

Original Article

Comparison of sexual self-consciousness, self-confidence, self-efficacy, satisfaction, and dyadic adjustment between people living with HIV and HIV-negative individuals: Case-control study

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Abstract

Objectives: HIV is a sexually transmitted virus. After infection, the sexual lives of individuals and their compatibility with their partners may be adversely affected. This study aimed to compare sexual self-consciousness, self-confidence, self-efficacy, sexual satisfaction, and dyadic adjustment between People Living With HIV (PLWH) and HIV-negative individuals.

Methods: This case-control study was conducted with 52 PLWH and 225 HIV(-) individuals between June 1 and July 31, 2022. All individuals were asked to complete the Introductory Information Form, the Sexual Self-Consciousness Scale, the Sexual Self-Confidence Scale, the Sexual Self-Efficacy Scale, the New Sexual Satisfaction Scale, and the Revised Dyadic Adjustment Scale.

Results: In PLWH, the mean scores of sexual self-confidence, sexual self-disclosure, sexual satisfaction, and self-centered sexual satisfaction were found to be significantly lower, whereas the mean score of sexual self-efficacy was higher than those of HIV(-) individuals. It was found that being single, living in an extended family, and living in a city center increased exposure to HIV. It was determined that sexual self-disclosure reduced exposure to HIV, whereas sexual awareness and sexual self-efficacy increased exposure to HIV. In PLWH, sexual self-consciousness was found to negatively affect sexual satisfaction; sexual self-confidence and dyadic adjustment were found to increase sexual satisfaction; and sexual satisfaction was found to positively affect dyadic adjustment.

Conclusion: Living with HIV negatively affects self-confidence and satisfaction related to sexuality. Awareness and self-efficacy regarding sexuality increase, whereas sexual self-disclosure decreases after exposure to HIV. Integrating sexual health counseling that focuses on sexual self-confidence, self-disclosure, and couple dynamics into routine HIV care may contribute to improving sexual satisfaction and relationship adjustment in people living with HIV.

Keywords: HIV; people living with HIV; sexual life; sexuality

Sexuality is one of the most fundamental human needs and plays a central role in individuals' physical, psychological, and social development.^[1] An individual's self-perception, capacity to establish emotional intimacy, and the quality of interpersonal relationships are largely associated with the way sexuality is perceived and experienced.^[2,3] How-

ever, engaging in sexual activity under unsafe conditions may increase the risk of transmission of sexually transmitted infections, particularly HIV.^[4] Therefore, sexual behaviors should be considered not only as a biological process but also as a multidimensional phenomenon encompassing psychological and social aspects.^[5,6]

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The quality of an individual's sexual behaviors is shaped by psychological constructs such as sexual self-consciousness, sexual shyness, self-expression, and sexual self-efficacy.^[7-10] Sexual self-consciousness refers to individuals' perceptions and evaluations of their own sexual life and sexual identity,^[8,9] whereas sexual shyness is defined as difficulty in discussing sexual topics and an inability to openly express sexual feelings.^[8,9,11] Sexual self-efficacy reflects an individual's belief in their ability to effectively manage sexual emotional responses and behaviors.^[10,12] These constructs directly influence individuals' sexual decision-making processes, communication with partners, and their capacity to maintain safer sexual practices. Research indicates that individuals with high levels of sexual shyness tend to remain silent and conceal their sexual problems rather than sharing them.^[13-15] This situation may lead to decreased individual sexual satisfaction as well as weakened communication between partners.^[16,17] Particularly in societies where open discussion of sexuality is socially and culturally restricted, perceptions of sexuality as "sinful" or "shameful" may contribute to the chronicity of sexual problems.^[15,18] Such sociocultural pressures also negatively affect individuals' ability to develop awareness regarding their sexuality and to seek help.^[15,18,19] These psychological and cultural dynamics demonstrate that sexuality is not merely an individual experience but also a construct closely associated with health behaviors, risk perception, and interpersonal relationships.^[20,21] Maintaining safer sexual behaviors is directly linked to sexual self-consciousness, the ability to express oneself, and perceptions of self-efficacy.^[22] In this context, understanding the psychological dimensions of sexuality holds particular importance in relation to sexually transmitted infections, especially chronic, stigma-related conditions such as HIV.^[4,23,24]

An individual's self-perception, capacity to establish emotional intimacy, and the quality of interpersonal relationships are largely associated with the way sexuality is perceived and experienced.^[25] However, engaging in sexual activity under unsafe conditions may increase the risk of transmission of sexually transmitted infections, particularly HIV.^[4,26] Therefore, sexual behaviors should be considered not only as a biological process but also as a multidimensional phenomenon encompassing psychological and social dimensions.^[27,28] The quality of an individual's sexual behaviors is shaped by psychological constructs such as sexual self-consciousness, sexual shyness, self-expression, and sexual self-efficacy.^[7-10,12,29,30] These constructs directly influence individuals' sexual decision-making processes, communication with partners, and their capacity to maintain safer sexual practices.^[31] Studies indicate that individuals with high levels of sexual shyness tend to remain silent and conceal their sexual problems rather than sharing them.^[32,33] This situation may lead to decreased individual sexual satisfaction as well as weakened communication between partners

What is presently known on this subject?

- There is a widespread perception that the sexual lives of people living with HIV (PLWH) are negatively affected and that couple compatibility may be impaired. In addition, due to the stigma associated with sexually transmitted infections, PLWH may tend to conceal their diagnosis and avoid open sexual communication within relationships.

What does this article add to the existing knowledge?

- This study showed that PLWH had lower sexual self-confidence, higher sexual self-efficacy, and lower sexual satisfaction compared with HIV-negative individuals. While awareness and self-efficacy regarding sexuality appeared to increase after diagnosis, sexual self-disclosure decreased. Moreover, higher levels of sexual self-consciousness were associated with reduced sexual satisfaction among PLWH, highlighting the complex psychosocial dimensions of sexuality in this population.

What are the implications for practice?

