The Study of Appearance satisfaction, Eating problem, Physical and Mental Health Status according to the Gender Role Identity of Female University Students

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Abstract

Purpose: This study was to examine the differences in the degree of appearance satisfaction, eating problem, physical and mental health status according to the gender role identity of female university students.
Methods: Data were collected by self-reported questionnaires from 502 female university students. Data analysis was done with SPSS 20.0 for descriptive statistics, ANOVA, and Scheffé's test.
Results: The most prevalent type was undifferentiated (28.7 percent), followed by androgenic (27.7 percent). There was a statistically significant difference in the appearance satisfaction, eating problem and physical and mental health status in accordance with the gender role types. That is to say, as a result of the post-hoc test on appearance satisfaction, the androgenic type had a higher degree of appearance satisfaction than the masculinity type. As for eating problems, the results of the post-hoc test indicated that the undifferentiated type had a higher severity of eating problems than the femininity type. In regard to physical health status, the masculinity type had a better physical health status than the undifferentiated type, femininity type and androgyny type. In regard to mental health status, the masculinity type had a better mental health status than the undifferentiated type and femininity type.

Conclusion: These variables can be influencing factors in the gender role identity of female university students. Also, the findings can provide the basis for the development of nursing interventions to establish the gender role identity of female university students.

Keywords: Satisfaction, Eating, Health, Gender identity, Students

Introduction

Humans have their own gender that exists along with their respective life through their daily lives. Each individual undergoes the gender role socialization through which they learn the values and properties deemed appropriate for their gender in a culture in which he or she belongs. In this way, they learn their gender role identity [1]. Gender role defines the properties of men and women within the social and cultural background in which each individual belongs. That is to say, the fixed idea called gender role is to be recognized in this way. However, gender role identity internalizes each individual's own gender role through it so that each individual can assess the properties of gender role [2]. Gender role identity is the concept that plays an important role in understanding each individual's psychological adjustment and forming a sense of identity, which include extrinsic behavior, emotional reaction, cognitive function and internal life, as one of the important development tasks during adolescence [3].

A large number of gender role type related studies have been conducted since Bem [4]'s androgyny theory was proposed. Bem [4]'s androgyny theory argued that anyone could share both masculine and feminine characteristics regardless of their gender. This was in contrast with the conventional view that masculinity and femininity should be seen from a bipolar mono-dimensional perspective. Of the four types of gender role identity, the androgenic type can perform both instrumental role and expressional role. Hence, it can have a more efficient gender role attribute. In this regard, it has been reported to have a high level of adaptability in diverse circumstances. Chung [5] argued that femininity and masculinity only reflected socially-formed fixed ideas. In fact, those people who had androgyny had psychological advantages in many different aspects.

The concept of gender role has been reported to influence the definition and judgment of beauty. In particular, females students tend to prefer the feministic role defined based on the social norms when they get into puberty. The reason is that they want to look attractive to opposite gender as they have physically feministic appearance in their puberty [3, 6].

In general, women acquire behaviors, attitudes, values and characteristics in relation to the socially-expected idealistic look and physical appearance through the socialization process, thereby forming their respective gender role identity [7]. Women have more complaints with a higher sense of inferiority as to their look compared with men. When they do not reach their desired image, they get to have a strong sense of loss. As a result, their self-esteem is decreased. Eventually, they get to experience such psychosocial health problems as severe stress, anxiety, depression [8].

As such, women's high interest in their look may play a positive role in enhancing their confidence in their life. Nonetheless, it may also play a negative role of reducing their self-esteem by suppressing themselves in order to conform to the social standards [9]. In particular, female university students are struggling with the social bias that they have to be slim rather than obese due to the lookism and mass media. As a result, even those who are not obese are forced to do diet excessively in order to satisfy their desire for idealistic appearance. In fact, it was found that more than 90 percent of the female university students in Korea preferred to be slim and also they had a biased thought that being slim was an idealistic physical appearance [10].

