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SELFITIS BEHAVIOUR AS PREDICTOR OF PSYCHOLOGICAL DISTRESS AMONG STUDENTS OF DHAKA CITY

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ABSTRACT

Selfie is an interesting self-portrait phenomenon that has changed young people's communication and leisure time. Instead of living in the present moment, people are busy clicking selfies and uploading them on social media, adversely impacting their psychological health. Thus, the present study was designed to explore the impact of selfitis behavior on psychological distress among students at various educational levels (i.e., schools, colleges, and universities). Data were collected purposively from 400 participants at different educational institutions situated in Dhaka city. A package of Bangla-adapted versions (Zaman and Konica, 2019) of measuring tools (i.e., selfitis behavior scale and psychological distress scale) and a personal information form were used to collect the necessary information regarding the study. Results revealed that selfitis behavior was positively correlated with psychological distress. The individual effect of selfitis behavior construct identified two significant predictors (i.e., environmental enhancement and attention seeking), which jointly explained 12.6% of the variance in psychological distress. Here, the strongest predictor of psychological distress was attention-seeking, which alone explained 10.3% of the variance in psychological distress. Further, results also revealed that the three significant demographic predictors (i.e., socioeconomic status, daily selfie-taking, and educational qualification) jointly explained 16.1% of the variance in psychological distress. These results suggest valuable insights for researchers, educators, and educational counselors dealing with these concerns. Additionally, the findings would aid psychologists, parents, teachers, and other stakeholders in comprehending the factors contributing to psychological distress.

Keywords: *Selfitis Behavior, Psychological Distress, Students, Dhaka City*

Introduction

Technological advancement facilitates human progress in broader aspects. It has changed the way of our lifestyle in different domains such as health (Ahorsu *et al*., 2020; Rajabi *et al*., 2020; Renu,

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2021), entertainment (Grajek, 2022; Renu, 2021), and commerce (Beer and Mulder, 2020; Jongwanich *et al*., 2022; Renu, 2021). Despite the several advantages, the technology adversely affects the user's psychological health (Chen *et al*., 2020; Chen *et al*., 2021; Fazeli *et al*., 2020). Selfi-taking is the trendiest use of technology as a means of recreation, communication, and economic gadget (Bij de Vaate *et al*., 2018; Sung *et al*., 2016). It has become familiar to all generations, especially among teenagers and young adults. Behera *et al*. (2020) noted in their study that the prevalence of dangerous selfies was 8.74%, and the overall prevalence of selfie addiction was 13.88% (Moumina *et al*., 2022) of the pre-clinical students. Selfitis is a disorder of the human mind with the greater use of selfies (Venkataraman, 2019). People like to take selfies for self-satisfaction and feel that taking selfies increases their self-confidence. However, selfitis behavior may result in psychological distress and social problems as evidenced in previous research (Sukhdeep *et al*., 2018; Widyanto and Griffiths, 2011).

Psychological distress (PD) among students is a mental health issue increasing institutional attention and international concern. It is a condition of emotional suffering characterized by symptoms of anxiety (e.g., restlessness, feeling tense) and depression (e.g., sadness, loss of interest, hopelessness) (Miroskwy and Ross, 2002). It is often activated when external situations exert pressure beyond a person's ability to cope with this. Several studies have revealed that age, marital status, low educational status, physical inactivity, parental roles, poor income levels, alcohol consumption, smoking, and unemployment put individuals at a higher risk of psychological distress (Avery *et al*., 2004; Wang *et al*., 2014). Kosidou *et al*. (2011) conducted a longitudinal study in Sweden. Their study aimed to investigate the associations between socioeconomic status and psychological distress. The results showed that income was associated with the risk of psychological distress. In line with this, Islam and Hossin, 2016 conducted a study on 573 graduate students from Dhaka University Bangladesh and reported that 28.4% of students showed psychological distress. Kaur *et al*. (2017) also conducted a study on 360 adolescents to assess the mental health of adolescents with selfie addictions. Their study showed that adolescents with a chronic selfie addiction had poor psychological well-being. Again, from another study, it has been found that 53% of college students were identified with moderate selfie addiction (Priya *et al*., 2018).

Aldridge and Harden (2014) carried out a case study where they revealed that a 19-year-old student developed obsessive-compulsive disorder and body dysmorphic disorder because he took more than 200 selfies daily. Again, Ong *et al*. (2011) stated that the number of selfies uploaded on social media platforms influences extraversion and narcissism tendencies, characteristics of dark personality traits. A similar study reported that uploaded photos through social media (e.g., Facebook) predicted extraversion and neuroticism tendencies (Eftekhar *et al*., 2014). Moreover, Kirschner and Karpinski (2010) stated that if an individual spends more time on social media, it might increase negative self-concept. A study by Kela *et al*. (2017) surveyed 250 Indian students (aged between 18 and 25 years) and found that 15% of students suffered from stress due to taking excessive selfies. Oppong *et al*. (2022) also noted that excessive use of smartphones and continuous selfie-taking might directly affect the levels of psychological distress of an individual.