- The findings suggest that sexual health assessment in PLWH should extend beyond virological suppression, antiretroviral therapy adherence, and condom use. Comprehensive counseling approaches that include partners may help address reduced sexual self-confidence and satisfaction. Integrating tailored sexual health education and psychosocial support into routine HIV care could improve overall sexual well-being and relationship dynamics.

ners.^[34] Particularly in societies where open discussion of sexuality is socially and culturally restricted, sexual problems may become chronic.^[35,36] Such sociocultural pressures also negatively affect individuals' ability to develop awareness regarding their sexuality and their help-seeking behaviors.^[37,38] These psychological and cultural dynamics demonstrate that sexuality is not merely an individual experience but also a construct closely associated with health behaviors, risk perception, and interpersonal relationships.^[39] Maintaining safer sexual behaviors is particularly important in relation to individuals' sexual self-consciousness, self-expression skills, and perceptions of self-efficacy.^[40,41] In this context, understanding all dimensions of sexuality holds significant importance in relation to chronic and stigma-associated conditions such as HIV.

HIV/AIDS remains a major public health concern worldwide as one of the most significant sexually transmitted infections affecting individuals across all age groups. Current global estimates indicate that approximately 40 million people are living with HIV worldwide and that millions of new infections are reported each year, highlighting that HIV continues to pose a substantial and ongoing global health burden.^[4] This situation is important not only for understanding the medical impact of HIV but also for emphasizing the psychosocial and relational challenges experienced by people living with HIV (PLWH), particularly in the context of sexuality and intimate relationships.^[42,43] Risky sexual behaviors, such as inconsistent condom use and limited communication between partners, remain among the primary factors contributing to HIV transmission.^[44] Although advances in antiretroviral therapy have transformed HIV into a manageable chronic condition and significantly reduced transmission risk, PLWH may continue to experience concerns related to sexual confidence, self-disclosure, stigma, and relationship dynamics.^[45] Therefore, contemporary HIV

care increasingly extends beyond biomedical management and emphasizes holistic, biopsychosocial approaches that include sexual health counseling, partner involvement, and regular psychosocial assessments.^[46,47] In this context, understanding the multidimensional aspects of sexuality—such as sexual self-consciousness, sexual confidence, sexual self-efficacy, sexual satisfaction, and dyadic adjustment—has become critically important.

Global prevalence data indicate that the number of individuals maintaining long-term intimate relationships while living with HIV is increasing; this trend highlights the need for research that examines not only risky behaviors but also the psychological and relational dimensions of sexual well-being.^[48,49] This perspective provides an important theoretical framework for the present study, which aims to contribute to a more comprehensive understanding of sexuality among people living with HIV (PLWH).^[50] In certain sociocultural contexts where open discussion of sexuality is limited, studies suggest that PLWH may experience social expectations or internalized beliefs that restrict sexual expression.^[51] HIV-related stigma, fear of self-disclosure, and concerns about negative judgment may influence how PLWH perceive and express their sexuality, often leading to the concealment of sexual needs and reduced openness within intimate relationships.^[52] Rather than being explained solely by individual preferences, this tendency is described in the literature as a psychosocial response shaped by stigma, discrimination, and cultural norms surrounding HIV and sexuality.^[24,42] Although numerous studies have examined different dimensions of sexuality among PLWH, research that simultaneously investigates sexual self-consciousness, sexual behaviors, and dyadic adjustment with a sexual partner within the same theoretical framework remains limited. The existing literature has largely focused on specific outcome variables such as sexual function, condom use, or risk behaviors, whereas psychological and relational dimensions have generally been addressed independently.^[24] This fragmented approach makes it difficult to fully understand the dynamic and multilayered interaction between the psychological components of sexuality (e.g., sexual self-consciousness and sexual self-confidence) and relational processes (e.g., dyadic adjustment and partner interaction). Consequently, this gap in the literature restricts a holistic evaluation of sexual well-being among PLWH and highlights the need for research that conceptualizes sexuality as a multidimensional construct. In line with this need, the present study was designed to examine sexual self-consciousness, sexual self-confidence, sexual self-efficacy, sexual satisfaction, and dyadic adjustment simultaneously, aiming to complement the fragmented perspective in the literature with a more holistic model. Furthermore, the case–control design of the study enables comparison with a control group sharing similar sociodemographic character-

istics with PLWH, thereby allowing clearer interpretation of observed differences. In this way, the study seeks to generate stronger and more comparative evidence to inform both clinical practice and sexual health counseling. Therefore, this study aimed to compare sexual self-consciousness, self-confidence, self-efficacy, sexual satisfaction, and dyadic adjustment between people living with HIV (PLWH) and HIV-negative individuals.

Research Questions

- Is there a significant difference in the total and subscale mean scores of the Sexual Self-Consciousness Scale (SCS) between PLWH and HIV-negative individuals?
- Is there a significant difference in the total and subscale mean scores of the Sexual Self-Confidence Scale (SSCS) between PLWH and HIV-negative individuals?
- Is there a significant difference in the mean scores of the Sexual Self-Efficacy Scale (SSES) between PLWH and HIV-negative individuals?
- Is there a significant difference in the total and subscale mean scores of the New Sexual Satisfaction Scale (NSSS) between PLWH and HIV-negative individuals?
- Is there a significant difference in the total and subscale mean scores of the Revised Dyadic Adjustment Scale (RDAS) between PLWH and HIV-negative individuals?
- When considered together, how do sociodemographic characteristics; the total and subscale mean scores of the Sexual Self-Consciousness Scale; the total and subscale mean scores of the Sexual Self-Confidence Scale; the mean score of the Sexual Self-Efficacy Scale; the total and subscale mean scores of the New Sexual Satisfaction Scale; and the total and subscale mean scores of the Revised Dyadic Adjustment Scale affect exposure to HIV?
- When considered together, how do sexual self-consciousness, sexual self-confidence, sexual self-efficacy, and dyadic adjustment affect sexual satisfaction?
- When considered together, how do sexual self-consciousness, sexual self-confidence, sexual self-efficacy, and sexual satisfaction affect dyadic adjustment?

Materials and Method

Research Type

This is a case–control study.

Research Setting and Period

This study was carried out in the Infectious Diseases Outpatient Clinic of Şanlıurfa Training and Research Hospital between June 1, 2022, and July 31, 2022.

Research Variables

Dependent variables: The mean scores of the Sexual Self-Consciousness Scale, Sexual Self-Confidence Scale, Sexual Self-Efficacy Scale, New Sexual Satisfaction Scale, Revised Dyadic Adjustment Scale, and living with HIV status.

Independent variables: Descriptive characteristics of PLWH and HIV-negative individuals.

