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The Evaluation of Sexual Problems in Patients With Hepatitis B and C

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Article

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Abstract

Background

Viral hepatitis is a major global health problem that can lead to chronic liver disease, cirrhosis, and hepatocellular carcinoma, but its psychosocial and sexual implications are often overlooked. Chronic infections such as hepatitis B and C may negatively affect patients' sexual well-being through both biological mechanisms and emotional distress related to stigma and fear of transmission. Despite this, limited research has addressed how a hepatitis diagnosis influences sexual behavior and satisfaction, particularly from a primary care perspective. This study aimed to investigate the prevalence and nature of sexual dysfunction among individuals diagnosed with hepatitis B and C and to explore the associated sociodemographic and clinical factors.

Methods

The study had an observational, analytical design. The population comprised patients followed-up with diagnosis of hepatitis B and C infections. A questionnaire that evaluates the sociodemographic characteristics with sexual repertoire of the patients, and Golombok Rust Inventory of Sexual Satisfaction were applied to the patients collected in sealed envelopes.

Results

132 patients participated; among whom, 82.6% (n = 109) and 17.4% (n = 23) were diagnosed with hepatitis B and C, respectively. After the diagnosis, 90.2% (n = 119) participants experienced anxiety about infecting their partners and 69.7% (n = 92) experienced an increase in the frequency of sexual problems of their partners. Frequency of vaginal sex, anal sex, kissing and touching usually decreased; however, the frequency of oral sex and erotic/porn streaming remained unchanged. Moreover, the frequency of masturbation and protection needs mostly increased. The decrease in the frequency of vaginal sex was found to be related to educational level ($p < 0.001$). The decrease in the frequency of anal sex was associated with gender ($p = 0.003$). An increase in the frequency of masturbation was found to be related to occupation ($p = 0.005$). There were no differences between the diagnoses in terms of change in frequency of sexual activity patterns and anxiety about infecting their partners.

Conclusion

Problems can occur at any type of sexuality, which can cause problems for couples in their sexual life with the diagnosis of hepatitis B and C.

What is already known on this topic

Individuals diagnosed with viral hepatitis tend to hide their disease due to the lack of knowledge about viral hepatitis, misconceptions, and social stigma.

What this study adds: After the diagnosis of viral hepatitis, the sexual life of people is negatively affected, but this effect does not differ between hepatitis B and C diagnoses.

How this study might affect research, practice or policy: Promoting the use of sexual function assessment scales, particularly within primary care settings, holds significant importance in enhancing patients' awareness regarding the subject matter as well as facilitating timely diagnosis and administration of appropriate treatment interventions.

INTRODUCTION

Although viral hepatitis is a prevalent hepatic disorder, it typically involves classical hepatitis viruses as etiological agents. Its clinical manifestation varies widely and encompasses a clinical spectrum extending from infection to cirrhosis, hepatocellular carcinoma, and liver failure, consequently leading to serious morbidity and mortality.[1,2] Sexual problems represent a major societal concern in terms of overall health, constituting a prominent source of dissatisfaction among individuals experiencing such issues.[3] In addition to general well-being, social and occupational functions are also negatively affected in individuals experiencing sexual concerns. Sexual dysfunction and diminished satisfaction with sexual experiences are prevalent among all sexes, particularly among individuals with chronic medical conditions.[3] Individuals diagnosed with viral hepatitis tend to hide their disease due to the lack of knowledge about viral hepatitis, misconceptions, and social stigma. It is considered that primary care physicians should assume a central role as a dependable source in educating individuals regarding various aspects of health, including sexuality. Their responsibility encompasses dispelling misconceptions and providing accurate information on the prevention strategies, screening measures, vaccination, and appropriate follow-up care.[4] As sexual dysfunction may manifest as an initial indication of an underlying pathology, approximately 20% women and 10% men actively seek assistance and intervention. Hence, the crucial course of action in primary healthcare involves questioning a patient presenting with such a condition. It has been shown that approximately 80% sexual dysfunctions can be resolved in primary care and only 8% require referral, and family physicians should be familiar with the problems and treatments related to these issues.[5]

Our study aimed to investigate sexual dysfunctions prevalent in individuals with hepatitis B and hepatitis C, which are prevalent in our country. We also studied the impact of transmission-related concerns and pharmaceutical interventions on these dysfunctions, while also considering sociodemographic factors.

