0.05$); however, there was no significant difference between their scores on the sexual attitude subscale (Table 4, $p>0.05$).

When the sexual knowledge subscale of the SHLS was examined, it was found that the pregnant women between the ages of 18-24 had higher scores than those between the ages of 30-34, the participants between the ages of 25-29 had higher scores than those between the ages of 30-34 and 35-49, the participants with spouses between the ages of 18-24 had higher scores than those with spouses between the ages of 25-29, 30-34, and 35-49, the participants who were high school graduates had higher scores than those who had primary school, university, and above-university degrees, the participants who were university graduates had higher scores than those who were high school and university graduates, the participants with spouses who were primary school graduates had higher scores than those who had university degrees and those who had degrees above the undergraduate university levels, and the participants with spouses who were high school graduates had higher scores than those who had primary school, university, and above-university degrees (Table 4,$p<0.05$).

Table 3: Mean scores of the sexual health literacy (SHL) scale and its sub-dimensions in pregnant women (n=172)

Characteristics	**SHLS score (Mean ± SD)**	**Med (Min-Max)**
Sexual knowledge sub-dimension	40.3 ± 7.0	40.0 (25.0 - 57.0)
Sexual attitude sub-dimension*	17.2 ± 3.5	17.5 (9.0 - 25.0)
SHL Scale Total	57.5 ± 5.8	59.0 (43.0 - 66.0)

* Reverse scored when calculating the total mean score.

Table 4: Distribution of mean scores of sexual health literacy (SHL) scale and its sub-dimensions according to sociodemographic characteristics of pregnant women (n=172)

Characteristics	SHLS Sexual Knowledge mean score		SHLS Sexual Attitude mean score		SHLS Total mean score	
	X±SD	Test, p	X±SD	Test, p	X±SD	Test, p
Age						
1. 18-24 years	42.2±4.6	F=11.349,	16.5±1.5	F=2.838,	58.8±5.4	F=8.669,
2. 25-29 years	43.7±8.7	**p<0.001**	16.3±4.5	**p=0.040**	60.1±5.7	**p<0.001**
3. 30-34 years	37.0±6.0		18.1±3.5		55.2±6.3	
4. 35-49 years	39.0±2.4		17.3±1.2		56.3±2.9	
Post hoc test results	1,2>3, 2>4		3>2		2>3,4	
Age of Spouse						
1. 18-24 years	50.0±6.3	F=43.164,	13.9±4.5	F=14.379,	64.0±1.8	F=22.352,
2. 25-29 years	36.6±4.7	**p<0.001**	18.2±2.8	**p<0.001**	54.8±6.3	**p<0.001**
3. 30-34 years	38.8±5.4		17.3±3.2		56.1±6.4	
4. 35-49 years	38.3±4.8		18.2±2.1		56.5±3.7	
Post hoc test results	1>2,3,4		2,3,4>1		1>2,3,4	
Education level						
1. Primary school	35.0±0.0	F=44.923,	15.0±0.0	F=30.577,	50.0±0.0	F=19.904,
2. High school	50.5±7.0	**p<0.001**	12.5±3.8	**p<0.001**	63.0±3.2	**p<0.001**
3. University	39.4±4.8		18.0±2.4		57.5±5.3	
4. University and above	35.4±5.3		18.4±3.3		53.9±5.4	
Post hoc test results	2>1,3,4, 3>1,4		1,3,4>2, 3,4>1		2,3,4>1 2>3,4, 3>4	
Education level of spouse						
1. Primary school	41.0±0.0	F=20.987,	16.0±0.0	F=13.058,	57.0±0.0	F=11.584,
2. High school	46.2±8.3	**p<0.001**	14.9±4.3	**p<0.001**	61.2±5.1	**p<0.001**
3. University	38.0±5.3		18.3±2.4		56.4±5.7	
4. University and above	37.4±0.5		16.4±3.5		53.8±3.8	
Post hoc test results	1>3,4, 2>1,3,4		3>1,2		1,2>4 2 >1,3,4	
Employment status						
Unemployed	43.5±8.5	t=-4.007,	15.1±4.0	t=5.356,	58.6±5.4	t=-1.917,
Employed	38.6±5.3	**p<0.001**	18.2±2.5	**p<0.001**	56.9±5.9	p=0.057
Income level						
1. Income is less than expenses	32.3±4.0	F=17.972, **p<0.001**	15.5±3.3	F=3.128, p=0.680	47.8±2.6	F=31.890, **p<0.001**
2. Income equals expenses	41.9±7.1		17.0±3.4		59.0±5.3	
3. Income is more than expenses	36.9±3.2		18.2±3.4		55.1±4.1	
Post hoc test results	2>1,3, 3>1				2>1,3, 3>1	
Marriage duration						
1. Less than 1 year	35.4±1.8	F=8.373,	16.9±2.3		52.3±2.4	F=8.723,

