

THE RELATIONSHIP BETWEEN BODY APPRECIATION AND SELF-ESTEEM AMONG FEMALE UNDERGRADUATE STUDENTS IN UNIVERSITI TEKNOLOGI MALAYSIA

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Abstract: Comparison of individual body image in social network sites (SNS) might boost or reduce self-esteem among females since unrealistic ideal photos have been exposed to them, which can decrease the body appreciation and alter their sense of worth. Therefore, the aim of this study is to investigate the relationship between body appreciation and self-esteem among female undergraduate students at Universiti Teknologi Malaysia, as well as the samples' level of self-esteem and body appreciation. This study included 369 female undergraduate students ranging in age from 18 to 27 years old that participated using convenient and snowball sampling. The Body Appreciation Scale-2 (BAS-2) was the instrument employed to assess body appreciation, while the Rosenberg Self-Esteem Scale was tested to examine self-esteem. The findings indicated a significant positive correlation between body appreciation and self-esteem among respondents. Concurrently, a high level of self-esteem and body appreciation were discovered. This study concludes with a number of limitations and recommendations that are beneficial to university students, university faculty, and future researchers.

Keywords: Self-esteem, Body Appreciation, Female Undergraduates Students

Introduction

Self-esteem is a crucial concept in psychology that influences the physical and mental well-being of a person and it has been investigated for almost a century to find out its role in psychological functioning (Abdel-Khalek, 2016). Self-esteem refers to a person's sense of worth. It describes how a person feels about themselves and how worthy they believe they are. For example, personal perspectives about talents, abilities, and social relationships are linked to self-esteem (Abdel-Khalek, 2016). Moreover, body appreciation refers to body positivity where a person accepts and respects how their body looks the opposite of body dissatisfaction. Hence, this means that a student that has high body appreciation can have positive self-esteem in their education life and organization in the future. Self-esteem research has been around for decades in psychology (Abdel-Khalek, 2016). However, there has been more increased research into self-esteem and body dissatisfaction.

According to Pop et al. (2022), the total score for self-esteem was much higher in men than in women, and male students perceived themselves to be in better mental health than female students. Other than that, study from Yaacob et al. (2017) males report a higher sense of self-worth than females. It indicates that female students have higher levels of social stress, lower self-esteem, and higher levels of depressive symptoms than male students, implying that females are more prone to psychological issues than males which lead to the reason why this research focuses on the female population. According to research from Khalaf et al. (2021), positive body image has a significant relationship with an individual's self-esteem among Omani university students. It demonstrates that a higher level of body appreciation is connected with better levels of self-esteem. People with a negative view of their bodies are those who consider themselves disfigured and are unable to see themselves in a mirror. This previous study indicates positive perceptions about the body that individuals create may lead to them being more satisfied with their lives and having a high degree of self-esteem. As a result, this current study focuses on positive body image, encompassing body appreciation and self-esteem, among undergraduate female students at Universiti Teknologi Malaysia.

Self-esteem refers to psychological health and well-being associated with self-judgment based on one's human values, which leads to thoughts of confidence. People with high self-esteem report higher levels of enjoyment, optimism, and motivation, as well as lower levels of despair, anxiety, and negative mood. People with low self-esteem, on the other hand, experience emotions of worthlessness, inferiority, and emotional instability, which leads to unhappiness with life (Abdel-Khalek, 2016). Consequently, it defines self-esteem as what people unconsciously feel to be true about their own worth, lovability, value, and capability. In addition, the measurement of self-esteem in this study is The Rosenberg Self-Esteem Scale.

Body appreciation refers to having a good body image, which encompasses how people love, respect, appreciate and accept their bodies but reject the beauty standard of the world. In addition, the term body appreciation has been used to refer to situations when individuals accept their own body, treating it with respect, and having positive views towards it while rejecting socially constructed notions of physical attractiveness as the only form of beauty (Tylka & Wood-Barcalow, 2015). Therefore, this study accepted that body appreciation is defined as people's healthy views of their own bodies, unaffected by external factors like social media, and a set of standards applied to looks and body to be regarded as attractive in order to properly fit in the community. Hence, measurement of body appreciation in this study is The Body Appreciation Scale-2 (BAS-2).

