Prevalence and Impacts of Body Shaming on Social Media among University Students in Bangladesh

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Author's contribution

The sole author designed, analysed, interpreted and prepared the manuscript.

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ABSTRACT

Body shaming is a social disease that has spread to different segments of society. It has been constantly growing in the hands of the media, especially social media and the commercial world.
Objective: The objectives of the study are to examine the prevalence and impacts of social media on body shaming faced by university students in Bangladesh.
Methodology: This study followed the quantitative research methodology to conduct the research. It was from 08 June 2024 to 14 June 2024, when the researcher collected the data through an online survey consisting of 35 questions. A total of 477 students participated in the study; the target population was formed with part of the students at Begum Rokeya University, Rangpur.
Results: The study found that 66.45% of the students were faced with body shaming, and 42.76% of these happened through social media. Female students reported a higher prevalence of body shaming (37.11%) than that of male students (29.14%), with an odds ratio of 1.493, indicating that

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females were almost 1.5 times more likely to experience body shaming. Most of the students were body shamed for their body shape and weight. Students perceive that bullying tendency, lack of understanding, jealousy, and low self-confidence are the major causes of body shaming. According to the research, the impacts of body shaming are multifaceted in most of the students; with issues such as emotional distress (47.59%), body anxiety or dissatisfaction (40.25%), depression and inferiority (39.62%) coming up as a high rate of result. Alarmingly, 10.27% of students reported noticing suicidal tendencies in themselves due to body shaming. Female students generally reported higher rates of negative impacts compared to male students across most categories.

Conclusion: There is an urgent requirement for awareness campaigns and legal actions to be taken against body shaming on social media. Educational institutions should also implement awareness programs for the younger generation to make them aware of the negative consequences of body shaming.

1. INTRODUCTION

Body shaming is the act of criticizing and degrading someone for their physical characteristics, such as being 'too skinny, too fat,' etc. Starting from the larger society, family members also indulge in body shaming in various ways without being aware of it. According to several studies, over 45 percent of youngsters have experienced body shaming at least once in their lives. In 2016, more than 4.2 million people in the United States underwent cosmetic surgery to improve their appearance, with the majority of these having been due to body shaming [1]. The Mental Health Foundation in the United Kingdom found that, in 2019, one in every five adults felt ashamed of their physical appearance. Thirty-one percent of boys and 37 percent of teenage girls are frustrated with their body image. Even 60% of adults feel very ashamed because of such hindrances in their minds [2]. Alarmingly children are not spared from such acts as body shaming as well. Many mothers in Vietnam are providing plastic surgeries as gifts for their daughter's birthdays [3]. In 2018, police from all over Indonesia handled 966 cases of physical humiliation or body shaming throughout that year in Indonesia [4].

The media not only provides information and news but also plays an important role in society in shaping and managing public opinion. On the other hand, the media also plays a negative role in society due to biased reporting and discriminatory comments. For example, the media induces body shaming. This can cause serious physical and psychological problems for individuals [5]. In the digital age, body shaming is more common on media than in real life. In Indonesia, the number of perpetrators of body shaming is increasing as the number of internet users increases [6].

Body shaming is on the rise at the hands of social media and the commercial world. A look at the commercials shows that the commercial world holds tendencies to mutilate a mind against one's body in public. There are tips for weight loss, creams for fairness, and medicines for growing taller, i.e., all the services to change one's appearance are at our fingertips [7]. Nowadays, people upload their photographs on social media, and they often succumb to different types of negative comments from other users. It's common to see people shame both men and women for their physical types [8]. Instagram photos of ones are mostly about looks-how perfect, refined, and conventionally good-looking they seem to be to others. On Facebook, there's no end to trolling. Most people do not feel the need to think of the person sitting on the other side as a human, when commenting on social media [9]. In fact, talking about people's looks has become a trend. Women are attacked more than boys on these issues: thick bodies, less hair, and skin color. Especially how and in which manner women should have a perfect figure. And if not, you have to listen to the simile of fat, bamboo or elephant. Body shaming is proof of how unnecessarily critical are as a human being [7].

According to the Aachol Foundation, a non-governmental organization in Bangladesh, 43.89 percent of young women are subjected to harassment on the internet and social media platforms, including ugly comments, image distortion, and body shaming. Most women said that they suffered from a self-perceived inferior complex after reading ugly comments and being ridiculed about their body structure and their choice of clothes on social media [10]. Therefore, it is mostly women who seem to be influenced by body shaming on social media platforms.

Another study showed that some mental health issues like anxiety, depression, and self-esteem among 15- to 18-year-olds are strongly related to perceived body image dissatisfaction, and there has been a growing trend of body shaming among adolescents in recent years. Many young people have felt anxious and even suffered from depression because of their unconventional or socially so-called not-good-looking body shape [11]. Although body shaming can affect individuals of all ages, this study focused on university students. Because body shaming is a common phenomenon among young adults today as they become obsessed with diet, exercise, and fashion.

A BBC report in 2017, citing a survey of some Asian countries, including Bangladesh, said that the risk of cyberbullying is increasing at an alarming rate in these countries, and women and minors are the most likely victims of bullying. The first Information and Communication Technology Act (ICT Act) was enacted in Bangladesh in 2006, and this law was amended in 2013. The country's only cyber tribunal was established in Dhaka the same year. In this act, the provision of 10 years imprisonment and a fine of not more than about $8520 has been made for the crime of taking private pictures or videos without the permission of someone and publishing them. However, there is still no law in the country against obscene speech or irrelevant comments in posts. Only 21 percent of victims of cybercrime in Bangladesh report it to law enforcement. And at least 72 percent of them do not get the expected remedy or result even after filing the complaint. Such information has emerged in a study report by the Cyber Crime Awareness (CAA) Foundation [12,13,14]. However, until now, body shaming is endless and still exists in the hustle and bustle of social media existence in this era of disruption, and the percentages of body shaming incidents are increasing at an alarming rate due to the lack of laws and societal awareness.

Considering all these factors, it is necessary to discuss the prevalence of body shaming on social media, what kind of impacts university students are facing, and how the situation can be mitigated. The current study explores the prevalence and impacts of body shaming on social media with reference to students at Begum Rokeya University, Rangpur, Bangladesh. This study will provide academic insights into the prevalence of body shaming and its negative consequences that some people may be unaware of. This research may alert students, parents, educators, legislators, policymakers, and enforcement agencies about the seriousness of the impact of body shaming. As a result, the concerned authorities can come up with a solution to address the problems of body shaming in Bangladesh.

