

# Relationships between Body Image Perception and Body Esteem and Sexual Assertiveness of Female College Students: Comparison of Nursing Students and Non-nursing Students

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## Abstract

This study aimed to identify the relationships between body image perception and body esteem and sexual assertiveness of 296 female college students of university in Chungnam province: 150 nursing and 146 non-nursing students. Data were collected using a self-administered questionnaire from November 1 to September 10, 2018. The IBM SPSS 20.0 program was used to analyze collected data, including descriptive statistics, t-test, one way ANOVA (Scheffe test for post-hoc) and Pearson's correlation. Sexual assertiveness did not differ between nursing and non-nursing students. In nursing students, the higher the appearance esteem, the higher the sexual assertiveness; however, differences in sexual assertiveness according to body image perception were not significant. In non-nursing students, the higher the appearance esteem, attribution esteem, and body weight esteem, the higher the sexual assertiveness, which was also higher in students who underestimate their body than those who did not. These results indicated that appearance esteem of female students were related to sexual assertiveness. Therefore, various interventions to increase the appearance esteem and promote positive perception about their body should be provided to increase the sexual assertiveness of female college students.

**Keywords:** *Body image, Body esteem, Sexual Assertiveness, Female college student.*

## Introduction

Sexual assertiveness is defined as the ability to express one's feeling related to sexual desire and refuse unwanted sexual behavior<sup>1</sup>. This definition implies that everyone has the right to make decisions regarding one's own bodies and sexual experience and should not be forced to do any unwanted sexual activities<sup>2</sup>. Sexual assertiveness can be expressed in various ways, such as initiating sex, rejecting unwanted sex, and insisting on condom use<sup>2,3</sup>. Men or women with high sexual assertiveness can maintain sexual health by appropriately

expressing sexual needs and controlling sexual impulses<sup>4</sup>, whereas, those with low sexual assertiveness can experience sexual problems such as unwanted pregnancy or sexually transmitted infections due to their inability to refuse unwanted sexual behavior or demand preventive sexual practices<sup>2</sup>. Therefore, sexual assertiveness is a vital element to protect and maintain sexual health in sexual situation<sup>5</sup>.

Despite the importance of sexual assertiveness, women have difficulties in expressing their sexual desires and needs or rejecting unwanted sexual behaviors and are more likely to respond to unwanted sexual intercourse than men<sup>6</sup>. However, women can potentially play an active role rather than a passive role in their sexual relationships with men<sup>7</sup>. Therefore, various interventions should be provided for the improvement of women's sexual assertiveness to help them play a practically active role in sexual relations. To provide interventions for improvement of women's sexual assertiveness, it is

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necessary to identify the influencing factors of women's sexual assertiveness. In previous studies, women's sexual assertiveness is related to various factors such as age, sexual intercourse experience, gender role stereotype, self-esteem, and emotional intelligence<sup>6, 8</sup>. However, studies on the effects of body image on sexual assertiveness have been limited because the attention is focused on the body during a sexual encounter<sup>2, 8</sup>.

Body image is a subjective perception or evaluation of one's own body. Previous studies regarding relationships between body image and sexual health reported that women who are ashamed of their body and anxious about their appearance tend to feel more self-consciousness during sexual behaviors and more likely experience sexual problems<sup>9</sup>.

In additions, these studies reported that women with poor body image initiate sex less and have more unprotected sex or risky sexual behaviors<sup>2, 10</sup>. However, whether these women think they have the right to sexual assertiveness and they have the conviction to act on that right remains to be elucidated<sup>2</sup>. In other words, whether these women's sexual behaviors are related to sexual assertiveness remains unknown. Therefore, relationships between women's body image and sexual assertiveness should be identified.

In this study, the relationship between female college students' body image and sexual assertiveness was examined to provide practical and efficient intervention for enhancing sexual assertiveness of female college students. In additions, in this study body image was measured using both a single-item questionnaire and the body esteem scale. Body image is often evaluated using uni-dimensional measures, but it consists of multiple dimensions<sup>2</sup>. Considering these facts, in this study body image was measured using both a single-item questionnaire on body image perception and the body esteem scale, which are multidimensionally constructed.

## Method

**Design and Subject:** This survey study was conducted to identify the relationships between body image perception and body esteem and sexual assertiveness of female college students.

Participants consisted of 296 female students of university in Chungnam province: 150 nursing students and 146 non-nursing students.

Data were collected using a self-administered questionnaire from November 1 to September 10, 2018. Participants were fully explained on the purpose of this study, and the questionnaire was administered only if they agreed to participate in the study.

**Measurements:** Body image perception was measured using a single item subjective body image perception questionnaire designed to self-evaluate whether the female students was thin, normal, obese. Body image distortion was calculated by comparing body image perception and body mass index.

Body esteem was measured using a Park's<sup>11</sup> body esteem scale, a translated body esteem scale developed by Mendelson, Mendelson and White<sup>12</sup>. This scale consisted of 23 items and three subcategories (appearance, body weight, and attribution). Each items was rated on 5-point Likert scale (1-5), with higher score indicating higher body esteem. The internal consistency reliability was Cronbach's  $\alpha = .82\sim.90$  in Park's<sup>11</sup> study and .82 in this study.

