Relation between Self-Compassion, Perfectionism and Body Image Satisfaction among Women with Mastectomy

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Abstract

Background: Mastectomy is a traumatic event that leads to a state of a psychological stress, low self-compassion, maladaptive Perfectionism, and shame brought on by a distorted body-image. **Aim:** This study aimed to explore relation between self-compassion, perfectionism and body image satisfaction among women with mastectomy. **Design:** A descriptive correlation study was used to achieve the aim of this study. **Setting:** This study was conducted at general surgery outpatient's clinics at Benha University Hospital. **Subject:** A total of 100 women with mastectomy participated at this study. **Tools of data collection:** Researchers used a self-administered questionnaire that included characteristics of women, scale of self-compassion, perfect scale and body self-image scale. **Results:** Analysis showed that more than half of the studied patients had maladaptive perfectionism related standard subscale and discrepancy subscale. In addition, about two-thirds of the studied patients were unhappy with the appearance and one-third of them were satisfied with appearance. **Conclusion:** There was high positive correlation between self-compassion, adaptive perfectionism and body image. Moreover, explained that improved self-compassion and adaptive perfectionism had high-frequency positive effects on body image satisfaction. At the same time, maladaptive perfectionism had high-frequency negative effects on body image satisfaction. **Recommendations:** Implementing psycho-educational program on developing self-compassion and improving adaptive perfectionism of women after mastectomy.

Keywords: Body Image, Mastectomy, Perfectionism, Self-Compassion.

Introduction

Breast cancer treatment can be very successful, particularly if the disease is discovered early. Breast cancer treatment includes a combination of surgical removal, radiation therapy and medication (hormonal therapy, chemotherapy and targeted biological therapy) to treat the microscopic cancers that have spread from the breast tumor through the blood. Such a course of treatment can prevent the growth and spread of cancer and thereby avoid the loss of life. Although advances in breast cancer treatment, mastectomy continues to be required in almost all cases comprising 40% of breast cancer treatment modalities **(Trayes & Cokenakes, 2021).**

A mastectomy is the surgical removal of all breast tissue from the breast to cure or prevent breast cancer. For women with early-stage breast cancer, mastectomy may be an option as a kind of treatment. There are five main forms of mastectomy: a "simple" or "total" mastectomy, a modified radical mastectomy, a radical mastectomy, a partial mastectomy, and a subcutaneous (nipple-sparing) mastectomy **(Kayali et al., 2021).** In addition, a mastectomy is regarded as a painful experience that causes unfamiliarity with a new body, and unpleasant emotional reactions make patients not equipped to accept such an experience and engage in effective self-regulatory strategies, and this leads to negative emotional reactions such as anxiety and sadness, which results in alteration in self-compassion among such patients **(Semenchuk et al., 2022).**

Breast changes and hair loss are particularly detrimental to body image. A noticeable difference in appearance and lack of symmetry occur when the entire breast is removed. This can negatively impact women's sense of self, feelings of femininity, sexuality, and body image, especially as it is beyond an individual's control. For women with high expectations of physical beauty **(Skórzewska et al., 2021)**. Negative body image inevitably affects women's moods and interpersonal relationships and can lead to social stigma and subsequent social isolation **(Ghaffari et al., 2020)**.

Body image is the image a person may have of their physical appearance and functional potential, all of which are created based on an individual's beliefs. Body image includes two main aspects: (1) cognitive, which includes the person's assessment of their body size, and (2) emotions/imagination, which includes the person's imagination about their body shape. Body image changes are a problem caused in most cases of mastectomy due to changes in body shape after treatment **(Izydorczyk et al., 2018; Kowalczyk et al., 2019)**.

Numerous studies have shown that self-compassion is an essential predicator for perceptions of one's body image and level of satisfaction. Self-compassion is "a non-judgmental understanding of one's pain, failure and inadequacy so that one's lived experience is seen as part of the larger human experience"**(Yousefi & Masoumi, 2021)**. The social mentality theory, based on concepts from evolutionary biology, neurobiology, and attachment theory, postulates that social processing systems can provide internal cues-reactions that facilitate self-soothing. For several reasons, self-compassion is a potential factor that lowers body dissatisfaction and fosters a healthier body image **(Brown et al., 2020)**.