Population and Sample

The study population consisted of individuals who applied to the Infectious Diseases Outpatient Clinic of the hospital. A total of 136 HIV-positive cases who applied to the clinic for treatment between June 1, 2022, and July 31, 2022, were included in the study. The number of HIV-negative individuals who applied to the clinic during this period was 349. The sample size was calculated using G*Power version 3.1. In this case-control study, for the two-tailed comparison of mean values between two independent groups, a Type I error rate of 0.05, a statistical power of 0.80, and a medium effect size (Cohen's $d=0.50$) were assumed. The group allocation ratio ($N_2(\text{control})/N_1(\text{case})$) was set at 4; accordingly, the minimum required sample size was calculated as 40 participants for the case group (PLWH) and 160 participants for the control group, resulting in a total sample size of 200.^[53,54] A total of 277 individuals were included, 52 of whom were living with HIV in the case group and 225 were HIV(-) individuals in the control group. Each HIV(-) individual who was similar in terms of sex and age group variables, providing at least four times the number of individuals living with HIV, was selected using a simple randomization method and included in the control group. Data were collected through face-to-face interviews with individuals. The interviews with the participants lasted 15–20 minutes on average.

In case-control studies, especially when the case group is rare or difficult to access, increasing the size of the control group is a recommended sampling strategy to enhance statistical power. In epidemiological research, increasing the control-to-case ratio up to 4:1 is known to contribute to more precise estimation of effect sizes, reduce standard error, and decrease the likelihood of Type II error. In the present study, the number of people living with HIV who were under regular follow-up during the study period was limited; therefore, it was not feasible to expand the case group. Instead, the control group was intentionally enlarged to strengthen the power of between-group comparisons and to ensure the stability of parameter estimates in regression analyses. During the G*Power analysis, the group allocation ratio (N_2/N_1) was set at 4, and the sample size was calculated based on this assumption. Accordingly, HIV-negative individuals with similar age and sex characteristics were selected using a simple random sampling method, and the control group was formed to be at least four times

larger than the case group. Thus, methodological efficiency was maintained while the statistical reliability of comparative analyses was improved despite the limited number of cases.

Inclusion and Exclusion Criteria

Inclusion criteria comprised people living with HIV (PLWH) who were aware of their HIV diagnosis, receiving regular antiretroviral therapy, virologically suppressed, and not using antidepressant treatment, as well as HIV-negative individuals. All PLWH were under routine clinical follow-up; therefore, they were assumed to have received standard counseling and information regarding HIV infection as part of regular care. Individuals who were married or had a sexual partner and who voluntarily agreed to participate were included in the study. Exclusion criteria comprised individuals who did not meet the inclusion criteria; those who were unaware of their HIV diagnosis or were not under regular clinical follow-up; individuals receiving antidepressant treatment; those without a spouse or sexual partner; individuals with communication difficulties that could interfere with completing the questionnaires; participants who provided incomplete or insufficient responses in the data collection instruments; and those who declined to participate in the study. The flow chart of the inclusion process of the individuals is given in Figure 1.

Data Collection Tools

Introductory Information Form

This form, developed by the researchers, consists of a total of 13 questions assessing the sociodemographic characteristics of individuals.

Sexual Self-Consciousness Scale (SCS)

This form was developed by van Lankveld et al.^[9] and adapted into Turkish by Celik. This scale consists of 12 items in a five-point Likert-type format and includes two subdimensions (sexual shyness and sexual self-focus).^[8,9] In the score calculation of the scale, a minimum score of 0 and a maximum score of 42 points can be obtained. Higher scores obtained from the scale indicate higher levels of sexual self-consciousness. Increased scores in the sexual shyness subdimension reflect greater sexual inhibition, whereas higher scores in sexual self-focus indicate increased attention toward one's own sexual experiences. The Cronbach alpha coefficient was determined as 0.85 by van Lankveld et al.^[9] and 0.83 by Celik in the Turkish version.^[8,9] In this study, it was found to be 0.84.

Sexual Self-Confidence Scale (SSCS)

It was developed by Celik and is a four-point Likert-type scale consisting of 13 items and three subdimensions (self-disclosure, courage, and awareness). In the score calculation of the scale, a minimum of 13 and a maximum of 52 points can be ob-

