

## Relationship between Attitude towards Menstruation, Self-esteem and Social Appearance Anxiety among Indian Cis-Gendered Women who Menstruate

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### ABSTRACT

**Introduction:** Menstrual Stigma starts at a very young age and is reinforced by the media, leading to people with vaginas to view it in a negative light and often experience immense guilt and anxiety related to it. On top of this, the sexism they are exposed to takes a toll on their self-esteem and mental health. The aim of the study was to establish a relationship between Attitude towards Menstruation, Self-esteem and Social Appearance Anxiety among young Indian cis-gendered women who menstruate.

**Method:** The study had one predictive variable, Attitudes towards Menstruation, which was measured using the Attitude towards Menstruation Scale. The study had two outcome variables namely, Self-esteem which was measured using the State Self-esteem Scale; and Social Appearance Anxiety, which was measured using Social Appearance Anxiety Scale. The data was collected from 121 young cis-gendered women who could menstruate and resided in Mumbai, Thane and Navi Mumbai. The data was analyzed using two regression analyses on the predictive variable and outcome variables; and one Pearson's correlation between the outcome variables.

**Result:** There seems to be no relationship between the predictive and outcome variables. Attitude towards menstruation seems to be affected by several factors such as menstrual experience, level of discrimination, social support received and diagnosis of menstrual ailments. There seems to be a negative relationship between self-esteem and social appearance anxiety.

**Conclusion:** This finding highlights a potential for therapeutic and psychoeducation interventions development for the masses.

**Keywords:** Menstruation, Menstrual Stigma, Self-esteem, and Social Appearance Anxiety

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### INTRODUCTION

#### Attitude towards Menstruation

Menstruation, also known as periods, is a monthly discharge of blood and tissues from the inner lining of the uterus. It is a natural, biological process that prepares people with vaginas for pregnancy. It starts when people with vaginas reach puberty and continues till their late middle adulthood. Attitude towards menstruation refers to an individual's beliefs, attitude, or feelings towards menstruation. They may be positive or negative. However, even though menstruation has been a part of human physiology since the beginning of mankind, it is not accepted in society. Almost all major religions seem to show menstruation and menstruating people in a negative light and enforce several cultural restrictions on them such as prohibitions on praying, doing household work and engaging in physical intimacy [1]. In India, the

restrictions surrounding menstruation are such that they restrict people who menstruate in socio-cultural spheres of their life [2].

According to Byrne, "Stigma is defined as a sign of disgrace or discredit, which sets a person apart from others" [3]. In this sense, menstruation stigma is a negative attitude that views menstruation as a sign of disgrace, which reinforces the shame and guilt surrounding menstruation and people who menstruate.

The Gender Schema Theory has made attempts to understand the negative attitude towards menstruation. Gender Schema Theory views perception as a constructive mental process, which forms an interactive link between an existing schema and an incoming socialization, people learn and internalize menstrual stigma and sexual objectification of people with vagina's bodies [4].

Another important theory that attempted to understand origin of menstrual stigma is the Feminist Theory. It recognized the bias towards menstruation in literature and research. Bodily processes which were solely related to women were negatively stereotyped, while shared bodily functions and male bodily processes were depicted in a positive light [5]. This bias in literature, accompanied with socialization plays an empirical role in the existence and reinforcement of menstrual stigma. The perspective believes that the stigma surrounding menstruation in the 20th and 21st century can be traced back to the 1950s, when post World War 2, working women were seen as a threat to men and thus research regarding premenstrual syndrome and related topics increased manifoldly, leading to a negative view of working women, who were then seen as liabilities by the companies [6].

The negative attitude towards menstruation impacts almost all spheres of menstruating people's life. Research shows that a negative correlation exists between attitudes towards menstruation and body image, self-esteem, self-presentation motivation and attitudes towards other women [7-9].

### **Self-esteem**

Self-esteem is defined as, "a favorable or unfavorable attitude toward the self" [10]. Considered a measure of self-concept, it contains beliefs regarding self as a whole and in various aspects such as cognitive, physical, behavioral etc. People with high self-esteem tend to have a positive image about themselves. They tend to be more optimistic, have higher achievement motivation, life satisfaction and a realistic body image [11-13]. On the other hand, low self-esteem is associated with adjectives like depressed, non-risky behavior, withdrawn, low achievement motivation, insecure, negative and lack of confidence [14].