2. 1-3 years	43.6±7.9	**p<0.001**	16.3±4.2	F=3.742,	60.0±5.9	**p<0.001**
3. 4-7 years	38.6±5.8		18.2±2.7	**p=0.006**	56.9±5.3	
4. 8-10 years	37.5±4.5		17.6±2.3		55.2±3.4	
5. More than 10 years	38.0±4.2		15.0±2.1		53.0±6.4	
Post hoc test results	2>1,3,4 , 3>1		3>2, 3>5		2>1,3,4 , 3>1	

SHLS Sexual Health Literacy Scale, *X* Mean, *SD* Standard deviation, *t* Independent Samples T Test, *F* One-Way ANOVA (Post hoc Tamhane's T2)

Regarding the perception of the income level of the pregnant women, it was found that the mean scores of the participants who had equivalent levels of income and expenses was higher than those with less income than expenses and those with more income than expenses, and the mean score of those whose income was greater than their expenses was higher than the score of those with less income than expenses. Moreover, the scores of those whose marriage duration was between 1-3 years were higher than those whose marriage duration was less than 1 year, 4-7 years, or 8-10 years, and those whose marriage duration was between 4-7 years had higher scores than those whose marriage duration was less than 1 year (Table 4; $p<0.05$).

When the groups between which the difference in the sexual attitude subscale of the SHLS was examined, it was found that the pregnant women between the ages of 30-34 had higher mean scores than the pregnant women between the ages of 25-29, the spouses between the ages of 25-29, 30-34, and 35-49 had higher mean scores than the spouses between the ages of 18-24, the participants with primary school degrees had higher scores than those with high school degrees, the participants with university or higher degrees had higher scores than those with primary school or high school degrees, the participants with spouses who had university degrees had higher scores than those whose spouses were high school or primary school graduates, and the participants with a marriage duration of 4-7 years had higher scores than those with a marriage duration of 1-3 years or more than 10 years (Table 4; $p<0.05$).

It was observed that the total SHLS scores of the participants were significantly associated with their age and education levels, the ages and education levels of their spouses, their income levels, and their marriage durations ($p<0.05$). However, there was no significant difference in their scores in terms of their employment status ($p>0.05$). In consequence of the statistical analyses carried out to determine which group caused the difference, the pregnant women aged 25-29 had higher mean scores than the pregnant women aged 30-34 and 35-49, and the spouses aged 18-24 had higher mean scores than the spouses aged 25-29, 30-34, and 35-49 (Table 4, $p<0.05$).

The participants who were high school graduates were found to have greater scores in comparison to the participants with primary school, university, and above-university degrees, the participants with university degrees had higher scores compared to those with primary school or above-university degrees, the participants with university degrees had higher scores than those with primary school degrees, the participants with spouses who had primary school degrees had higher scores than those whose spouses had degrees above the undergraduate university levels, and those with spouses who had high school graduation had higher scores than those with spouses who had primary school, university, or above-university degrees (Table 4, $p<0.05$).