Rationale of the Study

People have a natural inclination to express themselves as a means of communicating their thoughts, emotions, and identity to others. Nowadays, young generations spend most of their time

on social media. They are more active in taking pictures and uploading them on social media. At present, taking selfies has become an unavoidable part of our daily life. However, from the research findings, it has been found that taking more selfies is related to psychological disorders (e.g., Aldridge and Harden, 2014), which leads to psychological and behavioral disturbances. Instead of doing good for society, technology is becoming more and more disastrous for people with narcissistic behavioral syndrome. For example, Ong *et al*. (2011) noted that uploading more selfies on social media influences narcissism tendencies.

While there is a growing body of research on social media, there remains a gap in the exploration of the self-photograph phenomenon within the context of Bangladesh. Several research studies have been carried out on the psychological distress of students. Researchers have noted that selfitis behavior is highly responsible for psychological distress (Miroskwy and Ross, 2002). Other researchers have examined how psychological distress is affected by demographic variables (e.g., gender, family income, etc.) (Avery *et al*., 2004; Wang *et al*., 2014). This study attempted to provide deep knowledge for understanding the effects of selfitis behavior on the psychological distress of students. It's essential to note that the impact of selfitis behavior on psychological distress can vary among individuals, and multiple factors may interact to influence the overall effect. Additionally, research in this area is ongoing, and new insights may emerge over time. In summary, recognizing the variability among individuals, the influence of social dynamics, the evolution of technology, and the ongoing nature of research in this field are essential to gaining a nuanced understanding of how selfitis behavior may impact psychological distress. As our understanding evolves, interventions and support mechanisms can be developed to address the diverse needs of individuals in the digital age. However, all these studies so far have been conducted in foreign cultures to see the effect of the selected constructs on the psychological distress of the different samples. Considering the above discussion, the present researchers found interest in conducting this research.

Objectives

The objectives were-

1. to explore whether there is any association between selfitis behavior (*i.e.*, environmental enhancement, social competition, attention seeking, mood modification, self-confidence, and subjective conformity) and psychological distress;
2. to examine whether selfitis behavior and individual variables predict psychological distress.

Materials and Methods

Participants

The present research has already been conducted following a cross-sectional survey design because questions are asked of respondents at a single point in time. During the survey period, 400 respondents were selected following the purposive sampling technique from a few selected educational institutions (i.e., schools, colleges, and universities) of the southern zone of Dhaka city (Table 1). Every respondent was chosen in terms of age ranging between 13-25 years. On average, study participants were 19 years old. It is also mentionable that only the students, who are allowed to have smartphones were treated and selected as the target population.

Table 1. Shows the number of areas and respondents

Name of Selected Educational Institutions	Type of Institutes	Number of Respondents
	School, College, University	
Educational Institute 1	School	50
Educational Institute 2	School	25
Educational Institute 3	School	25
Educational Institute 4	College	30
Educational Institute 5	College	30
Educational Institute 6	College	10
Educational Institute 7	College	30
Educational Institute 8	University	180
Educational Institute 9	University	20
Total	A total of 400 Valid Data Collected from 9 Educational Institutions	

The demographic (Table 2) profiles of the participating respondents are below.

Table 2. Demographics profile of the respondents

Categorical Variable Information		*N*	Percent	Mean	SD	Total (Percentage)
Gender	Male	200	50%	146.33	17.44	400 (100%)
	Female	200	50%	142.28	17.58	
Type of Institutions	School	100	25%	146.76	15.67	400 (100%)
	College	100	25%	146.65	17.74	
	University	200	50%	141.91	18.20	
Socio-Economic Status	Upper Class	23	5.8%	127.43	16.81	400 (100%)
	Middle Class	284	71.0%	143.37	14.92	
	Lower Class	93	23.3%	151.34	21.63	
Family Income	Below 20000	122	30.5%	150.40	19.90	400 (100%)
	20001-80000	268	67.0%	141.86	15.68	
	Above 80000	10	2.5%	135.40	18.80	
Takes Selfie	Yes	89	29.7%	146.16	17.18	400 (100%)
	No	211	70.3%	139.10	17.82	
Posts Selfie	Yes	292	73.0%	145.98	17.37	400 (100%)
	No	108	27.0%	139.79	17.53	

Categorical Variable Information		*N*	Percent	Mean	SD	Total (Percentage)
Group Selfie	Yes	224	74.7%	145.58	17.87	400 (100%)
	No	78	25.3%	140.21	16.16	
Mother's Occupation	Service Holder	61	15.3%	142.02	17.03	400 (100%)
	Housewife	339	84.8%	144.72	17.70	
Father's Occupation	Service holder	152	38.0%	144.16	17.08	400 (100%)
	Business	248	62.0%	144.40	17.96	

Measures

The following measuring instruments were administered.