The rapid physical changes during breast cancer treatment can affect women's perceptions and beliefs about their bodies and increase psychological distress. Women who experience these physical challenges might use their innate resources, such as self-compassion, as a means of coping **(Davis et al., 2020).** Studies of breast cancer survivors demonstrate an inverse relationship between self-compassion, body image disturbance, and psychological distress **(Sebri et al., 2021).**

Perfectionism is another variable that has an impact on body image formation. Perfectionism is defined as an individual's striving to set complete and unattainable standards of performance accompanied by tendencies for overly critical evaluation **(Wu et al., 2019).** Adaptive perfectionism refers to achieving high standards that enhance self-esteem. On the other hand,non-adaptive perfectionism is viewed as an attempt to achieve excessively high, unrealistic standards and severe critical evaluation regarding one's performance. Perfectionism is a personality trait characterized by the desire to be perfect, the setting of extremely high performance standards, and the capability to critically analyse one's own and others' behavior **(Pirnia et al., 2020).**

Perfectionism has been considered an essential factor in maintaining body image. Perfectionism is characterized by high standards in all aspects of life, including biological, familial and occupational aspects. They also have to be satisfied with their bodies. Social perfectionism is a predictor of body dissatisfaction. There is a relationship between perfectionism and body image **(Rasooli & Lavasani, 2019).**

Psychiatric and mental health nurses play crucial roles in providing psychological support for women with mastectomy to help patients counteract symptoms such as anxiety, shame and feelings of uselessness that occur after mastectomy. In addition to, cultivating self-compassion regarding body image concerns which help to reduce body dissatisfaction and body shame, with increased perfectionism **(Faria et al., 2021)**. Also, help women with mastectomy to transform negative thoughts toward self and boy image into positive ones, increase connection to the present moment through mindfulness, increase willingness by actively embracing all private events both painful and joyful, and setting goals, guided by values, and taking effective action toward self **(Zhao et al., 2021).**

Significance of the study:

According to the World Health Organization, breast cancer became the most prevalent cancer in the world by 2021, accounting for 12% of all new cancers diagnosed worldwide each year. In the United States, it is anticipated that 281,550 new cases of invasive breast cancer will be discovered in women in 2021 **(Dorling et al., 2021)**. In 2020, it was approximately 42 % of 7.8 million worldwide women with breast cancer have mastectomy surgeries **(World Health Organization (WHO), 2021)**. In Egypt, by the end of 2020, approximately 38% of female 2.2 million breast cancer patients would have had a mastectomy **(Abo- ELkassem, 2021)**.

Aim of the stuyd:

This study aimed to explore relation between self-compassion, perfectionism and body image satisfaction among women with mastectomy.

Research questions

Q₁: What is the level of self-compassion among women with mastectomy?

Q₂: What is the level of perfectionism among women with mastectomy?

Q₃: What is the level of body image satisfaction among women with mastectomy?

Q₄: Is there relation between self-compassion, perfectionism and body image satisfaction among women with mastectomy?

Subject & Methods

Research design:

A descriptive correlation research design was utilized to achieve the aim of this study.

Research Setting

The current study was conducted at a general surgery outpatient clinic at Benha University Hospital in Benha city. Qalubia Governorate, which is affiliated to the Ministry of High Education.

Research Subject:

Sample type: Purposive sampling of women with mastectomy.

Sample size: One hundred patients participated (n= 100). The sample size was calculated using the MedCalc software program (www.medcalc.org/index.php) at 5% α error (95% significance) and 20% β error (80% power of the study).

Sampling Criteria: The selected participants in this study were chosen according to the following criteria:-

Inclusion criteria include:

Adult females; 20 years old and more

Had unilateral or bilateral mastectomy

▪ Able to communicate

Willing to participate in the study

Exclusion criteria include:

Had any psychiatric illness or receiving any psychiatric treatment

Tools of Data Collection: Four tools were used in this study:

Tool I: **Structured interview questionnaire:** It was developed by researchers to assess patients' socio-demographic characteristics and medical history related to mastectomy surgery which included age, marital status, educational level, residence, family income, type of mastectomy surgery and period of surgery.