2. LITERATURE REVIEW

Gam et al. [15] examined the prevalence and predictors of body shaming among school-going adolescents. Using a cross-sectional study, they gathered data from 800 students in 4 schools in Lucknow, India, and found that a total of 44.9 percent of participants responded to having been body shamed at least once in the past year. Okoli et al. [16] carried out a study on the prevalence and effects of body-shaming on social media among undergraduates in Nigeria. They collected 300 surveys to accomplish this study. The study found that most female undergraduates faced different types of body-shaming compared to their male counterparts at the university. More than 88.5% of the respondents believed that body-shaming could be the cause of eating disorders, anxiety, disturbed body image, sadness, and trauma. The study recommended that the government needs to support initiatives that raise public awareness of the harmful impacts of body shaming.

Mumu and Rashid investigated the prevalence and varieties of body shaming practiced via memes in Bangladesh on five Facebook pages. Purposive sampling was used to select five Facebook pages, and data was collected from October 1, 2021, to September 30, 2022. The findings have shown that there were more comments on masculinity, size, skin tone, and height in memes. Body-shaming memes target not only females but also male counterparts and transgender individuals [17].

The Aachol Foundation of Bangladesh published a study titled 'Social context of young women and its impact on mental health'. This organization surveyed 1,040 young women between the ages of 18 and 30, and found that young women are increasingly being sexually abused, harassed, and body shamed in Bangladesh. According to the study, 69.92% of young women experience body shaming, and 65.58% are frequently subjected to various forms of sexual harassment. It began with the family, but this unpleasant trend has spread rapidly because of social media. It also revealed that

37.24% of women are verbally abused by their relatives regarding their body shape, structure, and appearance. Twenty-two percent of women have been victims of body shaming by friends; 14.25% have heard heinous shaming words from their own family members; and 11.85% of young women have heard negative words about their physical appearance from passersby. Because of this, most young women experience behavioral disorders or other mental health problems, and they notice suicidal tendencies in themselves [10].

Sadia, Jibon, and Parvez outlined research on the effects of media advertisement representation of women's body images on violence against women in Bangladesh. This study also highlights how the younger generation is influenced by the media. This quantitative study was conducted where 80 male and female students were randomly selected from the two reputed universities at Khulna in Bangladesh. It has been found that some of the advertisements and media content have shown specific body shapes as an ideal. For that reason, women faced contemptible body shaming and verbal attacks; more than 80% of women answered that they have faced verbal or physical sexual assault. This research has also shown that about 70% of women were unhappy with their body shape and tried to get the ideal shape as shown in the media [18].

Siyu Wan analyzed the impact of social media on body shame in China. The researcher used a literature review approach to examine the information regarding body shame. This study found that the abundance of body-shaming content in the media led young people to focus on body shame, which could lead to more serious physical and psychological problems [19]. Another study in Indonesia of over 50 undergraduates revealed that body shaming treatments were also received in the form of insults, mockery and insinuation, leading to the students being stressed, embarrassed, insecure and downgrading their confidence level [20]. Mustafa et al. [21] examined youth awareness of body shaming issues in Malaysia. Using a mixed-methods approach, they gathered data and found that the youth are well aware of the impact of body shaming. A study conducted by Melizza et al. [22] found that there is a significant relationship between body shaming and self-esteem in students of Indonesia. Because when someone is insulted about their body, it affects one's self-esteem.

Zulkifli et al. [23] investigated students' awareness of the implications of body shaming and their perspectives regarding their body image. Using an online questionnaire, the data was collected from 50 public university students in Malaysia and found that the majority of students acknowledged the implications of body shaming on victims, with more than half expressing a negative perception of their bodies. Jiotsa et al. [24] explored the association between social media exposure and the presence of body dissatisfaction and body image disorders. The researcher followed an online questionnaire to investigate the association between how often one compares their physical appearance to that of the people they follow on social media and one's body dissatisfaction and drive for thinness.

A study was conducted by Puluhulawa and Riski Husain with the title "Body Shaming through Social Media as a Digital Crime in the Era of Disruption." In this study, data collection techniques were carried out with a review of libraries aimed at providing clues and ideas for formulating and solving problems. To evaluate the data, researchers deployed a descriptive-analytical approach that provides a comprehensive explanation or picture of body shaming as a digital crime. Researchers suggest that improved rules, as well as the role of the press and the general public, can affect people's attitudes about body-shaming behavior [4].

The available literature contains studies that have explored body-shaming; none have investigated the prevalence and impacts of body shaming on social media among university students in Bangladesh's context. The present study seeks to fill this gap.

3. CONCEPTUAL OVERVIEW

3.1 Body Shaming

Body shaming is when someone publicly criticizes or comments on someone's body size, size, or weight in a way that shames or humiliates them. Body shaming can take many forms. The most common examples are described when people refer to someone by their names as fat, thin, pigmy, etc. For instance, statements like "when did you become so fat?", and "it would be nice if your skin color was a little brighter", like this- if you make any comments or make criticism about someone's body size,
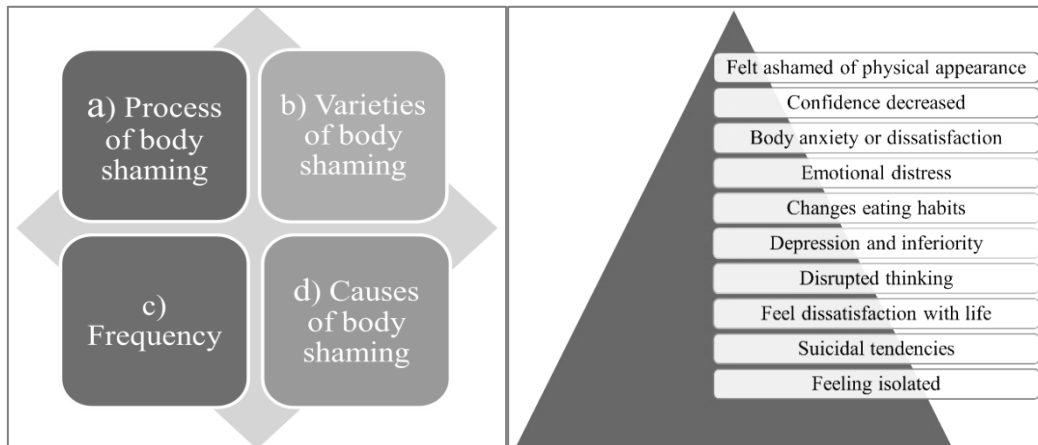
Fig. 1. Prevalence of body shaming

