

## Social Physique Anxiety and Disordered Eating Attitude: A Correlational Study Amongst the Physically Active Indian Youth

Achint Kaur Kalra<sup>1\*</sup>, Dr. Lokesh L.<sup>2</sup>

### ABSTRACT

This study examines the relationship between Social Physique Anxiety and Disordered Eating Behaviour in an active Indian population. The sample population consisted of people who regularly exercise and are between the ages of 17 and 24. The study uses a sample of 107 people. Purposive sampling was used to choose the sample. Two scales were used, namely: Social Physique Anxiety Scale (SPAS) authored by Hart et al. and Disordered Eating Attitude Scale (DEAS) by Alvarenga et al. The results showed that both social physique anxiety and disordered eating attitude were higher in females in the given sample when compared to men. Social physique anxiety and disordered eating attitude demonstrated a moderately positive correlation ( $r = .465$ ). This indicates that social physique anxiety and disordered eating attitude are correlated. The variables were also checked for prediction using linear regression and demonstrated a good prediction value with  $p < 0.05$  and R square value of .209. There was no significant correlation found between duration of workout and social physique anxiety ( $p = .786 > 0.05$ ) or disordered eating behavior ( $p = .414 > 0.05$ ). This concluded that social physique anxiety and disordered eating attitude has no relationship with the duration of workout done per day. Similarly, contrary to previous researches, there was no significant correlation found between Body Mass Index (BMI) of males and females and social physique anxiety ( $p = .227$ ) or disordered eating attitude ( $p = .135$ ) indicating that these behaviours can occur despite one's body mass index indicating psychological causes. The results indicate that there is a strong prevalence of social physique anxiety and disordered eating attitude amongst people who workout, but there is no significant correlation between duration/frequency of workout and the given variables. The results showed moderately positive correlation between social physique anxiety and disordered eating attitude, which was confirmed by a linear regression relationship seen between the two.

**Keywords:** *Social Physique Anxiety, Disordered Eating Attitude, Eating Disorder*

Disordered eating refers to endorsing unhealthy eating-related behaviours without fulfilling the criteria for an eating disorder is defined as disordered eating (RebaHarrelson et al., 2009). The prevalence of disordered eating patterns has been on a rise in every age group, irrespective of one's ethnicity and race. In a recent research by Reba-Harreleson et al. (2009), it was concluded that only a third of women (31.1%) without

<sup>1</sup>Department of Psychology, Kristu Jayanti College, Bengaluru

<sup>2</sup>Department of Psychology, Kristu Jayanti College, Bengaluru

\*Corresponding Author

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## **Social Physique Anxiety and Disordered Eating Attitude: A Correlational Study Amongst the Physically Active Indian Youth**

a history of binge eating or anorexia nervosa advocating lifelong purging behaviour and over 40% reporting having used weight loss pills to lose weight. Not only disordered eating attitude is associated with a wrong relationship with food, but it also consumes a lot of time and effort in deciding what to eat and what not to eat.

Disordered eating and eating disorders are very often seen as the same thing. However, there are many differences between them. Eating disorder is a clinical disorder listed in DSM-5 and ICD 10. Constrictive, persistent, and severe dieting (e.g., fasting, purging, diet pills, laxative abuse) and strenuous exercise are examples of disordered eating behaviours (Gagne et al., 2012; Hill, Masuda, & Latzman, 2013).

Other signs of disordered eating involve obsessively exercising, avoiding a wide variety of food groups without a medical justification, counting calories at every meal, and taking part in compensatory behaviors like exercising to make up for the food eaten. Disordered cognitions such as guilt, disgust, or sadness after eating a meal or thinking analyzing the number of calories in each meal were also a part of disordered eating. These thoughts can lead to harmful behaviors like purposefully avoiding meals or employing laxatives or diet pills in order to regulate your weight (Yu & Tan, 2016).

The extent and intensity of distress that changes to food, weight, or behavior elicit is primarily what separates disordered eating from an eating disorder that can be diagnosed. A person is more likely to be identified with an eating disorder if they exhibit "disordered eating behaviors" on the majority of their days, or if they feel upset and anxious when they are unable to use them or when they have decided not to. This means that continuous patterns of disordered eating can lead to eating disorders.

However, eating disorders entail many other symptoms like trouble in interpersonal relationships, which might be present before the symptoms of disordered eating (Derenne & Lock, 2016). In Australia, eating disorders and disordered eating are projected to impact 16.3% of the overall population. (Hay et al., 2015).