Sexual assertiveness was measured using a sexual assertiveness scale developed by Chae<sup>8</sup>. The scale was designed to measure the expression of one's needs and rejection of others' needs for seven sexual behaviors. This scale consisted of 18 items and each item was rated on 5-point Likert scale (1-5), with higher score indicating the higher sexual assertiveness. The internal consistency reliability at the time of development was Cronbach's  $\alpha = .87$ <sup>8</sup> and .88 in this study.

**Data Analysis:** The IBM SPSS 20.0 program was used to analyze the collected data. Descriptive statistics was used for general characteristics, body image related characteristics, body esteem, and sexual assertiveness. X<sup>2</sup>-test, t-test, and ANCOVA were used to determine differences among general and body image related characteristics and body esteem and sexual assertiveness between nursing and non-nursing students. T-test and one way ANOVA were used to test differences in sexual assertiveness according to general and body image related characteristics. Pearson's correlation was used to identify the relationships between body esteem and sexual assertiveness.

## Results

**General Characteristics:** Participants' general characteristics are shown in Table 1. Regarding their grade, nursing students had higher grades than non-

nursing students ( $\chi^2=21.79, p<.001$ ). The experience of relationship ( $\chi^2=8.11, p=.004$ ) and intercourse ( $\chi^2=7.15, p=.009$ ) were higher in non-nursing students than in nursing students. Religion and time of the first relationship were not different between them.

**Body image perception and body esteem:** Body image perception and body esteem are shown in Table 2. As regards the difference in body image perceptions, nursing students were less likely to perceive their body

shape as normal, but were more likely to perceive them as thin or obese than non-nursing students. ( $\chi^2=7.79, p=.020$ ). Body mass index and body image distortion were not different between them. As regards the difference in body esteem, appearance esteem was higher in nursing students than non-nursing students ( $t=2.98, p=.003$ ). Attribution and body weight esteem, the other two subcategories of body esteem, were not different between them.

**Table 1. General characteristics (N = 296)**

Characteristics	Categories	Nursing Students (n=150)	Non-nursing students (n=146)	$\chi^2(p)$
		n (%)	n (%)	
Grade	Freshman	25(16.7)	34 (23.3)	21.79 ( $<.001$ )
	Sophomore	36 (24.0)	33 (22.6)	
	Junior	44 (29.3)	65 (44.5)	
	Senior	45 (30.0)	14 (9.6)	
Religion	No	85 (56.7)	84 (57.5)	0.02 (.880)
	Yes	65 (43.3)	62 (42.5)	
Relationship	No	29 (19.3)	11 (7.5)	8.11 (.004)
	Yes	121 (80.7)	135 (92.5)	
First relationship	Before university	83 (68.6)	106 (78.5)	3.25 (.087)
	University	38 (31.4)	29 (21.5)	
Intercourse	No	100 (82.6)	92 (68.1)	7.15 (.009)
	Yes	21 (17.4)	43 (31.9)	

**Table 2. Body image perception and body esteem (N = 296)**

Characteristics	Categories	Nursing students (n=150)	Non-nursing Students (n=146)	$\chi^2$ or t (p)
		n(%) or M±SD	n(%) or M±SD	
Body mass index	Low weight	28 (19.4)	34 (25.6)	5.60 (.061)
	Normal	99 (68.8)	93 (69.9)	
	> Normal	17 (11.8)	6 (4.5)	
Body image perception	Thin	27 (18.0)	16 (11.0)	7.79 (.020)
	Normal	77 (51.3)	98 (67.1)	
	Obese	46 (30.7)	32 (21.9)	
Body image distortion	Under perception	11 (7.6)	6 (4.5)	2.94 (.230)
	Right perception	98 (68.1)	84 (63.2)	
	Over perception	35 (24.3)	43 (32.3)	
Body esteem	Appearance	30.91±4.87	29.30±4.35	2.98 (.003)
	Attribution	14.06±2.99	14.56±3.46	-1.32 (.189)
	Body weight	23.46±5.38	22.39±4.18	1.88 (.061)
	Sum	68.32±10.33	66.23±9.64	1.76 (.079)

**Table 3. Sexual assertiveness (N=296)**

Variables	Total	Range	Nursing Students (n=150)			Non-nursing Students (n=146)			F (P)
			Min	Max	M±SD	Min	Max	M±SD	
Sexual assertiveness	90	18~90	34	90	66.86±9.53	35	90	67.29±10.84	0.28 (.599)

**Sexual Assertiveness:** Sexual assertiveness is as shown in Table 3. Tables 1 and Table 2 show variables with statistically significant differences in general characteristics, body image related characteristics, and body esteem of nursing and non-nursing students. Therefore, the difference in sexual assertiveness between them was analyzed using ANCOVA to control these variables.

After controlling these variables, sexual assertiveness was not different between nursing and non-nursing students (F=.028, p=.599).