Fig. 2. Impacts of body shaming

volume, or weight in such a way that the person feels ashamed or humiliated, then it is body shaming. Also, bashing about one's external beauty, belittling oneself in comparison with someone else, and making negative comments about one's physical shape behind someone's back are also forms of body shaming. There are three types of people who participate in body shaming. Firstly, People who is suffering from extreme inferiority and who find peace by hurting others (usually victims of body shaming). Secondly, oblivious people who are unable or unwilling to understand the consequences of saying something. These types of people do not think about the consequences of the words that come out of them. Thirdly, really bad people who love to hurt people for no reason. Most of us fall into category number two regarding body shaming. After saying a word, there is no headache about its consequences. But they don't care how much the words influence others for their irrelevant and unwise reactions [9].

3.2 Social Media

Social media refers to human-to-human interaction through virtual communication and networks. That is, the medium that people use to create, share, or exchange anything to communicate and express themselves using information and communication technology is called social media or social networking sites. Some such sites are Facebook, YouTube, WhatsApp, X, LinkedIn, Pinterest, Instagram, Flickr, etc. [25].

4. THEORETICAL FRAMEWORK

Cultivation theory has been used as a theoretical framework for the study. This theory was first proposed in the 1960s by George Gerbner, an American professor, to examine the influence of television on viewers [26]. His findings were further expanded and developed by American screenwriter Larry Gross [27]. Cultivation theory was originally conceived on the effects of television but applies in many ways to social media. According to cultivation theory in social media, long-term exposure to social media platforms shapes the perception of reality among its users, just like the effect of watching television over a longer period. Social media sites provide information, entertainment, and social interaction nowadays, much like television in the past. If people have started spending more time on social media, then they are exposed continuously to perfect content, and often portraying idealistic or distorted reality-like the perfect body image, luxurious lifestyle, or extreme opinions. According to cultivation theory, the more students are exposed to such content, the greater the chance that they will begin to accept these ideals as reality and judge both themselves and others based on these standards. This could give rise to other negative psychological effects, such as body dissatisfaction, low self-esteem, and depression that subsequently lead to body shaming or unhealthy comparisons. For example, if social media continuously portray a certain body type as ideal or perfect, then eventually, through such portrayals, the users would begin to internalize these ideals. Logically, cultivation theory posits that social media can cultivate a particular worldview among its users, just like television did, but may be with much more influence because of the interactivity and pervasiveness of this medium. The researcher felt this theory may provide an academic framework to reach any conclusion on this issue.

5. METHODOLOGY

The researcher followed a quantitative methodology to accomplish the research. The online survey questionnaire is designed for a quantitative study. The researcher collected consent from the students before collecting the data and information from them. This study was conducted, representing the opinions of 477 students, including female (252), male (224), and others (01) from different departments of Begum Rokeya University, Rangpur, Bangladesh.

5.1 Target Population

This research has been conducted on the students at Begum Rokeya University, Rangpur (BRUR). According to the BRUR website, there are 22 departments under six faculties, with a total population of approximately 8,000. The Krejcie and Morgan sampling formula helps in determining the sample size needed to make accurate inferences about the population. This sampling formula states that if the population is 8,000, sampling 381 respondents will normally give a fairly accurate result.

5.2 Study Duration

Data collection was conducted from June 8, 2024, to June 14, 2024, for one week.

5.3 Survey Tool

The survey was designed as a closed-ended questionnaire with 35 questions, including demographic inquiries.

5.4 Data Collection

The researcher distributed the questionnaire that had been created through a Google Form to some students in each department of BRUR via WhatsApp and other online platforms. Those students provide the link to other students in their respective departments. During the survey, a total of 477 responses were collected.

5.5 Data Analysis

This study uses a statistical software package followed by the Statistical Package for the Social Sciences (SPSS 29 version). It has been used in frequency distribution, biplot, odds ratio, correlation, and principal component analysis (PCA) in order to highlight the graphical and tabular representation of data and information in the research.

5.6 Ethical Issues

The study maintained ethical guidelines throughout the whole research. On the other hand, it was ensured proper channels and consent from the students throughout the data collection process.

6. DATA PRESENTATION AND ANALYSIS

Table 1 presents the demographic details of the 477 students in the survey, which produces a differentiated profile of the participants across sexes, age groups, and different educational levels. The data reveals a slight female majority, accounting for 52.8% of the total;

Table 1. Demographic information of the students

Variables	Response	Frequency (F)	Percentage (%)
Sex	Female	252	52.8
	Male	224	47.0
	Others	1	0.2
Education Levels	Honors 1st Year	138	28.9
	Honors 2nd Year	132	27.7
	Honors 3rd Year	85	17.8
	Honors 4th Year	30	6.3
	Masters	92	19.3
Age Group	17-18 Years	11	2.3
	19-20 Years	74	15.5
	21-22 Years	227	47.6
	23-24 Years	153	32.1
	25-26 Years+	12	2.5

Table 2. Social media usage patterns of the students

Variables	Response	F	%
Do you have social media accounts?	Yes	473	99.2
	No	3	0.6
	Not applicable	1	0.2
Which social media are you using more?	Facebook	402	84.3
	YouTube	39	8.2
	WhatsApp	19	4.0
	Instagram	14	2.9
	Others	3	0.6
How much time (approximate) do you spend daily on social media?	Less Than 1 Hour	11	2.3
	1-2 Hours	84	17.6
	2-4 Hours	202	42.3
	4-6 Hours	115	24.1
	6 Hours+	65	13.6

252 of these were females, while 224 (47%) were males, and 0.2% of the sample represented other sexes. In terms of educational background, the largest proportion were relatively new university students (28.9% with 138 for Honors 1st Year and 27.7% with 132 for Honors 2nd Year). Only 17.8%, with 85, participated in Honors 3rd Year, and 6.3%, with 30, participated in Honors 4th Year. It's worth mentioning that 19.3% (92) of the students are masters' students, showing a significant number of advanced-level students. The 21–22 years age group had the most significant proportion at 47.6% (227), closely followed by the 23–24 years (153) group at 32.1%. There were only very small numbers of both student groups, at 2.3% aged 17–18 years and 2.5% aged 25–26+ years.