A persistent disturbance in food habits that affects one's physical and/or mental health is what defines eating disorders. A lot of scientific studies have been done in an effort to comprehend eating disorders because they are so complex, but the precise biological, behavioural, and social causes of the illnesses are still unknown. The most common time for eating disorders to start is in adolescence or early adulthood, but they can also start in infancy or later in life.

Anorexia nervosa, bulimia nervosa, binge eating disorder, ARFID, and other specified feeding or eating disorders (OSFED) are the different types of eating disorders listed in the DSM-5.

People with anorexia nervosa avoid food, drastically restrict food intake, or consume very little of a select few foods. They might also keep weighing themselves. They may perceive themselves as overweight even when they are critically underweight (Ergüney Okumuş, 2020).

People with bulimia nervosa experience recurrent and frequent episodes of eating excessive quantities of food while also feeling helpless to regulate these episodes. Following a binge

## **Social Physique Anxiety and Disordered Eating Attitude: A Correlational Study Amongst the Physically Active Indian Youth**

eating episode, people may engage in compensatory behaviors like fasting, extreme laxative usage, forced vomiting, excessive exercise, or a mix of these (Bhaskaran Sathyapriya et al., 2018).

Eating a quantity of food that is considerably greater than the average person would consume in a comparable period of time under comparable circumstances is referred to as binge-eating. In contrast to bulimia, periods of binge eating are not accompanied by a fasting state, overexertion, or purging. People with binge eating disorders are frequently overweight or obese as a consequence (Berkman et al., 2015).

The avoidance or restriction of food intake is a hallmark of avoidant/restrictive food intake disease (ARFID). The DSM-IV diagnosis of feeding disorder of infancy or early childhood was superseded by this one, which expanded the diagnostic criteria to include adults. People with ARFID aren't interested in eating, or they avoid food because they've had a bad encounter with it or because of its sensory properties (Brytek-Matera et al., 2022).

The DSM-5 states that people who are significantly distressed fall under the group of other specified feeding or eating disorder (OSFED). This is brought on by symptoms that are comparable to those of conditions like anorexia, bulimia, and binge-eating disorder but do not fully satisfy the requirements for a diagnosis of one of these conditions (Jenkins et al., 2021).

Even though disordered eating is a prevalent symptom in all of the above-mentioned eating disorders, there are differences which exist. Apart from behaviours like dieting and purging, there are other symptoms attached to disordered eating, which involves body weight and shape being central to self-esteem or self-worth (Mantilla & Birgegård, 2015), negative body image or disturbance in perception of body, rigid exercise routine combined with extreme guilt or anxiety if this routine is not followed and recurrent episodes of night eating. Orthorexia is another symptom which is seen in disordered eating attitude. It is an obsession with healthy eating, which can lead to restrictive eating patterns and social isolation.

As a result of disordered eating, one can even develop body dysmorphic disorder, a mental health condition in which a person is preoccupied with perceived flaws in their appearance, leading to disordered eating attitude.

Disordered eating has a wide range of complicated causes. Factors that may be involved include Body image distortion and unhealthy food relationships can result from culture and society, including star culture, media, social media, and online influencers. According to research (Forney & Ward, 2013), women's perceptions of the adjudicative norms of peer thinness and peer acceptability had an additive impact on moderating the link between body dissatisfaction and disordered eating.

In our culture, many unhealthy eating habits are accepted as usual. This is partially a result of the impact of the fast food and diet sectors. This is also corresponding to the Thin-Ideal Internalization Model. The degree to which a person mentally "buys into" socially specified standards of attractiveness and exhibits behaviors intended to approximate these standards is known as thin-ideal internalization (Thompson et al., 1999). According to studies, internalization causes a higher degree of body dissatisfaction and predicts increased dieting (Stice, Mazotti, Krebs, & Martin, 1998).

## **Social Physique Anxiety and Disordered Eating Attitude: A Correlational Study Amongst the Physically Active Indian Youth**

In research done by Roberts (2006), Obsessive-compulsive disorder (OCD), depression, and anxiety are a few mental health disorders that may have an impact on the development of disordered eating patterns. Disordered eating habits, such as appetite loss or consuming for comfort, can start to develop as a result of stress or difficult life changes. Research by Breland et al. (2017) conclude that trauma can increase a person's susceptibility to eating disorders and disordered food. This encompasses bullying, rape, assault, domestic violence, and physical or sexual abuse. Disordered eating can help people with past experiences of trauma numb their feelings, feel in command of their bodies, or block out unpleasant memories.

