

## The Effect of Body Attitude on Psychological Well-Being and Sexual Satisfaction of Male Patients Undergoing Urologic Surgery: A Descriptive and Correlational Study

Ürolojik Cerrahi Geçirecek Erkek Hastaların Beden Tutumunun Psikolojik İyilik Halleri ve Cinsel Doyma Etkisi: Tanımlayıcı ve İlişkisel Bir Araştırma

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### ABSTRACT

This study was conducted to examine the effect of body attitudes on psychological well-being and sexual satisfaction of male patients who will undergo urological surgery.

The study is descriptive and correlational. The data were collected from 111 male patients residing in a province of Türkiye between August-October 2024 who will undergo urologic surgery through Google form. The data were collected using the "Personal Information Form", "WHO-5 Well-Being Index", "Men-Specific Body Attitude Scale" and "New Sexual Satisfaction Scale-Short Form". Descriptive statistics, Pearson correlation test, independent sample t-test, one-way ANOVA and regression analysis were used to analyze the data.

It was determined that body attitudes of male patients who will undergo urologic surgery also affect their psychological well-being and sexual satisfaction. In addition, marital status, sexual and psychological effects of the disease, medical diagnosis, body dissatisfaction caused by the disease, and cohabitants were also found to be associated with body attitude, psychological well-being and sexual satisfaction and some of its sub-dimensions ( $p < 0.05$ ).

According to the results of the study, it is recommended that especially psychiatry and surgical clinic nurses should organize interviews and training programs for these patients in order to understand the negative effects of urological problems on men's sexual health. In addition, psychological support should be provided to these patients and their body perception should be evaluated and appropriate psychotherapeutic intervention should be provided.

**Keywords:** Psychological well-being, Sexual satisfaction, Male, Urological diseases.

### ÖZ

Bu araştırma, ürolojik cerrahi geçirecek erkek hastaların beden tutumlarının psikolojik iyilik halleri ve cinsel doyumları üzerine etkisini incelemek amacıyla yapılmıştır.

Araştırma tanımlayıcı ve ilişkisel tiptedir. Veriler Ağustos-Ekim 2024 tarihleri arasında Türkiye'nin bir ilinde ikamet eden ve ürolojik cerrahi geçirecek 111 erkek hastadan Google form aracılığıyla toplanmıştır. Araştırmada veriler "Kişisel Bilgi Formu", "WHO-5 İyilik Hali İndeksi", "Erkeklerle Özgü Beden Tutum Ölçeği" ve "Yeni Cinsel Doym Ölçeği-Kısa Form" kullanılarak toplanmıştır. Verilerin analizinde tanımlayıcı istatistikler, Pearson korelasyon testi, bağımsız örneklem t-testi, one-way ANOVA ve regresyon analizleri kullanılmıştır.

Ürolojik cerrahi geçirecek erkek hastaların beden tutumlarının, psikolojik iyilik hallerini ve cinsel tatminlerini de etkilediği belirlenmiştir. Ayrıca bu hastaların medeni durumu, hastalığın cinsel ve psikolojik etkisi, tıbbi tanısı, hastalığın neden olduğu beden memnuniyetsizliği ve birlikte yaşadığı kişilerin de beden tutumu, psikolojik iyilik hali ve cinsel doymu ve alt boyutlarından bazıları ile ilişkisi olduğu görülmüştür ( $p < 0,05$ ).

Araştırma sonucuna göre, toplumda ürolojik sorunların erkek cinsel sağlığı üzerindeki olumsuz etkisinin anlaşılması için özellikle psikiyatri ve cerrahi klinik hemşirelerinin bu hastalara yönelik görüşme ve eğitim programları düzenlemesi önerilmektedir. Ayrıca bu hastalara psikolojik destek sağlanmalı ve beden algılarına yönelik değerlendirip uygun psikoterapötik müdahale de bulunmalıdır.