Tool II: Self-Compassion Scale (SCS): This scale developed by **Neff, (2003)** to measure self-compassion. It consisted of 26-item rated on a 5-point Likert scale ranged from (1= almost

never) to (5 = almost always). The scale divided into six sub-scales 5 items to measure self-kindness, 5 items to measure self-judgment, 4 items to measure common humanity, 4 items to measure isolation, 4 items to measure mindfulness, and 4 items to measure over identification. Before computing the subscale mean, negative subscale items like self-judgment, isolation, and over identification are reversed.

Scoring system:
Low self-compassion: <50%
Moderate self-compassion: 50 % - 70%
High self-compassion :> 70%

Tool III: Perfect Scale: This scale developed by **Slaney et al., (2001)**. It consisted of eight-item rated on a 7-point Likert scale ranged from 1=strongly disagree to 7=strongly agree. The scale divided into two subscales: Standards and Discrepancy. Discrepancy gauges the apparent difference between personal expectations and how well those standards are satisfied.

Scoring system:
Each subscale's total score is computed and ranged from 8 to 56. High scores on standards reflect adaptive perfectionism whereas high scores on discrepancy show maladaptive perfectionism.

-Adaptive perfectionism: 70% or more.
-Maladaptive perfectionism: less than 70%.

Tool IV: Body self-image scale: This scale was adopted by **Cash et al., (2004**) to measures appearance-related components of body image. It consisted of a 34-items rated on a 5-point Likert scale ranging from 1= strongly disagree to 5= strongly agree. The scale divided into five subscales,7 items to measure appearance evaluation, 12 items to measure appearance orientation, 9 items to measure body area satisfaction,4 items to measure overweight preoccupation and 2 items to measure self-classified weight.

Scoring system:
The total scores ranged from 34 to 170. Higher scorers have more positive and satisfied with their appearance, while lower scorers are more likely to be dissatisfied with their physical appearance**.**

-Satisfactory with appearance: 70% or more.
-Unsatisfactory with appearance: less than 70%.

The preparatory phase:

An extensive literature related to the study area was done including electronic dissertation, available books, and articles doctoral dissertation, research and peer interaction and idea from external sources and periodical to formulate knowledge base relevant to the study area and to get a clear picture of all aspect related to the research topic.

Reliability& Validity of the tools:

The adapted tools were tested for their reliability by using Cronbach's alpha coefficient test in the SPSS program version 24 by a statistician. It was carried out on 10 patients and gave the following results: Internal consistency reliability (Cronbach'sα) for Scale of Self-Compassion emerged as good (.0.847), Perfect Scale emerged as good (.0.836), Body self-image scale emerged as excellent (.0.910). A group of five experts in the psychiatric nursing ascertained the content's validity; their opinions were elicited regarding the tools' format, layout, consistency, accuracy, and relevancy.

Administrative approval:

Official permission letter was obtained from the Dean of faculty of nursing to the director of Benha University Hospital to conduct the proposed study. The objectives and the nature of the study were explained and then it was possible to carry out the study with minimum resistance.

Ethical Considerations

The questionnaire was filled out anonymously, and the data was kept confidential and used for research purposes only. Participants were informed about the purpose of the study, the length of the questionnaire, the identity of the researchers, and how the data

would be stored in a section at the beginning of the form. Written informed consent was obtained before the participants completed the questionnaire.

Pilot Study:

After the tools have been designed, they were tested through a pilot study, which was done before embarking on the field work to check the clarity and applicability of designed tools and to estimate the time needed to complete its items. It was carried out on 10 patients (10% of the sample size), who were included in the final study sample. According to the result of the pilot study, no changes were required.

Fieldwork:

Researchers explain purpose, aim and tools of data collection and process of the study to the patients. Review of recent national and international related literature using journals, periodicals, textbooks, internet and theoretical knowledge of the various aspects related to the topic study. The preparation of data collection tools was carried out over four months from 18th February 2021 to 18th June 2021. The study setting was visited by the researchers two days/week (Sunday & Tuesday) from 9 Am to 12 Pm. The researchers prepared the tools and translated them into Arabic to become ready for use. The researchers distributed the data collection forms with instructions on how to fill them. The time required to fill the questionnaire sheet was from 20 to 25 minutes. The filled forms were collected in time and revised to check their completeness to avoid any missing data.