Table 2 illustrates the details regarding the patterns of use of social media by the students. An overwhelming majority, 99.2%, have accounts on social media; only 0.6% do not have profiles on such media, while 0.2% marked not applicable. On preferred social media platforms, most of the students indicated that they used Facebook 402 (84.3%), followed by 8.2% on YouTube, 4.0% on WhatsApp, 2.9% using Instagram, and 0.6% who use others. Only 2.3% of the students reported a daily usage time of less than 1 hour on social media. Those who use it for 1-2 hours make up a total of 17.6% of the students, whereas 42.3% use it for 2-4 hours daily. 24.1% use social media for 4-6 hours a day, whereas 13.6% use it for more than 6 hours a day. This data indicated that almost all students use social media; out of these, Facebook was the most popular platform. Most of the students spent a considerable amount of time on it every day, while some even used it for hours, just going on to prove that the engagement of students with social media is very high.

The Correspondence Analysis (Chart 1) Biplot shows diverse patterns in social media usage based on how much time users spend on each platform. Instagram is noticeably segregated, demonstrating a distinct usage pattern as compared to other platforms. Facebook is strongly associated with longer usage times, particularly among users who spend 1-2 hours, 2-4 hours, and 4-6 hours or more online, indicating that this site dominates protracted involvement. YouTube is closely associated with users who spend 6 hours or more on social media, suggesting that this platform is favored by heavy users. WhatsApp is associated with moderate usage, often about 2-4 hours, although the 'Less Than 1 Hour' and 'Others' groups are separated from the main cluster, indicating a more infrequent usage pattern. This biplot demonstrates the many links between social media platforms and user engagement levels, providing insights into platform preferences depending on time spent online.

Table 3 shows that 66.45% (317) of students have faced body shaming and 28.7% (137) of students have never faced body shaming. Among them, 42.76 % (204) of the students faced body shaming through social media, 21.38% (102) face to face and 2.09% (10) through other means. The survey asked students why they faced body shaming. Most students, 11.32% (54) reported that they were body shamed for their body shape, 6.07% (29) for skin color, 9.85% (47) for weight, 5.24% (25) for height on social media. When asked how frequently you have experienced body shaming; 0.62% (3) of the students said they have always

Table 3. The prevalence of body shaming among students

| Variables	Response	Through what means have you faced body shaming?				
		Social media (%)	Face to face (%)	Others (%)	Not applicable (%)	Total (%)
Have you faced body shaming?	Yes	204 (42.76)	102 (21.38)	10 (2.09)	1 (0.20)	317 (66.45)
	No	3 (0.62)	8 (1.67)	52 (10.90)	74 (15.51)	137 (28.72)
	Not applicable	3 (0.62)	3 (0.62)	7 (1.46)	10 (2.09)	23 (4.82)
What have you been body shamed for?	Body shape	54 (11.32)	18 (3.77)	3 (0.62)	0 (0)	75 (15.72)
	Skin color	29 (6.07)	15 (3.14)	5 (1.04)	0 (0)	49 (10.27)
	Weight	47 (9.85)	24 (5.03)	5 (1.04)	1 (0.20)	77 (16.14)
	Height	25 (5.24)	14 (2.93)	1 (0.20)	0 (0)	40 (8.38)
	Others	36 (7.54)	16 (3.35)	53 (11.11)	1 (0.20)	106 (22.22)
	Not applicable	19 (3.98)	26 (5.45)	2 (0.41)	83 (17.40)	130 (27.25)
How frequently have you experienced body shaming?	Always	3 (0.62)	0 (0)	0 (0)	0 (0)	3 (0.62)
	Often	11 (2.30)	6 (1.25)	0 (0)	0 (0)	17 (3.56)
	Sometimes	68 (14.25)	23 (4.82)	7 (1.46)	1 (0.20)	99 (20.75)
	Rarely	76 (15.93)	44 (9.22)	15 (3.14)	4 (0.83)	139 (29.14)
	Not applicable	52 (10.90)	40 (8.38)	47 (9.85)	80 (16.77)	219 (45.91)
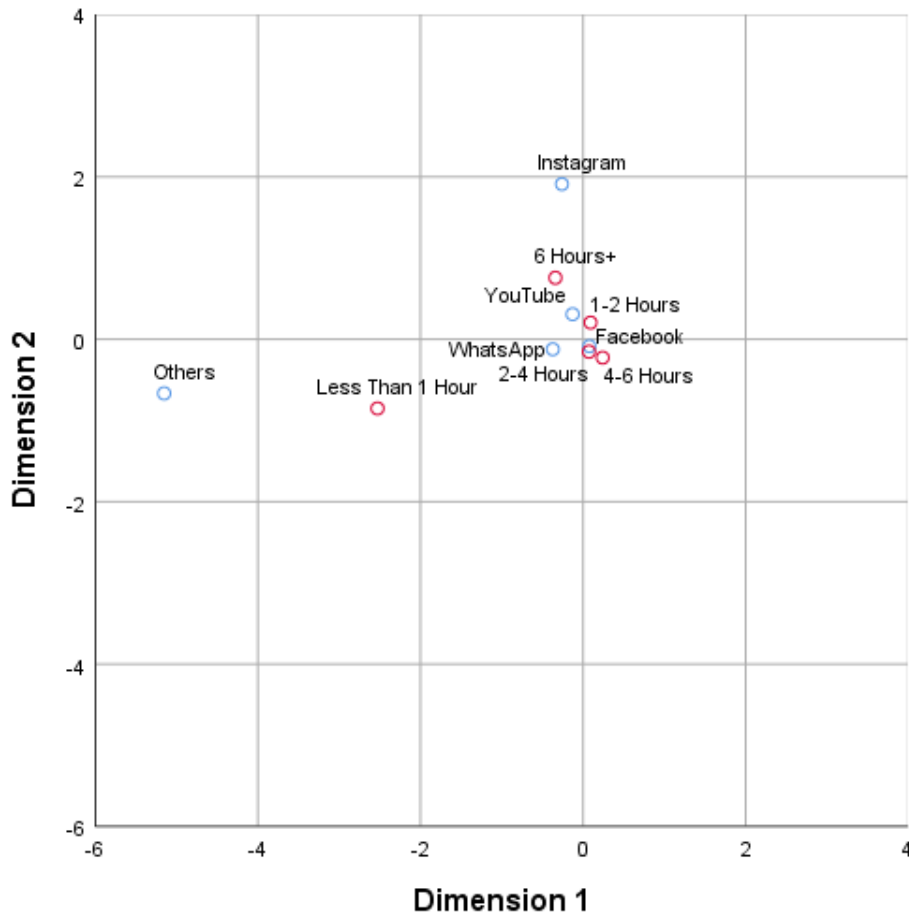
Chart 1. Correspondence analysis of social media usage versus time spent by students

Table 4. Who faces body shaming more frequently on social media?