Personal Information Form (PIF)

A Personal Information Form was specifically designed and developed by the researcher to gather the personal information of the respondents. These include respondents' gender, socio-economic status, educational qualification, father's and mother's occupation, and family income. Additionally, this section also includes some selfie-related information (i.e.group selfie, taking selfie, selfie posts, spending time taking selfies every day, etc.).

Selfitis Behavior Scale (SBS)

The second tool measures the respondent's level of selfitis behavior or selfie addiction (Balakrishnan and Griffiths, 2018). This Bangla-adapted tool (Zaman and Konica, 2019) contains 24 items with six sub-scales. Environmental enhancement, the first sub-scale measures participant activities to take selfies in specific locations (outdoor environment) and contains *4 items:1,7, 13, 19.* Further, the next dimension social competition measures social interaction between two people and intruders exert an influence on the reproductive success of individuals (*4 items: 2, 8, 14, 20*); The Next sub-scale is attention seeking, which measures the act in a way that is likely to elicit attention (*3 items: 3, 9, 15*); Mood modification, the forth subscale of the instrument refers to the subjective experiences that people report as a consequence of engaging in the particular activity (*3 items: 4, 10, 16*). Self-confidence measures a feeling of trust in one's ability, qualities, and judgment of an individual (*3 items: 5, 11, 17*). Finally, subjective conformity, the last dimension of the tool measures the act of matching attitudes, beliefs, and behaviors to group norms (*4 items: 6, 12, 18*). Participants rate each item using a 5-point scale anchored from "1" (*strongly disagree*) to "5" (*strongly agree*). High scores indicated a high level of selfitis behavior. The Bangla version of this scale contained a Cronbach alpha value of .72 (N = 300). This adapted version also assured an adequate level of convergent validity (the correlation between sub-scales ranges from .18 to .44).

Psychological Distress Scale (PDS)

The adapted Bangla version of psychological distress (Zaman and Konica, 2019) construct, derived from Crowne and Marlowe (1964), Larson and Chastain (1990), and Jones and Rhodewalt (1986) comprised 48 items and three sub-scales: (1) social desirability - a measure of the tendency to engage in behaviors that strategically protect self-esteem (Crowne and Marlowe, 1964), (2) self-handicapping - an instance of boundary regulation in the maintenance of privacy (Jones and Rhodewalt, 1986), and (3) self-concealment a measure of respondent's concern about social

approval elements (Larson and Chastain, 1990). Participants rate each item using a 5-point scale anchored from "1" (*strongly disagree*) to "5" (*strongly agree*). High scores indicated a high level of psychological distress. The Bangla version of the instrument contained a Cronbach alpha value of .72 (N = 300). This adapted version also assured an adequate level of convergent validity (the correlation between sub-scales ranges from .26 to .43).

Procedure

Before collecting the proposed data, the researcher sent official letters to the respective authorities seeking permission to carry out this research while stating clearly the purpose of the study with a pledge of confidentiality. After the establishment of rapport with the participants, the researcher expressed the objectives and assured them of the confidentiality of the responses. Both written and verbal instructions were provided to them for clarification about what to do, and how to fill up all questionnaires. It is also mentionable that the respondent was allowed to ask questions freely if they had regarding any item of the scale. Those who responded in the affirmative were instructed to continue. They were also informed that they could withdraw themselves from the study at any time. Respondents completed the Bangla version of the questionnaires in a relaxed setting. There was no response time limitation. About 30 minutes were required to complete all the questionnaires. When participants completed the questionnaire, the data sheet was carefully checked if there were any skipped items. After completing the task, all the respondents were thanked for their cooperation.

Data Processing and Analysis

Descriptive and inferential statistics were checked in the present study using SPSS version 25. Mean and standard deviation were used as descriptive statistics, whereas Pearson product-moment correlation and stepwise multiple regression analyses were used as inferential statistics.

Results

To test the research objectives, the findings of the study have been categorized into the following sections.