**Anahtar Kelimeler:** Psikolojik iyilik hali, Cinsel doym, Erkek, Ürolojik hastalıklar.

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## INTRODUCTION

The urinary system, also known as the excretory system, consists of the kidneys, ureters, bladder and urethra. In men, the penis, testicles, scrotum and prostate gland are also included in the urinary system. In addition to excretion, the urinary system in men is also responsible for sexual function. The most common urinary system problem in men is benign prostatic hyperplasia (BPH). BPH is a health problem that is seen in up to 85% of men over the age of 50 and negatively affects the quality of life of patients.<sup>1,2</sup> Untreated BPH can cause significant complications such as urinary retention, urinary tract infection, impaired renal function and bladder stones. Especially lower urinary tract problems (LUTS) are usually caused by BPH. However, UUTS and sexual dysfunction are commonly observed together. For this reason, health problems especially in the lower urinary system may also cause sexual problems.<sup>1-3</sup>

In addition to being a concept used to define erotic feelings, sexuality is a concept that includes factors such as sexual identity, sexual orientation, complex emotions, genetic structure, mother-baby bonding, prenatal hormones.<sup>4,5</sup> According to the definition of the World Health Organization, sexuality consists of a combination of physical, emotional, intellectual and social aspects of the effects that enrich personality, communication and love. Sexuality begins with the organ development of the fetus and continues throughout life. It is a concept that is shaped by the beliefs, values and tastes of the society in which people live and covers not only the sexual organs but also the whole body and mind. Therefore, for a healthy sexuality, the presence of sexual satisfaction as well as the functionality of the sexual organs gains importance.<sup>6,7</sup>

Although there is no common definition of sexual satisfaction, it is the last step of the sexual response cycle. It is the subjective judgment of the individual's level of pleasure and adequacy in sexual acts. In this respect,

sexual satisfaction, unlike sexual pleasure, does not depend on instant sexual activity. Sexual satisfaction is the individual's satisfaction with his/her sexual life independent of sexual activity.<sup>7</sup> For this reason, sexual satisfaction is affected by factors such as the way the individual perceives his/her body, his/her belief in the adequacy of sexual organ functions, and whether he/she thinks he/she fits the roles of masculinity and femininity accepted in society.<sup>6,7</sup> The human body is a social and social phenomenon as well as biological and objective. The level of satisfaction with one's body and sexual satisfaction plays an important role in the construction of physical and psychological well-being.<sup>8</sup> Body attitude psychological well-being is a concept related to an individual's high level of happiness and life satisfaction. The presence of diseases affecting sexual organ functions may cause a decrease in body satisfaction and sexual satisfaction.<sup>6-8</sup> In this context, urological diseases may cause negative feelings and thoughts towards body attitude in male patients. At the same time, negative body attitude may indirectly affect men's psychological well-being and sexual satisfaction levels. It is important to evaluate the body satisfaction of male patients who will undergo urological surgery and to determine its effect on mental health and sexual satisfaction.<sup>5-7</sup> This study will guide the psychological evaluation and planning of counseling services for male patients with urological diseases.

When the literature was examined, no study was found that urologic diseases in men may cause deterioration of sexual functions and decrease in sexual satisfaction by decreasing the level of satisfaction with their body. Based on all these, the aim of this study is to examine the effect of body attitude on psychological well-being and sexual satisfaction of male patients who will undergo urological surgery.

## MATERIALS AND METHODS

## Study Design

This study was designed as a descriptive and correlational study. Strengthening the Reporting of Observational Studies in Epidemiology (STROBE) was used to report the study (Figure 1).

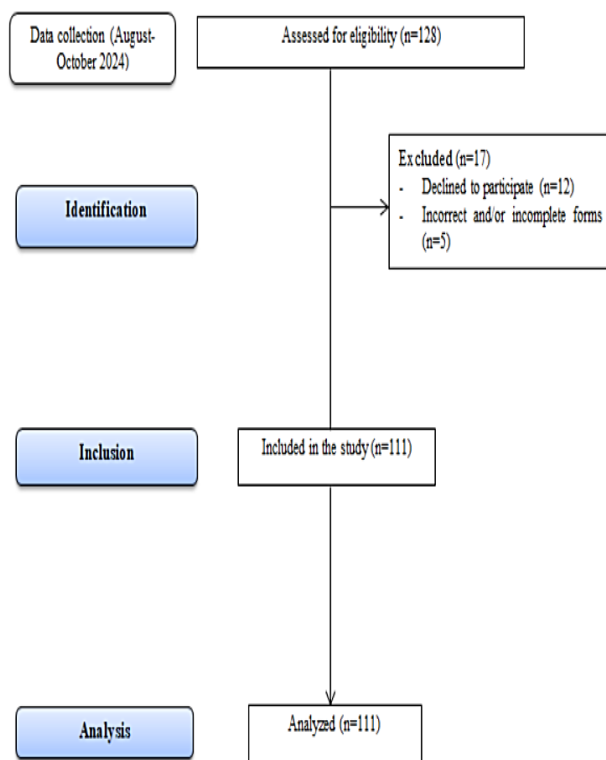


Figure 1. STROBE flow chart

## Setting

Data were collected from 111 male patients residing in a province of Türkiye between August and October 2024 who were about to undergo urologic surgery through a Google form.