Variables	Yes %	No %	Not applicable %	Odds (Yes/No)
Female	177 (37.11)	63 (13.21)	12 (2.52)	2.810
Male	139 (29.14)	74 (15.51)	11 (2.31)	1.878
Others	1 (0.21)	0 (0.00)	0 (0.00)	0.000

faced body shaming on social media. Besides that, 2.30% (11) often, 14.25% (68) sometimes, and 15.93% (76) of students rarely subjected themselves to body shaming on social media; with 9.22% (44) saying it rarely happens and 4.82% (23) of students saying it sometimes happens face to face.

Table 4 shows which students are more likely to face body shaming on social media among females, males, and others. Here, 137 (37.11%) female students answered that they have faced body shaming on social media, while 139 (29.14%) students and 1 (0.21%) students of other genders have faced body shaming. Also, the odds of females saying yes to no are 177/63 = 2.810. Males' odds are 139/74 = 1.878.

Therefore, the odds ratio (OR) for females saying 'yes' compared to 'no' is 1.493. Females were almost 1.5 times more likely to say yes to body shaming on social media than males were.

Table 5 presents the details of various processes through which body shaming takes place and compares the responses of females and males. This research has revealed that 23.27% of students were faced with body shaming through comments, 34.59% through text messages, 17.82% through sending audio or videos, 25.58% through sending photos, 35.85% were faced by relatives or friends through social media comments, text, audio, or video messages, and 33.54% were faced body shaming relatives/friends after seeing your video, photo,

Table 5. Process of body shaming on social media

Variables	Response	Yes	No	Not applicable	Odds (Yes/No)
Body shaming through comments	Female	47	166	39	0.283
	Male	64	131	29	0.489
	Others	0	1	0	0.000
	Total (%)	111 (23.27)	298 (62.47)	68 (14.26)	0.372
Body shaming through text messages	Female	96	118	38	0.814
	Male	69	122	33	0.566
	Others	0	1	0	0.000
	Total (%)	165 (34.59)	241 (50.52)	71 (14.88)	0.685
Body shaming through sending audio/videos	Female	42	172	38	0.244
	Male	43	144	37	0.299
	Others	0	1	0	0.000
	Total (%)	85 (17.82)	317 (66.46)	75 (15.72)	0.268
Body shaming through sending photos	Female	51	166	35	0.307
	Male	71	122	31	0.582
	Others	0	1	0	0.000
	Total (%)	122 (25.58)	289 (60.59)	66 (13.84)	0.422
Body shaming by relatives/friends through social media comments, text, audio, or video messages	Female	100	120	32	0.833
	Male	71	122	31	0.582
	Others	0	1	0	0.000
	Total (%)	171 (35.85)	243 (50.94)	63 (13.21)	0.704
Experienced face-to-face body shaming by relatives/friends after seeing your video, photo, or any post on social media	Female	85	134	33	0.634
	Male	75	114	35	0.658
	Others	0	1	0	0.000
	Total (%)	160 (33.54)	249 (52.20)	68 (14.26)	0.643

Table 6. Impacts of body shaming on social media

Variables	Response	Yes (%)	No (%)	Not applicable (%)	Odds (Yes/No)
Felt ashamed of your physical appearance because of body shaming (I1)	Female	103 (21.59)	90 (18.87)	59 (12.37)	1.144
	Male	79 (16.56)	94 (19.71)	51 (10.69)	0.840
	Others	0 (0.00)	1 (0.21)	0 (0.00)	0.000
	Total	182 (38.16)	185 (38.78)	110 (23.06)	1.985
Confidence decreased because of body shaming (I2)	Female	88 (18.45)	121 (25.37)	43 (9.01)	0.727
	Male	59 (12.37)	123 (25.79)	42 (8.81)	0.480
	Others	1 (0.21)	0 (0.00)	0 (0.00)	0.000
	Total	148 (31.03)	244 (51.15)	85 (17.82)	1.207
Suffered from body anxiety or dissatisfaction because of body shaming (I3)	Female	109 (22.85)	105 (22.01)	38 (7.97)	1.038
	Male	83 (17.40)	103 (21.59)	38 (7.97)	0.806
	Others	0 (0.00)	1 (0.21)	0 (0.00)	0.000
	Total	192 (40.25)	209 (43.82)	76 (15.93)	1.844
Suffered from emotional distress because of body shaming (I4)	Female	129 (27.04)	89 (18.66)	34 (7.13)	1.449
	Male	98 (20.55)	87 (18.24)	39 (8.18)	1.126
	Others	0 (0.00)	1 (0.21)	0 (0.00)	0.000
	Total	227 (47.59)	177 (37.11)	73 (15.30)	2.576
Any changes in your eating habits (I5)	Female	77 (16.14)	137 (28.72)	38 (7.97)	0.562
	Male	59 (12.37)	122 (25.58)	43 (9.01)	0.484
	Others	1 (0.21)	0 (0.00)	0 (0.00)	0.000
	Total	137 (28.72)	259 (54.30)	81 (16.98)	1.046
Suffered from depression and inferiority (I6)	Female	115 (24.11)	103 (21.59)	34 (7.13)	1.117
	Male	74 (15.51)	112 (23.48)	38 (7.97)	0.661
	Others	0 (0.00)	1 (0.21)	0 (0.00)	0.000
	Total	189 (39.62)	216 (45.28)	72 (15.09)	1.777
Suffered from disrupted thinking (I7)	Female	110 (23.06)	107 (22.43)	35 (7.34)	1.028
	Male	79 (16.56)	106 (22.22)	39 (8.18)	0.745
	Others	0 (0.00)	1 (0.21)	0 (0.00)	0.000
	Total	189 (39.62)	214 (44.86)	74 (15.51)	1.773
Feel dissatisfaction with life (I8)	Female	88 (18.45)	129 (27.04)	35 (7.34)	0.682
	Male	59 (12.37)	130 (27.25)	35 (7.34)	0.454
	Others	0 (0.00)	1 (0.21)	0 (0.00)	0.000
	Total	147 (30.82)	260 (54.51)	70 (14.68)	1.136
Noticed any suicidal tendencies in yourself (I9)	Female	25 (5.24)	190 (39.83)	37 (7.76)	0.132
	Male	24 (5.03)	161 (33.75)	39 (8.18)	0.149
	Others	0 (0.00)	1 (0.21)	0 (0.00)	0.000
	Total	49 (10.27)	352 (73.79)	76 (15.93)	0.281
Feeling isolated from relatives/friends (I10)	Female	102 (21.38)	115 (24.11)	35 (7.34)	0.887
	Male	76 (15.93)	114 (23.90)	34 (7.13)	0.667
	Others	0 (0.00)	1 (0.21)	0 (0.00)	0.000
	Total	178 (37.32)	230 (48.22)	69 (14.47)	1.554