Statistical Analysis

The collected data were sorted, categorized and the results were displayed in a table. Data were evaluated using the Statistical Package for Social Sciences on a suitable personal computer (SPSS Inc; version 21; IBM Corp., Armonk, NY, USA). The one-sample Kolmogorov-Smirnov test was used to determine the normality of the data. Numbers and percentages were used to describe

qualitative data. Continuous variables were presented as means ± standard deviation. Pearson correlation coefficient was used to measure the linear correlation between the two data sets. A linear regression model is a linear approach to modeling the relationship between a scalar response and one or more explanatory variables. Results were considered significant if the probability of error was less than 5% ($p < 0.05$) and highly significant if the probability of error was less than 0.1% ($p < 0.01$).

Results:

Table (1) shows that, mean age of the studied patients is (43.80±6.87). Most of the patients (85%) are married. Less than half (47%) of them are holding secondary school. About two thirds (67%) of them have sufficient family income; less than two thirds (60%) of them have unilateral type of the surgery. Nearly one third (32%) of them their mastectomy performed since more than 12 weeks.

Table (2) displays that, more than one third (37%) of the studied patients has high self-kindness, less than half (47%) of them have moderate common humanity and (30%) of them have low isolation. Finally, regarding total scale, about half (49%) of the studied patients have moderate self-compassion, more than one quarter (27%) have high level while, nearly to one quarter (24%) of them have low self-compassion.

Table (3) demonstrates that, more than half (59%) and less than two thirds (61%) of the studied patients have maladaptive perfectionism related standard subscale and discrepancy subscale.

Table (4) reveals that, two thirds (66%), less than two thirds (64%), less than two thirds (62%) and less than three quarters (71%) of the studied patients are unhappy with appearance around appearance evaluation, body area satisfaction, overweight preoccupation and self-classified weight, respectively.

Figure (1) reveals that, about two thirds (65%) of studied patients are unhappy with

appearance while, more than one third (35%) of them have satisfaction of appearance.

Table (5) reports that, there is high positive correlation between self-compassion, adaptive perfectionism and body image with p value <0.01**

Table (6) states that, high significant model detected through F test value is 13.908 with p value. 000. This model explains 63% of the variation in body image satisfaction detected

through R2 value 0.63. Also, explains that self-compassion and adaptive perfectionism have high frequency positive effect on body image satisfaction at p value <0.01**. While, maladaptive perfectionism has high frequency negative effect on body image satisfaction at p value <0.01**. On other hand, Bilateral mastectomy and unmarried have slight frequency negative effect on body image satisfaction at p value <0.05*. Meanwhile, age has slight frequency positive effect on body image satisfaction at p value <0.05*.

Table (1): **Distribution of the studied patients according to their characteristics and medical history related to mastectomy surgery (n=100)**

Patients characteristics		N	%
Age:			
30 - <40		22	22
40 - <50		58	58
50 or more		20	20
Mean SD	43.80±6.87		
Marital status:			
Married		85	85
Unmarried		15	15
Residence:			
Rural		39	39
Urban		61	61
Educational level:			
Read and write		11	11
Preparatory school		23	23
Secondary school		47	47
University		19	19
Family income			
Sufficient		67	67
Insufficient		33	33
Type of mastectomy surgery			
Bilateral		40	40
Unilateral		60	60
Period of Mastectomy surgery			
3 - <6weeks		13	13
6 - <9weeks		27	27
9 – 12 weeks		28	28
>12 weeks		32	32

Table (2) Distribution of the studied patients according to their self-compassion domains (n=100)

Domains	High		Moderate		Low	
	N	%	N	%	N	%
Self-Kindness	37	37	38	38	25	25
Self-Judgment	30	30	42	42	28	28
Common Humanity	33	33	47	47	20	20
Isolation	31	31	39	39	30	30
Mindfulness	25	25	45	45	30	30
Over-Identification	25	25	46	46	29	29
Total	27	27	49	49	24	24

Table (3) Distribution of the studied patients according to their perfectionism subscales (n=100)

Subscale	N	%
Standards subscale		
adaptive perfectionism	41	42
maladaptive perfectionism	59	59
Discrepancy subscale		
adaptive perfectionism	39	39
maladaptive perfectionism	61	61

Table (4) Distribution of the studied patients according to their body image domains (n=100)