METHODS

Study design

The study had an observational, analytical design. The study population comprised patients admitted to Samsun Training and Research Hospital Infectious Diseases Outpatient Clinics and followed-up with the diagnosis of hepatitis B and hepatitis C infections. At the time of the study and data collection, both authors were affiliated with Samsun Training and Research Hospital; the affiliations listed on the title page indicate their current institutional affiliations.

The data were obtained within a 2-month period between 01 April 2022 and 31 May 2022 using a collection form evaluating the sociodemographic characteristics accompanied by sexual repertoire of the patients, and Golombok Rust Inventory of Sexual Satisfaction (GRISS) Female Form and GRISS-Male Form collected in sealed envelopes. Identifiable information was not enquired. Our study was voluntary and there was no conflict of interest. It took an average of 15 minutes to complete one questionnaire.

Assessment measures

While four of the ten questions in the data collection form were used to collect sociodemographic data, the remaining six questions were about sexual repertoire. The GRISS-Female and –Male Forms, which are also used in the survey questions, were used as measurement tools for evaluating the quality of sexual relationship and sexual dysfunctions. It is generally used for heterosexual individuals or couples having an ongoing partner relationship. The total score reflects the quality of sexual functioning, whereas the subscale scores provide comprehensive information about various aspects of sexual relationship and diagnosis. Tugrul et al. adapted the scale into Turkish, and subsequent validation and reliability testing provided evidence of its validity and reliability.[6] The scale has two separate forms for men and women, each containing 28 items. These forms include seven subdimensions, five of which are common in forms for males and females. The subdimensions common in both forms are avoidance, satisfaction, communication, touch, and intercourse frequency. The female form of the scale incorporates subdimensions related to vaginismus and orgasm disorder (anorgasmia), whereas the male form includes subdimensions addressing premature ejaculation and impotence (erectile dysfunction). In addition, both forms include four items related to the nature of sexual intercourse, which are not included in these subdimensions. Both the total score and scores obtained from the mentioned subdimensions can be used to evaluate the scale. The total score is obtained by adding the scores of the 28 items in both female and male forms. Higher scores indicate deterioration in the sexual functioning and quality of sexual intercourse. Raw scores can then be converted to standardized scores between 1 and 9 to draw a profile that can be used for men and women separately or for couples as a whole. Upon converting raw scores into standard scores, a threshold of 5 or higher indicates a “problem” within the respective subdimensions.[7]

The study included patients aged 18–64 years (i.e. not geriatric) under the medical supervision of the study hospital who had a confirmed diagnosis of Hepatitis B and/or Hepatitis C. Patients with a serious physical or mental problem that hindered communication were excluded.

Statistical analyses

Statistical Package for the Social Sciences 25.0 package program was used for data analysis. Descriptive data on participants' sociodemographic information and various variables are given in the form of frequency tables. When the data of the study were analyzed in terms of normality assumptions, Kolmogorov–Smirnov values were determined as $p < 0.05$. Therefore, Spearman correlation analysis, one of the nonparametric tests, was used to determine the relationship between the GRISS total and subdimension scores of women and men. In addition, Mann–Whitney U test and Kruskal–Wallis H test, which are nonparametric tests, were used to determine whether there is a significant difference between the GRISS total and subdimension scores of women and men and sociodemographic data of the participants and various variables. When the difference between the groups was significant, a post-hoc test was performed. Since the variance and sample size of the groups were similar, the Games–Howell post-hoc test was used. $p < 0.05$ was considered statistically significant.