### ***Self-determination theory and disordered eating attitude:***

When discussing disordered dietary habits, it is important to consider how human behaviour came to be. Self-Determination Theory and other broader theories of motivation and personality development can be used to handle the problem of eating regulation.

SDT provides a broader view of how people behave and has extensive uses in a variety of settings, including education, exercise, work, relationships, psychopathology, and psychotherapy. According to Verstuyf et al. (2012), SDT might also offer a conceptual foundation for comprehending the numerous behaviors associated with eating regulation. In particular, the idea of fundamental psychological needs as it is presented in SDT can help us better understand the motivational mechanisms underlying both adaptive and disordered types of eating control.

The three fundamental needs that SDT has found are competence, relatedness, and autonomy. A desire to feel effective and capable of attaining desired results is reflected in the concept of competence (Ryan, Patrick, Deci, & Williams, 2008). According to some research, the etiology of disordered eating behaviors may be linked to unmet basic needs or basic needs that interfere with autonomy, competence, and relatedness. Many other theories of human drive that have been used to study eating management have stressed the problem of self-efficacy, which is not always defined as an inherent need. The creation of rigid behavioral routines is another compensatory behavior suggested by SDT. Rigid behavior patterns may be identified in the setting of eating regulation as having a severe restriction on food types, calories, and portion sizes (Verstuyf et al., 2012).

According to Diehl et al. (1998) social physique anxiety (SPA) is strongly linked to various body image variables deemed to be essential in understanding eating disorders. However, SPA has not been examined closely in relation to eating disorders. The study's findings suggest that social physique anxiety may be a helpful construct in comprehending eating disorder symptoms in female undergraduates.

Social physique anxiety is a feeling of distress associated with the perceived evaluation of one's physical self (Frederick & Morrison, 1996). This concept has been linked to a number of exercise-related constructs, such as a sense of self perceived ability, and the exercise environment that people prefer. A series of research is done on studying social physique anxiety and perfectionism, motivation to exercise, perception towards oneself and overall well being of a person. SPA is defined by a desire to manage one's physical appearance and steer clear of the guilt brought on by potential social rejection (Leary, 2007).

## **Social Physique Anxiety and Disordered Eating Attitude: A Correlational Study Amongst the Physically Active Indian Youth**

A person with a high sense of social physique anxiety exhibits traits like: worry and anxiety about one's appearance, anxiety while working out in a gym or a fitness centre, low self-esteem, overly concerned about one's appearance, checking out themselves and being over critical.

Social physique anxiety not only impacts adults but can also be prevalent in children and teenagers especially because of their changing bodies and direct contact with social systems. Supporting this phenomenon, Niven et al. (2009) concluded that social physique anxiety may rise with age and that the relationship within social physique anxiety and physical exercise depends on the motivation for engaging in physical activity. Social physique anxiety is likely to result in a decrease of physical participation for girls whose motivation to move is mainly body-related.

### ***Self-determination theory and Social Physique Anxiety:***

Self-determination talks about the role of motivation in our life being. According to this theory, motivation is an underlying factor influencing our mental and physical processes. SDT claims that motivation is an expansive term that can be positioned along a continuum spanning from totally independent or non-self-determined to entirely controlling or self-determined. Significant differences to the body's form and shape during adolescence (such as changes in height, weight, muscles, bone structure etc) can cause an individual to worry excessively about how others may perceive their physical appearance, which results in social physique anxiety (SPA; Hart, Leary, & Rejeski, 1989). Avoiding guilt would indicate an internal control process with respect to SDT (Ryan & Connell, 1989). By affecting fundamental psychological requirements, this perspective has the potential to undermine autonomous motivation for exercise (Brunet & Sabiston, 2009).

In a recent study by Sicilia et al. (2016b), SPA negatively predicted the satisfaction of the needs for autonomy, competence, and relatedness. This may cause a variety of shifts in perspective, including:

1. Anxiety about others' opinions of one's appearance will presumably reduce one's sense of competence.
2. A sense of connection with others (i.e., distancing oneself when one feels unappreciated by others)
3. Perceived autonomy, or the conviction that one's choice to exercise was more influenced by others' pressure than by one's own.