It was found that the scores of the participants with equivalent income and expense levels were higher than the scores of those with less income than expenses and those with more income than expenses, and the scores of those with more income than expenses were higher than the scores of those with less income than expenses (Table 4, $p<0.05$).

It was determined the participants whose marriage duration was between 1-3 years had higher mean scores than those whose marriage duration was less than 1 year, 4-7 years, and 8-10 years, and the pregnant women whose marriage duration was between 4-7 years had higher mean scores than those whose marriage duration was less than 1 year (Table 4, $p<0.05$).

Table 5: Distribution of mean scores of sexual health literacy (SHL) scale and its sub-dimensions according to obstetric and sexual health characteristics of pregnant women (n=172)

Characteristics	SHLS Sexual Knowledge mean score		SHLS Sexual Attitude mean score		SHLS Total mean score	
	X±SD	Test, p	X±SD	Test, p	X±SD	Test, p
Pregnancy plan						
Planed	40.4±7.4	t=0.546,	17.4±3.5	t=2.114,	57.8±5.7	t=1.711,
Unplanned	39.8±4.0	p=0.587	15.8±2.5	p=0.036	55.7±6.0	p=0.089
Number of pregnancies						
1. 1	42.5±8.6	F=5.395,	16.1±4.3	F=4.097,	58.7±6.6	F=3.226,
2. 2	38.4±4.9	**p=0.001**	17.9±2.5	**p=0.008**	56.4±4.9	p=0.941
3. 3	38.0±4.2		17.5±0.5		55.5±3.7	
4. 4 and above	42.8±3.8		18.6±0.5		61.4±3.2	
Post hoc test results	1>2		2>1, 4>1,3			
Gestational week						
1. 1-13 weeks	41.9±3.3	F=5.887,	17.8±0.9	F=5.897,	59.7±3.1	F=3.976,
2. 14-26 weeks	42.5±8.9	**p=0.001**	15.7±4.4	**p=0.001**	58.3±6.2	**p=0.009**
3. 27-41 weeks	38.0±5.5		18.0±2.8		56.0±5.8	
4. Over 41 weeks	42.0±0.0		19.0±0.0		61.0±0.0	
Post hoc test results	1,2,4>3		1,3>2, 4>1,2,3		1>3, 4>2,3	
Frequency of sexual intercourse during pregnancy						
1. None	38.5±4.3	F=1.050,	18.8±2.4	F=7.271,	57.3±3.6	F=2.486,
2. Once a week	40.8±8.7	p=0.383	16.1±3.9	**p<0.001**	57.0±7.0	**p=0.045**
3. Twice a week	40.6±4.2		18.9±2.3		59.5±3.8	
4. 3 times a week	35.8±2.6		18.8±1.7		54.6±0.8	
5. 4 or more times a week	39.0±0.0		16.0±0.0		18.8±1.7	
Post hoc test results			1>2, 3>2,5		2>4, 3>4,5	
The thought that sexual intercourse during pregnancy will harm the baby						
Yes	40.0±6.3	t=-0.380,	17.5±1.7	t=1.043,	57.5±6.5	t=0.013,
No	40.4±7.3	p=0.704	17.0±4.0	p=0.298	57.5±5.5	p=0.990
Change of position during sexual intercourse during pregnancy						
1. No positions	38.5±4.3	F=2.192,	18.8±2.4	F=1.957,	57.3±3.6	F=2.544,
2. Evet	41.1±8.0	p=0.115	17.0±3.8	p=0.144	58.2±6.2	p=0.082
3. No	38.9±4.2		16.9±2.6		55.9±5.1	
Post hoc test results						

SHLS Sexual Health Literacy Scale, *X* Mean, *SD* Standard deviation, *t* Independent Samples T Test, *F* One-Way ANOVA (Post hoc Tamhane's T2)

The differences observed in the mean SHLS total and subscale scores of the participants based on their obstetric and sexual health characteristics and the results of the statistical analyses performed to find out whether there was a significant difference are given in Table 5.