Ethical approval

The ethical approval numbered BAEK/2022/5/1 was obtained from the Scientific Research Ethics Committee of Samsun University Training and Research Hospital on April 29, 2022. All methods were performed in accordance with the relevant guidelines and regulations and with the principles of the Declaration of Helsinki. Written informed consent was obtained from all participants prior to data collection.

RESULTS

In our study, 145 people who applied to the relevant clinic were reached, a total of 132 patients (91.0%) participated; among whom, 82.6% (n = 109) and 17.4% (n = 23) were diagnosed with hepatitis B and C, respectively. Sociodemographic data are shown in Table 1.

Table 1. Frequency Distribution of Sociodemographic Data of Participants

Variables	Group	N or Median (min–max)	% or Mean ± SD
Age		41.50–20-64	42.34±11.90
Gender	Male	79	59.8
	Woman	53	40.2
Marital status	Married	106	80.3
	Single/ Widow	26	19.7
Education level	Primary school and below	19	14.4
	Middle School	14	10.6
	High School	58	43.9
	Undergraduate and above	41	31.1
Profession	Unemployed	11	8.3
	Worker	23	17.4
	Tradesmen	19	14.4
	Officer	36	27.3
	Self-employment	30	22.7
	Retired/Housewife	13	9.8
Except for hepatitis There is 58			43.9
chronic disease No		74	56.1
Chronic medication not directed against hepatitis	There is	47	35.6
	No	85	64.4

N, Number; %, Frequency; Min, Minimum; Max, maximum; S, Standard deviation

After the diagnosis, 90.2% (n = 119) participants experienced anxiety about infecting their partners and 69.7% (n = 92) experienced an increase in the frequency of sexual problems of their partners. It was observed that the frequency of vaginal sex, anal sex, and kissing and touching usually decreased; however, the frequency of oral sex and erotic/porn streaming remained unchanged. Moreover, the frequency of masturbation and protection needs mostly increased (Table 2). The decrease in the

frequency of vaginal sex and anal sex ($p < 0.001$, $p = 0.003$, respectively) and increase in the frequency of masturbation ($p = 0.026$) differ from other frequency changes.

Table 2. Frequency Distribution of Participants' Sexual Experiences After Hepatitis Diagnosis

Variables	Group	N	%
Have you ever had anxiety about infecting your partner?	Yes	119	90.2
	No	13	9.8
Has your partner had sexual problems that he/she did not have before or that occurred more than before?	Yes	92	69.7
	No	40	30.3
Frequency of sexual activity patterns			
a. Vaginal sex	Increased	0	0,0
	Unchanged	22	16.7
	Decreased	110	83.3
b. Oral sex	Increased	21	15.9
	Unchanged	60	45.5
	Decreased	51	38.6
c. Anal sex	Increased	14	10.6
	Unchanged	54	40.9
	Decreased	64	48.5
d. Masturbation	Increased	80	60.6
	Unchanged	47	35.6
	Decreased	5	3.8
e. Erotic/Porn streaming	Increased	60	45.5
	Unchanged	67	50.8
	Decreased	5	3.8
f. Kissing, touching, etc.	Increased	19	14.4
	Unchanged	43	32.6
	Decreased	70	53,0.
Have you chosen a method of protection due to contamination concerns?	**N**	**%**	**Percentage of cases**
• I have been using protected for a long time.	44	25.6	33.3

• I did not use protection before my diagnosis, but I started using it afterward.	54	31.4	40.9
• Prior to my diagnosis, my partner did not use protection, but after my diagnosis, he/she began using protection.	62	36.0	47.0
• We were never worried about protection.	12	7.0	9.1
Total	**172**	**100.0.**	**130.3**

N, Number; %, Frequency. *Given the multiple response nature of the responses, the total number (n) exceeds the sample size.