As such, the society prefers slim physical appearance based on the sharp criticism for obesity. Hence, this leads to another form of side effect, which is inappropriate weight controlling behavior [11]. Female university students take only a limited amount of foods due to their bias on look and weight, resulting in increased risk of developing osteoporosis. In addition, if they become unable to ensure their physical demand due to an extreme diet measure or a long-term diet, they will take too much food in a short period of time. In such case, they do voluntary vomiting in order to maintain their weight, resulting in an eating disorder [12]. Furthermore, this kind of eating disorder not only has a negative impact on their physical and psychological conditions but also worsens their mental side effect, thereby adversely affecting their social activities and personal relationship. Add to that, it is difficult to treat eating disorders. In a severe case, their life may be at risk. In fact, eating disorders have the highest mortality rate among mental diseases [13].

Meanwhile, female university students have a high degree of interest in their look because they are in a position where they start their career. However, they are also in their childbearing age. That is to say, they have to play an important role as an important member of household and society as a parent. Thus, it is of paramount importance for them to establish an adequate sense of gender role identity. It is because they need to realize properly the meaning of the world and gender in which they belong. In this regard, establishing an adequate sense of gender role identity would become an important foundation for them to fully perform their role in their chosen adult life. Hereupon, this study would be of great help to offering empirical preliminary data for female university students to maintain health life by identifying the differences in the appearance satisfaction, eating problem and physical and mental health status in accordance with the gender role identity of female university students. Therefore, the purposes of this study are to confirm the gender role identity types of female university students and to examine the differences in the appearance satisfaction and eating problem and physical and mental health status. The specific goals are as follows.

1)   To identify the gender role identity type, appearance satisfaction, eating problem and physical and mental health status of female university students
2)   To identify the differences in the appearance satisfaction, eating problem and physical and mental health status in accordance with the general characteristics of female university students

3)   To identify the differences in the appearance satisfaction, eating problem and physical and mental health status in accordance with the gender role identity types of female university students

Methods
Research Design
This study used a cross-sectional descriptive design for identifying the gender role identity types of female university students and confirming the differences in the appearance satisfaction, eating problem and physical and mental health status in accordance with the gender role identity types.

2. Setting and Samples
This study conducted convenient sampling on the female university students who were attending the universities located in Seoul Special City, Incheon Metropolitan City, Daegu Metropolitan City, Gyeonggi-do, Gyeongsangnam-do, Gyeongsangbuk-do and Chungcheongnam-do and also who understood the purpose of this study and gave their consent to this study. These subjects were given the structured questionnaire. They were instructed to fill up the questionnaire by themselves. A total of 530 subjects gave consent to this study. A total of 502 subjects were used in the final analysis.

3. Measurements
1) Gender role identity
In regard to the gender role identity types, Kim [14]'s Korean Sex Role Inventory (KSR I) was used. The gender role test consisted of 15 questions related to masculinity variable, 15 questions related to femininity variable and 10 questions related to androgyny variable. In regard to the classification method of gender role identity types, the median-split method was used in this study. Those with a high score in masculinity variable and a low score in femininity variable were classified in the masculinity identity group based on the central value, whereas those with a high score in femininity variable and a low score in masculinity variable were classified in the femininity identity group. Similarly, those with a high score in both masculinity and femininity variables were classified in the androgyny identity group. In addition, those with a low score in both masculinity and femininity variables were classified in the undifferentiated identity group. The overall reliability of the tool at the time of development was 0.85. In this study, Cronbach's α=.84 for masculinity, Cronbach's α=.78 for femininity and Cronbach's α=.73 for androgyny. In regard to the overall reliability of the tool was 0.88.

2) Appearance satisfaction
In regard to the appearance satisfaction, Yim [16]'s measurement tool was used based on the body esteem scale of Mendelson and White [15]. This measurement tool has a 5-point scale with a total of 20 questions: 5 points for 'Most likely', 4 points for 'Likely', 3 points for 'Moderately', 2 points for 'Not likely' and 1 point for 'Least

Likely'. A higher score means a higher degree of satisfaction for appearance. In this study, Cronbach's α =.83.