In almost all cultures and across all age groups, males have higher self-esteem compared to females [15]. One possible explanation is that people with vaginas are subjected to a harsher treatment by the society, this leads to them internalizing the stigma and forming sexist views of themselves [16]. This internalized sexism coupled with the constant exposure to discriminatory behavior from the society in the form of violence, patronizing language, task distribution, discrimination, injustice etc. influences the self-esteem of people with vaginas [17]. This argument can also be extended to explain the relationship between exposure to attitudes towards menstruation and self-esteem. One aspect of self-esteem is body image which is how a person perceives their body. It is self-esteem related to one's body. Research shows that there is a strong relation between the weight and physical appearance of people with vaginas and their self-esteem [13]. A related concept to body image is Social Appearance Anxiety.

### **Social Appearance Anxiety**

Social Appearance Anxiety refers to "social anxiety surrounding overall appearance, including body shape, and fear of negative evaluation by others" [18]. High social appearance anxiety implies higher levels of social anxiety related to physical appearance and greater fear of negative evaluation by others. High levels of social appearance anxiety are positively related to depression and anxiety [19]. There is a negative relation between self-esteem and self-appearance anxiety, that is low self-esteem is related to high self-appearance anxiety and vice-versa [20].

There seems to be a positive relationship between attitude towards menstruation and body esteem, that is the more negative the attitude towards menstruation, the more negative the self-esteem [21]. Research has also shown that there exists a significant relationship exists between negative attitude towards menstruation, self-objectification, poor body image and eating disorders [3, 22].

All three variables have a direct impact on the mental health and wellbeing of people with vaginas and play an important role in the formation of their self-concept. The purpose of this study is to determine the relationship between attitudes towards menstruation, self-esteem and social appearance anxiety among Indian cis-gendered women who menstruate. The Indian culture stigmatizes menstruation to a great extent. People who menstruate are subjected to several cultural and social restrictions. These negative attitudes surrounding menstruation have a negative effect on people who menstruate. Thus, there exists a need to study the relationship between menstrual stigma, self-esteem, and social appearance anxiety in young people with vaginas, who have been raised in a culture that stigmatizes menstruation and focuses and evaluates the appearance of people with vaginas. This study is done in the hopes to establish a relationship between all three variables to lay a foundation for future interventions.

## METHODOLOGY

### Research Problem

Does a relationship exist between attitude towards menstruation, self-esteem and social appearance anxiety among adults who menstruate?

### Procedure

The permission and approval to conduct this research was obtained in July 2020 from the College Research Ethical Board. Post conduction, the study was again reviewed by the College Ethical Board in July 2021. Participants were approached and briefed about the aims, objectives, and the potential applications of the study. The scales were shared with the participants through an online platform (Google forms and WhatsApp). Data was collected over a period of 3 months, that is from 14<sup>th</sup> February 2021 to 9<sup>th</sup> May 2021. The participants were selected through purposive and snowball sampling. Confidentiality, privacy, and anonymity was maintained. The current study was approved by the college review board both before the commencement and the conclusion of the study.

### Participants

A total of 121 cis-gendered women participated in the survey. The inclusive criteria were a) only Indian adults who had started menstruating and were between the age group of 18 years to 25 years and b) only those adults residing in Thane, Navi Mumbai and Mumbai were considered as the sample population. All participants voluntarily responded to the anonymous survey and indicated their informed consent within the survey. The procedures were clearly explained, and participants could interrupt or quit the survey at any point without explaining their reasons for doing so.

The mean age of the participants was 21.97 years; the maximum number of participants belonged to the ages 22, 23 and 25. 75.2% were students, 20.7% employed and the rest were unemployed. 60.3% of the participants resided in Mumbai, 26.4% resided in Thane and 13.2% resided in Navi Mumbai, India. 100% of the participants had begun menstruating and 83.5% experienced regular periods in the past six months. 94% of the participants stated having no ailment related to menses, 5% had been diagnosed with PCOS and 1% with hormonal imbalance. Majority of the participants stated experiencing discomfort in the form of cramps, body pain - back, legs and stomach, mood swings and ache during their menses period. 64.5% of the participants learnt about menstruation from their parents, 13.2% from their friends, 11.6% from their teachers and the rest mentioned acquiring information about menstruation from the internet or their siblings. 96.7% of the participants mentioned having supportive families in relation to their menstrual needs. 95% had never experienced any discrimination based on menstruation. The 5% who had experienced discrimination during their menses was in the form of not being allowed to enter temples or pooja rooms.

### Tools

1. **Demographic Sheet:** Basic information about the participant's age, sex, course was collected through the demographic form.
2. **Attitudes towards Menstruation Scale:** The scale used to assess menstrual stigma in the study was the Attitudes towards Menstruation Scale developed by Thompson in 2016. The scale consists of

31 items divided among two subtests: 'use of concealing language', having 15 items and 'use of concealing actions', having 16 items. For the current proposed study, the whole 5-point Likert scale will be administered. A total score is obtained by adding all the scores on the subscales; 10 out of the 31 items are reversed scored. The subscale has a good reliability of 0.79 [23].