Those who were married were more concerned about transmitting the disease than those who were unmarried ($p = 0.021$). Patients with hepatitis C were more likely to be married than patients with hepatitis B ($p = 0.045$). After the diagnosis, there was no difference between sociodemographic variables in terms of increased sexual problems, and the decrease in the frequency of vaginal sex was found to be related to educational level ($p < 0.001$). The decrease in the frequency of anal sex was associated with gender ($p = 0.003$). Furthermore, an increase in the frequency of masturbation was found to be related to occupation ($p = 0.005$). There were no differences between the diagnoses in terms of change in frequency of sexual activity patterns and anxiety about infecting their partners. There was no difference in the change in the frequency of sexual activity patterns between those with and without chronic diseases. Table 3 presents descriptive statistics for the results obtained from the total and subdimensions of the scale.

Table 3. Descriptive Statistics of Scale and Subscale Scores

		N	Min.	Max.	Center	SD
Female	GRISS total	53	19.00	98.00	55.90	16.91
	Intercourse frequency	53	.00	8.00	4.66	1.83
	Communication	53	.00	8.00	4.00	2.08
	Satisfaction	53	3.00	16.00	9.18	3.05
	Avoidance	53	3.00	15.00	8.07	3.05
	Touch	53	1.00	16.00	6.30	2.94
	Vaginismus	53	3.00	14.00	8.41	2.89
	Orgasm disorder	53	3.00	16.00	8.24	3.11
Male	GRISS total	79	11.00	76.00	46.74	14.80
	Intercourse frequency	79	1.00	8.00	4.94	1.56
	Communication	79	.00	8.00	3.56	1.74
	Satisfaction	79	1.00	13.0	8.25	2.90
	Avoidance	79	.00	14.00	8.08	3.74
	Touch	79	.00	12.00	4.01	2.76
	Impotence	79	1.00	13.0	6.27	2.80
	Premature ejaculation	79	2.00	11.00	6.27	2.13

N, number; Min, minimum; Max, maximum; SD, Standard deviation

In women, the total and subdimension scores of the GRISS were not associated with marital status, occupation, type of hepatitis diagnosis, and anxiety about infecting their partners, whereas there were significant associations with educational status.

In women, the total, satisfaction, avoidance, and touching scores of GRISS were associated with the change in the frequency of vaginal sex and kissing and touching compared with the period after diagnosis. Intercourse frequency and communication scores were not associated with changes in the frequency of sexual activity patterns. Vaginismus score was associated with the change in frequency of oral sex. Orgasm disorder score was associated with change in frequency of anal sex and kissing and touching (Table 4).

Table 4. Comparison of Women's Scale Total and Subscale Scores in Terms of Change in Frequency of Sexual Activity Patterns After Hepatitis Diagnosis Compared to Pre-Diagnosis

	Vaginal sex	Oral sex	Anal sex	Masturbation	Erotic/porno streaming	Kissing, touching, etc.
GRISS total	**0.009**	0.351	0.249	0.222	0.729	**0.003**
Intercourse frequency	0.833	0.114	0.051	0.057	0.064	0.055
Communication	0.240	0.482	0.211	0.161	0.512	0.167
Satisfaction	**0.023**	0.613	0.120	0.704	0.855	**0.005**
Avoidance	**0.010**	0.335	0.606	0.468	0.786	**0.001**
Touch	**0.002**	0.244	0.374	0.478	0.712	**0.046**
Vaginismus	0.081	**0.034**	0.875	0.078	0.401	0.886
Orgasm disorder	0.069	0.950	**0.046**	0.518	0.415	**0.001**

In men, the GRISS total, impotence, and premature ejaculation scores were associated with education, whereas the frequency of intercourse score was associated with the anxiety of infecting their partners. The communication score was associated with marital status; satisfaction and avoidance scores were associated with education and concern about infecting the partner. The total and subscale scores of GRISS were not associated with the occupation and type of hepatitis diagnosis.