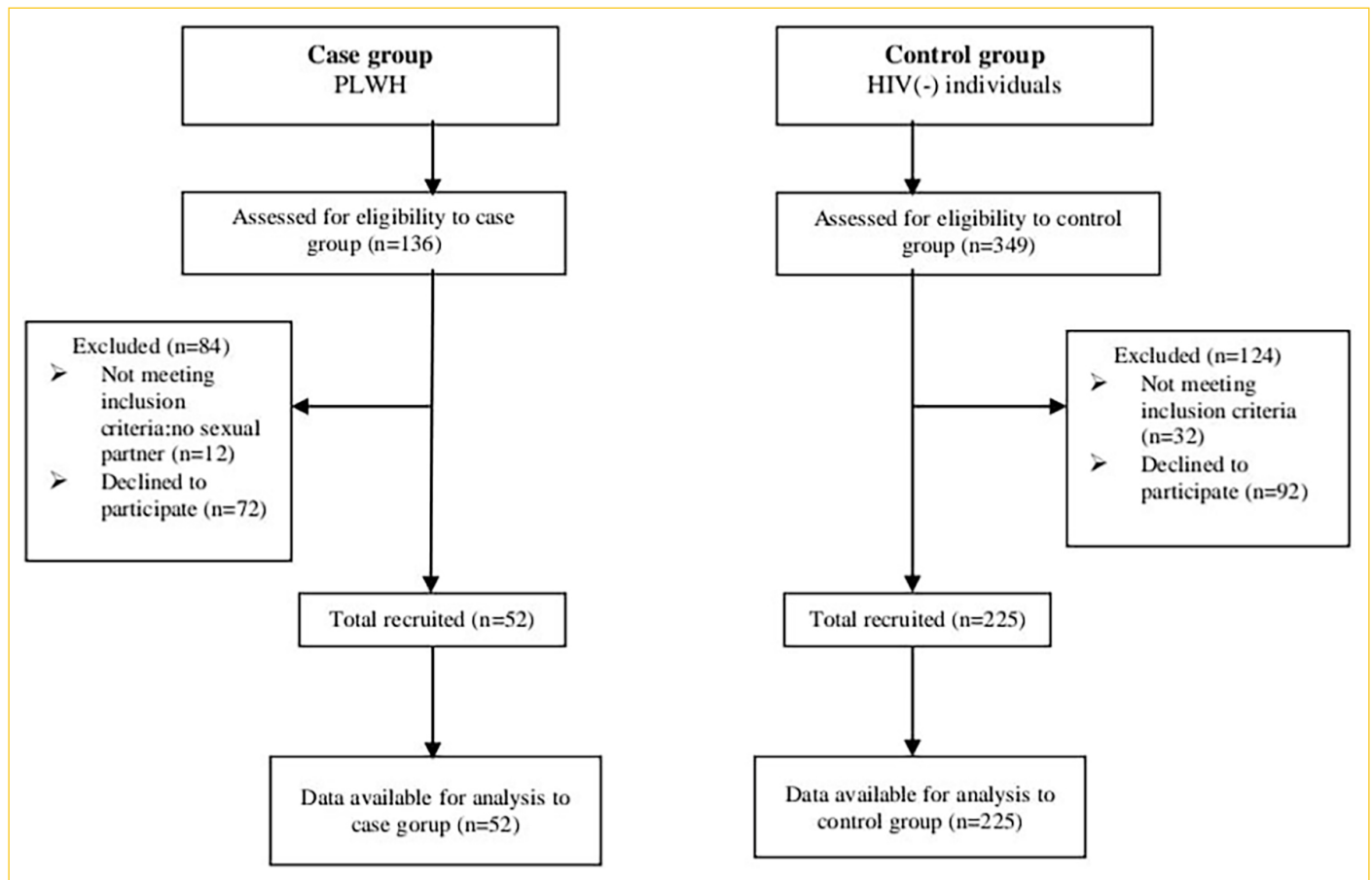


Figure 1. Flow chart of the selection process of individuals included in the case and control group.

PLWH: People living with HIV.

tained.^[29] Higher total scores indicate greater sexual self-confidence. Higher scores in the subdimensions of self-disclosure, courage, and awareness reflect greater openness in sexual expression, increased sexual courage, and enhanced awareness regarding sexuality. The Cronbach alpha coefficient was reported as 0.88 by Celik.^[29] In this study, it was found to be 0.91.

Sexual Self-Efficacy Scale (SSES)

It was developed by Humphreys & Kennett and adapted into Turkish by Celik. This scale consists of five items and is a Likert-type scale. A minimum of 5 and a maximum of 40 points can be obtained.^[12,55] Higher scores obtained from the scale indicate greater perceived sexual self-efficacy, whereas lower scores reflect reduced confidence in managing sexual situations. The Cronbach alpha value was determined as 0.83 by Humphreys & Kennett and 0.71 by Celik.^[12,55] In this study, it was found to be 0.66.

New Sexual Satisfaction Scale (NSSS)

It was developed by Stulhofer et al.^[56] and adapted into Turkish by Tuğut. This scale is a five-point Likert-type scale consisting of 20 items and two subdimensions (self-centered and spousal/

partner sexual activity-centered). In the score calculation of the scale, a minimum of 20 and a maximum of 100 points can be obtained.^[57] Higher total scores represent higher levels of sexual satisfaction. The self-centered and partner-centered subdimensions reflect satisfaction related to individual sexual experiences and partner-related sexual interaction, respectively. The Cronbach alpha value was reported as 0.95 by Stulhofer et al.^[56] and 0.94 by Tuğut.^[57] In this study, it was found to be 0.96.

Revised Dyadic Adjustment Scale (RDAS)

It was developed by Spanier^[58] and revised by Busby et al.^[59] This scale was adapted into Turkish by Bayraktaroğlu & Çakıcı.^[58-60] This scale consists of 14 items and three subdimensions (satisfaction, consensus, conflict). In the score calculation of the scale, a minimum of 14 and a maximum of 70 points can be obtained. Higher total scores indicate better dyadic adjustment and relationship quality. Increased scores in the satisfaction and consensus subdimensions reflect stronger relationship harmony, whereas higher conflict scores indicate lower relational compatibility. The Cronbach alpha value was found to be 0.87 by Busby et al.^[59] and 0.88 by Bayraktaroğlu & Çakıcı.^[59,60] In this study, it was found to be 0.85.

Statistical Analysis

Data were analyzed using SPSS 26.0 (IBM SPSS Statistics Version 26, SPSS Inc., Chicago, Illinois, USA, 2019). Descriptive statistics were expressed as number (percentage) for categorical variables and mean±standard deviation for continuous variables. The Kolmogorov–Smirnov test and visual inspections (histograms and normality plots) were used to evaluate the normality of continuous data distributions. For comparisons between two independent groups, the Independent Samples t-test was used for normally distributed continuous variables. The chi-square test was applied to examine associations between categorical variables. Binary logistic regression analysis (enter method) was performed to identify factors associated with living with HIV status. In addition, regression analyses were conducted within the PLWH group to determine variables affecting sexual outcomes. Before regression analyses, model assumptions were evaluated, including multicollinearity among independent variables. Results of regression analyses were reported using odds ratios (OR) with 95% confidence intervals (CI). All statistical tests were two-tailed, and statistical significance was set at $p < 0.05$ with a 95% confidence level.

Ethical Consideration

Ethics committee approval was obtained from the Muş Alparslan University Scientific Research and Publication Ethics Committee (Date: 31.05.2022, No: 8/19), and institutional permission was obtained from Şanlıurfa Training and Research Hospital (Date: 12.04.2022). All procedures were conducted in accordance with the principles of the Declaration of Helsinki. All participants were fully informed about the purpose and procedures of the study, and written and verbal informed consent was obtained prior to participation. The anonymity and confidentiality of all participants were carefully protected; no personal identifying information was collected, and the data were used solely for scientific purposes.

Results

It was determined that there was a significant difference between PLWH and HIV(-) individuals in terms of marital status ($p = 0.01$), family type ($p = 0.004$), and longest-lived place ($p = 0.002$). Accordingly, it was determined that PLWH were more likely to be single, have an extended family structure, and spend the longest time in the city center compared with HIV(-) individuals (Table 1).

A significant difference was determined between the SSCS, SSCS self-disclosure, SSE5, NSSS, and NSSS self-centered mean scores of PLWH and HIV(-) individuals ($p < 0.05$). Accordingly, the mean scores of sexual self-confidence, self-disclosure, satisfaction, and self-centered satisfaction of

PLWH were found to be significantly lower, whereas the mean scores of sexual self-efficacy were higher than those of HIV(-) individuals (Table 2).