## Participants, Variables and Study Size

The sample of the study consisted of male patients residing in a province of Türkiye and undergoing urologic surgery. Purposive and snowball sampling methods were used to reach the sample size. Sample size calculation was made using G\*Power 3.1.9.7 based on reference studies<sup>2,3</sup> and it was found that 90 people were sufficient with a 5% margin of error, 50% effect size and 95% confidence interval. However, considering the risks such as incomplete and incorrect filling of forms and scales, this number was increased by 20% and the sample size was determined as 108

patients.<sup>9</sup> More patients were reached than the determined sample size and the study was completed with 111 patients. In the post hoc analysis, considering the WHO-5 Well-Being Index mean scores, the effect size of the sample was calculated as 0.50 at the beginning of the study using the G\*Power 3.1.9.7 program. When the WHO-5 Well-Being Index total mean scores were considered, the effect size was found to be 1.01. 0.50 is considered a medium effect size and 1.01 is considered a high effect size.

Participants were included in the study if they were male, 18 years of age or older, volunteers and completed the data collection forms comprehensively before urologic surgery. Participants with mental and/or psychiatric disorder and those who wanted to withdraw from the study were excluded from the study.

## Data measurement

The data were obtained by using “Personal Information Form”, “WHO-5 Well-Being Index”, “Male Body Attitudes Scale” and “Sexual Satisfaction Scale-Short Form” via Google form. It took approximately 15-20 minutes to complete the forms and scales.

## Personal Information Form

It was created by the researchers to determine the socio-demographic characteristics and disease status of the patients in line with the relevant literature.<sup>2,3,7</sup> The form includes 12 questions to determine age, gender, marital status, socioeconomic status, educational status, place of residence and its characteristics, disease status and the impact of the disease on the individual.

## WHO-5 Well-Being Index (WHO-5 WBI)

The WHO-5 Well-being Index is used to detect depression in the general population. In 2019, it was adapted into Turkish by Eser et al. It is a scale consisting of five questions that evaluate emotional well-being during the previous two weeks and each question is scored between 1-5.<sup>10</sup> The raw score ranges from 0 to 25. The lowest score (0) indicates a lack of well-being and the highest score (25) indicates the highest well-being. The raw

score is multiplied by 4 to obtain a percentage score between 0 and 100. On the scale, 13 is the cut-off point and if the score is lower than 13, the person should be administered the Major Depression Inventory. While 0 percent represents the worst possible quality of life, 100 percent represents the best possible quality of life. In the Turkish adaptation study, the Cronbach's alpha coefficient for the WHO-5 was 0.81<sup>10</sup>, while the Cronbach's alpha coefficient was 0.97 in our study. 0 represents the worst possible quality of life, while 25 represents the best possible quality of life.

### ***Male Body Attitudes Scale (MBAS)***

It is a 6-point Likert-type scale developed by Tylka et al. (2005) and consists of 24 items related to the factors of muscle structure, body fat percentage and height that predict men's body attitudes.<sup>11</sup> The Turkish version of the scale was adapted by Uluyol (2020).<sup>12</sup> As the scores obtained from the scale increase, men's negative attitudes towards their body perceptions also increase. In the scale, "muscularity", "body fat ratio" and "height", and there are three sub-dimensions. The Cronbach's alpha value of the original scale is 0.93 on the total scale. The Cronbach's alpha value of the Turkish form is 0.88 on the total scale. In this study, the Cronbach's alpha value of the scale is 0.95 on the total scale.

### ***New Sexual Satisfaction Scale-Short Form (SSS-SF)***

It was developed by Štulhofer et al. (2008) to assess sexual satisfaction. In order to facilitate clinical and non-clinical use of the SSS, a 12-item shortened version of the scale was developed. The SSS-SF was found to have comparable reliability and validity to the full scale.<sup>13</sup> It was adapted into Turkish by Okci et al. (2016) and found to have validity and reliability.<sup>14</sup> Factor analysis was performed to test the construct validity of the SSS- SF and it showed a three-factor structure. High scores obtained from the scores obtained from each scale of the SSS-SF, which measures sexual satisfaction in three dimensions, indicate high sexual satisfaction. SSS-SF has a 5-point Likert-type answer key (1) I am not satisfied at all, (5) I

am very satisfied. The scale has three sub-dimensions: "quality of relationship", "harmony with partner" and "psychological pleasure". The internal consistency reliability cronbach alpha coefficient of the SSS-SF was found to be high at 0.91. In this study, the cronbach alpha value was found to be 0.98 in the total scale.