3. **State Self-esteem Scale:** The scale used in the study to assess self-esteem, is the 20 item State Self-esteem Scale (1991). The scale was developed by Heatherton and Polivy and it is subdivided into 3 components of self-esteem namely, performance self-esteem (7 items), social self-esteem (7 items) and appearance self-esteem (6 items). The responses are provided on a 5-point Likert scale 1 (not at all) to 5 (extremely). 13 items are reverse scored. The higher the score, the higher is the self-esteem. The scale has a good reliability of 0.85 [24].
4. **Social Appearance Anxiety Scale:** Social Appearance Anxiety Scale was used in the study to assess social appearance anxiety of the participants. The scale consists of a total of 16 items wherein, only the first item is reversed scored. It is a 5 pointer Likert, full score scale. The higher the total score, the higher is the social appearance anxiety. The subscale has a good reliability of 0.91. It was developed by Hart, 2008 [25].

### Statistical Analysis

Two linear regression analysis was conducted using the Statistical Package for the Social Science (SPSS) version 28, to determine the strength and character of the relationship between the predictive variable on the first outcome variable; self-esteem and to obtain the strength and character of the relationship between the independent variable and the second outcome variable; social appearance anxiety. Additionally, Pearson's correlation was also calculated to determine the relationship between the two outcome variables.

## RESULTS

**Table 1: Descriptive statistics of relationship between attitudes towards menstruation, self-esteem and social appearance anxiety among Indian cis-gendered women who menstruate**

Variable	N	Range	Mean	Standard Deviation
Attitude towards Menstruation	122	64	68.39	11.55
Self-esteem	122	70	71.85	15.21
Social Appearance Anxiety	122	64	31.70	14.52

**Table 2: Inferential statistics for regression model between attitude towards menstruation and self-esteem among Indian cis-gendered women who menstruate**

Title	R	R square	F	Sig
Regression	- 0.037	0.01	0.162	0.688

With reference to the above table, we understand that  $R^2 = .01$ ,  $F(1, 121) = 0.162$ ,  $p = ns$ , thus there seems to be no significant relationship between attitude towards menstruation and self-esteem among Indian cis-gendered women who menstruate. The predictive variable does not seem to have any predictive value in references to the first outcome variable.

**Table 3: Inferential statistics for regression model between attitude towards menstruation and social appearance anxiety among Indian cis-gendered women who menstruate**

Title	R	R square	F	Sig
Regression	0.036	0.01	0.156	0.694

With reference to the above table, we understand that  $R^2 = .01$ ,  $F(1, 121) = 0.156$ ,  $p = ns$ , thus there seems to be no significant relationship between attitude towards menstruation and social appearance anxiety among Indian cis-gendered women who menstruate. The predictive variable does not seem to have any predictive value in references to the second outcome variable.

**Table 4: Inferential statistics for correlation between self-esteem and social appearance anxiety among Indian cis-gendered women who menstruate**

	1	2
<b>Self-esteem</b>	-	-0.811*
<b>Social Appearance Anxiety</b>	-0.811*	-

\* Correlation significant at 0.01 level

Table 4 shows that  $r = -0.811$ ,  $p < 0.01$ , thus there seems to be a significant, negative relationship between self-esteem and social appearance anxiety among Indian cis-gendered women who menstruate.

## DISCUSSION

With regards to attitude towards menstruation and self-esteem, the current study yields no significant relationship between the two variables ( $R^2 = .01$ ,  $F(1, 121) = 0.162$ ,  $p = ns$ ). Contrary to the current findings, Lee et al. (2003) reported finding a negative relationship between attitudes towards menstruation and self-esteem among 1573 post-menarche Chinese junior high school students [26]. The discrepancy in results could be due to the age and cultural differences between the participants. Lee and others (2003) study employed Chinese high school students, whereas the current study employed Indian people who menstruate, having a mean age of 21.97 years. According to Chandra and others, the older the age of Indian people who menstruate, the more likely they are to consider menstruation as a natural process, which in turn influences their attitude towards it and the amount of weightage they put on it [27].

Menstruation can become a source of stigma as it may meet all the three stigma requirements as given by Goffman, that is “abominations of the body” such as disabilities caused by menstrual pain or symptoms, “blemishes of individual character” such as ostracism or restriction imposed based on menstrual status and “tribal identities” such as identification with a particular sex [7,28]. Thus, the magnitude and direction of one’s attitude towards menstruation depends heavily on the intensity of symptoms, the nature of the menstrual experience as a whole and several social factors.