**Sexual assertiveness according to general characteristics and body image perception:** Sexual assertiveness according to the general characteristics and body image perception is shown in Table 4. In nursing students, sexual assertiveness was not different according to general characteristics and body image perception, whereas in non-nursing students, it was higher in those who underperceive than those who overperceive or right perceive their body image (F=4.28, p=.016).

**Correlations between body esteem and sexual assertiveness:** Table 5 shows the correlations between body esteem and sexual assertiveness. In nursing students, the higher the appearance esteem, the higher sexual assertiveness (r=.18, p=.026), whereas in non-nursing students, the higher the appearance esteem (r=.22, p=.008), attribution esteem (r=.20, p=.021), and body weight esteem (r=.20, p=.002), the higher sexual assertiveness.

### Conclusions

This study showed that sexual assertiveness did not differ between nursing students and non-nursing students. This result indicated that interventions related to sexual assertiveness for female college students should focus more on their characteristics than their major. However, studies on differences in sexual assertiveness of female college students according to their major are insufficient. Therefore, further studies are warranted.

Relationships between body image perception and body esteem and sexual assertiveness of female college students were analyzed according to their major. In nursing students, the higher the appearance esteem among all body esteem variables,

**Table 4. Sexual assertiveness according to general characteristics and body image perception (N=296)**

Characteristics	Nursing Students (n=150)	Non-nursing Students (n=146)
	M±SD	M±SD
<b>Grade</b>		
Freshman	68.04±8.91	66.73±9.95
Sophomore	68.37±10.72	67.44±10.68
Junior	64.88±9.21	67.94±11.18
Senior	66.93±9.16	65.36±12.50
F (p)	1.04 (.377)	0.25 (.860)
<b>Religion</b>		
No	65.59±9.06	67.26±11.95
Yes	68.59±9.93	67.34±9.25
t (p)	-1.91 (.058)	-0.05 (.962)
<b>Relationship</b>		
No	63.82±10.72	65.45±15.46
Yes	67.58±9.13	67.45±10.44
t (p)	-1.89 (.060)	-0.58 (.560)
<b>First Relationship</b>		
Before university	68.54±9.45	66.89±10.47
University	65.50±8.13	68.52±11.38
t (p)	1.71 (.090)	-0.72 (.470)
<b>Intercourse</b>		
No	68.07±9.01	67.25±10.42
Yes	65.24±9.55	67.88±10.59
t (p)	1.30 (.198)	-0.32 (.751)
<b>BMI</b>		
Low weight	64.33±8.88	67.76±8.43
Normal	68.28±9.95	67.30±11.53

Characteristics	Nursing Students (n=150)	Non-nursing Students (n=146)
	M±SD	M±SD
> Normal	63.76±5.31	69.67±18.28
F (p)	3.06 (.050)	0.14 (.873)
<b>BIP</b>		
Thin	66.89±10.13	70.69±8.51
Normal	67.53±10.25	67.74±10.78
Obesity	65.73±7.85	64.16±11.65
F (p)	0.50 (.609)	2.19 (.115)
<b>BID</b>		
Under perception	68.91±11.33	79.33±6.89 <sup>a</sup>
Right perception	66.99±9.71	67.68±11.28 <sup>b</sup>
Over perception	66.41±8.27	65.55±10.28 <sup>b</sup>
F (p)	0.29 (.751)	4.28 (.016) <sup>a&gt;b</sup>

BMI = body mass index; BIP = body image perception; BID=body image distortion

The higher the sexual assertiveness; however, differences in sexual assertiveness according to body image perception were not significant. In non-nursing students, the higher the appearance esteem, attribution esteem, and body weight esteem, the higher the sexual assertiveness and sexual assertiveness was higher in students who underestimate their body than those who did not. These results indicated that appearance esteem of female college students were related to sexual assertiveness. Therefore, various interventions to increase the appearance esteem and promote positive perception about their body should be provided to female college students to increase their sexual assertiveness. In additions, studies on the relationships between body image perception and sexual assertiveness of female college students are also insufficient, therefore, this should be investigated further.

**Table 5. Correlations between body esteem and sexual assertiveness (N=296)**

		Body esteem : appearance r (p)	Body esteem : attribution r (p)	Body esteem : body weight r (p)	Body esteem : sum r (p)	Sexual assertiveness r (p)
Nursing students (n=150)	Body Esteem : Appearance	1				
	Body Esteem : Attribution	.48(<.001)	1			
	Body Esteem : Body Weight	.37(<.001)	.37(<.001)	1		
	Body Esteem : Sum	.80(<.001)	.71(<.001)	.80(<.001)	1	
	Sexual Assertiveness	.18(.026)	.11(.204)	.08(.351)	.16(.055)	1
Non-nursing students (n=146)	Body Esteem : Appearance	1				
	Body Esteem : Attribution	.39(<.001)	1			
	Body Esteem : Body Weight	.59(<.001)	.34(<.001)	1		
	Body Esteem : Sum	.86(<.001)	.69(<.001)	.83(<.001)	1	
	Sexual Assertiveness	.22(.008)	.20(.021)	.20(.021)	.26(.002)	1

**Conflict of Interest:** Nil

**Ethical Clearance:** None

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