### **Ethical Consideration**

This study was approved by Gümüşhane University Scientific Research and Publication Ethics Committee on 27/06/2024 with the protocol number E-95674917-108.99-259781. All participants who participated in the study were informed about the purpose and nature of the study via Google form and their consent for participation was obtained. Each stage of the study was conducted in accordance with the principles of the Declaration of Helsinki. In addition, in order to prevent bias in the study, the patient was informed about the research and confidentiality of the data and the forms were filled in by the patient himself. In addition, permission for the use of all scales was obtained from the scale owner.

### **Statistical methods and quantitative variables**

Data were analyzed using SPSS (Statistical Package for the Social Sciences, Inc, Chicago, IL, USA) version 24.0. Numbers, percentages, means and standard deviations were used for descriptive statistics. The normal distribution of the variables was evaluated with the Kolmogorov-Smirnov test and it was determined that the variables and scale mean scores were normally distributed. Pearson correlation test was used to evaluate the difference between the scales. Independent sample t-test was used to compare the averages between two groups of variables and scale scores. One-way ANOVA was used to compare the averages and scale scores between three or more groups. Multiple linear regression and binary logistic regression analyses were performed to determine the risk factors for body attitude and other variables. A significance level of  $p < 0.05$  was accepted for all analyses.

## RESULTS AND DISCUSSION

Of the participants (n=111), 36% (n=40) were aged 60 and over. Among male patients, 74.8% (n=83) were married and 25.2% (n=28) were single. 37.8% (n=42) of the participants had an associate's/undergraduate degree and 58.6% (n=65) lived in the city center. Most of the participants 64% (n=71) belonged to nuclear families. Among male patients who would undergo urological surgery, 36% (n=40) had a medical diagnosis of benign prostatic hyperplasia, 50.5% (n=56) nephrolithiasis, 7.2% (n=8) varicocele, and 6.3% (n=7) bladder tumor (Table 1).

76.6% (n=85) of the participants stated that sexuality was important for them. In addition, 50.5% (n=56) of the participants stated that the disease did not negatively affect their sexuality; 60.4% (n=67) stated that the disease negatively affected their psychology; 52.3% (n=58) stated that the disease did not negatively affect their body satisfaction (Table 1).

**Table 1. Demographic Characteristics of Male Patients Undergoing Urological Surgery (n=111)**

Variables	n	%
<b>Marital</b>		
Married	83	74.8
Single	28	25.2
<b>Educational status</b>		
Literate	2	1.8
Primary education	30	27.0
High school	37	33.4
Undergraduate/Graduate	42	37.8
<b>Place of residence</b>		
City	65	58.6
District	37	33.3
Village	9	8.1
<b>Cohabitant</b>		
Alone	17	15.3
Nuclear	71	64.0
Extended family	23	20.7

**Table 1.Contiued**

Medical diagnosis	n	%
Benign prostate hyperplasia	40	36.0

Bladder tumor	7	6.3
Nephrolithiasis	56	50.5
Varicocele	8	7.2
<b>Importance of sexuality</b>		
Important	85	76.6
Not important	26	23.4
<b>Negative sexual impact of the disease</b>		
Yes	55	49.5
No	56	50.5
<b>Negative psychological impact of the disease</b>		
Yes	67	60.4
No	44	39.6
<b>Illness cause body dissatisfaction?</b>		
Yes	53	47.7
No	58	52.3
<b>Age</b>		
44 and below	32	28.8
45-59	39	35.2
60 and above	40	36.0

n=Number, %=Percentage

The mean WHO-5-WBI total score was 51.31±17.61. When the arithmetic mean and standard deviation values for the total and sub-dimension scores of MBAS are examined, it is seen that "Masculinity" 24,52±4,72 and "Body Fat Percentage" 26,26±4,37, "Length" 7,38±0,98 and "Total" 79,17±12,34. When the arithmetic mean and standard deviation values for SSS-SF scores were examined, it was found that "Quality of Relationship" was 18.74±4.00, "Harmony with Partner" was 9.36±2.02, "Psychological Pleasure" was 9.30±2.13 and "Total" was 37.42±8.07 (Table 2).

