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## **The influence on participation in Dance Sports of female University Students and recognition of physical attraction and Importance of Physical attraction**

Hana Jung\*, Sunmun Park\*\*

*\*Department of Physical Education, Kookmin University, Seoul, Korea*

*\*\* Department of Sports Leisure, Honam University, Korea*

*e-mail: ghostlwoman@hanmail.net, psmun@honam.ac.kr*

### **Abstract**

*The purpose of this study is to investigate the effect of female college students' participation in dance sports, perception of body attractiveness, and importance of body attractiveness. For this study, female university students residing in Gwangju Metropolitan City and Jeonnam region in 2019 were selected as the population.*

*A total of 350 people were selected as the study subjects, but 170 dance sports participants and 130 non-participants were selected for the study, excluding 50 copies of double written and unfaithful data. After individually entering coded data into the computer, the statistical program (SPSS Windows.20.0 Version) was used. The results obtained through this research process are as follows. First of all, it was found that there was a difference in perception of body attractiveness depending on whether female university students participated in dance sports. Second, it was found that there was a difference in the importance of physical attractiveness depending on whether female college students participated in dance sports. Third, it was found that female college students' perception of body attractiveness has an effect on the importance of body attractiveness.*

**Keywords:** *Participation in dance sports, Importance of body attractiveness, Body attractiveness recognition, Behavior indicator*

### **1. Introduction**

Human basic abilities are shown their's true abilities by harmonizing physical activity and mental development and maintaining a healthy body as a living organism. However, the development of scientific civilization and economic growth in the modern society have brought about an increase in leisure time as well as a convenient life for humans, but various modern diseases have begun to occur due to the reduction in physical activity. This social trend has brought about the spread of a social atmosphere that sports and dance activities are essential to maintain an attractive body as well as one's own health in order to increase human desire and enjoy a happy life.

Dance is the same as a sport in terms of physical activity and it is a rhythmic exercise of the human body, which is not only pleasant and enjoyable, but also an activity that makes the body healthy and beautiful. The formation of various classes and values of those who participate in physical activities is also bringing about various changes in motivation to participate in physical activities.

Among the motives of these physical activities, exercise is mainly for one's own health, but the tendency to exercise to improve one's body is increasing. This is because the recognition of physical attractiveness has various effects on social life for modern people who live through interpersonal relationships with many people

in today's complex social structuring. The importance of recognition of physical attraction is linked to self-concept/esteem. Self-concept is self-perceived and organized form and self-esteem is generally an evaluative component of self-concept. A person's perception of himself plays an important role in living in a modern social structure. A social psychologist, described self-concept as self in the mirror. It has been proven by many studies [1] that people with high self-concept/esteem have high social achievement. As a variable that has a great influence on the self-concept and self-esteem of adolescents and ordinary people, interest in appearance factors is increasing. In particular, attractive bodies and slim bodies have a great influence on the formation of specific identity of individuals [2].

In connection with this, it is almost natural for most women in Korea to use plastic surgery, diet food and equipment obesity clinics as a way to improve their appearance or body due to excessive interest in their appearance. This social phenomenon is due to the fact that people with attractive bodies are not only positively and amicable in interpersonal relationships and social life, but also have many halo effects [3]. These social trends force women to immoderate diet or plastic surgery, and negative cases are getting serious day by day. Therefore, changes in body image, such as weight loss and muscle improvement, are possible through continuous exercise, so in women's case, dance sports that can simultaneously pursue health, attractive body and beauty are more appropriate than extreme exercise.

After all, sports activities such as dance sports contribute to harmonious development of mind and body, and when exercise and physical activities are properly carried out as important human activities are recognized, they recognize the importance of physical attractiveness factors that they want as well as the maintenance and promotion of physical health. In this study, therefore, it is necessary to identify the relationship between female college students' participation in dance sports, body attractiveness recognition, and importance, and to remind them of the recognition and necessity of female university students' proper physical attractiveness.

## 2. Analysis method and survey tool

### 2.1 Study Subjects

For this study, female university students residing in Gwangju Metropolitan City and Jeonnam region in 2019 were selected as the population. As for the sampling procedure, each region was divided into east, west, south, and north, and samples were extracted using cluster random sampling.

Therefore, a total of 350 people were selected as the study subjects, but 170 dance sports participants and 130 non-participants were selected for the study, excluding 50 copies of double written and unfaithful data. Specific demographic characteristics are shown in Table 1.