In a research studying the relationship between BMI and exercise frequency, and social physique anxiety, conclusions were made that BMI was a significant predictor of SPA and that SPA was a significant predictor of exercise sessions per week. (Auster-Gussman et al., 2021).

In this current research, we aim to relate Social Physique Anxiety (SPA) and Disordered Eating, with the mediating variable of Body Mass Index (BMI) amongst active young adults. This shall determine if young adults who are active (involved in regular physical activity, gym, yoga, running etc) have the tendency to develop Social Physique Anxiety or not. The research will also determine if engaging in disordered eating has any relation with social physique anxiety and vice versa. The objective of the research would be to check if there exists any relation between Disordered Eating Attitude and Social Physique Anxiety with BMI as a moderating variable.

# Social Physique Anxiety and Disordered Eating Attitude: A Correlational Study Amongst the Physically Active Indian Youth

## **METHOD**

### *Aim*

To understand the relationship between Social Physique Anxiety and Disordered Eating Attitudes amongst the active Indian population.

### *Objectives*

- Objective 1: To study the disordered eating behaviour pattern and social physique anxiety amongst active Indian youth.
- Objective 2: To study the correlation between the duration of exercise and disordered eating behavior and social physique anxiety.

### *Hypothesis*

- H1: There is no significant relationship between disordered eating attitude and social physique anxiety.
- H2: Duration of exercise is not related to disordered eating attitude or social physique anxiety.
- H3: There is no significant relationship between Body Mass Index (BMI) and disordered eating attitude, and social physique anxiety.

### *Research Design*

Quantitative research, correlational design.

### **Variables**

#### *Dependent variable*

- Social physique anxiety, Disordered eating attitude

#### *Independent variable*

- Duration of exercise (hours)
- Body Mass Index

#### *Inclusion criteria*

- Participants are between the age group of 17-24
- Participants are Indian residents
- Participants are involved in working out

#### *Exclusion criteria*

- Participants below or above the age of 17-24 were not included
- Participants who previously worked out but are currently inactive are not included
- Participants who are not involved in working out are not included

### *Sampling Technique*

The study sample consisted of 107 participants within the age group of 17 to 24 years. The sample was collected using a non-probability technique. Participants were selected based on their current workout habits using purposive sampling method.

### *Tools used*

To measure the variables, two psychometric scales were used. Social Physique Anxiety Scale (Hart, Leary, & Rejeski, 1989) and Disordered Eating Attitude Scale (Alvarenga et al., 2010).

## **Social Physique Anxiety and Disordered Eating Attitude: A Correlational Study Amongst the Physically Active Indian Youth**

The Social Physique Anxiety Scale (SPAS) consists of 12 questions that are concerned with measuring one's opinions about their body's composition or appearance. One's body's shape and structure are referred to as physique or figure; more precisely, body fat, muscular tone, and overall body proportions. The scale's items all have correlation coefficients of at least .50, with the total of all other items, and Cronbach's alpha was .90, showing strong interitem reliability. Test-retest reliability after eight weeks was .82. The responses were rated on a Likert-type scale from "not at all characteristic of me" to "extremely characteristic of me." A few of the tool's questions (Q1, 2, 5, 8, and 11) were graded in reverse, which helped the instrument perform its assessment function. Higher scores indicated a greater degree of social physique anxiety.

There are 25 questions on the Disordered Eating Attitude Scale (DEAS), and responses are given on a Likert scale. A score of 37 to 190 is the maximum that can be achieved; higher values denote more disordered attitudes. There are five subscales among the questions: Relationship with food, Concerns about eating and body weight gain, Restrictive and Compensating practises, Feelings towards eating, and the Idea of normal eating. The scores of internal consistency was .76. The EAT-26 ( $r = 0.65$ ) and RS ( $r = 0.69$ ) scores had a statistically significant relationship with the DEAS total score. Test-retest reliability had correlation coefficient of 0.9. Adequate internal consistency, convergent validity, and test-retest reliability were evident in the English version of the DEAS.

### ***Procedure***

The above-mentioned questionnaires namely: Social Physique Anxiety Scale (SPAS) and Disordered Eating Attitude Scale (DEAS) were employed under this research. Apart from this, demographic details like age, gender, qualification were collected. A given set of questions related to workout habits like duration and frequency of working out were added to get data regarding the same. The survey package consisted of:

1. Consent statement
2. Demographic details- Name, age, city, gender, education qualification
3. Questions regarding workout habits- 1. How many hours do you workout per day? 2. How many days do you workout per week? 3. Do you consume any kind of protein powder?
4. Psychometric scales- Social Physique Anxiety Scale (SPAS) and Disordered Eating Attitude Scale (DEAS).