3) Eating problem

In regard to the eating problems, the translated version (by Choi, Ahn, Nam, Cho and Choi [18]) of the Eating Attitude Test-26 (EAT-26) developed by Garner, Olmsted, Bohr and Garfinkel [17] was used in this study. This measurement tool consists of a total of 26 questions with a 6-point scale: 0 point for 'Sometimes', 'Almost not' and 'Never likely', 1 point for 'Often', 2 points for 'Very often' and 3 points for 'Always'. Those with a higher total score have a strong tendency of developing abnormal eating attitudes such as anorexia and bulimia nervosa. Hence, a higher total score means a higher degree of eating disorder. The reliability at the time of tool development is 0.79, while in this study, Cronbach's α=.82.

4) Physical and mental health status
(1) Physical health status

In regard to the physical health status, the measurement tool used by Rhy [20], which was developed based on the physical symptom scale of Chon, Kim and Yi [19], was used in this study. This measurement tool consists of a total of 24 questions with a 5-point scale: 1 point for 'None' and 5 points for 'Very severe'. A higher score means more severe physical health status. The reliability of this study is 0.96.

(2) Mental health status

In regard to the measurement of mental health status, the Korean version of depression measurement tool (CES-D) was used in this study. This tool was standardized by Chon and Lee [21] based on the Center for Epidemiology Studies Depression Scale (CES-D) developed by the US Mental Health Research Institute in 1971. This tool is to measure the depression experience in the past week: 1 point for 'Rarely', 2 points for 'Sometimes', 3 points for 'Significantly' and 4 points for 'Mostly'. It consists of a total of 20 questions with a 4-point scale. A higher score means more severe physical health status. In this study, Cronbach's α=.90.

4. Data Collection

The data collection period of this study was from September 1 to December 31 in 2015. In regard to the method of data collection, the structured questionnaire was used. For data collection, 4 research assistants and the author of this study conducted it. To reduce the error between the measurers, the author of this study conducted the training on the data collection method for the research assistants. In addition, the subjects were instructed to fill up the questionnaire only after they gave consent. All the questionnaires were collected directly from the subjects. A total of 530 questionnaires were distributed and a total of 516 questionnaires were collected. Among the collected questionnaires, those uncompleted or inappropriate questionnaires were excluded. As a result, a total of 502 questionnaires were used in the data analysis. Before collecting the data, the subjects were clearly explained about the purpose and background this study. The questionnaires were distributed to the subjects who gave

consent. The questionnaires were collected after the subjects directly filled up the questionnaire. It took about 20 to 30 minutes on average for the data collection.

5. Ethical Considerations
In regard to study participation, the intention of the subjects was fully reflected. The subjects were also explained that they did not need to respond if they did not want their personal information to be exposed. In addition, the subjects were explained that they could stop participating anytime they want even after they completed the questionnaire. They were given the contact information of the author of this study so that they could contact for any inquiry they might have in relation to this study. For the ethical considerations, the subjects were explained on the purpose and background of this study. Lastly, they were also explained that all the data in this study would be solely used for the purpose of study and their anonymity would be guaranteed.

6. Data Analysis
Data were analyzed using SPSS/WIN 20.0 program. Following is the data analysis method. First, descriptive statistics were obtained in relation to the general characteristics and variables of the subjects. As for the differences in the variables in accordance with the gender role identity types, one-way ANOVA was conducted. In regard to the post-verification, Scheffé test was utilized.

