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ORIGINAL RESEARCH

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Association between flaunting behaviors on social media and among the general population in Bangladesh: A cross-sectional study

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Abstract

Background and Aims: The number of social media users is growing with each passing day at full tilt, keeping pace with digitalization and technological advances. Despite several advantages, there are also certain negative aspects to using social networking sites (SNS) for communication, amusement, self-expression, impression management, and other purposes. This study sought to investigate the association between mental health status and flaunting behaviors in social media among the general population in Bangladesh.

Methods: We conducted this nationwide cross-sectional online survey among 465 people aged between 18 and 60 between October 15, 2021 and January 15, 2022. Following electronic consent, we collected the socio-demographic profiles and psychometric parameters of the respondents. Additionally, we assessed the diverse perspectives on SNS usage and its relationship to the self-reported symptoms of depression and loneliness.

Results: The estimated prevalence of loneliness and depressive symptoms were 65.16% (mild: 39.57%, moderate: 16.56%, severe: 9.03%) and 55.49% (mild: 26.67%, moderate: 22.15%, severe: 6.67%), respectively. Key factors associated with flaunting on social media were mental health issues such as depression and loneliness. Several social factors were also considered, such as being young, of the male sex, unmarried, illiterate, a student, urban dwelling, average economic status, nuclear family structure, types of SNSs, checking social media first in the morning, and the use of SNS for gaining popularity.

Conclusion: A significant portion of SNS users reported symptoms of mental illness. Current study findings urge for longitudinal studies with larger sample sizes to have a nearly equal distribution of users from each social media platform for in-depth exploration of how user attitudes about SNSs and site usage patterns impact the

general public's mental health. We suggest that regulating SNS usage patterns and treatment approaches would improve the situation.

KEYWORDS
Bangladesh, depression, loneliness, mental health, social media, social networking

1 | INTRODUCTION

Social connection is a natural constitutional need of humans.[1] Electronic devices such as smartphones have evolved into a gateway to social interaction since the introduction of online communication.[2] As of April 2022, there were five billion internet users globally with 4.65 billion being social media users.[3] The widespread adoption of social media demonstrates its propensity to influence the knowledge, attitudes, and behaviors of people in both high and low-resource settings.[4] Social networking sites (SNS) such as Facebook, Instagram, Twitter, YouTube, Pinterest, etc., are among the most well-known websites worldwide. SNS provides numerous platforms for effective communication, interactions, and linkages among health professionals, professional networks, education, and training.[5] It also offers people opportunities for self-disclosure, self-presentation, and impression management.[6] Facebook had 2.93 billion monthly active users as of the first quarter of 2022, followed by YouTube, WhatsApp, Instagram, and WeChat.[3] TikTok, a social networking app that allows video sharing, became a global hit in 2020 as a result of millions of people being compelled to work and study from home due to the COVID-19 outbreak and were in need of entertainment. Similar to other regions in the world, the general Bangladeshi population uses social media extensively. According to a news report, social media usage in Bangladesh has increased exceptionally in the past year.[7] The number of internet users in Bangladesh who joined a social platform or network surged by 4.6 million (+10.1%) between 2021 and 2022.[8] As of June 2022, the most popular applications among Bangladeshi students, according to Mubassira and Das, were Google and social networking.[9] Facebook users made up around 95% of all social media users in Bangladesh.[10] SNS platforms are utilized for a plethora of purposes in this region, with a large amount using it for academic purposes and accomplishing their academic goals.[11] Furthermore, an analysis of 168 young entrepreneurs in Bangladesh revealed that the majority of them relied on social media as a communication tool.[12] Besides, more than one-third of university students in Bangladesh exhibit signs of Facebook addiction, which provides an approximation of the platform's extensive usage.[13]

Several significant studies have been undertaken to investigate the motives, scopes, and complexities for utilizing SNS in general, with researchers continually discovering diverse motivations. Some argue that SNSs are the key to networking for introverts. Although, some other findings support that sociable and open personalities are more inclined to utilize SNSs.[14] According to past studies, adult SNS users mostly utilize these sites for business-related, creative, social, entertaining, status-seeking, communicative, and information-seeking purposes.[15] In the case of the elderly population, SNSs are particularly useful for those having limited mobility or who are physically confined in a setting like a nursing home or assisted living community and want to retain ties with family and friends.[16] Young individuals use social media significantly for a myriad of reasons including identity development, social improvement (increasing offline social standing via online contacts) and managing interpersonal ties.[17] SNS tends to be employed for informal, peer-organized learning and seldom for formal learning interactions with teaching personnel in educational settings.[18] Researchers have found that adolescents at a middle school in South Korea mostly used SNSs for enjoyment and stress relief (66.5%) and communication with others (48.3%).[19] Peer pressure, a need for social connection, and curiosity were identified to be undergraduate students' driving forces for joining Facebook.[20] There are various real-world applications for online social proficiency as well.[21] Some social media platforms, such as SNSs, are now playing an increasingly important function in our academic health sciences organizations for information translation and teaching.[22] Academic social networking services are gradually becoming vital to the work of researchers.[23,24] Membership in SNSs having greater informational values, such as LinkedIn and Twitter, may be resourceful to individuals.[25] Social commerce, a subset of internet commerce, is a popular concept in the twenty-first century. A study reported that before making any significant purchases, Chinese consumers are very likely to visit a company's SNS page to ascertain whether the product or business is well-liked by others to solicit feedback and advice from other users. This helped to determine whether the company is responsive to and attentive to its current customers.[26] SNSs are rapidly expanding into a highly influential communication medium, with many people having multiple accounts on various platforms and devoting a significant amount of time daily.