The results of logistic regression analyses between living with HIV, selected sociodemographic variables, sexual self-consciousness, self-confidence, self-efficacy, satisfaction, and dyadic adjustment are shown in Table 3. A total of 47.0% of the dependent variable was explained by the independent variables ($p < 0.01$). Accordingly, being single (OR=8.34), living in an extended family (OR=2.90), living in a city center (OR=3.58), sexual awareness (OR=1.52), and sexual self-efficacy (OR=1.16) had a positive effect on HIV-positive status, whereas sexual self-disclosure (OR=0.83) negatively affected HIV-positive status ($p < 0.05$) (Table 3).

In PLWH, sexual self-consciousness was found to negatively affect satisfaction ($p = 0.04$), whereas self-confidence and dyadic adjustment positively affected satisfaction ($p = 0.01$). It was also determined that satisfaction positively affected dyadic adjustment ($p = 0.01$) (Table 4).

Discussion

In this study, people living with HIV (PLWH) were found to have lower levels of sexual self-confidence, sexual self-disclosure, and sexual satisfaction compared with HIV-negative individuals; however, no significant differences were observed between the groups in terms of mean scores for sexual self-consciousness and dyadic adjustment. Notably, the decrease in sexual satisfaction among the PLWH group was particularly pronounced in the ego-centered dimension, whereas partner-centered satisfaction remained at a similar level. Furthermore, the higher levels of sexual self-efficacy observed among PLWH suggest that the experience of living with HIV may have an empowering effect in certain areas related to sexual behaviors. These findings indicate that the impact of HIV on sexuality and relationship dynamics is not unidirectional but may vary across different psychosocial dimensions.

Sociodemographic Characteristics and HIV Exposure

In this study, being single, living in an urban center, and having an extended family structure were found to be associated with HIV exposure. Similarly, the literature suggests that unmarried individuals may be more prone to risky sexual behaviors due to greater partner turnover and broader social networks.^[61–63] Living in urban centers is also considered a factor that may increase risk behaviors, as individuals have greater access to entertainment environments and more frequent social interactions.^[64] These findings highlight not only behavioral risks but also the influence of sociocultural context on the way sexuality is experienced. In particular, limited pri-

Table 1. Comparison of sociodemographic characteristics of case and control group

Sociodemographic characteristics	Case = HIV(+)	Control = HIV(-)	Statistical analysis	
	(n=52)	(n=225)	Test	p
	% (n)	% (n)		
Age, mean (\pm SD)	33.1 (\pm 8.4)	31.5 (\pm 7.2)	t=1.3	0.16
Age group			X ² =3.13	0.20
25 and below	11.5 (6)	20.9 (47)		
26-35	59.6 (31)	58.2 (131)		
36 and over	28.8 (15)	20.9 (47)		
Sex			X ² =0.19	0.65
Female	17.3 (9)	20.0 (45)		
Male	82.7 (43)	80 (180)		
Marital status			X ² =6.62	0.01
Married	67.3 (35)	83.1 (187)		
Single	32.7 (17)	16.9 (38)		
Family type			X ² =8.17	0.004
Nuclear	55.8 (29)	75.6 (170)		
Extended	44.2 (23)	24.4 (55)		
Longest lived place			X ² =12.80	0.002
City center	73.1 (38)	51.6 (116)		
Town district	7.7 (4)	32.0 (72)		
Village	19.2 (10)	16.4 (37)		
Education status			X ² =2.96	0.81
Literate and below	3.8 (2)	7.1 (16)		
Primary school	7.7 (4)	5.8 (13)		
Middle school	15.4 (8)	10.7 (24)		
High school	28.8 (15)	24.9 (56)		
Two-year Undergraduate	9.6 (5)	15.1 (34)		
Undergraduate	28.8 (15)	30. (68)		
Master degree and above	5.8 (3)	6.6 (14)		
Social security			X ² =0.11	0.73
Yes	80.8 (42)	78.7 (177)		
No	19.2 (10)	21.3 (48)		
Working status			X ² =0.22	0.63
Working	73.1 (38)	69.8 (157)		
Not working	26.9 (14)	30.2 (68)		
Income status			X ² =1.76	0.41
Income<Expense	26.9 (14)	25.8 (58)		
Income=Expense	53.8 (28)	46.2 (104)		
Income>Expense	19.2 (10)	28.0 (63)		

p<0.05 is statistically significance value. t: Independent sample t test, X²=Chi-square, SD: Standard deviation.

vacancy within extended family structures may lead individuals to experience their sexual identity and relationships more privately, which can complicate the planning of safer sexual behaviors. From this perspective, the study contributes to the existing literature by demonstrating that HIV risk is associated not only with individual choices but also with characteristics of the social environment.

Sexual Self-Consciousness

In this study, no statistically significant difference was found between people living with HIV (PLWH) and HIV-negative individuals in terms of total sexual self-consciousness scores or subdimension means. This finding suggests that an HIV diagnosis may not always directly alter individuals' internal aware-

Table 2. Comparison of the mean scores of Sexual Self-Consciousness Scale, Sexual Self-Confidence Scale, Sexual Self-Efficacy Scale, New Sexual Satisfaction Scale and Revised Dyadic Adjustment Scale of case and control group