**Table 1. study subjects**

	Variable	Number of cases	percentage(%)
Parents' education	High school graduate	80	27
	College graduate	120	43
	University graduate or higher	100	33
Household income	200 million won ↓	100	33
	2 million won ↑ -3 million won ↓	120	43
	3 million won ↑	80	27
Having opposite sex friends	Have	160	53
	None	140	47

### 2.2 Survey Tools

This study is a questionnaire method to investigate the effect of female college students' participation in dance sports on body attractiveness perception and importance of body attractiveness. Therefore, the

questionnaire, which has already been verified for the reliability and validity of the questionnaire in previous domestic and international studies, was re-cited or modified or supplemented to suit the purpose of this study.

First of all, as demographic characteristics, it consisted of 1 question each for parental education, household income, and the presence or absence of opposite sex friends, and 1 question for participation in dance sports as an independent variable. The questionnaire used to measure the perception of body attractiveness was modified and supplemented according to this study based on the questions used by Y.S. Kim [4], and was composed of a total of 15 questions as a single factor. Recognition of body attractiveness refers to the degree to which one is aware of how well one is fit with the standards of society for one's appearance.

In this study, to measure the importance of physical attractiveness, the questionnaire developed by J.S. Park, [5] was corrected and supplemented to fit the questionnaire, and the sub-factors consist of 2 factors: 10 values for values, 10 questions for behavioral indicators, and a total of 20 questions. The importance of physical attractiveness refers to behavioral characteristics that can distinguish people who value appearance from those who do not, and values that people who value appearance can have.

Detailed questionnaire composition indicators are shown in Table 2.

**Table 2. Questionnaire composition indicator**

Constituent indicators	Sub-factor	Number of questions
Demographic characteristics	Household income	1
	Having opposite sex friends	1
	Parent education level	1
Participation in dance sports	-	1
Body attractiveness recognition	-	15
Importance of body attractiveness	Values	10
	Behavior indicator	10

### 3. Validity and reliability of this study

#### 3.1 Exploratory factor analysis

Table 3 shows the results of exploratory factor analysis, a validity test for the importance of body attractiveness. According to Table 0, the items showing a high factor load (.546) on factor 1 are eight items in question 8, 6, 5, 9, 3, 2, 4, 10, which are related to the value of physical attraction. Questions 7 and 8 were removed. The items showing a high factor load (.533) in Factor 2 are all five of the questions 11, 20, 13, 17, and 12, all related to behavioral indicators of physical attraction. Questions 14, 15, 16, 18, and 19 were removed.

In addition, the cumulative ratio, which explains the value of body attractiveness, and the two factors of behavioral indicators, was 59.348%.

**Table 3. Exploratory factor analysis on the importance of body attractiveness**

Question	Factor 1	Factor 2
Values	Q08	.188
	Q06	-.076
	Q05	.079
	Q09	.174
	Q03	.126
	Q02	.144
	Q04	.201
	Q10	.255

	Q11	.124	.723
	Q20	.203	.638
Behavior indicator	Q13	.030	.585
	Q17	.122	.565
	Q12	.129	.533
Eigen Value		2.192	1.369
Variance (%)		36.525	22.823
Cumulative(%)		36.525	59.348

### 3.2 Reliability analysis

The results of the reliability analysis of this research questionnaire are shown in <Table 4>.

Table 4. Reliability analysis

Factor	Sub-factor	Cronbach's $\alpha$
Body attractiveness recognition	-	.81
Importance of body attractiveness	Values	.76
	Behavior indicator	.80

According to <Table 4>, it shows that the *Chronbach's*  $\alpha$  value of body attractiveness recognition was .81 and the *Chronbach's*  $\alpha$  value of body attractiveness importance was .76- .80.

## 4. Investigation procedure and data processing

The research procedure of this study was collected by distributing and collecting questionnaires after the researcher and assistant personally visited the sampling target.

First, explain the tips and precautions for the questionnaire, and then ask them to respond with the self-administration method, and then collect the questionnaire. For data processing, after collecting the completed data to the questionnaire, double-written and non-inclusive data were excluded from the analysis, and only valid samples were coded according to the coding guidelines.

After individually entering coded data into the computer, the statistical program (SPSS Windows.20.0 Version) was used. For specific statistical analysis, frequency analysis, exploratory factor analysis, reliability analysis, analysis of covariance, and multiple regression analysis were performed.