Table 3. Mean and standard deviation and reliability of the constructs (N = 400)

Variables	Mean	Std. Deviation	Cronbach Alpha
Selfitis Behavior Scale	53.70	13.45	.87
Environmental Enhancement	12.35	3.14	.53
Social Competition	9.38	3.40	.62
Attention Seeking	8.49	2.70	.73
Mood Modification	7.75	2.93	.68
Self-Confidence	8.00	2.79	.57
Subjective Conformity	7.66	2.91	.59
Psychological Distress Scale	144.31	17.61	.81
Social Desirability	82.58	12.12	.81
Self –handicapping	36.47	7.85	.75
Self- concealment	25.27	7.028	.80

As shown in Table 3, the mean scores of selfitis behavior dimension (environmental enhancement, social competition, attention seeking, mood modification, self-confidence, subjective conformity) were12.35, 9.38, 8.49, 7.75, 8.00, and 7.66, respectively.

Table 4. Correlation between the dimensions of selfitis behavior and psychological distress

Variables	1	2	3	4	5	6	7
1. Environmental Enhancement	1						
2. Social Competition	.370**	1					
3. Attention Seeking	.293**	.529**	1				
4. Mood Modification	.496**	.559**	.400**	1			
5. Self Confidence	.515**	.519**	.319**	.664**	1		
6. Subjective Conformity	.327**	.697**	.479**	.522**	.522**	1	
7. Psychological Distress	.151**	.082	.351**	.076	.066	.027	1

Note: ** Correlation is significant at the .01 level (2-tailed). Correlation between total selfitis behavior and psychological distress, r = .162**

The correlation coefficients reported in Table 4 demonstrated a significant positive association between psychological distress and the sub-dimensions of selfitis behavior, specifically environmental enhancement (r = .151; p <.01) and attention seeking (r = .351; p <.01). Also, the total selfitis behavior positively and significantly related with psychological distress ((r = .162; p <.01)The positive association between psychological distress and selfitis behavior suggests that as the level of selfitis behavior increases, there is a corresponding increase in psychological distress. In other words, individuals who engage more frequently in selfitis behaviors, such as environmental enhancement and attention-seeking, are more likely to experience higher levels of psychological distress.

Table 5. Multiple regression analysis (hierarchical) of the dimensions of selfitis behavior on psychological distress

Predictors	B	*B*	*t*	*p*	R^2	R^2 Change	*F* Change
Constant	122.06		32.431	.000			
1. Environmental Enhancement	.297	.053	1.079	.281	.023	.023	9.342
2. Environmental Enhancement & Attention Seeking	2.189	.336	6.846	.000	.126	.103	46.868***

Note. ** indicates .001level of significance

Predictors: Attention Seeking and Environmental enhancement; Criterion Variable: Psychological Distress

Findings reported in Table 5 revealed that two predictors (i.e., environmental enhancement and attention seeking) jointly explained 12.6% of the variance in psychological distress. The strongest significant predictor of psychological distress was attention seeking which alone explained 10.3% of the variance. The unstandardized beta (B = 2.189) of attention seeking dimension suggested that attention-seeking increases by one unit psychological distress increases by 2.189 units. Standardized beta (β = .336) indicates that attention-seeking increases by one standard deviation psychological distress increases by a .351 standard deviation. This interpretation is true only if the effects of other predictors are held constant.

Table 6. Multiple Regression analysis of demographic variables and psychological distress

Variables	*B*	*SE*	*β*	*t*	*p*
Constant	116.932	3.960		29.525	.000
Male	2.703	1.669	.077	1.619	.106
School students	6.917	2.118	.170	3.265	.001
College students	4.637	2.076	.114	2.233	.026
Middle class	15.946	3.580	.411	4.454	.000
Lower class	24.744	3.824	.594	6.471	.000
Daily selfie-taking	9.332	3.937	.234	2.371	.018
Selfie posting	-4.791	3.974	-.121	-1.206	.229
Group selfie-taking	3.505	2.064	.085	1.698	.090

Note. R^2 = .161

Table 7. The overall F-test for regression of psychological distress on individual variables

	Sum of square	*df*	*Mean square*	*F*	*P*
Regression	19958.224	8			
Residual	103718.566	391	2494.887	9.405	.000
Total	123676.790	399			

The results presented in Table 6 showed that educational status, socioeconomic status, and daily selfie-taking have a significant impact on psychological distress. Here, the male participants have higher psychological distress than females, but the difference is not significant. School and college-going students have high psychological distress in comparison to university students, and the differences are significant. The students from middle-class and lower-class families have higher psychological distress in comparison to the higher-class families, and the differences are also highly significant. Also, students who take selfies daily have more psychological distress

than those who do not take, and the difference is significant. All the predictor variables together explained 16.1% of the variance in psychological distress. The findings in Table 7 also revealed that the predictors are good and fit the model significantly.