In men, the total score of GRISS was associated with the change in the frequency of all patterns of sexual activity after the diagnosis compared to the previous period. Scores of the frequency of intercourse and satisfaction were associated with a change in the frequency of vaginal sex, anal sex, erotic/porno streaming, and kissing and touching. The communication score was associated with the change in frequency of kissing and touching. The avoidance score was associated with changes in the frequency of all patterns of sexual activity except masturbation. Touch and impotence scores were associated with changes in the frequency of all patterns of sexual activity except vaginal sex. Premature ejaculation score was associated with the change in the frequency of oral sex (Table 5).

Table 5. Comparison of Total and Subscale Scores of Men in Terms of Change in Frequency of Sexual Activity Patterns after Hepatitis Diagnosis Compared to Before Hepatitis Diagnosis

	Vaginal sex	Oral sex	Anal sex	Masturbation	Erotic/porno streaming	Kissing, touching, etc.
GRISS total	**0.011**	**0.002**	**0.009**	**0.043**	**0.001**	**0.006**
Intercourse frequency	**<0.001**	0.071	**0.017**	0.603	**0.043**	**<0.001**
Communication	0.232	0.107	0.325	0.061	0.131	**0.007**
Satisfaction	**0.009**	0.113	**0.037**	0.090	**0.003**	**0.009**
Avoidance	**0.004**	**0.044**	**0.001**	0.143	**0.001**	0.182
Touch	0.520	**0.003**	**0.011**	**0.014**	**0.001**	**0.002**
Impotence	0.066	**0.002**	**0.019**	**0.006**	**0.004**	**0.025**
Premature ejaculation	0.050	**0.043**	0.691	0.206	0.165	0.462

DISCUSSION

Limited data exist regarding the sexual life of patients with hepatitis B and C. This study aims to evaluate sexual problems and raise awareness about this issue, particularly among patients commonly seen in primary care, thus making a valuable contribution to the existing literature. Indeed, through extensive exploration of databases including PubMed, UpToDate, Google Scholar, ScienceDirect, Springer Link, and others, utilizing keywords such as “viral hepatitis and sexual problems” and “viral hepatitis and sexual dysfunctions,” it has come to our attention that a comprehensive study focusing on this subject with a primary care perspective is notably absent in the existing literature.

In a population-based viral hepatitis prevalence study, hepatitis B surface antigen positivity was found to be 4.6% and anti-HBc positivity was 30.6% in Turkey.[8,9] According to 2007 WHO data, Turkey was found to be among the countries with a hepatitis C virus (HCV) prevalence of 1%–1.9%.[10] These data can justify the lower number of patients with hepatitis C in our study than the number of patients with hepatitis B.

In a study conducted by Soykan et al. with 46 patients aged 18–65 years diagnosed with hepatitis C, 35% participants complained of sexual problems. According to the Arizona Sexual Experiences Scale criteria, total scale scores were higher in female patients and gender difference for sexual problems was significant.[11] In our study, a significant correlation was observed between the change in the frequency of anal sex and gender. In addition, those who reported that their partner had sexual problems with the diagnosis of hepatitis, which they had not experienced before or which occurred more frequently than before, had significantly higher median scores on the GRISS than those who did not report the same. Accordingly, it is thought the diagnosis of hepatitis, even in individuals who do not have the infection

themselves, may give rise to sexual difficulties among partners of the patients, consequently affecting the overall sexual functioning of affected individuals.