Significant differences were identified in the scores obtained from the sexual knowledge subscale of the SHLS with respect to the number of pregnancies and gestational week variables ($p<0.05$), but there was no significant difference based on the variables of pregnancy plan, frequency of sexual intercourse

while pregnant, thought that sexual intercourse would harm the baby, and change of position during sexual intercourse (Table 5,p>0.05). When the difference in the sexual knowledge subscale of the SHLS was examined, the scores of the participants 1 pregnancy were found to be greater than the scores of those with 2 pregnancies, and those with gestational week between 1-13 weeks, 14-26 weeks, and over 41 weeks were higher than those with gestational week between 27-41 weeks, and a significant difference was found between them (Table 5, p<0.05).

The SHLS sexual attitude subscale scores of the participants differed significantly based on the number of their pregnancies, their pregnancy planning statuses, gestational week, frequency of sexual intercourse while pregnant, and the thought that sexual intercourse would harm the baby (p<0.05), whereas there was no significant difference with respect to the variables of changing position during sexual intercourse (Table 5, p>0.05).

When which groups had the difference in the sexual attitude subscale of the SHLS of pregnant women, the scores of the participants with 2 pregnancies were determined to be greater than the scores of those with 1 pregnancies, the scores of the participants with 4 or more pregnancies were higher than the scores of those with 1 and 3 pregnancies, the scores of the participants with gestational weeks of 1-13 and those with gestational weeks of 27-41 were higher than those with gestational weeks of 14-26, women with gestational week over 41 weeks were higher than those with gestational week between 1-13 weeks, 14-26 weeks, and 27-41 weeks, those who did not have sexual intercourse while pregnant were higher than those who had sexual intercourse once a week, those who had sexual intercourse twice while pregnant were higher than those who had sexual intercourse once a week and more than 4 times a week, and those who thought that sexual intercourse while pregnant harmed the baby were higher than those who thought it did not, and a significant difference was found between them (Table 5, p<0.05).

The total SHLS scores of the participants were observed to significantly vary with respect to their gestational weeks and their frequencies of sexual intercourse while pregnant (p<0.05). On the other hand, there was no significant difference based on the variables of pregnancy plan, number of pregnancies, change of position during sexual intercourse while pregnant, and the thought that sexual intercourse would harm the baby (Table 5, p>0.05). According to the result of the statistical analyses performed to identify the groups from which the statistically significant difference originated, the mean scores of pregnant women with gestational week between 1-13 weeks were higher than those with gestational week between 27-41 weeks, those with gestational week above 41 weeks were higher than those with gestational week between 14-26 weeks and 27-31 weeks, those with a sexual intercourse frequency once a week were higher than those with a sexual intercourse frequency three times a week, and those with a sexual intercourse frequency twice a week were higher than those with a sexual intercourse frequency three times a week and four times a week and above, and these differences were statistically significant (Table 5, p<0.05)

Discussion

In this study, it was determined that 55.2% of pregnant women had sexual intercourse once a week. Many studies show that sexual intercourse decreases while pregnant, as in our study findings.[20-22] In the study conducted by Liu Hsu and Chen (2013), the mean monthly sexual intercourse frequencies of pregnant women were examined, and these mean numbers were determined to be 9.02 in the pre-pregnancy period, 1.71 in the first trimester of pregnancy, 1.59 in the second trimester of pregnancy, and finally, 0.39 in the third trimester of pregnancy.[22] Studies on the frequency of sexual intercourse while pregnant also reported it as twice a week or less.[20,22,23] As can be understood, the results of the studies in the literature were in agreement with the results of our study.

