

Impact of Positive Body Image on Eating Attitude and Social Anxiety of Young Adults, Post Pandemic

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ABSTRACT

The COVID-19 pandemic has impacted the mental health as well as the well-being of individuals worldwide. It caused major lifestyle changes in many individuals. The emphasis on size-zero figures by the Western culture has influenced people across the globe, although now there are emerging movements focusing on appreciating and accepting one's body for the way it is. This study aims to understand the impact of positive body image on the eating attitude and social anxiety of young adults, post-pandemic. This quantitative method of study consisted of 151 participants, who were aged between 18-26 years. The tools administered were the Body Appreciation Scale-2 (BAS), Three-Factor Eating Questionnaire-18 (TFEQ), Social Avoidance and Distress Scale (SADS), and a self-constructed scale to identify any major lifestyle changes post-pandemic. The results showed a significant negative correlation between positive body image and eating attitude, as well as a significant negative correlation between positive body image and social anxiety. This study showed higher body positivity among the young adult participants, which could indicate a possible change in the way the young adults perceive their bodies has differed with time.

Keywords: *Positive Body Image, Eating Attitude, Social Anxiety, Pandemic*

COVID 19 pandemic has impacted our mental health as well as the well-being of individuals world-wide. It is common for an individual to feel worried or stressed over a perceived or actual threat. Pandemic caused a lot of confusions in the minds of people, where there was uncertainty regarding everything happening around. People lost their jobs and their loved ones; the pandemic definitely has created dysfunction in several areas. And one of the major areas is mental health. The lifestyle, mental health and quality of life post pandemic has considerably changed among people (Park et al., 2021).

Positive body image

Body image is the way one perceives their body, it is a combination of thoughts and feelings. The concept of an ideal figure for women goes back to the Victorian era, it continued to influence the western culture where the models promoted the concept of size zero. Body image could either be negative, positive or an amalgamation of both. Body image is described as a “subjective concept of physical appearance based on self-observation

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and the reactions of others" (Grogan, 1999; Muth & Cash, 1997). Evaluating one's own body subjectively through associated attitudes and feelings is called body image (Duncan, Woodsfield, O'Neill, & AI-Naked, 2002). This perception could be influenced by both personality as well as the environment.

When a person accepts and appreciates the body the way it is, then it is known as body positivity. It is to accept the body the way it is, with all the flaws. Similarly, some people experience body dissatisfaction, when they perceive their body negatively. This could possibly lead to unhealthy lifestyle such as unhealthy eating behaviors to control weight. Media, friends, family, and other factors could influence body image. Society has always had beauty standards that were to be met, in order to achieve an ideal figure. The western culture has always emphasized the size zero figure, through the models portrayed through the media. Anyone could experience negative body image regardless of their age, gender, culture, etc. The body positive movement was formed to replace these ideal figures and embrace the natural figure that consists of different shapes and sizes (Convertino, et. al, 2016).

Shahi et al. (2023) conducted a focus group discussion and an in-depth interview to recognise the social and psychological outcomes of body image. The study found a significance of body image in Indian context when compared to the western culture, and one reason for this could be the digital environment. Family, peers, media, lookism culture also impacts body image.

Rajagopalan (2014) conducted a study on college women aged between 17-22 years of age to understand body image concerns. Results showed that the participants had insecurities about their body. Indian girls have different standards of body image when compared to the western culture. The results also showed that women with higher BMI received pressure from family and media, and also considered a slim figure to be attractive and successful. Similarly, greater levels of socio-cultural factors that influenced in becoming thin, led to greater dissatisfaction with the body image.

Khalaf et al. (2021) conducted an online survey on 237 participants aged between 18- 35 years using the quantitative technique to understand the relationship between body image and self-esteem. The results found a negative correlation between positive body image and the number of social media accounts. Also, body image is positively related to self-esteem.

Eating attitude

Eating is one of the most important activities that an individual does to sustain their life. Eating attitude is defined as "one's beliefs, thoughts, feelings, behaviors and relationships with food" (Alvarenga et al., 2010). One does not always eat to satisfy physical hunger, but when in stress they might turn to food for comfort and relief, or sometimes consider food as a reward. This could be known as emotional eating. It could come instantly with a craving for sugary or junk foods. This kind of eating is not satisfying, this mindless eating could lead to shame, guilt, and regret (Smith et al., 2019). Cognitive restraint refers to the intentional control over one's food consumption or intake, with the goal of bringing change to the body weight or shape. It could involve tracking the calories, food intake restrictions or any other rules related to eating. It is commonly seen in individuals who aim to reduce their weight or those who prevent weight gain. Uncontrolled eating, is also known as disinhibited eating, where the individual does not involve in eating behaviors due to hunger, or nutritional

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requirements rather by emotional or any other external factors which could be boredom, stress etc.