Domains	Satisfaction of appearance		Unhappy with appearance	
	N	%	N	%
Appearance Evaluation	34	34	66	66
Appearance Orientation	41	41	59	59
Body Area Satisfaction	36	36	64	64
Overweight Preoccupation	38	38	62	62
Self-Classified Weight	29	29	71	71
Total	35	35	65	65

Figure (1) Distribution of the studied patients according to their total body image domains (n=100)
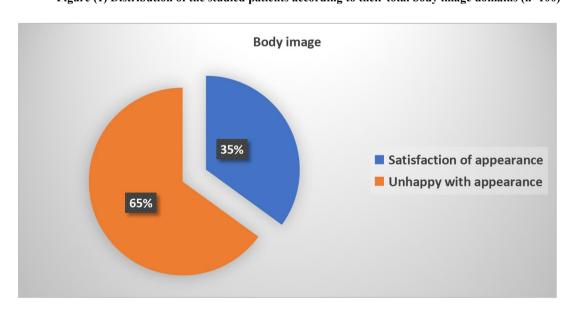
Table (5) Correlations between the studied variables

		self-compassion	Adaptive perfectionism	body image
self-compassion	r.		0.566	0.601
	p		<0.01**	<0.01**
perfectionism	r.	0.566		0.498
	p	<0.01**		<0.01**
body image	r.	0.601	0.498	
	p	<0.01**	<0.01**	

Slight significant <0.05 **high significant if p value <0.01**

Table (6): Multiple Linear regression model for body image satisfaction (n=100).

	Unstandardized Coefficients	standardized Coefficients		
	B	B	T	P. value
self-compassion	.499	.392	7.054	.000**
Age	.199	.241	2.101	.037*
Type of mastectomy (Bilateral)	-.201	.273	2.303	.030*
Marital status (Not married)	-.276	.190	2.664	.032*
Adaptive perfectionism	.399	.246	5.107	.004**
Maladaptive perfectionism	-.372	.228	7.908	.001**

Model		Df.	F	P. value
Regression	**R² 0.63**	5	13.908	.000**

a. Dependent Variable: **Body image satisfaction**
b. Predictors: (constant): **self-compassion, perfectionism, Type of mastectomy, Marital status, Age**

Discussion

A mastectomy can have major consequences on both physical and emotional aspects of women life. Women with breast cancer face threats to their body image after surgery. Body image distress is commonly reported by women after mastectomy and is associated with negative health outcomes, such as decreased quality of life, increased depressive symptoms and anxiety, and impaired sexual function **(Weingarden et al., 2021)**. So, the current study aimed to explore the relation between self-compassion, perfectionism and body image satisfaction among women undergone mastectomy**.**

As regards, the patient's socio-demographic characteristics, the results of the current study concluded that more than half of them were within the age group of 40 to <50 years. This could be attributed to hormonal changes, as this age era was the bearing phase, which was typically connected with several hormonal changes. Furthermore, the result revealed that the majority of the patients were married, less than half of them were holding secondary school, around two-thirds of them had sufficient family income and more than one-third of them were from rural area. This might be due to a lack of information among rural women, who didn't know how to perform breast self-examination to detected any abnormalities early.

These results in accordance with the study conducted by **El Bary et al., (2019)** who reported that more than half of the patients were within the age group of 40 to 49 and were married. While, these results were in contrast to the study conducted by **Yousif et al., (2019)** who stated that the majority of the patients were illiterate or educated till primary. Also, **El Bary et al., (2019)** reported that the majority of the patients were from rural area and had not enough income.

The finding of our study indicated that more than one-third of the studied patients had high self-kindness, less than half of them had

moderate common humanity and about one third of them had low isolation. Finally, regarding total scale, about half of the studied patients had moderate self-compassion, while about one-quarter of them had low self-compassion. These results may be due to high burden of surgery on the patients and loss of society support.

These results supported by the study conducted by **Alizadeh et al., (2018**) who revealed that, mean score of the studied patients related to Self-Kindness was 71.84±5.08, Self-judgment was 61.00±4.77, common humanity was 31.39±4.43 and total scale was 86.88±25.81. While, these results were in contrast to the study conducted by **Salabifard et al., (2021)** who reported that more than two-thirds of patients had high self-compassion.