Huyghe et al. investigated erectile dysfunction in men with end-stage liver disease by delivering a questionnaire to participants' addresses. In our study, the participants were given the questionnaires in a sealed envelope at the clinic and were expected to fill them out in accordance with confidentiality and investigators were present in the same environment to answer the possible questions immediately if needed. We think that promptly addressing and clarifying patients' concerns significantly enhances the accuracy of their responses to the questionnaire. In a previous study, 74.5% of patients reported having a partner. Patients with a partner had significantly higher International Index of Erectile Function-5 (IIEF-5) scores.[12] In our study, there was no statistically significant difference between the total score and scores of the subdimensions of the GRISS and marital status in women, whereas a statistically significant difference was found between the communication score from the subdimensions of the GRISS and marital status in men. Married patients had higher median communication scores than those who were single or widowed. This suggests that married men diagnosed with hepatitis are more likely to experience communication problems in marriage, whereas women may have reservations on this issue due to social and cultural reasons. In the aforementioned study, sexual satisfaction as well as sexual activity was significantly associated with hepatitis B or C infection, but the total IIEF-5 score did not support this finding, and those with additional chronic diseases were found to have a higher frequency of satisfaction problems than those without.[12] In Yaprak’s study, the frequency of sexual dysfunction was found to be higher in morbidly obese patients who applied to endocrinology and obesity outpatient clinics.[13] In our study, no statistically significant difference was found between the satisfaction sub-score of the GRISS and the diagnosis of hepatitis B or C. This observation led us to consider that the criteria individuals use to define satisfaction may deviate significantly from the definition of sexual satisfaction. We found that those with chronic diseases had higher median satisfaction scores than those without chronic diseases, and significant differences in communication and empathy scores were determined. This difference may have been caused by comorbid conditions and diversity of medication. In a study evaluating sexual dysfunction in HCV infection, it was emphasized that sexual dysfunction that may develop in patients may be related to the progression of the disease, treatment agents, and depression, which can be seen commonly in hepatitis C patients. In addition, they stated that the neurovascular and hormonal effects of chronic HCV infection might contribute to the pathogenesis of sexual dysfunction. They found a significant inverse relationship between platelet levels in women and the occurrence of female sexual dysfunction, and since platelet levels can be parameters that can predict the severity of liver involvement, the importance of the effect of biological factors such as liver damage caused by the progression of the disease on the development of sexual dysfunction in HCV-infected patients has been shown.[14] This information suggests that some tests may help clinicians in the primary care follow-up of hepatitis C patients in terms of the underlying sexual problem and the prognosis of the disease. In the same study, patients with erectile dysfunction had lower plasma testosterone levels than normal individuals. In our study, a statistically significant positive correlation

was found between age and men's impotence scores, indicating that testosterone levels decrease with age.

In Cojocaru's study, an inverse and significant relationship was reported between educational level and sexual dysfunction.[14] In our study, a significant correlation was found between educational status and GRISS total score in both males and females. This result suggests the importance of education in the prevention and treatment of sexual problems.

Doğan and Saraçoğlu used the GRISS in their study consisting of 72 participants with lifelong vaginismus who applied to a psychiatric outpatient clinic. Vaginismus is one of the subgroups of sexual dysfunctions seen in women and it can be predicted that women with vaginismus may have different sexual problems.[15] In our study, a statistically significant positive correlation was found between women's touch scores from the subdimensions of GRISS and men's impotence scores from the subdimensions of GRISS. Consequently, it is believed that any disruption within the various stages of sexual functioning, which may arise following a hepatitis diagnosis, can lead to distinct dimensions of sexual problems for both men and women. Among women, those who reported "a decrease in the frequency of vaginal sex after their hepatitis diagnosis" exhibited higher median total scores of GRISS than those who reported "no change" in the frequency. This suggests that a problem that may occur in vaginal sex affects the sexual satisfaction and quality of life of the patients. Similarly, those who reported "a decrease in the frequency of vaginal sex after their hepatitis diagnosis" exhibited higher median subdimension scores of GRISS than those who reported "no change" in the frequency. Those who stated "a decrease in the frequency of oral sex" had a higher median score for vaginismus, a subdimension of GRISS, than the other groups. In our study, those who stated "a decrease in the frequency of anal sex" had higher median scores for orgasm disorder than the other groups. Those who reported that kissing/touching had decreased had significantly higher median scores for satisfaction, avoidance, touching, and orgasm disorder from the total and subdimensions of GRISS compared to the other groups. Similarly, in men, those who stated "a decrease in the frequency of vaginal sex after their hepatitis diagnosis" had significantly higher median scores for frequency of intercourse, satisfaction, avoidance, and premature ejaculation from the subdimensions of GRISS and total GRISS compared to those who stated "no change" in frequency. Those who reported "a decrease in the frequency of oral sex" had significantly higher median scores in the total GRISS and subdimensions of the GRISS in terms of avoidance, touching, impotence and premature ejaculation compared to those who answered "no change" in frequency. Compared to the other groups, those who stated "a decrease in the frequency of anal sex" had higher median scores in the total and subdimensions of GRISS, including frequency of intercourse, satisfaction, avoidance, touching, and impotence. Those who stated "a decrease in the frequency of kissing/touching" had significantly higher median scores in the total and subdimensions of GRISS, including frequency of intercourse, communication, satisfaction, touching, and impotence compared to the other groups. Based on these findings, it is hypothesized that sexuality is a comprehensive construct, and the occurrence of problems in various sexual activities following a hepatitis diagnosis may impact overall sexual functioning by giving rise to difficulties in different