For the participants of the current research, menstruation does not seem to be a source of social stigma, rather it seems to be a very natural aspect of their life. This can be attributed to the fact that 83.5% of the participants experienced regular periods in the past six months and 94% of the participants stated having no ailment related to menses. Majority of the participants stated experiencing ‘regular’ symptoms such as cramps and muscle pain. Almost 76% of the participants acquired information about menses from reliable sources such as parents, teachers etc. There seems to exist a positive relationship between the level of accurate knowledge about menstruation and attitude and feelings towards menstruation, that is the more the accurate knowledge, the more was the tendency to form positive attitude and experience positive feelings towards menstruation [29].

Another important aspect of attitude towards menstruation seems to be the discrimination experienced and the social support received. 96.7% of the participants of the current study mentioned having supportive families in relation to satisfaction of menstrual needs and 95% had never experienced any menstrual discrimination. 5% of the participants experienced discrimination in the form of restrictions for entering temples. Thus, the menstrual experiences of the participants may be translated into having neutral to positive menstrual experiences. According to Mcpherson, menstrual experiences are extremely salient in determining the attitudes towards menstruation and thus it may explain the findings of the current study [30]. This argument is also supported by the model of the theoretical structure of factors affecting attitude towards menstruation which suggests that higher the pain, disability and affect experienced during menses, the more negative the attitude towards menstruation will be [31].

Similarly, there are several factors that seem to influence self-esteem. As the participants of the current study seem to regard menstruation as a natural process and have suggested neutral to positive menstrual experiences, the results are not surprising. However, had the participants in the current study experienced discrimination or negative menstrual experience, the results might have been like the research findings of Lee and others.

The current study found no significant relationship between attitude towards menstruation and social appearance anxiety ( $R^2 = .01$ ,  $F(1, 121) = 0.156$ ,  $p = ns$ ). There seems to be no previous research done on both these variables together. However, as social appearance anxiety is related to body esteem, on the basis of the available body esteem literature, one could have expected a positive relationship between the two variables [7,21,32-33].

Several factors seem to be attributing to the variation in the expected result. The most significant seems to be the participant differences. As mentioned above, the participants of the current study seem to have had neutral to positive menstrual experiences, with minimal discrimination and menstrual symptoms. Menstrual experiences seem to play a major role in determining the relationship between attitude towards menstruation and body esteem and thus the variations in the current research are partially supported by a study conducted by Rohde. Rohde's study found that there exists a relationship between menstrual experiences, body esteem and body consciousness [34].

Another factor seems to be the current pandemic scenario. Social appearance anxiety is a form of social anxiety surrounding overall appearance, including body shape, and fear of negative evaluation by others. This type of anxiety seems to arise in social situations. However due to the pandemic, the participation in offline social situations may have reduced, and may have contributed to the current findings.

Ancillary observations reported a strong negative correlation ( $r = -0.811$ ,  $p < 0.01$ ) between Self-esteem and Social Appearance Anxiety. These findings are supported by the review of literature, which reports that there exists a negative correlation between the two variables [20]. However, a point to note is that the magnitude of relationship found between these variables seems to be stronger in the current study. This difference can be attributed to participant and cultural variations.

The current study was successful in establishing a relationship between self-esteem and social appearance anxiety among Indian people who menstruate. This finding may thus imply a potential for therapeutic and psychoeducation interventions involving self-esteem techniques to reduce the levels of social appearance anxiety.

Though the results for the relationship between attitude towards menstruation, self-esteem and social appearance anxiety were insignificant, the study was successful in making several essential observations. Attitude towards menstruation seems to be affected by the nature of menstrual experience, level of discrimination based on the menstrual status, social support received, regularity of menses and diagnosis of menstrual ailments. Future studies can focus on finding the relationship between each of these variables to understand the magnitude of effect of each of the factors on the variable. Overall, the study implies that several factors seem to affect the attitude towards menstruation of Indian people who menstruate and psycho-educating guardians about the same can help individuals view menstruation as a natural process and form positive attitudes towards it and self.

The findings of the current study were heavily affected by certain characteristics of the participants, thus future research might study the same variables with more diverse participants, so as to understand the relationship between the variables without the strong influence of the participant characteristics. There can be certain potential limitations of this study. Firstly, as the study is confined only to the Indian adults in Thane, Navi Mumbai, and Mumbai, who belong to a limited age category; therefore, the data may not be generalized to other parts of the country. Secondly, due to the pandemic, data was collected online and thus it might have been difficult to keep the level of engagement and honesty in responses in check. Lastly, the sampling method used was purposive sampling and thus there is a chance of bias and error in judgement from the researcher's side.

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