Izydorczyk et.al. (2019) conducted a study to understand the risk factors of restraint and compulsive eating in young adults. The conclusions were that, the impulsivity and resilience have an impact on emotional eating as well external eating. Self-esteem was found to be a psychological intervening variable that generates unhealthy eating attitudes.

Social anxiety

One of the most commonly found anxiety disorders is social anxiety disorder, where an individual feels difficulty in interacting with other people due to fear of being judged or evaluated. This fear could hinder functioning in several areas of life, such as school, work, where the individual finds it very difficult to talk with people, eat in public spaces, go to places alone, etc.

The Heimberg model of social anxiety given by R.M. Rapee and R.G. Heimberg (1997) suggests that people with a fear of interacting with others, have a core belief that others are inherently critical and that positive evaluation from others is essential. The mental representation related to the appearance and behavior which could potentially lead to social anxiety has physiological, cognitive, and behavioral components. Individuals with social anxiety have negative self-beliefs that are mainly focused on their perceived flaws in social skills or personality. They also tend to have negative beliefs about how others perceive them, they consider others as critical and judgemental. Which results in behaviors such as avoiding social situations, rehearsing the conversations, practicing eye contact (safety behaviors) that helps in reducing their anxiety and fear of occurrence of negative outcomes. Jefferies and Ungar (2020) conducted a research study to recognise the prevalence of social anxiety in young adults of seven countries. Findings indicated that there are no gender differences, but varied according to the age, country, work status, level of education, and the location of the participants. Thus, the results showed that social anxiety is a concern for young adults across the globe.

Purden et al. (1998) conducted a study to understand the social anxiety experienced by college going students. The results indicated that most of them experienced symptoms that were related to anxiety, also, those participants who had higher levels of anxiety were the ones more likely to judge others who appeared to be anxious to be less attractive, having lesser character strength and more compassionate.

METHODOLOGY

Sample

The sample chosen for the current research is the young adult population from India, between the age of 18-26 years. The sample size was 151 participants, among which there were 51 male and 100 female participants.

Measures

This research study measures the body image, eating behavior, and social anxiety of the selected population.

- **Body Appreciation Scale 2 (BAS 2)**- The body image was measured by using the 10-item Body Appreciation Scale developed by Tylka and Wood-Barcalow (2015) is a 5-point Likert scale, where 1 is never and 5 is always. This scale is majorly used to

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study the positive body image of a person. The total scores could range between 5 to 50. Higher the score indicates higher body appreciation or positive body image. The Cronbach's Alpha coefficients for this scale are 0.92 and 0.94 for male and female, respectively (Tylka, 2013).

- **Three Factor Eating Questionnaire-18 (TFEQ-R18)**- the eating attitude is measured by the three-factor eating questionnaire-18, the revised version. It was originally developed by Stunkard and Messick (1985) to measure cognitive restraint of food intake in obese populations. The revised version was developed by Karlsson et al. (2000). It measures 3 aspects of eating behavior: cognitive restraint eating, uncontrolled eating, and emotional eating. The questionnaire has 18 items. Responses to items 1 to 17 are marked on a 4 point likert scale, while in item 18, the individual has to subjectively mark their level of restraint eating on a scale of 1 to 4. The total scores could range between 18 to 72. The Cronbach's alpha for uncontrolled eating, emotional eating and cognitive restraint are 0.84, 0.73 and 0.59.
- **Social Avoidance and Distress Scale (SADS)**- this scale was developed by Watson and Friend (1969) which is used to understand the discomfort, distress, fear, and avoidance in social situations. It is a 28-item questionnaire with true or false as the possible responses. Total scores range from 0 to 28. Scores ranging between 0 to 1 could indicate low social anxiety, average social anxiety could range between 2 to 11, and high social anxiety could range between 12 and above.

Higher scores on this indicates that the individual experiences higher levels of anxiety or distress during social interaction or even while anticipating the interactions.

Self-constructed scale- a set of five dichotomous questions were asked to each participant before administering the standardized questionnaires measuring the study variables. These questions were framed in order to understand if there have been any changes in the participant's lifestyle post pandemic.

Research design

The present study is a correlational research design that aims to determine the impact of positive body image on eating attitude and social anxiety of young adults, post COVID-19 pandemic. The study variables include positive body image which is considered as the independent variable, whereas eating attitude and social anxiety are considered as the dependent variable.

Data analysis

- Descriptive statistics
- Inferential statistics (Pearson Product Moment Correlation)
- Data obtained through the online survey were analyzed using the software Jamovi 2.3.