Lack of social connection has been associated with long-lasting detrimental effects on physical and mental health and might raise the risk of mortality.[27] Nevertheless, SNS-based connectivity may also promote and perpetuate cognitive distortions in certain users.[28] Heavy use of SNS is frequently associated with psychological distress and suicidal thoughts.[29] Problematic Facebook use exacerbates social anxiety and thus reduces life satisfaction.[30] Research on SNS use and mental illness suggests that some users experience anxiety when they don't check their SNSs frequently, indicating highly obsessive behavior.[31] Social media users with severe fear of missing out (FOMO) exhibit greater SNS activity and obsessive SNS use.[32] As a result of such excessive SNS use, elevated levels of FOMO have been related to distracted learning and distracted driving.[33] In a recent

longitudinal study involving adolescents, a statistically significant association between greater frequency of digital media use and eventual signs of attention-deficit/hyperactivity disorder was observed.[34] Research suggests that in teenagers, problematic social networking site usage (PSNSU) was linked to certain behavioral issues.[35] Machiavellianism and narcissism were also positively correlated with problematic social media usage (PSMU).[36] Moreover, using SNS may open additional avenues for exposure to harmful substances.[37] For instance, research shows that young teens who use SNS inappropriately are more likely to have recently used alcohol, tobacco, or energy drinks.[35] SNSs facilitate many negative effects of social interaction, such as cyberbullying, stalking, and online harassment.[38] A meta-analysis of 23 studies reported that being the target of bullying was most significantly connected to depression.[39] As per SNS usage surveys, having many friends and subjective social support results in social contact overload, and this excess leads to SNS fatigue and lower life satisfaction.[40] Stress and poor sleep quality were also strongly correlated with SNS addiction.[29] Making social comparisons on SNS platforms is prominent in females and less famous persons, and it is strongly linked with depressive symptoms.[41] The chronic use of social media by adult women has been proven to have a negative influence on body image outcomes such as body esteem and body dissatisfaction.[42,43] Prior research revealed that more SNS or Facebook usage also influenced how people assessed their value as people and resulted in lower self-esteem.[44]

Undoubtedly, self-expression serves as the key motivator behind people's use of SNSs and social media sharing.[14] Some users, however, may use these sites as a medium for self-promotion, as revealed by the tendency of Facebook users to upload carefully chosen images that viewers would find most appealing.[45] Concerns may arise about the link between the actual self in the physical world and the fabricated self in virtual reality.[46] Children reporting high levels of Internet faking demonstrated low self-esteem, social anxiety, poor social skills, and higher aggression.[47] Research conducted by Bailey et al.[48] revealed that people expressing themselves more authentically on Facebook report feeling greater life satisfaction. Moreover, Covid-19 pandemic has impacted the mental health of general population across the countries.[49–51] The comprehensive goal of this study is to investigate the relationship between SNS usage patterns and users' perceptions of sites with mental health issues such as loneliness and depressive disorders among the general Bangladeshi population.

2 | METHODS

2.1 | Study participants

We carried out a nationwide cross-sectional online survey between October 15, 2021, and January 15, 2022, using Google Forms. Here, we assumed the response rate, confidence level, margin of error, and significance level as 50%, 5%, 10%, and 5%, respectively. According to this calculation, the sample size needed to attain a minimum of 80% statistical power was 385. Initially, we got 501 responses. After the screening, we left out 36 owing to their partial or incomplete information. Finally, we included 465 responses for the final analysis (262 males and 203 females). The age of the participants ranged from 18 to 60 years. All respondents were of Bangladeshi descent and were then living in Bangladesh. Before participation, they acknowledged and signed a consent form. Participants voluntarily gave their information after being aware of the eligibility requirements. The exclusion criteria were age below 18 years. We aimed to assess the mental well-being of general Bangladeshi SNS users. The participants received a confidentiality assurance for their participation. The respondents were not paid for this survey.

2.2 | Data collection procedure

Two sets of self-administered questionnaires were prepared using the Google Forms application and sent to participants via email, Facebook, Messenger, WhatsApp, Instagram, etc. The first set of questionnaires collected socio-demographic, academic, and economic information, and particular SNS-related questions. The second set questioned respondents' perceptions and views about SNS usage and how their activities on these sites influenced their way of living.

2.3 | Demographics of the study population

We collected demographic factors included age, sex, marital status, degree of study, employment status, economic state, residence, family structure, and smoking habit using a predesigned structured questionnaire. Regarding the use of SNS, three particular questions were posed. The preferred social networking platform of the respondents was the focus of these questions. The users' purpose behind using SNS was also noted. Additionally, it was asked if the first thing the respondents did after waking up was check their social media.

2.4 | SNSs use-related parameters

The respondents were then questioned about their opinions on using SNS. For instance, they were questioned about whether they enjoyed posting frequent details from their every day lives on social media or monitoring the feedback they received from others. The participants could answer using five alternatives: (1) completely agree; (2) completely disagree; (3) neither disagree nor agree; (4) partially agree; (5) partially disagree.

2.5 | Psychometric estimations

We gathered information related to recent demographic profiles and opinions related to the use of SNS by the respondents. Finally, we

utilized mental health assessment scales to assess the prevalence of loneliness and depressive disorders. All of the demographic and psychometric questionnaires were set up in both English and Bangla. First, a medical graduate and a nonmedical individual who were both fluent in English and native Bangla translated all the questions into Bangla. To create a single Bangla forward version, an independent researcher collated these two Bangla versions and resolved discrepancies. The forward Bangla version was translated back to English by a qualified medical translator and another medical graduate. The two back-translated English versions of this study were combined into a single English version by another independent author of this study. To ensure clarity and understanding, we piloted the questionnaire among a small, randomly chosen sample of participants. Following validation, we distributed the questionnaire to the general Bangladeshi population in both Bangla and English to ensure a clear understanding.