The respondents were told to answer each scale's item in full when filling out the scales. The respondents have the choice to withhold their names in order to protect their entire anonymity. Before each area of the form, instructions were stated. Utilising the purposive sampling technique, respondents were chosen. The sample's age ranged from 17 to 24. The responses were collected within the span of 20 days. The data was analysed using Microsoft excel and SPSS.

### ***Data analysis:***

The aim of this research was to study the disordered eating attitude and social physique anxiety in the active population of India. The data collected is presented below.

#### ***Descriptive statistics I:***

A statistical summary that plays a significant role in the quantitative analysis utilised in the study is known as descriptive statistics. Descriptive statistics' fundamental objective is to provide a brief summary of the samples and measurements utilised in a study.

**Social Physique Anxiety and Disordered Eating Attitude: A Correlational Study Amongst the Physically Active Indian Youth**

**Table 1 Descriptive analysis for quantitative variables**

<b>Descriptive analysis for quantitative variables</b>		
	<b>SPAS</b>	<b>DEAS</b>
<b>Valid (N)</b>	107	107
<b>Missing (N)</b>	0	0
<b>Mean</b>	34.15	23.4
<b>Standard Deviation</b>	9.08	3.59
<b>Variance</b>	82.5	396.6
<b>Minimum</b>	14	41
<b>Maximum</b>	57	127

**Graph 1 Scatter plot for quantitative variables**

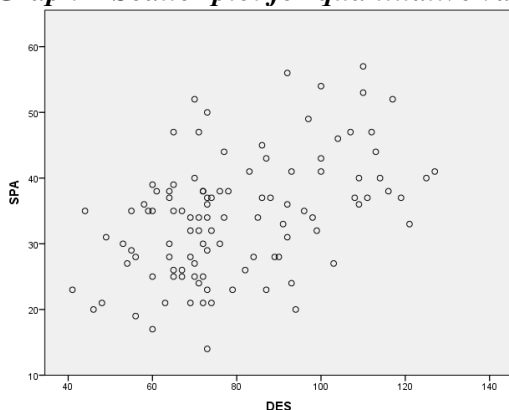


Table illustrates the statistical score analysis of the two tools used in the research namely: - Social Physique Anxiety Scale (SPAS) and Disordered Eating Attitude Scale (DEAS). The statistical values of the scores on the two scales are compared using mean, median, standard deviation, variance, minimum, and maximum values. The mean values for both the scales are 34.15 and 23.4 respectively. Standard deviation being 9.08 and 3.59 respectively. Using the scores, a scatter plot is plotted. A scatter plot is frequently used to find various patterns in data. It can be used to group data points together into categories depending on how tightly they cluster collectively. This indicates the direction of the relationship between the two variables. The graphs indicate a positive relationship between SPAS and DEAS.

**Table 2 Descriptive statistics II:**

	<b>N</b>	<b>Min</b>	<b>Max</b>	<b>Mean</b>	<b>Std. Deviation</b>
<b>SPASmales</b>	54	14	47	31.63	8.208
<b>SPASfem</b>	53	17	57	36.72	9.285
<b>DEASmales</b>	54	41	127	73.11	16.578
<b>DEASfem</b>	53	49	125	86.55	20.869
<b>Valid N</b>	53				

The above tables highlight the descriptive scores of SPAS and DEAS in males and females. Disordered Eating Attitude Scale showed a higher score of mean in females (86.55) when compared to males (73.11). Similar results are seen in Social Physique Anxiety Scale where the mean score of females (36.72) is higher than the mean score of males (31.63). These indicate that females scored higher (indicating high levels) in both DEAS and SPAS scales.