Procedure

The data for this study was collected through an online survey from the participants aged from 18-26 years. First a consent form was circulated to ensure that the participants were aware of the research being conducted, followed by collecting their demographic data, then the questionnaires consisting of the Self Constructed Scale, Body Appreciation Scale, Three Factor Eating Scale, and Social Avoidance and Distress Scale were administered to the participants.

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RESULTS

Following are the analysis of the data obtained from the participants for studying the impact of body image on eating attitude and social anxiety of young adults, post pandemic. Given below are the combined responses obtained in the self-constructed scale to measure major lifestyle changes post COVID-19 pandemic. Also, the descriptive and inferential statistical data analysis are represented in the tables.

Self-constructed scale

Table 1 represents the responses obtained in the self-constructed scale to measure major lifestyle changes post COVID-19 pandemic.

Post COVID-19 Pandemic-	No. of participants	
	Yes	No
1. Have you noticed any changes in your meal size?	96	55
2. Do you more often attend social events?	62	89
3. Has there been a change in preference for your outfits?	103	48
4. Has there been any changes in physical activities?	98	53
5. Do you consider yourself healthy? (mentally and physically)	81	70

Descriptives

Table 2: Descriptive data of the study variables.

	Age	Positive Body Image	Eating Attitude	Social Anxiety
N	151	151	151	151
Mean	22.3	38.7	35.8	13.2
Median	22	39	35	13
Mode	22	50	35	6
Std. Error Mean	0.145	0.65	0.732	0.575
Std. Deviation	1.65	7.99	8.99	7.06
Variance	2.73	63.8	80.9	49.9
Range	8	36	45	27
Minimum	18	14	17	0
Maximum	26	50	62	27
Skewness	-0.148	-0.64	0.343	0.201
Kurtosis	1.43	0.261	-0.241	-0.902

Table 2 shows the descriptive data of age, body image, eating attitude and social anxiety. The sample size (N) is 151, the mean age is 22.3, with a median and mode of 22. For body image, the mean, median and mode are 38.7, 39 and 50 respectively. With a minimum score of 14 and maximum score of 50. For eating attitude, the mean, median, mode are 35.8, 35 and 35 respectively. With a minimum score of 17 and maximum score of 62. For social anxiety, the mean, median and mode are 13.2, 13 and 6 respectively. With a minimum score of 0 and maximum score of 27.

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Table 3: Correlation analysis between the variables of the study using Pearson Product Moment Correlation.

		Positive Body Image	Eating Attitude	Social Anxiety
Body Image	Pearson's r	-	-	-
	p-value	-	-	-
Eating Attitude	Pearson's r	-0.205*	-	-
	p-value	0.012	-	-
Social Anxiety	Pearson's r	-0.375***	0.240**	-
	p-value	<0.001	0.003	-

Note. *p < 0.05; **p < 0.01; ***p < 0.001

Table 3 represents the correlational analysis of the study variables using Pearson Product Moment Correlation. There is a significant negative correlation between the variables positive body image and eating attitude, with a correlation coefficient (r) of -0.205 and 0.012 level of significance (p). Similarly, there is a significant negative correlation between the variables positive body image and social anxiety, with a correlation coefficient (r) of -0.375 and <0.001 level of significance (p).

DISCUSSION

The aim of this study is to determine the impact of body image on eating attitude and social anxiety of young adults, post pandemic. The sample size was 151 comprising 100 females and 51 males. The age group chosen for this study is the young adult population whose age ranges from 18-26 years. The mean age is 22.3, median and mode being 22.

The responses obtained in the self-constructed scale are represented in table 1, this scale was constructed to understand if there were any major lifestyle changes in the participants post COVID 19 pandemic. The scale consisted of five dichotomous questions, with options 'yes' or 'no' in it. A total of 96 participants reported to notice a change in their meal size post pandemic. 89 participants reported to not attend social events often. 103 participants reported a change in preference for their outfits. 98 participants reported a change in physical activities. When enquired if they considered themselves healthy, 81 participants reported choosing the option 'yes'. Majority of the population reported significant changes in various aspects in their lifestyles post pandemic, these changes could be due to several reasons, such as meal size increasing or decreasing as well as changes in physical activities could be in order to manage their weight or due to health issues, less frequently attending social events could be due to fewer social events organized considering covid protocols, changes in outfit preference due to fast moving fashion or new trends in the field, in general most of the participants perceived themselves to be healthy both physically as well as mentally. Hence, these findings show a significant change in lifestyle post pandemic of the participants.

Hypothesis 1. There will be a correlation between positive body image and eating attitude of young adults post pandemic.