## 5. Results

### 5.1 Differences in perception of body attractiveness according to the presence or absence of female university students' participation in dance sports

<Table 5> shows the results of covariate analysis of differences in body attractiveness depending on whether female university students participate in dance sports.

**Table 5. Covariate analysis on the difference between participation in dance sports and perception of body attractiveness**

Source	Type III Sum of Squares	df	Mean Square	F
Corrected Model	22.143a	4	5.536	14.401
Intercept	141.077	1	141.077	367.007
Covariate				
Parent education level	.213	1	.213	.553
Household income	5.530	1	5.530	14.386***
Having opposite sex friends	5.577	1	5.577	14.509***
Main effect				
Participation in dance sports	4.840	1	4.840	12.590***
Error	207.959	541	.384	
Total	5341.649	546		
Corrected Total	230.102	545		

R<sup>2</sup>=.096, Adujusetd R<sup>2</sup>=.090

\*\*\*p<.001

Looking specifically at this, the main effect of dance sports participation (F=12.5905) was statistically significant difference of 0,1%. This showed that only household income and opposite-sex friend among the controlled covariates had a significant effect at the 0.1% level statistically. The explanatory power of the perception of body attractiveness according to the presence or absence of participation in dance sports was 9.6% of the total variable.

**5.2 Differences in the importance of physical attractiveness according to the presence or absence of female university students' participation in dance Sports**

Differences in the value of physical attractiveness according to the presence or absence of female university students' participation in dance Sports. <Table 6> is the result of covariate analysis on the difference in the values of physical attractiveness according to the presence or absence of female university students' participation in dance sports.

Looking specifically at this, the main effect of dance sports participation (F=20.4175) was statistically significant difference of 0,1%. Among the controlled covariates, only household income and the presence of opposite-sex friend had a statistically significant effect at the 0.1% level. The explanatory power of the value of physical attractiveness according to the presence or absence of participation in dance sports was 10.9% of the total variable.

**Table 6. Covariate analysis of the difference between participation in dance sports and the value of body attractiveness**

Source	Type III Sum of Squares	df	Mean Square	F
Corrected Model	17.105a	4	4.276	16.667
Intercept	190.650	1	190.650	743.051
Covariate				
Parent education level	.008	1	.008	.029
Household income	4.431	1	4.431	17.268***
Having opposite sex friends	3.302	1	3.302	12.868***

Main effect				
Participation in dance sports	5.239	1	5.239	20.417***
Error	139.578	544	.257	
Total	6930.320	549		
Corrected Total	156.683	548		

R<sup>2</sup>=.109, Adujusetd R<sup>2</sup>=.103

\*\*\*p<.001

<Table 7> is the result of covariate analysis on the difference in behavioral indicators of physical attractiveness according to the presence or absence of female university students' participation in dance sports.

**Table 7. Covariate analysis of differences between dance sports participation and physical attraction behavioral indicators**

Source	Type III Sum of Squares	df	Mean Square	F
Corrected Model	49.984a	4	12.496	33.318
Intercept	120.453	1	120.453	321.165
Covariate				
Parent education level	.013	1	.013	.034
Household income	9.020	1	9.020	24.051***
Having opposite sex friends	6.381	1	6.381	17.014***
Main effect				
Participation in dance sports	22.327	1	22.327	59.531***
Error	203.277	542	.375	
Total	4528.870	547		
Corrected Total	253.260	546		

R<sup>2</sup>=.197, Adujusetd R<sup>2</sup>=.191

\*\*\*p<.001

Looking specifically at this, the main effect of dance sports participation (F=59.531) showed a significant difference in the statistical level of 0,1%. Among the controlled covariates, only household income and the presence of opposite sex friends had a statistically significant effect at the 0.1% level. The explanatory power of the behavioral indicators of physical attractiveness according to the presence or absence of participation in dance sports was 19.7% of the total variables.

### 5.3 The effect of female university students' perception of body attractiveness on the importance of body attractiveness

<Table 8> is the result of a regression analysis on the difference in the importance of body attractiveness according to the presence or absence of participation in dance sports of female college students.