According to perfectionism subscales, the result of the current study revealed that more than half of the studied patients had maladaptive perfectionism associated standard subscale and discrepancy subscale. This might be because the result of the current study reported that two-thirds of the studied patients had body image dissatisfaction as patients after mastectomy display high level of body dissatisfaction and tend to be a perfectionist. This result was in agreement with a study conducted by **Rasooli & Lavasani, (2019)** who stated that less than two-thirds of the patients had maladaptive perfectionism conducted with body image dissatisfaction.

In addition, the current study illustrated that about two thirds of the studied patients were unhappy with appearance and only about one third of them had satisfaction of appearance. This may be due to that mastectomy has negative effects on body image and women with mastectomy have been found to have lower body image scores (they felt less attractive, disliking their appearance, did not feel whole and being dissatisfied with their breast and scar). This result was in accordance with the study performed by **Olfatbakhsh et al., (2018)** who showed that the mastectomy group had a lower level of body image.

Moreover, **Koçan & Gürsoy, (2016)** reported at their study that participants also said

that they felt that they were missing half of themselves as individuals and as women. The woman indicated a preference for clothing that covered her missing breasts. Some participants said that their relationship with their husbands was not like before, and they give up from social interaction. All of the women rated their own appearances negatively (ugly, missing, and weird). Furthermore, similar to the study by **Faria et al., (2021)** who stated that more than two-thirds of the studies sample presented mastectomy as a technique that worsens women's body image, sexual function and quality of life**.**

Regarding correlation between self-compassion, adaptive perfectionism and body image, the result of the current study reported that, there was high positive correlation between self-compassion, adaptive perfectionism and body image. The mediating role of self-compassion had been examined between perfectionism and body image this might be due to the self-soothing effects of self-compassion which shift one's affective state from negative to positive and increase the feeling of security and it may alleviate negative outcomes associated with maladaptive perfectionism. These results cohort with the study conducted by **Sherman et al., (2017)** who showed that increased body image disturbance was moderated by self-compassion and investment in appearance. Also, **Yousif et al., (2019)** revealed that a significant relationship was found between body image and self-compassion and adaptive perfectionism of women with mastectomy through Pearson moment correlation. Moreover, there was a statistically significant interaction between body image and appearance investment.

Also, explained that self-compassion and adaptive perfectionism had a high frequency positive effect on body image satisfaction. While maladaptive perfectionism had high frequency negative effect on body image satisfaction. This might be because there was positive relationship between self-compassion and body image which indicated that a higher level of self-compassion was associated with greater body image satisfaction. Self-compassion was identified as a potential variable that can reduce body dissatisfaction and

promote healthy body image among individuals. Also, adaptive and maladaptive perfectionism's associated with body image satisfaction where there was a negative relationship between adaptive perfectionism and body image dissatisfaction and a positive relationship between maladaptive perfectionism and body image dissatisfaction. The relationship could be explained by adaptive perfectionists' ability to accept falling short of those high standards, resulting in a low level of dissatisfaction. Healthy perfectionists always enjoy their efforts and feel proud of themselves, whereas maladaptive perfectionists are more likely to feel shame and guilt.

On the other hand, bilateral mastectomy and being unmarried had a slight frequency negative effect on body image satisfaction. This was related to women who had a negative body image after losing a breast and experiencing negative emotions due to the physical changes resulting from the operation and women regarded their appearances as deformed, irregular, non-proportional, and unattractive after mastectomy. Meanwhile, age had a slight frequency positive effect on body image satisfaction. This was because patients' feelings of satisfaction with body image differed with their age.

Conclusion

Based on our current study, it was concluded that about half of the studied patients had moderate self-compassion. Also, more than half of them had maladaptive perfectionism related standard subscale and discrepancy subscale. In addition, about two-thirds of the studied patients were unhappy with appearance and one-third of them were satisfaction of appearance. Moreover, explained that improved self-compassion and adaptive perfectionism had high frequency positive effect on body image satisfaction. While, maladaptive perfectionism had high frequency negative effect on body image satisfaction.

Recommendations:

• An assertive training program should be given to women with mastectomy and their families to enhance their coping strategies and consequently enhance their satisfaction with body.

• Implementing psycho-educational program on developing self-compassion and improving adaptive perfectionism of women after mastectomy.

• Psychological nursing intervention should be integrated as a part of the daily routine nursing care for the management of women with breast cancer.

• Nevertheless, future studies should test impact of emotional intelligence on body image acceptance.

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