Results
1. General Characteristics of Subjects
As for the general characteristics of the subjects, this study examined the age, grade, major, religion, economic condition, residential area, residential type and gender role identity type (Table 1). The mean age of the subjects was 20.2 (±2.1) years old. As for the grade distribution, second year accounted for the largest proportion with 205 people (41.4 percent), followed by first year with 198 people (40.0 percent), third years with 64 people (12.9 percent) and fourth year with 28 people (5.7 percent). As for major, liberal arts and social science accounted for the largest proportion with 179 people (35.8 percent), followed by engineering with 98 people (19.6 percent), arts and physical science with 83 people (16.6 percent), natural science with 72 people (14.4 percent) and medical and health science with 68 people (13.6 percent). 303 people (60.4 percent) responded they did not follow any religion, whereas 199 people (39.6 percent) had a religion. As for economic condition, those with 'mid level' accounted for the largest proportion with 407 people (81.4 percent). As for residential area, those who were living in 'city' accounted for the largest proportion with 426 people (85.9 percent). As for residential type, those who were living in 'their own house' accounted for the largest proportion with 406 people (80.9 percent). As for the gender role identity type of the subjects, those with undifferentiated identity accounted for the largest proportion with 144 people (28.7 percent), followed by androgyny with 139 people (27.7 percent), femininity with 115 people (22.9 percent) and masculinity with 104 people (20.7 percent).

Table 1: General Characteristics of Subjects (N=502)

Characteristics	Categories	N(%)	M(SD)
Age(yr)			20.2(2.1)
Grade	First	198(40.0)	
	Second	205(41.4)	
	Third	64(12.9)	
	Fourth	28(5.7)	
Major	Liberal arts & social science	179(35.8)	
	Natural science	72(14.4)	
	Arts & physical science	83(16.6)	
	Medical & health science	68(13.6)	
	Engineering	98(19.6)	
Religion	Have	199(39.6)	
	Have not	303(60.4)	
Economic condition	High	41(8.2)	
	Medium	407(81.4)	
	Low	52(10.4)	
Residential area	City	426(85.9)	
	Province	54(10.9)	
	Town	16(3.2)	
Residential type	House	406(80.9)	
	Dormitory	38(7.6)	
	Others	58(11.5)	
Type of gender role identity	Masculinity	104(20.7)	
	Femininity	115(22.9)	
	Androgyny	139(27.7)	
	Undifferentiated	144(28.7)	

2. Descriptive Statistics of Research Variables for Subjects

Following is the degree of the gender role identity, appearance satisfaction, eating problem and physical and mental health status of the subjects (Table 2). Among the gender role identity types, the degree of masculinity was an average of 3.27 (±0.52) points on a 5-point scale, whereas the degree of femininity was an average of 3.13 (±0.49) on a 5-point scale. The degree of androgyny was an average an average of 3.53 (±0.50) points on a 5-point scale. As for the degree of appearance satisfaction, it was an average of 3.19 (±0.38) points on a 5-point scale. As for the degree of eating problem, it was an average of 0.48 (±0.23) points on a 3-point scale. As for the degree of physical health status among the physical and mental health status, it was an average of 1.61 (±0.64), whereas the degree of mental health status was an average of 1.97 (±0.44) on a 4-point scale.

Table 2: Descriptive Statistics of the Study Variables (N=502)

	Mean	SD	Range
Type of gender role identity			
Masculinity	3.27	0.52	1-5
Femininity	3.13	0.49	1-5
Androgyny	3.53	0.50	1-5
Appearance satisfaction	3.19	0.38	1-5
Eating problem	0.48	0.23	0-3
Physical health status	1.61	0.64	1-5
Mental health status	1.97	0.44	1-4

3. Differences in Variables in Accordance with General Characteristics of Subjects

Following are the differences in the appearance satisfaction, eating problem, and physical and mental health status in accordance with the general characteristics of the subjects (Table 3). As for appearance satisfaction, there was a significant difference depending in major (F=3.47, p=.008) and residential type (F=3.28, p=.004). However, the post-hoc test indicated that there was no difference between the groups. As for eating problems, there was a significant difference depending on residential type (F=5.09, p=.006). As a result of the post-hoc test, those in other cases had a significantly higher number of eating problems than those living in a dormitory. In regard to physical health status, there was a significant difference depending on the economic condition (F=10.44, p<.001). Those who responded 'low' on their economic condition showed the worst level in their physical health status. In addition, there was a significant difference in residential type (F=5.33, p=.005) in terms of physical health status. As a result of the post-hoc test, they had a poor level of physical health compared to the students living in their house or a dormitory. Moreover, there was a significant difference in the mental health status depending on the economic condition (F=7.27, p<.001). Those who responded 'low' on their economic condition showed the worst level in their mental health status.