**Table 8. Regression analysis of the effect of female university students' perception of body attractiveness on importance**

Variables	Importance of body attractiveness			
	Values		Behavior indicator	
	$\beta$	t	$\beta$	t
Constant		26.321		13.638
Body attractiveness recognition	.316	8.006***	.294	7.367***
R <sup>2</sup>	.100		.087	
F	64.103***		54.270***	

\*\*\*p<.001

Looking at <Table 8>, it was found that in the final regression equation, the value and behavior index of the importance of body attractiveness were statistically affected at the 0.1% level. Looking at this in detail, first, it was found that the perception of body attractiveness had a statistical effect on the value of the importance of body attractiveness at the level of 0.1%. When looking at the beta ( $\beta$ ) value representing the relative contribution, it was found that it had an effect on the perception of body attractiveness (.316). Therefore, it was found that the explanatory power of the value of the importance of body attractiveness to the perception of body attractiveness showed 10% of the explanatory power of the total variable.

In addition, it was found that the perception of body attractiveness statistically affects the behavioral index of the importance of body attractiveness at the level of 0.1%. When looking at the beta ( $\beta$ ) value, which represents the relative contribution, it was found that it influenced the perception of body attractiveness (.294).

Therefore, it was found that the explanatory power of the behavioral index of the importance of body attractiveness to the perception of body attractiveness was 8.7% of the total variable.

## 6. Conclusion

The purpose of this study is to investigate the effect of female college students' participation in dance sports, perception of body attractiveness, and importance of body attractiveness. Therefore, the discussion on the conclusion based on the results of this study is as follows.

First of all, it was found that there was a difference in perception of body attractiveness depending on whether female university students participated in dance sports. In other words, it can be explained that the recognition of physical attractiveness affects the main effect of participation in dance sports.

In addition, among the covariates, household income and the presence or absence of opposite sex friends were found to be factors influencing. Looking at previous studies, Y.J. Kim [6] reports that there is a negative relationship with factors related to health and appearance images such as frequency and intensity of dance sports participation and weight of health related factors [6]. In addition, it is revealed that the expectation for participation is high due to factors such as weight, which is an appearance factor, and this is a factor that determines participation in Dance sport. On the other hand, Y.S. Kim [4], argues that the reason for having negative experiences with one's own body is because it forms a belief by internalizing the standard of beauty imposed on women culturally. This is because the female body is a construct as an object of 'to be look at' [4]. Therefore, women's attractive perception of their body is particularly sensitive to attributional perception, which is a factor that has a great influence on deciding to participate in physical activity.

Second, it was found that there was a difference in the importance of physical attractiveness depending on whether female college students participated in dance sports. In other words, it can be explained that the values and behavioral indicators of the importance of physical attractiveness are affected by the presence or absence of participation in dance sports, which is the main effect. In addition, among the covariates, household income and the presence or absence of opposite sex friends were found to be factors influencing. In this regard, looking

at previous studies, Y.S. Choi [7], describes the concept of self-presentation, a process of controlling and detecting how perceived by others [7]. It is explained that the higher the motive to show their impressions (body) to others and the less likely to express themselves effectively, the higher they experience social physical anxiety. In addition, social physical anxiety is related to kinetic behavior. It is shown that self-proposal concepts such as physical condition, weight control, and physical attractiveness show a static relationship to social physique anxiety. Adult women with high social physical anxiety avoided situations involving physical self-expression or showed discomfort, and had low exercise experience. E.Y. Lee & G.S. Cha [8] study of female college students argues that body anxiety has a high correlation with body fat [8]. Therefore, it is closely related to important factors such as values and behavioral indicators for physical activity and physical attractiveness, and supports the validity of this research dance sports participation and the establishment of a variable for physical attractiveness importance.

Third, it was found that female college students' perception of body attractiveness has an effect on the importance of body attractiveness. In other words, it can be explained that the higher the female college student's perception of physical attractiveness is, the higher the value and behavioral indicators of physical attractiveness are. In previous studies related to body attractiveness, despite interest in one's own feeling or perception of the body, he did not pay much attention to other people's perception of the body. Socially, the impression you receive from others is the perception of your physique and appearance first of all. From this point of view, the concept of social anxiety is closely related to physique. This concept of body anxiety is shaped by the influence of mass media.

Therefore, since adolescence is a time when physical perception, body image formation, and healthy emotions are formed in relation to the formation of physical attractiveness and behavioral indicators, it suggests the need for social education to select and accept high-quality information so that it can be essential to have positive behavior and attitudes to the right appearance, body and appearance-related behaviors. Modern society confirms its identity through various images perceived by itself or by others. Images are perceived or perceived by various factors such as facial expression, appearance, voice, gait, wording, dress, manners, etc., and personal images are formed according to how these factors are expressed and differentiated according to the individual [9]. These personal images are again formed by individual subjective efforts and learning of information, which are passed on through mass media and various media to create their own image making.

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