or any post on social media. Also, the odds of females saying body shaming through text message yes to no are 96/118 = 0.814. Males' odds are 69/122 = 0.566. Therefore, the female odds ratio (female/male) through text message is 0.814/0.566 = 1.438, and relatives/friends' comments, text, audio, or video messages is 0.833/0.582 = 1.431, which indicates that females were faced with almost 1.5 times more body shaming through text message and relatives/friends' comments, text, audio, or video messages on social media than males. On the other hand, male odds ratios (male/female) are more likely to be noticed through comments (OR = 0.489/0.283 = 1.728), sending audio/videos (OR = 0.299/0.244 = 1.225), sending only photos (OR = 0.582/0.307 = 1.896), and experiencing face to face body shaming by relatives or friends after seeing your video, photo, or any post on social media (OR = 0.658/0.634 = 1.038). The finding indicates that males faced more than 1.5 times more body shaming through comments and sending audio or videos than females.

Table 6 depicts that there are major negative impacts of body shaming on social media, while 47.59% reported experiencing emotional distress as a direct result of body shaming. Furthermore, significant percentages of students reported feeling ashamed of their physical appearance (38.16%), decreased confidence (31.03%), body anxiety or dissatisfaction (40.25%), changing in eating habits (28.72%), depression and inferiority (39.62%), disrupted thinking (39.62%), feeling dissatisfaction with life (30.82%), noticing suicidal tendencies (10.27%), and feeling isolated from relatives or friends (37.32%). Also, the odds ratios (OR) comparing females and males experiencing various impacts of body shaming on social media. Further, when it is calculated

the female to male odds ratio (female/male), it is found that females are more likely to say yes to a feeling ashamed of their physical appearance (OR = 1.144/0.840 = 1.362), decreased confidence (OR = 0.727/0.480 = 1.515), body anxiety or dissatisfaction (OR = 1.038/0.806 = 1.288), emotional distress (OR = 1.449/1.126 = 1.287), changing eating habits (OR = 0.562/0.484 = 1.161), depression and inferiority (OR = 1.117/0.661 = 1.690), disrupted thinking (OR = 1.028/0.745 = 1.380), feeling dissatisfaction with life (OR = 0.682/0.454 = 1.502), and feeling isolated from relatives/friends (OR = 0.887/0.667 = 1.330). On the other hand, male odds ratios (male/female) are more likely to notice suicidal tendencies (OR = 0.149/0.132 = 1.129) compared to females. These discrepancies highlight how body shaming impacts females and males differently, with females being more than 1.5 times more likely to report confidence decreased, suffering from depression, and feeling dissatisfaction with life, while males are more likely to report suicidal thoughts.

Table 7 represents the Pearson correlations between different impacts of body shaming between pairs of variables. The finding shows that there is a high positive correlation between decreased confidence and both the shame of physical appearance and body anxiety, as r = 0.730. On the other hand, emotional distress has high correlations with its remaining impacts, including depression with r = 0.830, and disrupted thinking with r = 0.749. The analysis also indicates that eating habits changes are often related to emotional distress (r = 0.682) and body anxiety (r = 0.655), suggesting that body shaming can lead to unhealthy eating patterns.

Table 7. Correlation analysis of impacts of body shaming

Variables	I1	I2	I3	I4	I5	I6	I7	I8	I9	I10
I1	1									
I2	.730**	1								
I3	.730**	.735**	1							
I4	.659**	.690**	.774**	1						
I5	.618**	.604**	.655**	.682**	1					
I6	.667**	.755**	.790**	.830**	.683**	1				
I7	.613**	.678**	.728**	.749**	.625**	.790**	1			
I8	.644**	.727**	.782**	.770**	.639**	.794**	.781**	1		
I9	.510**	.544**	.608**	.630**	.564**	.659**	.637**	.701**	1	
I10	.651**	.656**	.734**	.737**	.592**	.763**	.738**	.776**	.653**	1

**. Correlation is significant at the 0.01 level (2-tailed)

Table 8. Student' perceptions of the prevalence and impact of body shaming on social media