2.6 | UCLA loneliness scale

The UCLA loneliness scale is a commonly used tool in survey-based studies to assess feelings of isolation or loneliness. UCLA was developed by researchers at the University of California in 1980. Here we applied the UCLA-3 questionnaire, which is a three-item scale to measure the loneliness of individuals. Respondents score themselves by choosing one option out of four for each item to determine their level of loneliness: hardly ever, some of the time, and often.[49] The UCLA-3 scale has a total score range of 3–9. A higher score indicates a greater level of loneliness.[49–51]

2.7 | Patient health questionnaire

The Patient Health Questionnaire (PHQ-9) is a nine-item, globally recognized questionnaire. This questionnaire is filled by self-evaluation to determine participants' depressive symptoms during the past 2 weeks.[52] The total score ranges from 0 to 27 points. Each question receives a score between 0 and 3, with 0 representing no points, 1 representing several days, 2 representing half of the time, and 3 representing nearly every day. When the score is 10 and above, depressive symptoms are evident. A score of less than 10 signifies the absence of depressive symptoms.[53] The overall score was split into four categories to represent the severity of illness such as no depression, mild, moderate, and severe depression, with cumulative values of <10, 10–15, 16–21, and 22–27, respectively.

2.8 | Statistical analysis

We performed statistical analysis using SPSS (version 25). We used descriptive statistics to evaluate the demographic parameters of the participants. Also, we applied the χ^2 test to observe the differences among the individuals having psychiatric symptoms from others. Binary logistic regression analysis was used to assess the risk of psychometric illness concerning other confounding factors with a 95% confidence interval (CI). Significant results were considered at a p value less than or equal to 0.05.

2.9 | Ethics approval

The Committee for Advanced Studies at the Department of Pharmacy, University of Asia Pacific approved this study protocol (No. UAP/REC/2022/105). We obtained informed consent from all participants for their participation in this study. This participation was voluntary. We conducted this study following the Declaration of Helsinki.

3 | RESULTS

3.1 | General description of the study population

We presented the demographic profiles of the respondents in Table 1. Among the participants, 56.34% were male, and 43.66% were female. More than half of the respondents were young adults aged between 18 and 30. About two-thirds of the respondents were illiterate, and just 28.82% had graduated or had higher degrees. Proportions of respondents from unmarried, nonsmokers and middle economic class were 72.69%, 81.94%, and 43.44%, respectively. Facebook was the SNS platform of choice for 83% of the respondents. Approximately 69.68% of those surveyed acknowledged checking social media first thing in the morning. The majority of SNS users primarily used SNS to gain popularity.

3.2 | Use-related SNS factors

A total of 173 (37.21%) of the 465 respondents completely agreed that receiving praise from others made them feel good. One-third (33.55%) of respondents fully disagreed with the idea that having many social media friends made them more appreciative. Additionally, 136 respondents (29.24%) partially agreed that they enjoyed posting numerous daily life occurrences on social media. It was completely contradicted by 214 respondents (46.02%) that shared posts related to their sadness or depression on social media to gain compassion from others. When questioned whether they liked taking photographs and posting them on social media when they met celebrities, 25.16% partially agreed to do so. Among all respondents, 40.22% completely agreed that they like to see who is reacting to and commenting on their social media status. When someone gave unpleasant reactions or comments on their success story, 29.90% of individuals completely disagreed that they felt good. A significant portion (43.44%) of all respondents denied feeling bad while witnessing other people's success or joyful events on social media. Moreover, 27.09% of respondents do not want to upload many posts

TABLE 1 Distribution of socio-demographic variables and their association with symptoms of mental health disorders among the users of social networking sites.

Socio-demographic parameters	Total ($N = 465$)		Loneliness symptoms ($N = 303$)					Depressive symptoms ($N = 258$)				
	n	%	*n*	%	χ^2	*df*	*p* value	*n*	%	χ^2	*df*	*p* value
Age in years												
18–30	340	73.12	218	71.95	1.179	3	0.758	170	65.89	20.983	3	**<0.001**
31–40	68	14.62	48	15.84	1.202	3	0.753	45	17.44	22.967	3	**<0.001**
41–50	36	7.74	24	7.92			**<0.001**	31	12.02	465		
51–60	21	4.52	13	4.29			**<0.001**	12	4.65			
Sex												
Male	262	56.34	177	58.42	1.518	1	0.218	160	62.02	7.579	1	**0.006**
Female	203	43.66	126	41.58	1.285	1	0.257	98	37.98	7.070	1	**0.008**
Marital status												
Married	127	27.31	79	26.07	0.673	1	0.412	80	31.01	3.988	1	**0.046**
Unmarried	338	72.69	224	73.93	0.506	1	0.477	178	68.99	3.581	1	0.058
Education												
Illiterate	319	68.60	199	65.68	7.521	3	0.057	172	66.66	4.469	3	0.215
Primary	6	1.29	2	0.66	7.502	3	0.057	2	0.78	4.489	3	0.213
Secondary	6	1.29	4	1.32				2	0.78			
Graduate/above	134	28.82	98	32.34				82	31.78			
Occupation												
Business/self-employed	66	14.19	47	15.51	15.772	5	**0.008**	45	17.44	23.185	5	**<0.001**
Housekeeping	32	6.88	22	7.26	17.015	5	**0.004**	26	10.08	24.194	5	**<0.001**
Service	26	5.59	13	4.29				9	3.49			
Service (private/govt.)	50	10.75	27	8.91				27	10.47			
Student	247	53.12	156	51.48				122	47.29			
Unemployed	44	9.47	38	12.55				29	11.23			
Economic impression												
High	95	20.43	56	18.48	3.305	2	0.192	62	24.03	5.019	2	0.081
Low	168	36.13	107	35.32	3.297	2	0.192	86	33.33	5.092	2	0.078
Medium	202	43.44	140	46.20				110	42.64			
Residence area												
Rural	65	13.98	43	14.19	0.033	1	0.856	42	16.28	2.551	1	0.110
Urban	400	86.02	260	85.81	0.002	1	0.967	216	83.72	2.139	1	0.144
Family type												
Joint family	124	26.67	83	27.39	0.234	1	0.628	70	27.13	0.064	1	0.800
Nuclear family	341	73.33	220	72.61	0.140	1	0.708	188	72.87	0.022	1	0.883
Smoking habit												
Nonsmoker	381	81.94	250	82.51	0.193	1	0.661	215	83.33	0.765	1	0.382
Smoker	84	18.06	53	17.49	0.098	1	0.755	43	16.67	0.568	1	0.451
Preferred SNS												
Facebook	386	83.00	245	80.86	9.182	4	0.057	217	84.11	2.336	4	0.674