Table 3: Appearance satisfaction, Eating problem, Physical and Mental Health Status according to General Characteristics (N=502)

Characteristics	Categories	Appearance satisfaction		Eating problem		Physical health status		Mental health status	
		Mean (SD)	t/F*(p)*	Mean (SD)	t/F*(p)*	Mean (SD)	t/F*(p)*	Mean (SD)	t/F*(p)*
Grade	First	3.16± 0.34	1.63 (.182)	0.47±0.20	.81 (.489)	1.60±0.63	0.43 (.735)	1.95±0.44	0.73 (.532)
	Second	3.21± 0.41		0.47±0.23		1.63±0.63		2.00±0.45	
	Third	3.24±0.40		0.51±0.26		1.68±0.77		1.93±0.43	
	Fourth	3.08±0.44		0.53±0.35		1.53±0.52		1.91±0.45	

Major	Liberal arts & social science	3.25±0.40	3.47 (.008)	0.49±0.25	0.59 (.672)	1.62±0.65	1.09 (.363)	1.96±0.46	1.08 (.365)
	Natural science	3.09±0.43		0.45±0.18		1.65±0.68		1.92±0.40	
	Arts & physical science	3.21±0.31		0.49±0.25		1.66±0.66		2.05±0.44	
	Medical & health science	3.21±0.38		0.51±0.25		1.67±0.63		1.93±0.43	
	Engineering	3.12±0.35		0.47±0.20		1.57±0.57		1.96±0.46	
Religion	Have	3.16±0.37	1.31 (.193)	0.50±0.23	1.13 (.261)	1.64±0.64	0.87 (.387)	1.96±048	0.44 (.663)
	Have not	3.21±0.39		0.47±0.23		1.59±0.64		1.97±042	
Economic Condition	High	3.23±0.32	0.97 (.379)	0.49±0.17	0.17 (.843)	1.64±0.71[b]	10.44 (.000)***	1.96±0.44[b]	7.27 (.001)**
	Medium	3.19±0.40		0.48±0.22		1.56±0.59[b]		1.94±0.44[b]	
	Low	3.13±0.31		0.46±0.28		1.99±0.78[a]		2.18±0.63[a]	
Residential area	City	3.19±0.37	0.86 (.424)	0.48±0.24	0.09 (.911)	1.60±0.62	0.61 (.545)	1.96±0.44	0.71 (.493)
	Province	3.20±0.45		0.46±0.16		1.70±0.70		**2.00±0.49**	
	Town	3.06±0.45		0.48±0.20		1.65±0.78		2.08±0.47	
Residential type	House	3.21±0.38	3.28 (.004)**	0.47±0.22[ab]	5.09 (.006)**	1.59±0.62[b]	5.33 (.005)**	1.97±0.43	0.80 (.452)
	Dormitory	3.18±0.37		0.43±0.17[b]		1.50±0.57[b]		1.89±0.51	
	Others	3.07±0.43		0.57±0.34[a]		1.86±0.75[a]		2.01±0.49	

* p<.05, **p<.01, *** p<.001

4. Differences in Variables in Accordance with Gender Role Identity Type of Subjects

Following is the difference in the appearance satisfaction, eating problem and physical and mental health status in accordance with the gender role identity types of the subjects (Table 4). As for appearance satisfaction, there was a statistically significant difference (F=3.40, p=.018) between the groups. As a result of the post-hoc test, androgyny was found to have a higher degree of appearance satisfaction than masculinity. As for eating problems, there was a statistically significant difference (F=6.32, p=<.001) between the groups. As a result of the post-hoc test, the undifferentiated identity type had a higher severity of eating problems than the femininity type. In addition, there was a statistically significant difference (F=8.66, p=<.001) between the groups in relation to the physical health status. The masculinity type was found to have a better physical health status than the undifferentiated type, femininity type and androgenic type. Moreover, there was a statistically significant difference (F=8.45, p=<.001) in relation to the mental health status. The masculinity type had a better mental health status than the undifferentiated type and femininity type.