Hence, the objective of this study is:

- 1) to identify the level of self-esteem among female undergraduate students in Universiti Teknologi Malaysia,
- 2) to identify the level of body appreciation among female undergraduate students in Universiti Teknologi Malaysia.
- 3) to analyze the relationship between body appreciation and self-esteem among female undergraduate students in Universiti Teknologi Malaysia.

Literature Review

The Level of Self-Esteem

Sharma (2014) studied the difference in self-esteem levels between fourth-year Bachelor of Science in Nursing known as the degree level of nursing students and General Nursing Midwifery (GNM) known as the diploma level of nursing students at the Rajeev Educational Trust in Hassan, India. The findings revealed that the self-esteem level of bachelor's degree students is 81.28% and that Diploma students is 67.58%. Furthermore, bachelor's degree students have 13.7% higher self-esteem than Diploma students. As a result, most final year Bachelor nursing students have high self-esteem levels, meanwhile the majority of final year Diploma students have low self-esteem levels. Basco and Han (2016) then carried out a study to explore the general level of self-esteem of Korean university students in relation to gender and year of study. This study's participants were 255 randomly selected college students from a local institution in South Korea who were enrolled in classes for the Autumn Semester of the 2014 academic year. The gender data suggest that, based on the mean scores, male students have higher self-esteem with score 2.06 than female students that score 2.10. Meanwhile, finding for academic year found that the juniors had the lowest self-esteem with mean score 2.21, while the seniors had the highest self-esteem with mean score 2.00 mainly on the maintenance of Abstract dialects.

The Level of Body Appreciation

Several studies on the level of body appreciation have been conducted. Firstly, Guimares et al. (2023) conducted research to investigate the association between physical activity levels, body image, and academic achievement in public school teenagers. The sample included 531 Porto secondary school students, 296 girls and 235 boys aged 15 to 20 years. This study discovered varying levels of satisfaction with body image in both genders. The researchers found no significant relationship between body image satisfaction and physical activity level in boys. As a result, girls who were physically active were twice as likely to be satisfied with their body image. Aside from that, Sari et al. (2022) identify the level of body dissatisfaction among female university students in Batam, which is also the primary focus of this study. According to the findings, body dissatisfaction among female university students in Batam is shown by mean scores. Respondents' overall level of body dissatisfaction was moderate, as expressed by a mean score of 1.90.

The relationship between body appreciation and self-esteem

Aside from that, Khalaf et al. (2021) emphasize that study into healthy body image and self-esteem in young people has become a national priority. Thus, the goal of the prior study was to look into the correlation between positive body image and self-esteem. The Body Appreciation Scale-2 and Rosenberg's Self-Esteem Scale were utilized in this study, and a total of 237 students were recruited from Sultan Qaboos University's various colleges. The findings revealed that positive body image had a significant relationship with an individual's self-esteem,

implying that better body appreciation was positively connected with higher levels of self-esteem.

Conceptual Model

One theory that was applied in this study to link to self-esteem was the Self-Determination Theory. The psychologists Edward Deci and Richard Ryan, who published *Self-Determination and Intrinsic Motivation in Human Behavior* in 1985, are credited with developing the idea of self-determination. A key element of self-determination theory is that all people are affected by the satisfaction of the three basic psychological needs which are for relatedness, competence and autonomy (Van Egmond et al., 2020) that are well explained in this theory. However, this study only focuses on one basic need to explain self-esteem for this study which is autonomy. This study relates that a person who achieves autonomy level means they are able to influence their own activities and a greater self-esteem. Thus, it shows self-esteem is the important factor in personal decision making where it describes that they have control over their own destiny, choices and the goals of their own life. Hence, being self-determined means that an individual feels in greater control. Meanwhile, if an individual is non-self-determined it can lead them to feel that their life is controlled by others and helplessness. Therefore, it means that when people achieve the basic needs of autonomy, the sense of self-esteem can be developed. Self-esteem is an important psychological construct, many theorists have attempted to explain why self-esteem exists in humans. This study relates that a person who achieves autonomy level means they are able to influence their own activities and a greater self-esteem. Therefore, it means that when people achieve the basic needs of autonomy, the sense of self-esteem can be developed.