Scales	Case = HIV(+)	Control = HIV(-)	Statistical analysis			
	(n=52)	(n=225)	t Test	p	%95 CI	
	Mean (±SD)	Mean (±SD)			Lower	Upper
SCS	22.4 (±9.8)	23.5 (±8.9)	-0.77	0.44	-3.85	1.6
Sexual embarrassment	8.8 (±6.4)	9.1 (±5.8)	-0.23	0.81	-2.02	1.5
Sexual self-focus	13.5 (±5.1)	14.4 (±4.9)	-1.13	0.25	-2.37	0.63
SSCS	37.0 (±8.9)	39.7 (±7.6)	-2.02	0.04	-5.36	-0.03
Sexual self-disclosure	18.4 (±5.9)	21.4 (±4.7)	-3.46	0.001	-4.84	-1.29
Sexual courage	8.8 (±2.6)	8.9 (±2.3)	-0.10	0.91	-0.78	0.70
Sexual awareness	9.7 (±1.9)	9.3 (±1.9)	1.36	0.17	-0.17	0.99
SSES	32.3 (±6.3)	27.0 (±6.1)	5.5	0.001	3.40	7.15
NSSS	67.7 (±20.3)	74.4 (±14.6)	-2.24	0.02	-12.67	-0.74
Self-centered	33.7 (±11.0)	37.3 (±7.7)	-2.27	0.02	-6.89	-0.44
Spousal/partner sexual activity centered	34.0 (±10.5)	37.0 (±8.1)	-1.94	0.05	-6.17	0.08
RDAS	47.5 (±8.5)	48.5 (±7.6)	-0.85	0.39	-3.38	1.33
Satisfaction	17.8 (±3.4)	18.5 (±3.2)	-1.36	0.17	-1.70	0.30
Consensus	23.5 (±4.9)	23.6 (±4.5)	-0.07	0.94	-1.44	1.34
Conflict	10.2 (±2.1)	10.4 (±1.9)	-0.65	0.51	-0.80	0.40

p<0.05 is statistically significance value. SCS: Sexual self-consciousness scale, SSCS: Sexual self-confidence scale, SSES: Sexual self-efficacy scale, NSSS: New sexual satisfaction scale, RDAS: Revised dyadic adjustment scale, SD: Standard deviation, t: independent sample t test, CI: Confidence interval.

ness of their sexuality. The literature indicates that sexual self-consciousness is shaped not only by illness experiences but also by broader psychosocial factors such as personality traits, sociocultural norms, and the meanings individuals attribute to sexuality.^[15,65] Although stigma and anxiety processes among PLWH have been proposed to influence sexual self-perception, individuals who receive regular treatment and remain under clinical follow-up may develop a more balanced perception of sexuality over time.^[24,66] The fact that the study sample consisted of individuals receiving regular antiretroviral therapy and who were virologically suppressed may explain why sexual self-consciousness levels were similar to those of the HIV-negative group. This finding suggests that the transformation of HIV into a biomedically manageable chronic condition may limit potential negative effects on sexual self-perception. On the other hand, the absence of differences in sexual self-consciousness scores does not imply that the psychological processes related to sexuality among PLWH remain entirely unaffected. Sexual self-consciousness is a multidimensional construct influenced by factors such as stigma, cultural norms, and partner relationships.^[67-69] Therefore, the lack of significant differences between groups in this study may indicate that sexual self-consciousness is more strongly associated with individual and sociocultural variables than with HIV status itself.

Sexual Self-Confidence

In this study, people living with HIV (PLWH) were found to have lower levels of sexual self-confidence compared with HIV-negative individuals. Sexual self-confidence is closely associated with an individual's ability to express their sexuality, feel competent in sexual situations, and establish secure communication with a partner.^[29] Previous studies have shown that the experience of sexually transmitted infections may negatively affect sexual self-perception by increasing fear of stigma, feelings of guilt, and concerns about rejection.^[42,65,70] In this context, the decrease in sexual self-confidence following an HIV diagnosis may be related not only to physical health concerns but also to processes of social judgment and internalized stigma. After receiving an HIV diagnosis, individuals may feel a heightened responsibility to protect their partners and may adopt more cautious behaviors in sexual situations to avoid potential negative reactions. When considered alongside reduced sexual self-confidence, this suggests that HIV may exert a significant psychosocial impact on individuals' sexual self-perception and interpersonal communication processes. In contrast, higher levels of sexual self-confidence among HIV-negative individuals may be explained by the absence of illness-related stigma and the experience of sexual communication as a less anxiety-provoking process.

Table 3. Binary Logistic Regression Analysis Between Status Living with HIV, Some Sociodemographic Variables, Sexual Self-Consciousness, Sexual Self-Confidence, Sexual Self-Efficacy, Sexual Satisfaction and Dyadic Adjustment of Individuals

Factors associated with status living with HIV	B	p	OR	95% CI	
				Lower	Higher
Age	0.05	0.10	1.05	0.990	1.122
Sex (male)	-1.05	0.14	0.34	0.084	1.435
Marital status (single)	2.12	0.01	8.34	2.267	30.700
Family type (extended)	1.06	0.027	2.90	1.128	7.470
Where she/he spent the longest time of her life (city center)	1.27	0.01	3.58	1.362	9.443
Education status (high school and above)	-0.21	0.70	0.81	0.269	2.442
Social security status (no)	0.17	0.78	1.19	0.334	4.258
Working status (no)	-1.12	0.08	0.32	0.091	1.161
Economic status (income is equal to expense or more than expense)	-0.07	0.88	0.93	0.350	2.470
Sexual self-consciousness: <i>Sexual Embarrassment</i>	-0.03	0.38	0.96	0.880	1.050
Sexual self-consciousness: <i>Sexual Self-Focus</i>	0.006	0.90	1.006	0.916	1.105
Sexual self-confidence: <i>Sexual Self-Disclosure</i>	-0.17	0.01	0.83	0.738	0.947
Sexual self-confidence: <i>Sexual Courage</i>	-0.09	0.37	0.91	0.742	1.119
Sexual self-confidence: <i>Sexual Awareness</i>	0.41	0.01	1.52	1.120	2.062
Sexual self-efficacy	0.15	0.01	1.16	1.085	1.246
Sexual satisfaction: <i>Self-Centered</i>	-0.06	0.12	0.94	0.873	1.016
Sexual satisfaction: <i>Spousal/Partner Sexual Activity Centered</i>	-0.05	0.19	0.95	0.880	1.027
Dyadic adjustment: <i>Satisfaction</i>	0.31	0.27	1.36	0.778	2.394
Dyadic adjustment: <i>Consensus</i>	0.39	0.21	1.49	0.792	2.808
Dyadic adjustment: <i>Conflict</i>	0.14	0.65	1.15	0.622	2.137
Dyadic adjustment	-0.28	0.36	0.75	0.410	1.382
Constant	-6.28	0.01	0.002		
Statistical analysis Chi-square=95.274, df=21, p<0.01, Nagelkerke R Square=0.470					

p<0.05 is statistically significance value. OR: Odds ratio, B: Unstandardized coefficients, OR: Odds ratio, CI: Confidence Interval.