Table 4: Appearance satisfaction, Eating problem, Physical and Mental Health Status according to Type of Gender Role Identity

	Masculinity Mean±SD	Femininity Mean±SD	Androgyny Mean±SD	Undifferentiated Mean±SD	F(p)
Appearance satisfaction	3.12±0.42[a]	3.21±0.32[b]	3.26±0.39[b]	3.15±0.39[ab]	3.40* (.018)
Eating problem	0.49±0.16[ab]	0.41±0.19[a]	0.48±0.26[ab]	0.53±0.27[b]	6.32*** (.000)
Physical Health Status	1.34±0.45[a]	1.71±0.60[b]	1.64±0.69[b]	1.72±0.68[b]	8.66*** (.000)
Mental Health Status	1.80±0.41[a]	2.07±0.**38**[b]	1.94±0.52[ab]	2.03±0.40[b]	8.45*** (.000)

Discussion

The purposes of this study are to identify the gender role identity types of female university students and to confirm the differences in the appearance satisfaction and eating problem and physical and mental health status in accordance with the gender role identity types. In regard to the gender role identity types of the subjects, undifferentiated type accounted for the largest proportion with 144 people (28.7 percent), followed by androgyny with 139 people (27.7 percent), femininity with 115 people (22.9 percent) and masculinity with 104 people (20.7 percent). In the study of Jeong, Kim, and Lee [22] that researched the female university students, undifferentiated type accounted for the largest proportion, followed by femininity, androgyny and masculinity. In the study of Chang [3], androgyny accounted for the largest proportion, followed by undifferentiated type, femininity and masculinity. The conventional theories on gender role argued based on the sociocultural universality that the typical gender role education should be appropriate. That is, female infants should be raised as a woman from birth and male infants should be raised as a man. [23]. However, the recent studies have proposed the androgyny model that anyone could share both feministic and masculine characteristics regardless of gender. Moreover, some studies reported that those people with an androgyny gender role could have a better psychological adjustment and were mentally healthy [24]. Meanwhile, Adams and Sherer [25] advocated for the masculinity model that masculinity factors would have an important impact on each individual's self-identity. They also argued that the reason why individuals with androgyny could adapt better was because the masculinity factors served more efficiently to help them make psychological adjustment [26]. As mentioned above, diverse gender role models have been proposed in recent years. Hence, it is necessary to conduct a verification research on the gender role models for university students who are undergoing a radical change in their gender role.

As a result of the analysis on the difference between the variables in accordance with the general characteristics, those students living on their own or at a boarding house rather than in their house or in a dormitory had a larger number of eating problems

with a worse physical health status. Also, those who perceived their economic condition as 'low' had a poor physical and mental health status. It is possible to have a regular meal and balanced nutrition when staying at home or in a dormitory. However, when people live on their own are easily exposed to an environment where they are not restricted by irregular meals. Hence, it is believed that these people find it hard to adjust their eating problems. The most important thing is the effort of female university students for staying healthy. It is believed that they need to perceive that it is essential to have an adequate and balanced eating attitude for staying healthy.

Meanwhile, the results of the analysis on the appearance satisfaction, eating problem, physical health status and mental health status in accordance with the gender role identity types indicated that those with androgenic type had a highest degree of appearance satisfaction. This result is consistent with the result of the study of Lee [27] that the androgenic type had a highest degree of appearance satisfaction regardless of gender. People with androgenic type perform efficiently their role depending on a given circumstance by integrating the masculine and feministic attributes. As a result, they are believed to have a more positive and active attitude for caring their appearance in various ways.