(Continues)

TABLE 1 (Continued)

Socio-demographic parameters	Total (*N* = 465)		Loneliness symptoms (*N* = 303)					Depressive symptoms (*N* = 258)				
	n	%	*n*	%	χ^2	*df*	*p* value	*n*	%	χ^2	*df*	*p* value
Instagram	45	9.68	37	12.21	9.842	4	**0.043**	23	8.91	2.332	4	0.675
Others	13	2.80	8	2.64				8	3.10			
TikTok	10	2.15	8	2.64				6	2.33			
Whatsapp	11	2.37	5	1.65				4	1.55			
Checking social media at first in the morning												
No	141	30.32	73	24.09	15.978	1	**<0.001**	67	25.97	5.199	1	**0.023**
Yes	324	69.68	230	75.91	15.143	1	**<0.001**	191	74.03	4.747	1	**0.029**
Purpose of SNS use												
Popularity	195	41.94	120	39.60	15.655	4	**0.004**	92	35.66	34.427	4	**<0.001**
Domination	28	6.02	20	6.60	15.864	4	**0.003**	20	7.75	36.650	4	**<0.001**
Impress	88	18.92	69	22.77				71	27.52			
Time pass	100	21.51	68	22.44				51	19.77			
Others	54	11.61	26	8.59				24	9.30			

Note: *p* values are significant at 95% confidence interval ($p < 0.05$). Significant *p* values are shown in bold.
Abbreviations: N, number; SNS, social networking sites.

with the same outfit on social media and 38.06% of individuals completely disagreed with the statement that they occasionally keep their social media accounts inactive so they won't see postings from others. About 25.38% of respondents were undecided on whether they felt bad about seeing the weaknesses and failures of their rivals on social media. Also, 28.17% of respondents only somewhat agreed that social media has made them more competitive and 30.54% of the entire study sample were those who vehemently disagreed with the notion that people deliberately post pleasant events on social media. Of all the respondents, 199 (42.8%) completely disagreed with the statement that they enjoyed showcasing branded products on social media. Similarly, one-third (33.76%) of respondents partly agreed that they use social media postings to express their preferences or personalities. When asked whether people typically remember to check in on social media when they visit any famous location, only 27.96% completely disagreed. The proportion of respondents who completely disagreed that they liked to portray themselves differently on social media was 29.03%. Social media was perceived somewhat positively by 36.13% of respondents. Out of all respondents to the survey, 246 (52.89%) completely agreed that social media hampered their mental health. Also, 27.53% of people partially agreed that excessive use of SNS made someone feel less lonely (Table 2).

3.3 | Psychometric evaluation

The estimation of loneliness and depressive symptoms were 65.16% and 55.49%, respectively (Figure 1 and Table 1). The proportion of respondents having loneliness symptoms were higher in (i) aged 18–25 versus 31–40 (71.95% vs. 15.84%), (ii) males versus females (58.42% vs. 41.58%), (iii) unmarried versus married (73.93% vs. 26.07%), (iv) illiterate versus graduate/above (65.68% vs. 32.34%), (v) students versus businessman or self-employed individuals (51.48% vs. 15.51%), (vi) medium versus low economic status (46.20% vs. 35.32%), (vii) urban versus rural (85.81% vs. 14.19%), (viii) Nuclear family versus joint family (72.61% vs. 27.39%), (ix) nonsmoker versus smoker (82.51% vs. 17.49%), (x) those who preferred Facebook versus Instagram (80.86% vs. 12.21%), (xi) individuals who check social media at first in the morning versus those who don't (75.91% vs. 24.09%), (xii) people who used SNS for gaining popularity versus to impress (39.60% vs. 22.44%), respectively. The extents of respondents with depressive disorders were higher in (i) aged 18–25 versus 31–40 (65.89% vs. 17.44%), (ii) males versus females (62.02% vs. 37.98%), (iii) unmarried versus married (68.99% vs. 31.01%), (iv) illiterate versus graduate/above (66.66% vs. 31.78%), (v) students versus businessman or self-employed individuals (47.29% vs. 17.44%), (vi) medium versus low economic status (42.64% vs. 33.33%), (vii) urban versus rural area (83.72% vs. 16.28%), (viii) nuclear family versus joint family (72.87% vs. 27.13%), (ix) nonsmoker versus smoker (83.33% vs. 16.67%), (x) those who preferred Facebook versus Instagram (84.11% vs. 8.91%), (xi) individuals who check social media at first in the morning versus those who don't (74.03% vs. 25.97%), (xii) people who used SNS for gaining popularity versus for impressing (35.66% vs. 27.52%), respectively.

The χ^2 test was employed to determine whether there was a statistically significant correlation between socio-demographic factors and mental health issues among the SNS users. The findings of the analysis are presented in Table 1. From the analysed data, it is evident that age, occupation, the habit of checking social media at

TABLE 2 Distribution of opinions about the use of social networking sites and their association with symptoms of mental health disorders among the users.