For body appreciation, the theory is Self-objectification theory. Self-objectification theory was under objectification theory that was developed by Barbara Fredrickson and Tomi-Ann Roberts created in 1997. According to objectification theory, appreciating one's body for its attractiveness rather than its performance is associated with a range of negative psychological effects such as eating disorders. Hence, the self-objectification theory provides a helpful foundation for understanding female body image difficulties. In this theory, self-objectification refers to a sort of self-consciousness in which women reflect an observer's perception of their body. Moreover, previous research investigated whether self-objectification, social comparison, and thin-ideal internalization would act as mediating mechanisms in the relationships between potential predictors and body appreciation, and it was discovered that lower self-objectification, social comparison, and thin-ideal internalization were related to higher body appreciation (Andrew et al., 2016b). As a result, this study believes that people's body appreciation can improve when they have lesser or lower self-objectification. To conclude, the theory that can be related to body appreciation is Self-objectification theory. In this theory, self-objectification refers to a sort of self-consciousness in which women reflect an observer's perception of their body (Arroyo et al., 2014). As a result, this study believes that people's body appreciation can improve when they have lesser or lower self-objectification.

Figure 1 shows the conceptual framework of this study.

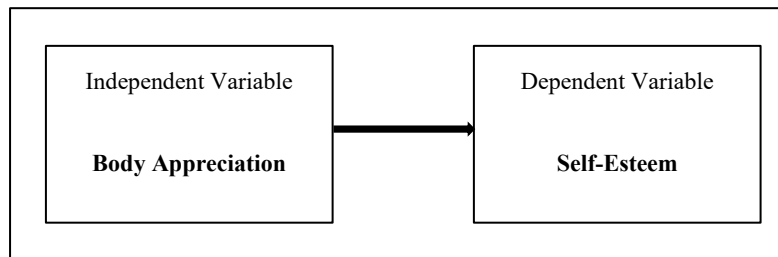


Figure 1: Conceptual framework

Methodology

The study has decided the most appropriate design which is quantitative study to examine the relationship between body appreciation and self-esteem among female undergraduate students in Universiti Teknologi Malaysia. Therefore, for this study, the population consists of female students in Universiti Teknologi Malaysia. According to latest research, men had a substantially higher total score for self-esteem than women, and male students judged themselves to be in better mental health than female students (Pop et al., 2022). For this reason, this study chose female students to investigate the self-esteem issues that have been more affecting the female population. UTM currently has 17,500 full-time undergraduate students (Edu loco, 2023). However, this study focuses primarily on female students, despite the fact that the male-female student ratio is 45:55, providing the study to identify the accurate population (Universiti Teknologi Malaysia, 2023). As a result, the total population for this study is 7,875 female undergraduate students. The sample size for this study was determined using the Krejcie and Morgan (1970) table. According to the Krejcie and Morgan table, the most appropriate sample size would be 367 female undergraduate students.

In this study, it employed the snowball sampling method for the selection of the respondents. Snowball sampling, also known as chain-referral sampling, and convenience sampling which are a non-probability sampling approach in which the researcher asks a respondent to recruit more persons to complete and answer the questionnaire (Naderifar et al., 2017). For this reason, a snowball sampling approach can be beneficial to get more respondents within the targeted time for data analysis. However, this method contradict with Krecjie Morgon that table that supposed to be used for probability method. Hence, considering the time frame for data collection, the study gathered information from female undergraduate students at Universiti Teknologi Malaysia, the sampling may be lower or higher than expected. Thus, the questionnaire will be distributed to female undergraduate students in Universiti Teknologi Malaysia. This is because according to Rajab and Che Abas (2017), a minority of Universiti Teknologi Malaysia students with moderate self-esteem are generally dissatisfied with their physical appearance and lead to conclusion that UTM students fall somewhere between the extremes of high and poor self-esteem. It shows this set of respondents does not precisely correspond to the statements for low and high self-esteem. As a result, Universiti Teknologi Malaysia was chosen for this study to determine the present degree of self-esteem and body appreciation, as well as the relationship between the two.