Table 3. represents Pearson Product Moment Correlation used to analyze if there exists any relationship between the variables positive body image and eating attitude. The hypothesis was supported as the results showed a significant negative correlation between positive body

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image and eating attitude ($r = -0.205$, $p = 0.012$, at 0.05 level of significance). Which indicates that higher levels of positive body image could lead to lower levels of unhealthy eating attitude in individuals. Studies have shown a change in lifestyle and quality of life post pandemic (Park et al., 2021), in this study people who experience greater levels of body appreciation may not tend to indulge in emotional eating, uncontrolled eating or restraint eating when they are under stress.

The overall perceptions and thoughts that one has about their own body could be either positive or negative. Generally negative body image could lead to increased stress and also factors such as peers, family, media could be the possible reasons to either experience or to sustain the stress. While positive body image can be beneficial as it could enhance self-confidence, memory, decision making, etc. in an individual (Jain, 2017). Previously, several studies have been conducted to understand the negative impact of covid 19 pandemic on mental health, although there are few studies that have been conducted to understand how the pandemic increased resilience and brought positive impacts on individuals (Yarrington et al., 2021). Also, there are positive body movements and other awareness programs which are mainly propagated through online platforms. Pandemic was a time when most of the people started using online platforms much frequently for getting done various tasks. Similarly, pandemic has led to an increase in screen usage and decrease in junk food consumption (Singh et al., 2021), which indicates significant lifestyle change in people around India. Thus, in the present study the youth population has shown greater body appreciation which thereby gave them a sense of well-being and are not involved in any kinds of unhealthy eating habits such as emotional eating, uncontrolled eating and cognitive restraint in eating.

Hypothesis 2. There will be a correlation between positive body image and social anxiety of young adults post pandemic.

Table 3. represents Person's Product Moment Correlation used to analyze if there exists any relationship between the variables positive body image and social anxiety. The hypothesis was supported as the results showed a significant negative correlation between positive body image and social anxiety ($r = -0.375$, $p = < 0.001$ at 0.05 level of significance). This indicates that higher levels of positive body image, leads to lower levels of social anxiety in young adults post pandemic. The results could be attributed to the fact that people who experience a greater positive image of their body could feel less anxious when they are to interact with others, they might be confident to be the way they are in front of others and do not worry unnecessarily comparing their appearance to that of others.

Studies have shown that an increase in body image could lead to an increase in self-esteem (Khalaf et al., 2021). Similarly, studies have also shown that individuals who experience lower levels of social anxiety, tend to have higher levels of self-esteem (Murad, 2019). Findings from these studies could show that having a higher positive image of one's appearance can lower the anxieties experienced during social situations such as while interacting with other people. According to the self-objectification theory given by Fredrickson and Roberts, 1997, an individual constantly monitors their own body and its outward appearance, which can lead to shame, eating disorders and anxiety. Clarks and Wells (1995) in their social model of anxiety stated that individuals with social anxiety have negative self-beliefs that are mainly around their perceived flaws in social skills, and how others might judge them. Therefore, individuals with higher levels of body appreciation,

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who accept their body for the way it is, would not constantly worry about how it appears to a third person, which could thereby decrease anxiety in them.

Hence, the overall findings obtained from this study indicates that an individual who experiences higher levels of body appreciation (positive body image), tends to have lower levels of unhealthy eating attitude which includes emotional eating, uncontrolled eating and cognitive restraint eating. Similarly, those who experience higher levels of positive body image experience lower anxiety in social situations, such as they do not avoid people nor do they experience distress while interacting with others.

There are few implications that future researchers could consider:

- A qualitative analysis could be conducted to understand major lifestyle changes post pandemic.
- Gender differences could also be studied to understand if gender has any role in determining the relationship between the variables.

Limitations

The limitations of the present study are:

- The study did not include BMI of the participants.
- Qualitative data collection could have been employed for self-constructed scale, to understand the responses in detail.

CONCLUSION

The main objective for the research study was to determine if the pandemic has affected the body image, eating attitude, and social anxiety of young adults. Since they are exposed to online media and are aware of the emerging trends in the area of body image, are there any significant impacts of this awareness related to their appearance on their eating attitude and ease while interacting with others or in a social setting. Present research study showed few changes in lifestyle of young adults post-pandemic, such as changes in meal size, attending social events, preference of outfits, physical activities and general health. A significant negative correlation between positive body image and eating attitude of young adults post-pandemic as well as, a significant negative correlation between positive body image and social anxiety of young adults post-pandemic was found. Thus, the findings of the present study shows that individuals having a higher level of positive image regarding their body tend to have lesser unhealthy eating attitudes such as emotional eating, uncontrolled eating, and cognitive restraint in eating. Also, having a positive image of one's appearance could reduce anxiety experienced in social situations.

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Conflict of Interest

The author(s) declared no conflict of interest.

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