A moderate and low level and positive correlation (r=0.406, p<0.001; r=0.380, p<0.001; r=0.444, p<0.001; r=0.262, p<0.05) was found between the participants' total SSS-SF scores and total MBAS, masculinity, body fat percentage and length scores (Table 3).

**Table 2. WHO-5-WBI, MBAS and SSS-SF Scores of Male Patients Undergoing Urological Surgery (n=111)**

Scale and Subscale	Mean (x̄)	Std. Deviatio	Min.	Max.
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	n (SD)			
<b>Total WHO-5-WBI</b>	51.31	17.61	20.00	80.00
<b>Total MSBAS</b>	79.17	12.34	56.00	99.00
Muscularity	24.52	4.72	16.00	32.00
Body Fat Percentage	26.26	4.39	18.00	33.00
Length	7.38	0.97	6.00	9.00
<b>Total SSS-SF</b>	37.42	8.07	16.00	48.00
Quality of Relationship	18.74	4.00	8.00	24.00
Harmony with Partner	9.36	2.02	3.00	12.00
Psychological Pleasure	9.30	2.13	3.00	12.00

WHO-5-WBI: WHO-5 Well-Being Index, MSBAS: Male Body Attitudes Scale, SSS-SF: Sexual Satisfaction Scale-Short Form

There was a moderate, low and positive correlation ( $r=0.411$ ,  $p<0.001$ ;  $r=0.385$ ,  $p<0.001$ ;  $r=0.449$ ,  $p<0.001$ ;  $r=0.266$ ,  $p<0.05$ ) between the relationship quality subscale scores and total MBAS, muscularity,

body fat percentage and height scores (Table 3).

In the study, it was determined that there was a moderate and low level and positive correlation ( $r=0.388$ ,  $p<0.001$ ;  $r=0.366$ ,  $p<0.001$ ;  $r=0.425$ ,  $p<0.001$ ;  $r=0.250$ ,  $p<0.05$ ) between the scores of harmony with partner subscale and total MBAS, muscularity, body fat percentage and height. In addition, a moderate and low level and positive correlation ( $r=0.399$ ,  $p<0.001$ ;  $r=0.370$ ,  $p<0.001$ ;  $r=0.437$ ,  $p<0.001$ ;  $r=0.257$ ,  $p<0.05$ ) was observed between psychological pleasure subscale scores and total MBAS, muscularity, body fat percentage and height scores (Table 3).

**Table 3. Correlation between the WHO-5-WBI, MBAS and SSS-SF**

Scale and Subscale	Total SSS-SF		Quality of Relationship		Harmony with Partner		Psychological Pleasure	
	p value*	r	p value*	r	p value*	r	p value*	r
Total WHO-5-WBI	0.792	-0.025	0.810	-0.023	0.782	-0.027	0.777	-0.027
Total MBAS	<b>&lt;0.001*</b>	<b>0.406</b>	<b>&lt;0.001*</b>	<b>0.411</b>	<b>&lt;0.001*</b>	<b>0.388</b>	<b>&lt;0.001*</b>	<b>0.399</b>
Muscularity	<b>&lt;0.001*</b>	<b>0.380</b>	<b>&lt;0.001*</b>	<b>0.385</b>	<b>&lt;0.001*</b>	<b>0.366</b>	<b>&lt;0.001*</b>	<b>0.370</b>
Body Fat Percentage	<b>&lt;0.001*</b>	<b>0.444</b>	<b>&lt;0.001*</b>	<b>0.449</b>	<b>&lt;0.001*</b>	<b>0.425</b>	<b>&lt;0.001*</b>	<b>0.437</b>
Length	<b>0.005*</b>	<b>0.262</b>	<b>0.005*</b>	<b>0.266</b>	<b>0.008*</b>	<b>0.250</b>	<b>0.006*</b>	<b>0.257</b>

\* $p<0.05$ : Statistically significant, r: Pearson correlation, WHO-5-WBI: WHO-5 Well-Being Index, MBAS: Male Body Attitudes Scale, SSS-SF: Sexual Satisfaction Scale-Short Form

This shows that sexual satisfaction of male patients who will undergo urologic surgery is moderately related to body attitudes. The quality of sexual relationship, harmony and psychological satisfaction of the men in the study with their partners also affect their perception of body appearance. There was no significant relationship between the total WHO-5-WBI score and the total and sub-dimension scores of other scales ( $p<0.05$ ). According to this result in our study, it was determined that there was no relationship between psychological well-being, sexual satisfaction and body attitudes of male patients who will undergo urological surgery. While sexual satisfaction levels have a relationship with body attitudes, the lack of a relationship between psychological well-being and both sexual satisfaction and body attitudes is a different and important finding than expected.