**Social Physique Anxiety and Disordered Eating Attitude: A Correlational Study Amongst the Physically Active Indian Youth**

*Statistical analysis and interpretation of hypothesis 1:*

**Table 3 Correlation table for SPAS and DEAS**

Variables	n	SPAS	DEAS	p
SPAS	107	1.00	.465**	.000
DEAS	107	.465**	1.00	.000

Note:  $p < 0.001$ \*\* is significant at the 0.001 level, SPAS= Social Physique Anxiety Scale, DEAS= Disordered Eating Attitude Scale

The above table indicates the correlation value of .465 (r). This signifies that Social Physique Anxiety and Disordered Eating Attitude are positively moderately correlated. The significance value is .00 which indicates that the correlation is significant at 0.01 level ( $p < 0.01$ ). Hence, H1= There is no significant relationship between disordered eating attitude and social physique anxiety is *rejected*. Hence, the findings confirm the objective of the study.

**Linear Regression Analysis:**

As there was a significant relationship seen between SPAS and DEAS scores, a linear regression was conducted keeping SPAS as the dependent variable and DEAS as the independent variable. Here  $r = .465$  which is the correlational value. R square value is .216 which indicates that 21.6% of the total variation in the dependent variable (SPAS) can be explained by the independent variable (DEAS). Furthermore we can see in the ANOVA table that significance value is .000 which indicates that  $p < 0.0005$ , which is less than 0.05, and indicates that, overall, the regression model statistically significantly predicts the outcome variable. Hence, we can say that DEAS is a good predictor of SPAS.

**Table 4 Model Summary**

Model	R	R square	Adjusted R square	Standard error
1	.465 <sup>a</sup>	.216	.209	8.079

Note: Predictors: (constant), DEAS

**Table 5 ANOVA table**

Model		Sum of squares	df	Mean square	F	Sig.
1	Regression	1892.472	1	1892.472	28.995	.000
	Residual	6853.135	105	65.268		
	Total	8745.607	106			

Note: Dependent variable: SPAS; Predictors: DEAS

*Statistical analysis and interpretation of hypothesis 2:*

**Social Physique Anxiety and Disordered Eating Attitude: A Correlational Study Amongst the Physically Active Indian Youth**

**Table 6 Correlation table of SPAS, DEAS and duration**

Variables	<i>n</i>	SPAS	DEAS	<i>p</i>
SPAS	107	1	.465**	-.029
DEAS	107	.465**	1.00	.080
Duration	107	-.029	.080	1

In the above table, we can see that there is no significant relationship seen between the duration of working out and DEAS or SPAS scores. Duration of workout and SPAS has a correlational value of -0.029, which indicates that there is a negative correlation between both the variables however the value is too small to be significant. Duration of workout and DEAS has a correlational value of 0.080 which indicates a weak positive correlation. However, the value is too small to be significant. In both the cases, the significance value is 0.76 and 0.41 which is greater than 0.05, hence, the hypothesis is accepted. Hence, H2= Duration of exercise is not related to disordered eating attitude or social physique anxiety, is accepted indicating no significant relationship.

**Table 7 Correlation table of DEAS subscales and duration**

Variables	<i>n</i>	Duration	<i>p</i>
DEAS1	107	.111	.256
DEAS2	107	.208**	.031
DEAS3	107	.018**	.851
DEAS4	107	.053*	.588
DEAS5	107	-.064**	.512
Duration	107	1	-

A further correlational test was run on the 5 subscales given under the Disordered Eating Attitude Scale. Labelled as DEAS 1,2,3,4,5 stands for Relationship with food, Concerns about eating and body weight gain, Restrictive and Compensating practises, Feelings towards eating, and the Idea of normal eating. The above table indicates that there is a correlation seen between the duration of workout and DEAS 2,3,4,5. Except for DEAS 5, all the subscales have a weak to moderate correlation with the duration of workout. DEAS 5 which stands for the ‘idea of normal eating’ has a negative correlation with the duration of workout ( $r=-0.064$ ). However, the results are small to point out a significant relationship.

*Statistical analysis and interpretation of hypothesis 3:*

**Social Physique Anxiety and Disordered Eating Attitude: A Correlational Study Amongst the Physically Active Indian Youth**

**Table 8 Correlation table of SPAS, DEAS and BMI**

Variables	n	SPAS	DEAS	BMI
SPAS	107	1	.465**	.118
DEAS	107	.465**	1	.145
BMI	107	.118	.145	1

The above table indicates the strength of relationship between SPAS, DEAS and Body Mass Index (BMI). The results show no significant relationship between them. The correlational coefficient of SPAS and BMI is 0.118 (r), which signifies a weak positive correlation. The correlational coefficient of DEAS and BMI is 0.135 (r), which signifies a weak positive correlation between them. None of which are strong enough to establish a strong correlation. Hence, H3= There is no significant relationship between Body Mass Index (BMI) and Disordered Eating Behaviour, and Social Physique Anxiety, is accepted.