Findings

From the total of respondents of 369 female undergraduate students in Universiti Teknologi Malaysia, the highest rate of response of surveys are come from 21 to 23 years old with the percentage of 71.50% (264 students), which is later followed by 18 to 20 years old with the percentage of 19.50% (72 students) and 24 until 26 years old which is 8.10% (30 students). The least number of respondents come from 27 years old and above which only 3 female students

participated (0.80%). For the aspect of ethnicity, 71.50% of Malay female students with 264 responses and Chinese female students with 65 responses (17.60%) have answered the survey. This was later followed by Indian female students with 35 responses (9.50%). The minority responses recorded are students from other ethnicities such as Sabahan and Indonesian with 5 responses (1.40%).

Other than that, academic year responses are influenced by Year 4 with 39.60% (146 students) followed by Year 2 students with 24.90% (92 female students) and 23.30% (86 students). Hence, the least response came from Year 1 with 12.20% (45 students). Moreover, the faculty in UTM that contributes more in this survey is the Faculty of Social Science and Humanities with 29.50% (109 female students). Afterward, Faculty of Civil Engineering with 16.30% (60 students) and Faculty of Chemical & Energy Engineering with 15.20% (56 students). Subsequently, Faculty of Electrical Engineering students with 44 students (11.90%), Faculty of Built Environment and Surveying with 42 students (11.40%). The lowest response comes from three faculties which are Faculty of Management with 28 students (7.60%), Faculty of Mechanical Engineering with 17 students (4.60%) and lastly, 13 students from Faculty of Computing (3.50%). To sum up, the respondents from this research are identified to have different demographic characteristics from the aspect of age, ethnicity, academic year and faculty.

The level of self-esteem among female undergraduate students in Universiti Teknologi Malaysia

Table 1 indicates that out of the 369 respondents, only 46 female students (12.47%) reported having low self-esteem, while the remaining 63 female students (17.07%) stated having a moderate degree of self-esteem. Additionally, it is discovered that 260 female undergraduate students, or the majority, had a high degree of self-esteem, with the highest number at 70.46%. Consequently, it is evident that female undergraduate students have a high overall level of self-esteem, which also accounts for the majority of the mean value of 3.891.

Table 1: Level of Self-Esteem

Level	Overall Mean	Frequency (f)	Percentage (%)
Low		46	12.47
Moderate	3.891	63	17.07
High		260	70.46
Total	3.891	369	100.00

The level of body appreciation among female undergraduate students in Universiti Teknologi Malaysia

Table 2 shows that only 32 female students (8.67%) out of the 369 respondents stated they had low body appreciation, while the remaining 31 female students (8.40%) said they had a moderate level of body appreciation. Furthermore, it is found that the majority of female undergraduate students, or 306 students, had a high degree of body appreciation, with 82.93% being the highest percentage. Thus, female undergraduate students regard their bodies highly overall, as evidenced by the mean value of 4.334.

Table 2: Level of body appreciation

Level	Overall Mean	Frequency (f)	Percentage (%)
Low		32	8.67
Moderate	4.334	31	8.40
High		306	82.93
Total	4.334	369	100.00

The relationship between body appreciation and self-esteem among female undergraduate students in Universiti Teknologi Malaysia

Based Table 3, the relationship between body appreciation and self-esteem among female undergraduate students at Universiti Teknologi Malaysia is determined using Spearman's Rho correlation analysis, with significance determined when the p-value is less than .01 and two-tailed significance. The findings indicate that body appreciation has a significant positive relationship with self-esteem ($p < 0.001$). Furthermore, a very strong connection between the two variables is indicated by the r-value of 0.808. Therefore, the alternative hypothesis which is H1 is accepted which indicates that the third objective in this study has been achieved.