The comparison of WHO-5-WBI, MBAS and SSS-SF mean scores with descriptive variables is shown in Table 4. It was found that the mean scores of the MBAS sub-dimensions "Muscularity" and "Length" were higher in male patients whose marital status was "single" compared to those who were "married" ( $p<0.05$ ). The effect sizes for marital status were moderate for "Muscularity" and "Length" ( $d=0.4680$ ,  $d=0.5023$ ). When the scale scores for psychological well-being and descriptive variables were evaluated, it was found that the mean scores of the WHO-5-WBI total scores of male patients without negative sexual effects of the disease were higher than those of male patients with negative sexual effects, and the effect size was moderate ( $p<0.05$ ,  $d=0.5387$ ). From the total mean scores of the same scale, it was determined that the mean scores of male patients with no negative

psychological effects of the disease were higher than those of male patients with negative psychological effects and the effect size was at a high level ( $p<0.05$ ,  $d=1.4800$ ).

In addition, it was observed that the mean scores of the WHO-5-WBI total score averages of male patients whose body satisfaction was not negatively affected by the disease were higher than those of male patients whose body satisfaction was negatively affected by the disease, and the effect size was at a high level ( $p<0.005$ ,  $d=1.0187$ ) (Table 4). Although it is thought that the disease may affect negatively, male patients stated that their urological diseases did not affect their sexual, psychological and body satisfaction negatively. However, the difference between the mean scores was quite small. This does not indicate that these patients do not experience dissatisfaction and problems in these areas. In some cases, male patients may deny having sexual and psychological problems due to their urological problems. This finding in the study may not indicate that male patients do not experience problems in these areas.

When the medical diagnosis of male patients who will undergo urological surgery was considered according to the mean scores of the scale, it was found that the mean scores of "WHO-5-WBI" and "SSS-SF" total, "Quality of Relationship" and "Psychological Pleasure" subscale scores were higher in male patients with a medical diagnosis of "Nephrolithiasis" than in male patients with a medical diagnosis of "Benign prostatic hyperplasia", "Bladder tumor" and "Varicocele", and the effect sizes were found to be moderate ( $p<0.005$ ,  $d=0.4665$ ,  $d=3330$ ,  $d=3270$ ,  $d=3843$ ) (Table 4). In particular, the mean scores of male patients diagnosed with nephrolithiasis were significantly higher than those of male patients diagnosed with bladder tumor. The reason for this situation may be the reflection of the difference in the physiological effects of the two diseases in sexual and psychological aspects.

When the cohabitant status of male patients before urologic surgery was evaluated

according to the mean scores of the scale, it was found that the mean scores of the "Length" subscale were higher in male patients with "single" cohabitant status than in male patients with "nuclear family" and "extended family" cohabitant status, and the effect size was lower ( $p<0.005$ ,  $d=2609$ ). It is seen that this difference is especially due to the fact that male patients living alone are significantly higher than male patients living with nuclear family. It can be said that living alone may positively affect the body attitude of male patients. However, since urological problems may also bring sexual problems, sexual inadequacy in marriage may negatively affect the body attitude of male patients.

Simple linear regression analysis and binary logistic regression analysis were used to determine the predictive factors for body attitude and other variables in male patients undergoing urologic surgery. Considering the correlation relationships found to be significant at this stage, it was thought that body attitude could be a predictor of psychological well-being and sexual satisfaction total scores and simple linear regression analysis was performed in this context. The alternative hypotheses of the regression analysis were formed as follows:

H<sub>1a</sub>: As the body attitude of male patients who will undergo urologic surgery increases positively, their psychological well-being also increases.

H<sub>1b</sub>: As the body attitude of male patients who will undergo urologic surgery increases positively, their sexual satisfaction also increases.

The findings of the simple linear regression analysis conducted in this context are summarized in Table 5. According to the findings in Table 5, the regression model established to test whether psychological well-being and sexual satisfaction are affected by body attitude level was found statistically significant ( $F=11.71$ ;  $p<0.05$ ).





of male patients explain their sexual satisfaction by approximately 16% ( $R^2=0.163$ ) (Table 5).