| Variables	Strongly agree		Agree		Neither agree nor disagree		Disagree		Strongly disagree	
	F	%	F	%	F	%	F	%	F	%
Body shaming situation is increasing day by day due to social media (P1)	204	42.77	208	43.61	55	11.53	10	2.10	0	0.00
Body shaming situation is increasing day by day even offline due to social media (P2)	189	39.62	221	46.33	54	11.32	13	2.73	0	0.00
Body shaming affected a person's self-esteem (P3)	244	51.15	194	40.67	34	7.13	4	0.84	1	0.21
Body shaming lead to eating disorders, anxiety, body shape disturbances, depression, and trauma (P4)	234	49.06	195	40.88	42	8.81	6	1.26	0	0.00
Possible to mitigate body shaming situations on social media (P5)	154	32.29	226	47.38	66	13.84	28	5.87	3	0.63
Need laws to regulate body shaming situations through social media (P6)	224	46.96	186	38.99	55	11.53	11	2.31	1	0.21
Need awareness to control body shaming situations on social media (P7)	284	59.54	166	34.80	23	4.82	2	0.42	2	0.42
Necessary to take educational activities at school, college, university level to create awareness about body shaming (P8)	290	60.80	158	33.12	25	5.24	2	0.42	2	0.42
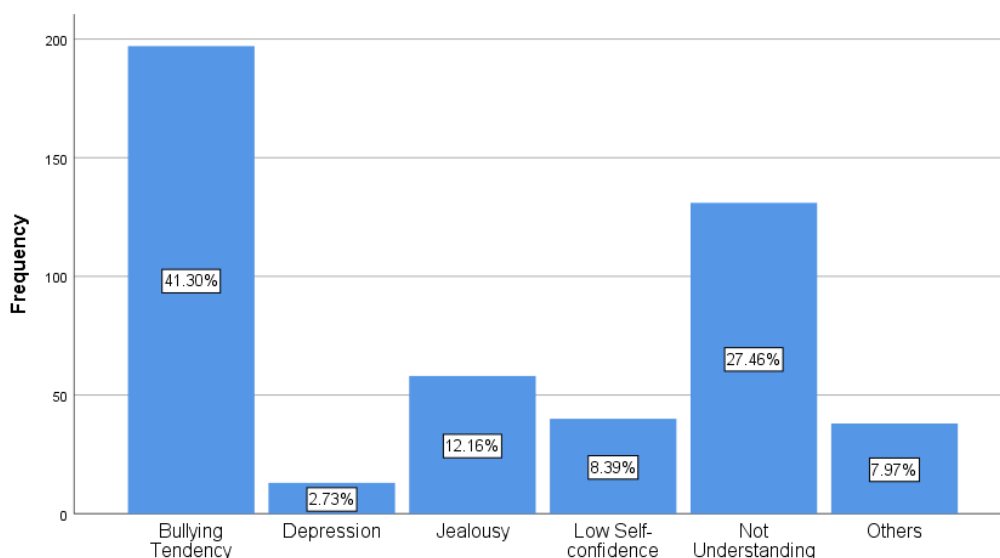
Chart 2. Students' perceptions of body shaming for various reasons

It further brings out prominent interrelations between the feeling isolated from relatives or friends and other impacts, for instance, life dissatisfaction with r = 0.776, body anxiety or dissatisfaction with r = 0.734, and emotional distress with r = 0.737. This clearly establishes interlinkages for most of the negative body shaming outcomes, which have their pervasive impacts on both psychological and behavioral well-being.

A 6 items question was asked to understand students' perceptions of why people engage in body shaming. Chart 2 shows that the majority of students, 41.30%, believe that body shaming comes as a result of having a bullying tendency toward others. Another 12.16% of students think it's because of jealousy, 8.39% have low self-confidence, 27.46% believe that many people do body shaming unknowingly, and 2.73% believe that body shaming occurs when someone is depressed, while 7.97% found it others way. The findings indicate that bullying tendencies, lack of understanding, jealousy, and a lack of self-confidence are the primary causes of body shaming.

Table 8 presents a clear and detailed overview of the students' perception regarding the prevalence and impact of body shaming on social media, showing a high level of concern and a perceived need for intervention. For instance, most of the students (strongly agree 42.77%, and agree 43.61%) that situations of body shaming are increasing day by day

because of social media, while the same trend is extended to offline, as strongly agreed by 39.62% and agreed by 46.33%. Besides, 51.15% of the students strongly agreed and 40.67% agreed that body shaming has a negative impact on the self-esteem of people. The link between body shaming and severe mental health problems is further recognized since almost 90% of the students, with 49.06% strongly agree and 40.88% agree, body shaming can eventually cause eating disorders, anxiety, body shape disturbances, depression, and trauma. The possibility of mitigating body shaming on social media is supported by 32.29% who strongly agree and 47.38% agree, while a disproportionate extent of students (46.96% strongly agree and 38.99% agree) feel that laws are needed to regulate such situations. Moreover, the need for awareness campaigns is shown by 59.54% strongly agree, 34.80% agree, and 60.80% strongly agree that educational activities at school, college, and university levels are necessary to create awareness about body shaming.

Table 9 presents the results of a Varimax rotated principal components analysis (PCA), which was used to examine the correlation between students' perceptions about body shaming on social media. In general, the loading scores are divided into three categories: strong (>0.75), moderate (0.75-0.50), and weak (0.50-0.30). The highest loading factors include the perception that awareness is needed to control body shaming situations on social media (P7 = 0.788,

Table 9. Varimax rotated principal components analysis of the student' perceptions of body shaming

Variables	Factors
Body shaming situation is increasing day by day due to social media (P1)	0.727
Body shaming situation is increasing day by day even offline due to social media (P2)	0.768
Body shaming affected a person's self-esteem (P3)	0.693
Body shaming lead to eating disorders, anxiety, body shape disturbances, depression and trauma (P4)	0.740
Possible to mitigate body shaming situations on social media (P5)	0.561
Need laws to regulate body shaming situations through social media (P6)	0.738
Need awareness to control body shaming situations on social media (P7)	0.788
Necessary to take educational activities at school, college, university level to create awareness about body shaming (P8)	0.740
Initial Eigenvalues	4.175
% of Variance	52.184
Cumulative %	52.184
Scale: 1= Strongly disagree, 2= Disagree, 3= Neither agree nor disagree, 4= Agree, 5= Strongly agree	

strong) and body shaming situations are increasing day by day even offline due to social media (P2 = 0.768, strong). Other significant factors include the belief that body shaming affects a person's self-esteem (P3 = 0.693, moderate), can lead to serious issues like eating disorders, anxiety, and depression (P4 = 0.740, moderate), the necessity of laws to regulate body shaming through social media (P6 = 0.738, moderate) and the importance of awareness and educational activities to control and mitigate body shaming (P8 = 0.740, moderate) respectively. The PCA explained 52.184% of the total variance, showing that these factors have a moderate influence on students' perceptions of body shaming. The initial eigenvalue of 4.175 indicates that these components together have a moderately significant explanatory power for students' attitudes towards body shaming.