In this study, people living with HIV (PLWH) were found to have statistically significantly lower levels of sexual self-disclosure compared with HIV-negative individuals. Sexual self-disclosure refers to an individual's capacity to share sexual feelings, thoughts, expectations, and boundaries with a partner and is considered a fundamental component of healthy relationship dynamics and sexual satisfaction.^[71] This finding suggests that an HIV diagnosis may exert a constraining effect on individuals' sexual communication processes. The literature indicates that HIV-related stigma, the obligation to disclose one's status to a partner, fear of rejection, and concerns about transmission may reduce individuals' willingness to express themselves in sexual contexts.^[72] In this regard, PLWH may adopt a more cautious and controlled approach to sexual communication due to a perceived responsibility to protect their partners or to avoid potential negative reactions. This tendency can be interpreted as an important psychosocial mechanism contributing to reduced sexual self-disclosure. On the other hand, although sexual awareness levels in this study were associated with HIV exposure, the lower levels of

self-disclosure suggest that increased awareness of sexual experiences among PLWH does not always translate into open communication. While heightened awareness may be related to increased risk perception and more careful evaluation of sexual behaviors, societal stigma and internalized concerns may suppress the expression of this awareness at the level of communication. The higher levels of sexual self-disclosure observed among HIV-negative individuals may be explained by the absence of illness-related stigma, reduced fear of rejection, and the ability to establish partner communication within a less threatening context. This comparative finding highlights an important advantage of the case-control design and allows the specific effects of HIV on sexual communication processes to be more clearly understood.

Sexual Self-Efficacy

One of the notable findings of this study was that people living with HIV (PLWH) demonstrated higher levels of sexual self-efficacy compared with HIV-negative individuals. Although studies directly examining sexual self-efficacy re-

Table 4. Findings related to multiple linear logistic regression analysis regarding sexual satisfaction and dyadic adjustment in case group (PLWH)

Independent variable	Dependent variable = Sexual satisfaction				
	B	t	p	95% CI for B	
				Lower	Upper
Sexual self-consciousness	-0.17	-2.04	0.04	-0.719	0.005
Sexual self-confidence	0.35	3.82	0.01	0.381	1.226
Sexual self-efficacy	0.02	0.18	0.85	-0.524	0.627
Dyadic adjustment	0.55	5.78	0.01	0.869	1.795
Constant		-1.41	0.16	45.668	8.002
Statistical analysis	R=0.816 Adjusted R ² =0.665 F=23.329 p<0.01, Durbin - Watson=2.020				
Independent variable	Dependent variable = Dyadic adjustment				
	B	t	p	95% CI for B	
				Lower	Upper
Sexual self-consciousness	0.09	0.95	0.34	-0.09	0.263
Sexual self-confidence	-0.06	-0.53	0.59	-0.296	0.171
Sexual self-efficacy	0.15	1.47	0.14	-0.073	0.472
Sexual satisfaction	0.74	5.78	0.01	0.204	0.421
Constant		3.44	0.01	8.431	32.153
Statistical analysis	R=0.742 Adjusted R ² =0.550 F=14.359 p<0.01, Durbin - Watson=1.688				

p<0.05 is statistically significance value. B: Standardized coefficient, CI: Confidence Interval.

main limited, research focusing on condom-use self-efficacy and safer sexual behaviors suggests that following an HIV diagnosis, individuals may develop enhanced self-regulation skills and increased awareness of risk management related to protective behaviors.^[30,41] This finding indicates that the experience of living with HIV may reshape individuals' cognitive evaluations of their sexual behaviors. At first glance, this result may appear contradictory when considered alongside lower levels of sexual self-confidence; however, it can be explained by the fact that self-efficacy reflects a cognitive belief associated with risk avoidance and behavioral control. Increased contact with healthcare services after diagnosis, participation in counseling and educational processes, and a heightened sense of responsibility to reduce transmission risk may strengthen perceptions of sexual self-efficacy among PLWH. In this context, higher sexual self-efficacy may reflect not greater confidence in sexual performance but rather a perceived capacity to maintain safer behaviors and protect one's partner. Furthermore, the elevated self-efficacy levels observed among PLWH may be interpreted as an adaptive mechanism through which the experience of chronic illness enhances individuals' sense of behavioral control. This interpretation underscores that sexuality in the context of HIV should be understood not only in terms of performance or satisfaction but also as a multidimensional construct related to responsibility, risk management, and health behaviors.

Sexual Satisfaction and Relational Dynamics

In this study, people living with HIV (PLWH) were found to have lower overall levels of sexual satisfaction compared with HIV-negative individuals. When subdimensions were examined, a significant difference was observed particularly in ego-centered sexual satisfaction scores between the groups, whereas no significant difference was found in partner-centered sexual satisfaction. This finding suggests that the experience of living with HIV may influence individuals' subjective evaluation of their sexual experiences, while not necessarily altering partner-focused relational perceptions to the same extent. The literature indicates that sexual satisfaction among PLWH may decrease due to experiences of stigma, concerns related to disclosing HIV status to a partner, fear of transmission, and relational stressors.^[48,49,73] The lower levels of ego-centered sexual satisfaction, in particular, may reflect more critical internal evaluations of one's body, performance, or sexual adequacy following an HIV diagnosis. Increased self-monitoring tendencies and potential performance-related anxiety may reduce spontaneity in sexual experiences, thereby negatively affecting individual satisfaction. In contrast, the absence of differences in partner-centered sexual satisfaction scores suggests that emotional attachment, empathy toward the partner, or perceptions of relational satisfaction among PLWH may remain comparable to those of HIV-negative individuals. This finding indicates that an HIV diagnosis does not necessarily

weaken dyadic dynamics; in some cases, the sense of responsibility to protect a partner and maintain relational commitment may help preserve partner-focused satisfaction. Indeed, the literature suggests that although chronic illness experiences may influence individual sexual perceptions, relational closeness and emotional bonds can remain relatively stable.^[74] Furthermore, within the PLWH group, sexual self-consciousness was found to negatively predict sexual satisfaction, whereas sexual self-confidence showed a positive effect. Higher sexual self-consciousness may increase individuals' tendency to continuously monitor and evaluate themselves, thereby reducing ego-centered satisfaction; conversely, greater sexual self-confidence may enhance both overall satisfaction and subjective sexual experience by fostering feelings of competence and acceptance. The higher levels of overall and ego-centered satisfaction observed among HIV-negative individuals may be explained by the absence of chronic illness-related concerns and transmission responsibility. These findings demonstrate that sexual satisfaction is not a unidimensional construct; rather, individual perceptions and relational dynamics may be affected at different levels. Accordingly, interventions aimed at enhancing sexual satisfaction among PLWH should extend beyond biomedical treatment and incorporate psychological support that strengthens subjective sexual experiences, as well as couple-focused counseling approaches.