The other regression analysis in the study is binary logistic regression. In order to see the effects of the categories of all variables to be included in the binary logistic regression model, ordinal and nominal variables were defined as dummy variables. The coefficient ( $\beta$ ), standard error, p-values indicating the significance of the variables, odds ratio (OR) and confidence interval of the logistic regression analysis results are given in Table 5. According to the results of logistic regression analysis, psychological well-being of male patients undergoing urological surgery was found to be a significant predictor of sexual and psychological effects of the disease and body satisfaction. Increased

psychological well-being of male patients positively affects sexual ( $\beta:0.033$ , OR: 1.034,  $p<0.05$ ), psychological ( $\beta:0.096$ , OR: 1.100,  $p<0.05$ ) and body satisfaction ( $\beta:0.062$ , OR: 1.063,  $p<0.05$ ) effects of the disease (Table 5). Urological diseases may negatively affect men's psychological well-being due to pain, anxiety and various reasons. Psychological well-being of these patients positively affects sexual, psychological and body satisfaction. A patient who feels psychologically well may be a protective factor in reducing sexual, psychological and body dissatisfaction, which are problems that may be caused by urologic disease. This situation reveals the necessity of supporting male patients who will undergo urologic surgery to receive psychological support.

**Table 5. Predictive Results of Regression Analysis for Body Attitude and Other Variables**

Variables		$\beta$	t	p	F	Model (p)	$R^2$
Independent Variables	Dependent Variables						
	Well-Being Index	-0.116	-1.327	0.187			
Body Attitude	Sexual Satisfaction	<b>0.403</b>	<b>4.619</b>	<b>&lt;0.001</b>	11.71	<b>&lt;0.001</b>	<b>0.163</b>

*p<0.05: Statistically significant,  $\beta$ : Standardized coefficients, F: ANOVA,  $R^2$ : Adjusted R square, Statistical analysis: Multiple Linear*

Variables		$\beta$	SE	p	OR	$R^2$	95% CI	
Dependent Variables	Independent Variables						Min.	Max.
Sexual impact of the disease	Well-Being Index	<b>0.033</b>	<b>0.012</b>	<b>0.006</b>	<b>1.034</b>	0.110	<b>1.010</b>	<b>1.058</b>
	Body Attitude	0.013	0.018	0.483	1.013		0.978	1.049
	Sexual Satisfaction	0.020	0.027	0.460	1.020		0.968	1.075
Psychological impact of the disease	Well-Being Index	<b>0.096</b>	<b>0.019</b>	<b>&lt;0.001</b>	<b>1.100</b>	0.450	<b>1.060</b>	<b>1.142</b>
	Body Attitude	-0.018	0.023	0.434	0.983		0.940	1.027
	Sexual Satisfaction	0.052	0.033	0.115	1.053		0.987	1.124
Body satisfaction	Well-Being Index	<b>0.062</b>	<b>0.014</b>	<b>&lt;0.001</b>	<b>1.063</b>	0.617	<b>1.034</b>	<b>1.094</b>
	Body Attitude	0.004	0.020	0.822	1.004		0.967	1.044
	Sexual Satisfaction	-0.015	0.028	0.592	0.985		0.931	1.041

*p<0.05: Statistically significant,  $\beta$ : Regression coefficient, SE: Standard error, OR: Odds Ratio, CI: Confidence interval,  $R^2$ : Nagelkerke R square, Statistical analysis: Binary Logistic Regression*

## CONCLUSION AND RECOMMENDATIONS

When the scale scores of male patients who will undergo urological surgery are examined, it can be said that the body satisfaction of male patients who will undergo urological surgery is close to negative, psychological well-being is at a moderate level and sexual satisfaction is slightly above average. Sexuality is a lifelong condition and subjective feelings, attitudes and behaviors that affect individuals' emotions, thoughts,

social relationships and body perceptions.<sup>15</sup> Undoubtedly, for sexual function to be healthy, the body must be working in balance.<sup>16</sup> For this reason, it is expected that male patients included in the study will undergo urological surgery and feel inadequate in terms of sexual, psychological and physical satisfaction due to the high level of negative effects of urological diseases on sexuality in men.<sup>2,3,17</sup>

It is also observed that there is a relationship between body attitude and sexual satisfaction levels of male patients who will undergo urologic surgery. However, no relationship was found between psychological well-being and sexual satisfaction level. Urological diseases can affect men's body attitude.<sup>16</sup> In addition, the psychological well-being of male patients before urological surgery may also be negatively affected. The psychological well-being of these patients may also have a negative impact on their sexual satisfaction levels.<sup>15</sup> However, contrary to what was predicted in this study, it was revealed that psychological well-being did not affect the level of sexual satisfaction. In addition, it was determined that there was a low and moderate relationship between body attitude and sexual satisfaction levels of these patients. According to these results obtained from the study, the sexual satisfaction level of male patients who will undergo urologic surgery due to urologic disease is affected by body attitude, not mental state. The perceptions and attitudes of these patients towards their own bodies may be effective on their sexual functioning and sexual satisfaction.