In the study, the majority of pregnant women (69.8%) thought that sexual intercourse would not harm the baby. In a study on sexual intercourse while pregnant, 14% of pregnant women did not find sexual intercourse safe due to concerns about harming the baby.[21] In another study carried out with pregnant women in the north of Türkiye, 58.4% of women thought that sexual

activity while pregnant would harm the baby.[24] In a study carried out with Thai women, 47% of them were concerned that sexual activity would harm the fetus.[22] The fact that the results in the literature are different from our study findings may be due to regional and different cultural structures, the sample group, the different trimesters of pregnancy of the pregnant women in the studies, and the way they perceive sexuality.

It was found that 64% of pregnant women used a change of position during sexual intercourse. Similarly, Sacomori & Cardoso (2010) examined behavioral characteristics of pregnant women such as changes in sexual position in their study. They found that couples who both took sexual initiative tended to accept a more diverse sexual position. [25] It was stated in the literature that pregnancy had important effects on women's sexual activities and behaviors. [11] All these results confirm that most participants of our study used position changes. At the same time, this change in position may be due to the growing abdomen during pregnancy.

The sexual health literacy in pregnant women who were high school graduates and their spouses who were high school graduates was found to be higher than those with other education levels. Contrary to the results of our study, previous studies have shown that as the level of education increased, sexual health literacy also increased in cases where the level of education was highest, such as postgraduate education.[26, 27] In the study conducted by Altınayak and Özkan (2024) with pregnant women, the sexual health literacy in pregnant women and their spouses who had university education or higher was found to be high.[13] The discrepancies between our study and other studies in the literature may be explained by differences in sample characteristics.

The total mean SHLS score of pregnant women whose marriage duration was between 1-3 years were found to be higher and significant than those whose marriage duration was less than 1 year, 4-7 years, and 8-10 years. This result from our study suggests that in the first years of marriage, spouses want to get to know each other sexually and make more efforts to increase their level of satisfaction. Similarly, in a study carried out with pregnant women, a shorter marriage duration increased the quality of their sexual life.[28] In studies conducted with married women, having less than five years of marriage was identified as a variable that increased the quality of sexual life.[29,30] We found in this study that the mean SHLS score of women who had sexual intercourse once a week while pregnant was higher and more significant than those who had sexual intercourse thrice a week, and that the mean SHLS scores of women who had sexual intercourse twice a week while pregnant were higher and more significant than those who had sexual intercourse three times a week or four or more times per week.

In studies conducted with pregnant women, although the frequency of sexual intercourse decreased, the quality of sexual life of pregnant women increased.[28,31] This situation suggests that sexual health literacy in pregnant women, like the quality of sexual life, will not be negatively affected by the decrease in the frequency of sexual intercourse. In the study, the mean SHLS scores of those whose gestational age was over 41 weeks were found to be higher and more significant than those whose gestational age was between 14-26 weeks and 27-31 weeks. Similarly, in the study conducted by Altınayak and Özkan (2024), the level of sexual health literacy increased as the gestational week increased.[13] This may be due to the increase in pregnant women's knowledge about pregnancy and sexual health as the weeks of pregnancy progressed.

Limitations of the study

The study had limitations. The first was that it was generalizable to the sample in which the study was conducted. In addition, the fact that the data was collected with people who had internet access at the time could be a limitation in terms of sample representation.

Conclusion

While the majority of the pregnant women who participated in this study had high levels of education, the sexual health literacy levels of those who were high school graduates and those who had been married for 1-3 years was high. The sexual health literacy level of pregnant women whose duration of marriage was less than 1 year, whose gestational week was 27-41 weeks, and whose

spouses and themselves had a university education level or higher was low.As a result, there is a need for pilot studies to increase the sexual health literacy in pregnant women and to raise awareness at national and international levels. Pregnant women should be given trainings to raise awareness on sexual health literacy. In this context, it is thought that midwives will lead the way in improving sexual health services and increasing the sexual health literacy levels of pregnant women.

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