Opinions about the use of social networking sites	Total ($N = 465$)		Loneliness symptoms ($N = 303$)					Depressive symptoms ($N = 258$)				
	n	%	*n*	%	χ^2	*df*	*p* value	*n*	%	χ^2	*df*	*p* value
Appreciation from others make me feel good												
Completely agree	173	37.21	111	36.63	1.389	4	0.846	105	40.70	5.920	4	0.205
Completely disagree	44	9.46	29	9.57	1.423	4	0.840	26	10.08	5.929	4	0.205
Neither disagree nor agree	63	13.55	45	14.85				32	12.40			
Partially agree	153	32.90	97	32.01				75	29.07			
Partially disagree	32	6.88	21	6.93				20	7.75			
I believe that having many friends on social media increase my appreciation												
Completely agree	71	15.27	49	16.18	22.680	4	**<0.001**	59	22.87	34.055	4	**<0.001**
Completely disagree	156	33.55	79	26.07	22.416	4	**<0.001**	66	25.58	36.470	4	**<0.001**
Neither disagree nor agree	78	16.77	57	18.81				46	17.82			
Partially agree	102	21.94	77	25.41				58	22.48			
Partially disagree	58	12.47	41	13.53				29	11.25			
I like to share many daily life events in social media												
Completely agree	73	15.71	54	17.82	11.280	4	**0.024**	59	22.87	36.915	4	**<0.001**
Completely disagree	115	24.73	63	20.79	11.228	4	**0.024**	43	16.66	38.722	4	**<0.001**
Neither disagree nor agree	73	15.70	52	17.16				47	18.22			
Partially agree	136	29.24	94	31.02				73	28.29			
Partially disagree	68	14.62	40	13.21				36	13.96			
I share some posts related to my sadness/depression on social media for others sympathy												
Completely agree	68	14.63	51	16.83	22.012	4	**<0.001**	61	23.64	57.151	4	**<0.001**
Completely disagree	214	46.02	117	38.61	22.453	4	**<0.001**	85	32.95	62.943	4	**<0.001**
Neither disagree nor agree	63	13.55	50	16.50				38	14.72			
Partially agree	82	17.63	61	20.13				53	20.54			
Partially disagree	38	8.17	24	7.93				21	8.15			
I like to take picture and upload it on social media when I meet any famous person												
Completely agree	114	24.52	75	24.75	11.795	4	**0.019**	79	30.62	16.691	4	**0.002**
Completely disagree	114	24.52	61	20.14	11.704	4	**0.020**	49	18.99	16.946	4	**0.002**
Neither disagree nor agree	79	16.99	58	19.14				46	17.83			
Partially agree	117	25.16	84	27.72				63	24.42			
Partially disagree	41	8.81	25	8.25				21	8.14			
I like to see who are giving reactions and comments to my posts on social media												
Completely agree	187	40.22	128	42.24	12.128	4	**0.016**	116	44.96	9.419	4	0.051
Completely disagree	35	7.53	14	4.62	11.599	4	**0.021**	13	5.04	9.434	4	0.051
Neither disagree nor agree	48	10.32	35	11.56				28	10.85			
Partially agree	164	35.27	107	35.31				86	33.33			
Partially disagree	31	6.66	19	6.27				15	5.82			

(Continues)

TABLE 2 (Continued)

Opinions about the use of social networking sites	Total (*N* = 465)		Loneliness symptoms (*N* = 303)					Depressive symptoms (*N* = 258)				
	n	%	*n*	%	χ^2	*df*	*p* value	*n*	%	χ^2	*df*	*p* value
I feel good when someone gives negative reactions/comments on my success story												
Completely agree	93	20.00	66	21.78	7.882	4	0.096	71	27.52	25.529	4	**<0.001**
Completely disagree	139	29.90	87	28.71	7.961	4	0.093	64	24.81	26.575	4	**<0.001**
Neither disagree nor agree	88	18.92	55	18.15				50	19.38			
Partially agree	78	16.77	58	19.14				44	17.05			
Partially disagree	67	14.41	37	12.22				29	11.24			
I feel bad when I see others' success/joyful event on social media												
Completely agree	71	15.27	47	15.51	36.512	4	**<0.001**	61	23.64	59.495	4	**<0.001**
Completely disagree	202	43.44	104	34.32	38.454	4	**<0.001**	75	29.07	63.187	4	**<0.001**
Neither disagree nor agree	63	13.55	48	15.84				41	15.89			
Partially agree	89	19.14	76	25.08				57	22.09			
Partially disagree	40	8.60	28	9.25				24	9.31			
I do not like to share multiple posts with same outfit in social media												
Completely agree	109	23.44	72	23.76	15.215	4	**0.004**	76	29.45	21.236	4	**<0.001**
Completely disagree	102	21.94	53	17.49	15.193	4	**0.004**	42	16.28	21.508	4	**<0.001**
Neither disagree nor agree	83	17.85	57	18.81				42	16.28			
Partially agree	126	27.09	95	31.35				77	29.84			
Partially disagree	45	9.68	26	8.59				21	8.15			
I sometimes keep my social media account deactivated so that I don't see other people's posts												
Completely agree	82	17.63	63	20.79	39.969	4	**<0.001**	70	27.13	53.872	4	**<0.001**
Completely disagree	177	38.06	84	27.72	39.753	4	**<0.001**	67	25.97	57.756	4	**<0.001**
Neither disagree nor agree	59	12.69	46	15.18				37	14.34			
Partially agree	105	22.58	80	26.40				62	24.03			
Partially disagree	42	9.04	30	9.91				22	8.53			
I do not feel bad to watch the failure and limitations of my competitors on social media												
Completely agree	82	17.63	61	20.13	24.311	4	**<0.001**	69	26.74	41.605	4	**<0.001**
Completely disagree	110	23.66	55	18.15	24.873	4	**<0.001**	44	17.05	44.872	4	**<0.001**
Neither disagree nor agree	118	25.38	73	24.09				61	23.64			
Partially agree	92	19.78	74	24.42				55	21.32			
Partially disagree	63	13.55	40	13.21				29	11.25			
Social media influence me to compete with others												
Completely agree	88	18.92	66	21.78	23.045	4	**<0.001**	70	27.13	43.720	4	**<0.001**
Completely disagree	120	25.81	62	20.46	22.840	4	**<0.001**	44	17.05	45.464	4	**<0.001**
Neither disagree nor agree	80	17.20	55	18.15				44	17.05			
Partially agree	131	28.17	97	32.01				81	31.40			
Partially disagree	46	9.90	23	7.60				19	7.37			
I intentionally like to share happy moments on social media												
Completely agree	85	18.28	69	22.77	40.489	4	**<0.001**	75	29.07	81.203	4	**<0.001**
Completely disagree	142	30.54	66	21.78	40.989	4	**<0.001**	42	16.28	87.676	4	**<0.001**
Neither disagree nor agree	77	16.56	51	16.83				39	15.11			