The mean MBAS "Muscularity" and "Length" subscale scores of single men are higher than those of married men. At the same time, the "Length" subscale mean scores of men living alone are higher than those living with nuclear family and extended family. This shows that single men and men living alone are less satisfied with their bodies. In some studies, it has been stated that men today experience body dissatisfaction at least as much as women.<sup>8,18-20</sup> The ideal body accepted by society in men is defined as a triangular body type. In this body type, it is expected to have low fat, high muscle, above average height and broad shoulders. Having a particularly muscular body is thought to be an indicator of masculinity.<sup>19,21,22</sup> It is seen that the features that single and single men in our study are dissatisfied with in their bodies are the features associated with masculinity in society. This may be because men who have a partner think that they are liked by the opposite sex and their masculinity is

approved. Because individuals' positive or negative relationships with their bodies are related to their level of acceptance by society.<sup>19,21,23</sup>

At the same time, the fact that the study was conducted with men who will undergo urological surgery may be another reason why they consider themselves inadequate in terms of the characteristics of masculinity. Because unlike women, the urinary system is responsible for sexual functions as well as excretion.<sup>1</sup> Among the men who participated in the study, those who stated that their current illness negatively affected their sexuality, psychology and body satisfaction had a lower WHO-5-WBI total score average than those who stated that it did not affect them negatively. A low total score on the scale indicates that quality of life and psychological well-being are also low. As stated above, this finding of the study supports that the presence of untreated urological disease in men negatively affects body satisfaction, sexuality and psychological well-being. At the same time, the confirmation of the research hypothesis H<sub>1b</sub> (As the body attitude of male patients who will undergo urological surgery increases, their sexual satisfaction also increases) can be said to indicate that diseases requiring urological surgical intervention in men affect the level of body satisfaction and thus sexual satisfaction.

Among the men included in the study, those with a medical diagnosis of nephrolithiasis had higher WHO-5-WBI and SSS-SF total scores and Quality of Relationship and Psychological Pleasure subscale mean scores than those with BPH, bladder tumor and varicocele. In other words, the quality of life, psychological well-being and sexual satisfaction levels of men with UUTS are lower than men with upper urinary tract problems. BPH is the most common UUTS both in the general population and in the men included in the study (36%).<sup>24</sup> Sexual problems and sexual dysfunction are associated with AUTS and are frequently seen in men with symptomatic BPH.<sup>2,3,17</sup> It has also been found that AUTS is a major risk factor

for sexual dysfunction independent of other risk factors.<sup>25,26</sup>

According to the results of the study, the body satisfaction of male patients who will undergo urological surgery is close to negative, their psychological well-being is average, and their sexual satisfaction is slightly above average. It is understood that among the diseases requiring urological surgical intervention, especially AUSS affects body satisfaction, psychological well-being and sexual satisfaction more negatively in men. In addition, it is seen that an increase in body satisfaction of male patients who will undergo urologic surgery also increases their sexual satisfaction. In this direction, it is recommended that especially psychiatry and surgical clinic nurses should organize psychological counseling and training programs for these patients in order to understand the negative effects of AUSS on male sexual health in the society.

At the same time, it is necessary to provide psychological support to male patients who will undergo urological surgery, evaluate their body perception and provide appropriate psychotherapeutic intervention.<sup>21-25</sup> In this context, surgical clinic nurses should make appropriate evaluations and psychiatry consultations with these patients. Psychiatric nurses should also evaluate these patients in detail and provide appropriate intervention,

which will facilitate the psychological, physical and sexual adaptation of patients after surgery.

### Limitation of Study

One of the limitations of the study is that the sample group was limited to male patients undergoing urologic surgery in a province of Türkiye. Another limitation is the lack of a comparison group in the study. Therefore, it may be recommended to conduct a case-control study with a comparison group in a larger sample group.

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### Conflict of Interest

There is no conflict of interest between the authors.

### Author Contributions

(E.G.E.); Conceptualization; methodology, data analysis, writing original draft, review & editing. (B.Ş.A); Conceptualization; methodology, collect data writing original draft, review & editing. (S.U.); Conceptualization; methodology, writing original draft, review & editing. **All authors have read and accepted the published version of the manuscript.**

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