Table 3 : The relationship between body appreciation and self-esteem

Variables	Self-Esteem	
	r-value**	p-value
Body Appreciation	0.808	<0.001

Discussion

The first research objective is to identify the level of self-esteem among female undergraduate students in Universiti Teknologi Malaysia. Overall, the study's findings showed a high level of self-esteem in the sample of respondents. It conveys that the respondents feel highly satisfied and respectful of themselves which is consistent with some past studies. From the data analyzed for the Rosenberg Self-Esteem Scale instrument, it is found that the percentage of high self-esteem among respondents is equivalent to 70.46% (refer to Table 4.3). Therefore, a high level of self-esteem may lead to a good level of confidence during the study year in which the students are willing to develop skill and gain experience for their worth. Aside from that, Jan et al. (2017) conducted research on self-esteem among Institute of Business Management (IoBM) students in which those who spend less than half an hour each day on social media had a mean self-esteem score of 25.25, which is higher than respondents who spend more time on it. Also, Gabrielle Sing Jieh and Idang (2022) investigated the impact of this new trend of selfie-editing on psychological well-being, specifically self-esteem, and discovered that students who did not edit selfies before online sharing had a high degree of self-esteem compared with those who edit before posting. However, a majority of prior studies have looked into the level of self-esteem based on gender and discovered that male self-esteem is higher than female self-esteem. According to Arshad et al. (2015), males are believed to be more independent than females in Pakistani culture which is consistent with the number of their previous findings. As a result, this study concentrates on female students and discovers that female students in Universiti Teknologi Malaysia still have a high level of self-esteem, despite the fact that men are thought to have a stronger and high self-esteem than females. This is a good sign that females can have a sense of achievement where they will feel successful in doing something very good and difficult without comparing themselves with male students.

The second research objective was to identify the level of body appreciation among female undergraduate students in Universiti Teknologi Malaysia. Based on the study results analyzed by The Body Appreciation Scale-2 (BAS-2), it was discovered that the undergraduate female student overall appreciation with their body was high which is 82.93% (refer to Table 4.5). It indicates that the samples experienced body appreciation to the fullest, as they somewhat feel good and comfortable with their body. This is in line with the previous study from Guimares et al. (2023) that the most sample dominated by female respondents (295 students). The study found that there was a higher proportion of satisfaction with body image in participants practicing artistic expression (44.1%) and multisport (30.8%) in the females. Thus, Guimares et al. (2023) claimed that females who were physically active were twice as likely to be satisfied with their body image. However, this data is also contrast with the other previous research which Divecha et al. (2021) show the majority of dissatisfied students (73.8%) wished to be thinner, while only 18.2% felt attractive means they have a high level of body appreciation and only 66% of the students correctly perceived their physique image. Other than that, Ramos-Jiménez et al. (2017) employed a somewhat older participant than this study, between the ages of 18 to 35. Thus, the findings show that around 85% of the participants were dissatisfied with their body image which shows only 15% of the participants appreciate their body. Ramos-Jiménez et al. (2017) explain that non-athlete girls with lower physical activity levels than athletes showed increased dissatisfaction with their body image. Furthermore, Fardouly and Vartanian (2016) stated spending more time on Facebook and/or Myspace was also found to be associated with higher levels of body dissatisfaction that make body appreciation become lower. Moreover, Sari et al. (2022) has identify the level of body dissatisfaction among female university students in Batam and conclude that overall level from respondents show a moderate body appreciation. This is a worrying result because with a low body appreciation, the students can develop an unhealthy body image and eating disorder. According to the justification and evidence from previous studies, university students' body appreciation can be high but can also lead to low levels due to spending too much time on social media and least physical activity. As a result, it is believed that Objective 2 of this study has been reached.

The primary objective of this study was to identify the relationship between body appreciation and self-esteem among female undergraduate students in Universiti Teknologi Malaysia. The result of the current study indicates that body appreciation had a significant positive correlation with self-esteem. Positive correlation indicates a direct, linear relationship as one variable increases the other variable also increases and the other way around. Thus, when the body appreciation increases among female students then the self-esteem will increase too. The findings in this study also show these two variables have a very strong relationship indicating that the r -value is 0.808 which is interpreted as a strong strength of the relationship (refer to Table 4.6). For example, when many female undergraduate students always feel that they respect their own body, eventually they will have a high self-worth. It is a good sign because students will take care of their physical and mental well-being by being physically and mentally active. This study supported the findings of numerous previous studies that found a link between these two variables among students all over the world. Khalaf et al. (2021) used the same methodology instruments as this study (The Body Appreciation Scale-2 and Rosenberg's Self-Esteem Scale) and recruited respondents from university students. Positive body image was found to have a significant relationship with an individual's self-esteem, implying that better body appreciation was positively related to higher levels of self-esteem. Pikó et al. (2020) also tested on female high school students revealed that body appreciation was most strongly related to self-esteem, as well as being positively associated with life satisfaction, self-perceived health, being in control of diet, and engagement in sport. Other than that, Vall-Roqué