TABLE 2 (Continued)

Opinions about the use of social networking sites	Total (*N* = 465)		Loneliness symptoms (*N* = 303)					Depressive symptoms (*N* = 258)				
	n	%	*n*	%	χ^2	*df*	*p* value	*n*	%	χ^2	*df*	*p* value
Partially agree	114	24.52	89	29.37				75	29.07			
Partially disagree	47	10.10	28	9.25				27	10.47			
I like to show by branded gadget through my social media posts												
Completely agree	73	15.70	54	17.82	23.240	4	**<0.001**	61	23.64	49.809	4	**<0.001**
Completely disagree	199	42.80	106	34.98	23.472	4	**<0.001**	79	30.62	52.536	4	**<0.001**
Neither disagree nor agree	74	15.91	51	16.83				49	18.99			
Partially agree	79	16.99	62	20.46				50	19.38			
Partially disagree	40	8.60	30	9.91				19	7.37			
I used to express my choice/personality through my posts on social media post												
Completely agree	116	24.95	82	27.06	18.392	4	**0.001**	83	32.17	25.386	4	**<0.001**
Completely disagree	68	14.62	32	10.56	17.975	4	**0.001**	24	9.30	25.888	4	**<0.001**
Neither disagree nor agree	80	17.20	60	19.80				46	17.83			
Partially agree	157	33.76	106	34.98				85	32.95			
Partially disagree	44	9.46	23	7.60				20	7.75			
I usually don't forget to check-in on social media when visit any famous place												
Completely agree	86	18.49	61	20.13	16.565	4	**0.002**	63	24.42	22.791	4	**<0.001**
Completely disagree	130	27.96	68	22.44	16.411	4	**0.003**	55	21.32	23.292	4	**<0.001**
Neither disagree nor agree	81	17.42	59	19.47				47	18.22			
Partially agree	105	22.58	77	25.42				63	24.42			
Partially disagree	63	13.55	38	12.54				30	11.62			
I like to represent myself in a different way on social media												
Completely agree	84	18.06	62	20.46	24.223	4	**<0.001**	68	26.36	35.965	4	**<0.001**
Completely disagree	135	29.03	68	22.44	24.434	4	**<0.001**	54	20.93	38.029	4	**<0.001**
Neither disagree nor agree	90	19.35	59	19.47				49	18.99			
Partially agree	103	22.15	81	26.73				60	23.26			
Partially disagree	53	11.41	33	10.90				27	10.46			
I believe social media is a good thing												
Completely agree	95	20.43	64	21.12	4.380	4	0.357	61	23.65	7.813	4	0.099
Completely disagree	60	12.90	36	11.88	4.369	4	0.358	29	11.24	7.852	4	0.097
Neither disagree nor agree	91	19.57	53	17.49				54	20.93			
Partially agree	168	36.13	113	37.29				83	32.17			
Partially disagree	51	10.97	37	12.22				31	12.01			
I think social media affects our mental health												
Completely agree	246	52.89	172	56.77	11.312	4	**0.023**	144	55.82	5.468	4	0.243
Completely disagree	23	4.95	10	3.30	11.058	4	**0.026**	11	4.27	5.474	4	0.242
Neither disagree nor agree	47	10.11	34	11.22				30	11.62			
Partially agree	134	28.82	78	25.74				65	25.19			
Partially disagree	15	3.23	9	2.97				8	3.1			

(Continues)

TABLE 2 (Continued)

Opinions about the use of social networking sites	Total (*N* = 465)		Loneliness symptoms (*N* = 303)					Depressive symptoms (*N* = 258)				
	n	%	*n*	%	χ^2	*df*	*p* value	*n*	%	χ^2	*df*	*p* value
I believe excessive usage of social networking sites makes someone less lonely												
Completely agree	94	20.21	70	23.10	14.475	4	**0.006**	75	29.07	36.698	4	**<0.001**
Completely disagree	94	20.21	50	16.50	14.472	4	**0.006**	36	13.95	38.629	4	**<0.001**
Neither disagree nor agree	80	17.21	59	19.47				38	14.73			
Partially agree	128	27.53	85	28.05				74	28.68			
Partially disagree	69	14.84	39	12.88				35	13.57			

Note: *p* values are significant at 95% confidence interval ($p < 0.05$). Significant *p* values are shown in bold.
Abbreviation: N, number.