As for eating problems, the undifferentiated type group had the highest severity as compared with the femininity type group, masculinity type group, androgyny type group. This finding is similar to the finding of the study of Sun [28] that reported the eating behaviors of the femininity gender role identity type group and masculinity gender role identity type group based on its classification for the gender role identity types of female university students. The study of Sun [28] reported that there was no difference in the eating behavior between these two groups. From the results of the study of Jeong, Kim and Lee [22] that the undifferentiated type group of university students often used immature defense type and rarely used adaptive defense type, the eating problems of the undifferentiated type group in this study were caused mainly by the health related non-adaptive behavioral characteristics appeared between the internal desire and the demands of external environment. However, there have been only a limited number of studies that compared the eating attitudes for each gender role identity type as compared with the studies that examined the negative effects of the eating attitude of female university students on their health status [29] [30]. On that account, it would be necessary to accumulate empirical studies through repetitive researches.

In regard to the physical and mental health status, the masculinity type group had a better physical health status than the femininity type group, androgyny type group and undifferentiated type group. In the analysis of mental health status measured based on severity of depression, the masculinity type group had the lowest score of depression, whereas the femininity type group and undifferentiated type group had the highest score of depression. As such, the masculinity type group and androgyny type group, who had the masculine gender role attributes, had a better physical and mental health status. It is believed that such masculinity gender role attributes as objective, active, independent and goal-oriented [1] might have a positive impact on their physical and mental status. In contrast, it is worthy of note that the femininity type group had a poor physical and mental health status. In general, female university students place

more emphasis on appearance than physical functions. As a result, they often suffer excessively from appearance related stress. They therefore suffer from various eating disorders such as anorexia and bulimia nervosa in addition to diverse physical and mental problems. Such eating disorders not only have a negative impact on each individual's physical and psychological condition but also worsen their mental side effect, resulting in a negative impact on their social activities and personal relationship [31]. Hence, it is required to have a differentiated approach for enhancing the physical and mental health status of femininity type group in order to help female university students adapt in the modern society where the feministic attributes such as emotional, subjective, dependent and passive are rapidly changing.

Conclusions and Recommendations

University students belong to the latter stage of youth or the early stage of adult in terms of development stage. Hence, they get to explore their respective role freely as growing as an independent entity by staying away from their parents. Moreover, they get to prepare and ponder over their role and duty as a social member after graduating from university. One of the developmental tasks of university students is to establish their gender role identity. They will then establish a foundation for adapting properly to their adult stage by forming a holistic self-identity.

This study is a descriptive investigative research for identifying the gender role identity types of female university students and confirming the differences in the appearance satisfaction, eating problem and physical and mental health status in accordance with the gender role identity types.

In this study, undifferentiated type accounted for the largest proportion, followed by androgyny, femininity and masculinity. As for the difference in the appearance satisfaction, eating problem and physical and mental health status in accordance with the general characteristics of the subjects, there was a significant difference in appearance satisfaction depending on major and residential type. As for eating problems, there was a significant difference depending on residential type. As for physical health status, there was a significant difference depending on economic condition and residential type. In addition, there was a significant difference in mental health status depending on economic condition.

In regard to the differences in the appearance satisfaction, eating problem and physical and mental health status in accordance with the gender role identity types of the subjects, there was a statistically significant difference in the appearance satisfaction, eating problem and physical and mental health status between the groups. That is to say, the result of the post-hoc test on appearance satisfaction indicated that androgyny had a higher degree of appearance satisfaction than masculinity. As for eating problems, the undifferentiated type had a higher severity of eating problems than the femininity type. As for physical health status, the masculinity type was found to have a better physical health status than the undifferentiated type, femininity type and androgyny type. In addition, the masculinity type had a better mental health status than the undifferentiated type and femininity type.

Following are the recommendations based on the aforementioned findings of this study:

1)   It is recommended to conduct a follow-up study to confirm the gender role models for female university students.

2)   It is recommended to conduct a study that takes the sociocultural changes into consideration for recognizing the differences in the appearance satisfaction, eating problem and physical and mental health status in accordance with the gender role identity types and also implementing individualized nursing intervention.

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