subdimensions of sexuality. In our study, those who had anxiety about infecting their partner with hepatitis B or C disease had significantly higher median scores of intercourse frequency, satisfaction, and avoidance from the subdimensions of GRISS than those without the same anxiety. Following the diagnosis of hepatitis, it was observed that patients' sexual lives were influenced by concerns regarding sexual transmission and potential subsequent problems that may arise. It is evident that there is a need for further studies that comprehensively examine the coexistence of different sexual problems in detail.

While the incidence of erectile dysfunction in HCV-positive patients was significantly higher than in hepatitis B virus-positive patients in the study by Toda et al.[16], no significant difference was found between the total and sub-scores of GRISS and the diagnosis of hepatitis B or C for both male and female gender in our study. This may be due to the difference in the distribution of diagnoses in our study.

It was observed that the majority of studies on similar topics focused on erectile dysfunction and male sexuality. However, considering the community-oriented approach, which is one of the core competencies in family medicine, both male and female sexuality should be examined in viral hepatitis patients with the equal importance. The strength of the study lies in its inclusion of patients with diverse diagnoses and genders. This study has some limitations: First, the single-center nature of this study limits the generalization of the results. Next, the association of the stage of hepatitis with the prevalence of sexual dysfunction has not been evaluated. The lack of sufficient data in the literature on the relationship between sexual dysfunctions and some drugs commonly used in viral hepatitis has also limited the deeper discussion of the subject.

CONCLUSION

As conclusion, it has been observed that with the diagnosis of hepatitis, problems can occur at any type of sexuality, which can cause problems for couples in their sexual life. Promoting the use of sexual function assessment scales, particularly within primary care settings, holds significant importance in enhancing patients’ awareness regarding the subject matter as well as facilitating timely diagnosis and administration of appropriate treatment interventions.

DECLARATIONS

Ethics approval and consent to participate

The ethical approval numbered BAEK/2022/5/1 was obtained from the Scientific Research Ethics Committee of Samsun University Training and Research Hospital on April 29, 2022. All methods were performed in accordance with the relevant guidelines and regulations and with the principles of the Declaration of Helsinki. All participants were informed about the study procedures, and voluntary written consent was obtained from each participant prior to data collection.

Consent for publication

All data were collected and analyzed anonymously. No personal or identifiable information of participants is included in this manuscript. Therefore, consent for publication is not applicable.

Availability of data and materials

The dataset generated and analyzed during the current study is openly available in Zenodo at https://doi.org/10.5281/zenodo.17448287

Competing interests

The authors declare that they have no competing interests.

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Authors' contributions

Conceptualization: LMY, OÖ. Data curation: LMY. Formal analysis: LMY. Funding acquisition: LMY. Methodology: LMY, OÖ. Statistical Analysis: LMY. Writing and editing of the manuscript: LMY, OÖ.

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