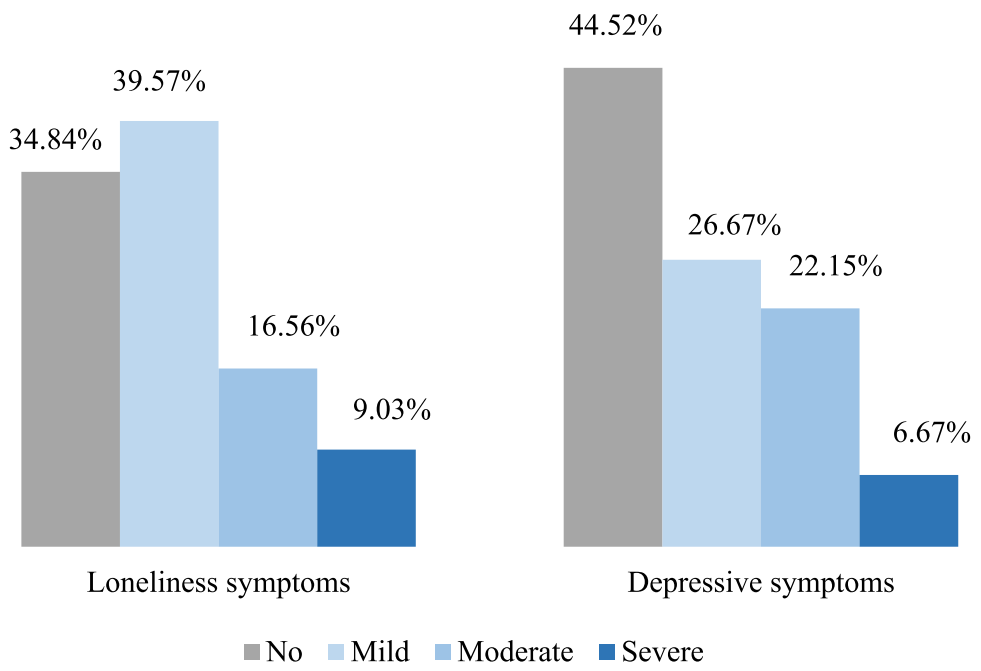

FIGURE 1 Prevalence and distribution of mental health disorders among the Bangladeshi social networking site user.

first in the morning, and the purpose of using SNS have a significant correlation with both loneliness and depressive symptoms. The preferred SNS type, meanwhile, exhibits an association solely with loneliness, whereas sex and marital status are associated with depressive illnesses only. It was observed that loneliness (71.95%) and depressive (65.89%) symptoms were more prevalent in people aged 18–30. We noticed that students were at the highest risk in terms of developing loneliness (51.48%) and depressive (47.29%) symptoms. Unmarried people were found to exhibit higher levels of depressive symptoms (68.99%). SNS users who particularly preferred Facebook over other sites demonstrated greater signs of loneliness (80.86%). Individuals with a habit of checking social media first in the morning showed high levels of both loneliness (75.91%) and depressive symptoms (74.03%). Respondents who used SNS for the purpose of being popular exhibited higher levels of loneliness (39.60%) and depressive (35.66%) symptoms than those who used it for other purposes.

The χ^2 analysis has also been applied to examine the significant association of various opinions about SNS use with loneliness and depressive disorders. The results obtained from the bivariate analysis were tabulated in Table 2. The opinion that appreciation from others on social media made users feel good was found to not influence feelings of loneliness or depressive disorders. Likewise, the belief in SNS as a positive activity had no potential association with loneliness and depressive symptoms. Respondents who completely disagreed that having too many friends on social media increased their appreciation had higher chances of suffering from both loneliness (26.07%, $p < 0.001$) and depressive symptoms (25.58%, $p < 0.001$).

Individuals who partially agreed to enjoy sharing many daily life events on social media reportedly had greater chances of having loneliness and depressive symptoms (31.02%, $p = 0.024$; 28.29%, $p < 0.001$). The likelihood of loneliness ($p < 0.0001$) and depressive symptoms ($p < 0.0001$) is greater among those who vehemently disagreed with the idea of posting about their sadness or depressive symptoms for seeking sympathy. People who partially agreed to like taking pictures and uploading pictures whenever they met any famous person were observed to have higher chances of loneliness (27.72%). On the other hand, higher chances of depressive symptoms (30.62%, $p = 0.002$) were observed in people who completely agreed with the statement. Though respondents' fondness for seeing who was giving reactions or comments on their social media posts had no relationship with depressive symptoms, those to completely agreed with the opinion had a potential correlation with loneliness symptoms (42.24%, $p = 0.016$). Similarly, completely agreed that social media affected mental health-provoked loneliness symptoms (56.77%, $p = 0.023$), however this parameter did not associate with depressive symptoms. Individuals who completely disagreed with the notion of occasionally deactivating their social media accounts so they don't see other people's postings reported having a higher risk of loneliness ($p < 0.001$) and depressive symptoms ($p < 0.001$). Higher chances of loneliness symptoms (24.42%) were observed in people who partially agreed to not feel bad watching the failures or limitations of their competitors on social media. Whereas those who completely agreed with the notion mostly suffered from depressive symptoms (27.13%, $p < 0.001$). We observed a higher likelihood of developing loneliness (32.02%) and depressive symptoms (31.40%) in respondents who partially agreed that social media influenced them to compete with others. Individuals who partially agreed that they loved purposely sharing happy moments on social media had an increased risk of experiencing loneliness symptoms (29.37%, $p < 0.001$). Meanwhile, individuals who agreed entirely or partially with the statement had a greater probability of developing depressive symptoms (29.07%, $p < 0.001$). Respondents who absolutely disagreed that they enjoyed flaunting branded products on social media were shown to have a greater risk of loneliness ($p < 0.001$) and depressive symptoms ($p < 0.001$). The analysed data from the χ^2 test suggested that individuals who partially agreed with the thought that they used social media postings to convey their preference or personality had a higher probability of having both loneliness (34.98%) and depressive symptoms (32.95%). Respondents who partially agreed that they do not forget to check in on social media when visiting any renowned location were more likely to develop loneliness (25.42%) and depressive symptoms (24.42%). Those who agreed completely with the same statement reported a greater likelihood of depressive symptoms (24.42%, $p < 0.001$). Individuals who had reported they somewhat liked to represent themselves differently on social media and thought using SNS excessively made one feel less lonely, had a higher probability of suffering from loneliness symptoms. However, individuals who fully agreed with the remarks had a greater risk of acquiring depressive symptoms ($p < 0.001$).