7. DISCUSSION OF THE FINDINGS

This study found that body shaming is a widespread problem among university students, with the majority of 66.45% reported having experienced it. The focus of this phenomenon is strongly associated with social media, particularly Facebook, where students are most likely to experience body shaming. The prevalence is aggravated by students' high engagement with social media platforms, with 42.3% spending 2-4 hours online and a significant number (13.6%) spending more than 6 hours per day. According to this study, 42.76% experienced body shaming on social media platforms, while 21.38% experienced it in face to face, which could be caused by heavy exposure to social media as stated by the cultivation theory that constant media exposure modifies viewers' perceptions of reality and behavior, and the more people are exposed to images of the perfect body, the less conscious they are of their unrealistic character. For university students, who are often active and engaged users of social media platforms like Facebook, Instagram, and YouTube, this theory posits that their ongoing exposure to content that glorifies certain body types can cultivate a perception. This can be explained by several factors that may be responsible for the growing body-shaming on social media. Firstly, the anonymity and detachment of online interactions make it much easier for people to get involved in body shaming. Secondly, these ideal body images, as depicted on social media, constantly expose users to negative body comparisons that further lead to the perpetuation of body shaming and the internalization of these harmful standards by victims. These subjects create an environment where body shaming becomes normalized, further entrenching it as a societal issue.

The findings of this study reveal significant gender differences in the experiences of body shaming. Specifically, 37.11% of the female students reported experiences related to body shaming on social media, compared to 29.14% of male students. Female to male students had an odds ratio of 1.493 regarding the experience of body shaming; in other words, female were almost 1.5 times more likely to experience body shaming compared to males. The most

frequently reported reasons for body shaming were body shape (11.32%), weight (9.85%), and height (5.24%), with social media being a particularly prevalent platform for these forms of shaming. The study also found that females were more likely to face body shaming through text messages and comments from relatives or friends on social media, with odds ratios of 1.438 and 1.431, respectively. Conversely, males were more likely to experience body shaming through comments (OR = 1.728) and sending audio or videos (OR = 1.225). This disparity can be explained by the fact that women are subject to many societal expectations and pressures to comply with certain physical standards. Women are judged more by their appearance, which shows in the higher rates of body shaming they experience. In patriarchal societies, such attitudes towards women have existed worldwide since ancient times, creating inferior images of women.

In this study, the impacts of body shaming were multifaceted. Nearly half of the students (47.59%) reported emotional distress, while 40.25% experienced body anxiety or dissatisfaction, 39.62% suffered from depression and inferiority, and dissatisfaction with life (30.82%). The study found that female students not only face body shaming more frequently but also suffer more impacts. Females are 1.5 times more likely to suffer from decreased confidence, depression, and dissatisfaction with life due to body shaming compared to males. On the other hand, while male students reported body shaming less frequently, the study highlights a troubling trend where they are more likely to experience suicidal tendencies as a result of body shaming. This points to a different but equally serious psychological impact, suggesting that while the nature of body shaming might differ by gender, the consequences are universally damaging. The study's findings also highlight a concerning link between body shaming and suicidal tendencies, particularly among male students. The correlation analysis further supports the application of cultivation theory. There were strong correlations between decreased confidence and body anxiety or dissatisfaction, with r = 0.730, and emotional distress and depression, with r = 0.830. The correlation indicates that the extent to which students are increasingly exposed to body shaming content has the likelihood to cause them to internalize negative beliefs regarding their bodies, which leads to significant impacts. According to this discussion, cultivation theory

provides a framework for understanding how media consumption can shape social reality and influence public perceptions over time.

Students' perceptions of body shaming revealed that 41.30% believed it stems from a bullying tendency towards others, while 27.46% believed that many people do body shaming unknowingly. A majority of the students strongly agreed and agreed, 51.15% and 40.67%, respectively, that body shaming is a serious issue that affects self-esteem and may further lead to serious mental health problems like eating disorders, anxiety, and depression. Most students have expressed their opinions that there ought to be legal provisions to deal with and limit body shaming on these social media sites. There is a strong consensus among students for increasing awareness and educational initiatives on the issue to combat body shaming. The strongest factor identified was the need for awareness to control body shaming situations on social media (P7 = 0.788). Other significant factors included the belief that body shaming is increasing due to social media, both online and offline (P2 = 0.768), and the necessity for laws to regulate body shaming (P6 = 0.738). The PCA indicated that awareness, education, and legal measures are perceived as crucial in addressing body shaming among students.

8. CONCLUSION AND RECOMMENDA-TIONS

The world and the era that we live in have already turned into an age of information with the rapid exploration of information and communication technology (ICT). People are observing the positive and negative side impacts of ICT and different types of social media [28]. The present study highlighted these negative aspects of social media in body shaming among students. In this study, social media have been identified as a significant catalyst for the increase in body shaming incidents. This detailed analysis delves into the prevalence, impacts, gender-differences experiences and students' perceptions of body shaming among university students. This study found that body shaming is a prevalent issue among university students, particularly exacerbated by social media. Most students experience body shaming on social media, which has had a negative effect on them, especially in the case of female students. It was also discovered that female students who are active on social media often face body shaming more than male students. A majority of students

stated that body shaming is on the rise due to social media. The findings of this study therefore slightly correlate with the findings in the studies conducted by Gam et al. [15], Okoli et al. [16], Mehedy [10], Trisna [20] and Melizza et al. [22].

This research emphasizes the requirement for a multi-faceted approach towards this particular problem. First and foremost, educational institutions need to sensitize students through workshops and programs that aim to improve their self-esteem, self-identity, and confidence. The government should encourage public awareness campaigns about the negative impacts of body shaming in order to create a helpful and conscious community. Thirdly, laws such as the ICT Act censor content that may lead to body shaming. Integrating body shaming into some chapters in textbooks may sow the seed of awareness and sensitization at an early stage. Therefore, we require nothing less than comprehensive awareness and sensitivity to the context of family, education, and culture. It may be effective at a personal level to disregard body shaming through self-confidence, positivity, and ignoring negative comments. To prevent body shaming, we need to address both online and offline factors, such as media and public campaigns, counseling, support, education sector reforms, and positive online content. By combining these strategies, we can create a more sensitive and resilient community that is willing to address body shaming.

9. LIMITATIONS OF THE STUDY

Although body shaming can impact people of any age, this study has just focused on university students at tertiary public institutes in Bangladesh. Aside from that, this study centered only on Begum Rokeya University, Rangpur, where students of this university were the respondents to this research. Therefore, the results cannot be generalized to all students at public and private universities in Bangladesh. Nonetheless, this study provides a significant finding about the prevalence and impact of body shaming among students.

DISCLAIMER (ARTIFICIAL INTELLIGENCE)

The researcher declares that NO generative AI technologies such as Large Language Models (ChatGPT, COPILOT, etc.) and text-to-image generators have been used during the writing or editing of manuscripts.

COMPETING INTERESTS

Author has declared that no competing interests exist.

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