### **RESULTS AND CONCLUSION**

The given study revealed that Social Physique Anxiety and Disordered Eating Attitude are positively moderately correlated ( $r=.465$ ). The moderate correlational strength is in line with previous research, which concluded that people with high levels of social comparison or body surveillance and general or appearance-related social comparison also had much greater levels of disordered eating (Fitzsimmons-Craft et al., 2012). This significant relationship was then checked using linear regression to check for prediction. The linear regression revealed a significant relationship ( $p=.000$ ), indicating that DEAS is a good predictor for SPAS. Hence, not only Social Physique anxiety is correlated with Disordered Eating Attitude, but they also showed significant level of prediction.

Unlike previous findings, the research could not prove any relationship between body weight or body mass index and social physique anxiety ( $p=0.227$ ) or disordered eating attitudes (0.135). This is contrary to a study conducted in America showed that rates of disordered eating were highest among overweight and obese youth school students (Neumark-Sztainer & Hannan, 2000). A possible explanation for this could be in line with the fact that social physique anxiety and disordered eating attitudes can occur despite being overweight, which is commonly expected.

Also, there was a small degree of correlation seen between duration of working out and DEAS subscales of: Concerns about eating and body weight gain ( $r=0.28$ ), Restrictive and Compensating practice ( $r=0.018$ ), Feelings towards eating ( $r=0.053$ ), and the Idea of normal eating ( $r=-0.064$ ). However, all these values are too small to conclude any significant difference between the duration of working out and social physique anxiety or disordered eating attitude.

#### **Major Findings**

1. Out of the 107 samples (54 males and 53 females), the mean score of females on SPAS (36.72) and DEAS (86.55) was higher than that of males, indicating the presence of a higher level of social physique anxiety and disordered eating attitude in females.

## Social Physique Anxiety and Disordered Eating Attitude: A Correlational Study Amongst the Physically Active Indian Youth

2. There exists a significant correlation between social physique anxiety and disordered eating attitude in 107 active participants. This correlation was further analyzed and resulted in a good score of prediction ( $p < 0.05$ ) resulting in disordered eating attitude actively predicting social physique anxiety.
3. The duration of the workout does not impact the social physique anxiety scores or disordered eating attitude.
4. Body Mass Index (BMI) has no significant relationship with social physique anxiety scores or disordered eating attitude.

### **Implication**

The aim of this research was to study the levels of social physique anxiety and disordered eating attitudes in participants who work out regularly. This assessment is important as social physique anxiety can manifest latently, like checking yourself in the mirror often, avoiding working out in public or worrying that others are evaluating their physical appearance. However, symptoms of disordered eating attitudes can be seen in ways of avoiding a particular type of food, puking or using laxatives after consuming food or having an unhealthy relationship with food. Both these variables can adversely affect one's self-esteem and interfere with their daily life, impacting them psychologically, physically and interpersonally. There is a need to identify early signs of social physique anxiety and disordered eating attitudes to prevent the development of eating disorders and other unhealthy behaviors.

This research studied the active population and indicated the high presence of social physique anxiety and disordered eating behaviors. Similar assessments can be used on the general population or a niche population to help investigate the causes for the same and help develop interventions to prevent the development of a disorder.

### **Limitations**

1. The sample was only limited to people who work out; hence it cannot be generalized.
2. Limited sample size might have intervened with correlating BMI and other variables.
3. All responses were presumed to be unbiased.
4. As these concepts have a strong social impact hence more research needs to be conducted on other social/cultural environments to generalize the result.

### **Suggestions for future research**

The above research showed a moderate positive correlation between Social Physique Anxiety and Disordered Eating Attitudes. The study can be replicated in other populations to help generalize the results. Given the challenges in finding respondents for the study, the sample size was insufficient. Other characteristics, including culture and socioeconomic background, have not been taken into account in this study. Expanding the study's parameters with additional variables, using a larger sample size, and including composite or diverse geographic regions will increase the study's inputs and findings.

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## Social Physique Anxiety and Disordered Eating Attitude: A Correlational Study Amongst the Physically Active Indian Youth

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## Social Physique Anxiety and Disordered Eating Attitude: A Correlational Study Amongst the Physically Active Indian Youth

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The author(s) declared no conflict of interest.

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