et al. (2021) respondents between the ages of 14 and 35 completed their research and there were significant correlations between the frequency of Instagram use and the drive for thinness, body dissatisfaction, and low self-esteem. Furthermore, several factors contribute to the result of this study. The first is the influence of the media. This is because the media can present a variety of perspectives, whether they are negative or positive. For example, if the media portrays a female looking good in any type of body, it can boost the self-esteem of others. According to Gormon (2015), mass media can affect the body image and self-esteem of girls and women. This is not a new phenomenon that has been circling since celebrities, such as pop stars, became famous, not for their talents, but for their looks. These looks are then portrayed in the media and become 'ideals' for the rest of the population. Therefore, the media can provide ideal perceptions, which may result in an increase or decrease in body appreciation and self-esteem. Other than that, social support may influence the two variables especially in terms of friend factor. This is because friends play an important role as a source of social support on a residential campus, so respondents focused specifically on the support they received from friends on campus. This factor is supported by Kong et al. (2014), who found that females with high social support scores reported higher levels of life satisfaction. Thus, social support mediated the relationship between gratitude and self-esteem, which will ultimately help to increase body appreciation.

Conclusion

Although this study adds to the body of knowledge, there are a few shortcomings that need to be addressed to provide additional avenues for research on the current study. The first limitation refers to the sampling method. This is because this study employs a non-probability sampling method, namely convenience sampling and snowball sampling. Therefore, the results of this study can only represent the study samples, which are 369 female undergraduate students. Both of these methods have a disadvantage in that the participants are more likely to refer to people who do not fit the characteristics of the respondents, which increases the risk of sample bias and margin of error. For example, respondents may share the survey with other female students who aren't pursuing degrees at Universiti Teknologi Malaysia. As a result, the results might not accurately represent the population. Aside from that, this study only looked at two variables and disregarded every other factor such as the mediator, moderator, and the dimensions of the variable. This will not help the results to go beyond studying a simple relationship between two variables for a deeper understanding of the real world.

The recommendations of this study are to create an opportunity to broaden future research such as studying the relationship between physical activity body appreciation and self-esteem. This is because it will help encourage students, and university organizations to bring a program to increase physical activity in which the student has a positive body image for their own body to lead a high self-esteem that can improve their lifestyles. Also, it can lead interest to educators and university managers concerned about the importance of body appreciation for their students to produce graduates with excellent self-esteem which conducts more awareness programs about body positivity and self-esteem. In turn, this research will raise awareness among the public to encourage good physical and mental health to lead a consistently positive lifestyle and to eliminate negative thoughts about one's body. Furthermore, future research can target the population by including or focusing on male students rather than female students. In addition, the method for future research can be used as the probability sampling method to increase the sample's generalizability to the population. Ultimately, future researchers could look into other independent variables like mediators and moderators that contribute to body dissatisfaction and self-esteem, such as social support and social media use.

In conclusion, the current study achieved (1) the first objectives, whereby there is a high level of self-esteem among female undergraduate students. In addition, (2) the second objective is supported by the present study in which there is a high level of body appreciation among female undergraduate students, and (3) the third objective which is the hypothesis of this study was found to have a significant relationship between body appreciation and self-esteem among female undergraduate students in Universiti Teknologi Malaysia which necessary to be taken into consideration for students, university and organization. The majority of the results align with the earlier studies, although certain findings vary among participants. Thus, by utilising the findings of this study, the researchers hope to encourage students and university organisations to implement a programme or event to increase physical activity. Aside from that, it may encourage educators to raise awareness of the relationship between body shape and self-esteem. Furthermore, the researcher hopes that future researchers will be able to study these two variables using probability sampling methods and different populations.

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