Dyadic Adjustment and the Contribution of a Multidimensional Approach

In this study, no statistically significant difference was found between people living with HIV (PLWH) and HIV-negative individuals in terms of total dyadic adjustment scores or the mean scores of dyadic adjustment subdimensions. This finding suggests that an HIV diagnosis may not always directly and negatively affect relational domains such as relationship satisfaction, partner consensus, emotional intimacy, and joint functioning. The absence of differences at the subdimension level is particularly noteworthy, as it indicates that the experience of living with HIV does not necessarily lead to simultaneous deterioration across all components of the couple relationship and that individuals may be able to maintain their relational dynamics. Dyadic adjustment is a multilayered construct reflecting different aspects of a relationship. In this context, it is important to evaluate dimensions such as partner consensus, emotional bonding, shared activities, and relational satisfaction separately. The lack of differences in both total scores and subdimension means in this study suggests that PLWH may have developed adaptive strategies within relational processes. The literature reports that partner support, open communication, and joint coping skills can play a protective role in maintaining relationship adjustment among individuals living with HIV.^[67-69] Particularly among couples experiencing chronic illness,

increased mutual understanding and shared responsibility are considered key factors in sustaining relational balance.^[75] Advances in antiretroviral therapy and the transformation of HIV into a manageable chronic condition may have increased individuals' ability to maintain long-term romantic relationships. Reduced uncertainty about the illness among individuals receiving regular treatment and clinical follow-up may support the development of more balanced partnerships. In this context, the absence of differences in dyadic adjustment and its subdimensions suggests that an HIV diagnosis does not inevitably impair relational functioning and that some couples may develop relational resilience over time. Although differences were observed in individual sexual variables such as sexual self-confidence, sexual self-efficacy, and sexual satisfaction, the similarity in dyadic adjustment scores indicates that the individual psychological dimensions of sexuality and relational adjustment do not always progress in parallel. In other words, even when an individual's sexual perceptions or satisfaction levels change, the overall relationship adjustment of the couple may remain stable. This finding highlights that evaluating sexual health solely through individual-level measures may be insufficient and that the relational context should also be considered. The comparative structure provided by the case-control design strengthens the interpretation of this finding regarding dyadic adjustment. Comparing groups with similar sociodemographic characteristics suggests that relationship adjustment cannot be explained solely by HIV status and may also be influenced by sociocultural factors, communication skills, and partner support. These results indicate that, within HIV care, not only individual-focused but also couple-based psychosocial support approaches may play an important role in maintaining relationship health.

Original Contribution of the Study and Clinical Interpretation

The findings of this study demonstrate that sexual life among people living with HIV (PLWH) cannot be understood within a unidimensional framework. The similarity of sexual self-consciousness and dyadic adjustment scores between PLWH and HIV-negative individuals suggests that an HIV diagnosis does not necessarily lead to direct negative effects on sexual self-perception or relationship adjustment. However, the lower levels of sexual self-confidence and sexual self-disclosure observed in the PLWH group indicate that perceived stigma and communication-related anxieties associated with HIV may influence the psychosocial dimensions of sexuality. Furthermore, the higher levels of sexual self-efficacy may reflect increased perceptions of responsibility toward protective behaviors and enhanced self-regulation skills following the experience of illness. In terms of sexual satisfaction, the lower levels of ego-centered satisfaction among PLWH suggest

that the individual pleasure dimension of sexual experience may be more strongly affected by psychological processes, whereas the absence of differences in partner-centered satisfaction indicates that relational bonds may remain preserved. These multidimensional findings highlight the importance of holistic interventions in HIV care that extend beyond biomedical treatment and incorporate strategies aimed at strengthening sexual self-confidence, supporting self-disclosure skills, and addressing dyadic dynamics. By simultaneously examining sexual self-consciousness, sexual self-efficacy, sexual satisfaction, and dyadic adjustment, this study represents one of the limited investigations that evaluate the psychological and relational aspects of sexuality among PLWH within a comprehensive framework, thereby offering an original contribution to the existing literature.

Limitations

This study has several limitations. First, the sample consisted only of individuals who applied to a single center, which may limit the generalizability of the findings. Second, HIV-negative participants may have had other underlying health conditions that were not fully controlled for in the study design. Third, all measurement tools were based on self-report, which may have introduced response bias. In addition, environmental and cultural conditions in which participants reside may have influenced their perceptions and responses; however, these contextual factors were not specifically controlled for within the research design. Therefore, the findings should be interpreted with caution in light of these limitations.

Conclusion and Recommendations

In this study, People Living With HIV (PLWH) were found to have lower sexual self-confidence, higher sexual self-efficacy, and lower sexual satisfaction compared with HIV-negative individuals. While awareness and self-efficacy regarding sexuality increased among PLWH, self-disclosure related to sexuality decreased. In addition, higher levels of sexual self-consciousness were found to negatively affect sexual satisfaction in this group. These findings highlight the importance of a holistic evaluation of the sexual lives of individuals living with HIV, even when they are virologically suppressed, receiving regular antiretroviral therapy, and consistently using condoms. Nurses and other healthcare professionals should integrate sexual health assessment into routine HIV care, provide individualized counseling, and include partners in education and support programs when appropriate. Nursing interventions focusing on enhancing sexual self-confidence and sexual self-consciousness, reducing sexual shyness, and strengthening communication skills may contribute to improved sexual well-being and quality of sexual life among PLWH.

From a clinical practice perspective, structured sexual health education programs and counseling models led by nurses may help address the psychosocial and relational aspects of sexuality that are often overlooked during routine follow-up. Multidisciplinary approaches that consider the emotional, cultural, and relational dimensions of sexuality are recommended.

Future studies should include multicenter and longitudinal designs to better understand causal relationships and cultural influences on sexuality among PLWH. In addition, qualitative and mixed-method studies exploring partner dynamics, stigma, and communication patterns may provide deeper insight into the factors affecting sexual satisfaction and sexual self-confidence in this population.

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