Discussion

The present study was designed to investigate the relations of selfitis behaviour with psychological distress among the students. Two specific objectives were established to assess the outcomes of the identified constructs, and the findings were elucidated concerning existing evidence.

The primary aim was to explore whether there is any association between selfitis behavior and psychological distress. The outcomes displayed in Table 4 indicated a significant positive correlation between the sub-dimensions of selfitis behavior, specifically environmental enhancement, and attention-seeking with psychological distress. In 2017 Kaur *et al*., discovered that adolescents with selfie addiction had poor psychological health. It was also observed by Priya *et al*., in 2018 that 53% of college students were identified with moderate selfie addiction. The reason behind the findings can be explained that only for self-satisfaction do the younger generation take selfies, they also correlate selfie-taking with a high level of self-confidence. Nevertheless, some research studies have also discovered a connection between selfitis behavior, psychological distress, and the emergence of social issues (Sukhdeep *et al*., 2018; Widyanto and Griffiths, 2010).

Also, Social comparison theory and social rank theory state that social surroundings play an important role in explaining the social networking site behavior of the young generation. These theories indicate that young individuals who belong to certain peer groups tend to take selfies and upload them on social media. The reason is that there is high competition and comparison among the peer group members. Every person in the group wants to look better than others (Tandoc *et al*., 2015).

Again, the narcissism dynamic self-regulatory processing model states that narcissistic people always try to get positive feedback from others. Narcissistic people use social media to maintain a positive and impressive sense of self (Morf *et al*., 2011). Some authors and journalists argue that narcissistic people are so active in taking selfies that they forget their surroundings. That's why some writers call it a selfish act. Some authors also suggested that taking more selfies leads to narcissism because they always try to seek attention from others. Still, it negatively impacts relationships with other people (Lee and Sung, 2016) and their psychological well-being (Lobo, 2016).

The second objective was to examine whether selfitis behavior and individual variables predict psychological distress. Results presented in Table 5 revealed that the two significant predictors (i.e., environmental enhancement and attention seeking) jointly explained in psychological distress where the strongest predictor of psychological distress was attention seeking. These results are also supported by past studies. For example, Mubeen *et al*. (2022) conducted a study and found that narcissism was a significant negative predictor of psychological well-being among young adults who are always busy seeking attention from others. These people suffer from psychological distress because of low cognitive and emotional capabilities. They always spend more time on social media to take and upload selfies (Wirtz and Rigotti, 2020).

Again, the findings presented in Tables 6 and 7 indicated that psychological distress is notably influenced by educational status, socioeconomic status, and the frequency of daily selfie-taking. Past studies also (e.g., Fryers *et al*., 2003; Lahelma *et al*., 2006; Molarius *et al*., 2009; Kosidou *et al*., 2011) suggested that there is an association between educational level and socioeconomic status with mental health problems which meant that higher levels of education have been correlated with better psychological health. The reasons are that educated people have a greater number of choices and have more control over their lives. Socioeconomic status and daily selfie-taking also contribute to the onset of psychological problems (Campbell, 2014; Williams, 2023).

However, the present investigation had a few limitations. Firstly, this is a cross-sectional study and not a longitudinal study. So, it is unclear whether the perception of selfitis behavior would change with growing age. Secondly, the data are based only on subjective questionnaires. Thirdly, the sample was taken from ten educational institutions in Dhaka city, not covering all over Bangladesh. Fourthly, shortages of literature about a few topics are also realized. Fifthly, non-cooperative behavior from the respondents was confronted. Finally, only one fact like selfitis behavior was used as a predictor variable. Another variable, such as cognitive factors, can be considered in future studies.

Despite the above limitations, the present study's findings can be significant in several ways. The present study advances our understanding of how selfitis behavior affects students' psychological distress. The current results may also be helpful to researchers, educators, and educational counselors concerned with these issues. Findings would also help psychologists, parents, teachers, and others understand the factors behind psychological distress.

Conclusion

The current study presents a unique contribution to the existing literature on the influence of technology on the mental well-being of students. Beyond exploring both positive and negative psychological outcomes, this research offers valuable insights for practitioners and scholars. It specifically contributes evidence on 'selfitis behavior' in the context of Bangladesh, establishing benchmark data for future in-depth investigations by other researchers. While the phenomenon of selfie-taking may transform with technological advancements, the factors identified as contributors to psychological distress in this study serve as crucial insights into the dynamics of human-machine interaction. Further psychological research in this area is warranted. The findings align with those of previous studies, affirming the significance of the identified predictors.

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