3.4 | Associated risk factors for loneliness and depressive symptoms

According to the binary logistic regression analysis (Table 3), those who are illiterate reported being 0.598 times less likely than those with a graduate degree or above to experience loneliness symptoms (odds ratio [OR] = 0.598; 95% CI = 0.359–0.996, $p = 0.048$). Compared to unemployed people, those who work as housekeepers and students are, respectively, 0.225 times (OR = 0.225; 95% CI = 0.077–0.659, $p = 0.007$) and 0.238 times (OR = 0.238; 95% CI = 0.088–0.647, $p = 0.005$) less likely to have loneliness symptoms. A higher economic position was associated with a 0.504 times lower likelihood of loneliness than lower socioeconomic status (OR = 0.504; 95% CI = 0.287–0.885, $p = 0.017$). People who preferred WhatsApp had a 6.569 times higher risk of experiencing loneliness than those who preferred other social networking services (OR = 6.569; 95% CI = 1.355–31.841, $p = 0.019$). Individuals who used SNS to gain popularity (OR = 1.987; 95% CI = 1.002–3.942, $p = 0.049$), domination (OR = 3.575; 95% CI = 1.214–10.525, $p = 0.021$), impressing (OR = 4.511; 95% CI = 1.934–10.525, $p < 0.001$), or passing time (OR = 2.182; 95% CI = 1.027–4.639, $p = 0.043$) were 1.987, 3.575, 4.511, and 2.182 times more likely to suffer from loneliness than those who used it for other objectives. We observed that factors such as age, sex, marital status, residential area, family type, and smoking habit had no alliance with loneliness. The chances of developing a depressive disorder were found to be 4.826 times higher in those aged 41 to 50 than in individuals over 50 (OR = 4.826; 95% CI = 1.173–19.854, $p = 0.029$). Males had a 1.908 times higher prevalence of depressive symptoms compared to females (OR = 1.908; 95% CI = 1.186–3.070, $p = 0.008$). Individuals who used social media to impress others were 4.918 times more likely to acquire depressive symptoms than those who utilized it for other objectives (OR = 4.918; 95% CI = 2.145–11.274, $p < 0.001$). Socio-demographic variables such as marital status, education, occupation, economic impression, residential area, family type, smoking habit, and preferred SNS type did not correlate with depressive symptoms.

4 | DISCUSSION

In Bangladesh, there were 24.49 million social media users in 2022, which is predicted to rise to 33.6 million by 2027 according to current projections.[54] Despite a high social media penetration rate in the country, the use of these sites and their impact on mental health issues is barely discussed. Concerns with social media use, such as upward social comparison and feedback-seeking behavior put users at risk of depressive symptoms.[41] Consequently, people might promote fake and ostentatious self-presentation to satiate their desire for social acceptability and self-acceptance on these sites.[55] To our knowledge, this is the first study to assess the relationship between self-expression tendencies on SNS and mental health issues among the general Bangladeshi population. The socio-demographic characteristics, perspectives on the usage of SNS, and how they relate to mental health issues in the general Bangladeshi

TABLE 3 Regression analysis of socio-demographic variables and their association with symptoms of mental health disorders among the users of social networking sites.

Socio-demographic parameters	Loneliness symptoms (*N* = 301)			Depressive symptoms (*N* = 258)		
	OR	95% CI	*p* value	OR	95% CI	*p* value
Age in years			0.874			0.113
18–30	1.452	0.434–4.856	0.545	1.247	0.393–3.954	0.708
31–40	1.607	0.499–5.181	0.427	1.840	0.591–5.732	0.293
41–50	1.284	0.363–4.544	0.698	4.826	1.173–19.854	0.029
Above 50	1			1		
Sex						
Male	1.355	0.830–2.211	0.224	1.908	1.186–3.070	0.008
Female	1			1		
Marital status						
Married	0.836	0.422–1.654	0.606	0.826	0.417–1.639	0.585
Unmarried	1			1		
Education			0.219			0.245
Illiterate	0.598	0.359–0.996	0.048	0.686	0.426–1.105	0.121
Primary	0.355	0.046–2.719	0.319	0.665	0.087–5.095	0.694
Secondary	0.942	0.123–7.241	0.954	0.188	0.024–1.485	0.113
Graduate/above	1			1		
Occupation			0.036			0.109
Business/self-employed	0.437	0.139–1.377	0.158	0.954	0.358–2.541	0.924
Service	0.373	0.103–1.352	0.133	1.522	0.440–5.270	0.507
Housekeeping	0.225	0.077–0.659	0.007	0.512	0.208–1.264	0.147
Student	0.238	0.088–0.647	0.005	0.503	0.231–1.095	0.083
Unemployed	1			1		
Economic impression			0.054			0.662
High	0.504	0.287–0.885	0.017	1.287	0.728–2.274	0.385
Medium	0.872	0.530–1.437	0.592	1.016	0.632–1.633	0.947
Low	1			1		
Residence area						
Rural	0.909	0.469–1.761	0.777	1.519	0.789–2.925	0.211
Urban	1			1		
Family type						
Nuclear family	1.144	0.677–1.934	0.614	0.849	0.511–1.409	0.526
Joint family	1			1		
Smoking habit						
Nonsmoker	1.016	0.539–1.918	0.960	1.059	0.574–1.954	0.855
Smoker	1			1		
Preferred SNS			0.032			0.594
Facebook	2.111	0.554–8.051	0.274	1.706	0.412–7.063	0.461
WhatsApp	6.569	1.355–31.841	0.019	1.731	0.366–8.187	0.489
Instagram	3.673	0.612–22.058	0.155	4.187	0.664–26.393	0.127

TABLE 3 (Continued)

Socio-demographic parameters	Loneliness symptoms (*N* = 301)			Depressive symptoms (*N* = 258)		
	OR	95% CI	*p* value	OR	95% CI	*p* value
TikTok	8.805	0.990–78.272	0.051	2.325	0.321–16.824	0.403
Others	1			1		
Purpose of SNS use			0.010			0.000
Popularity	1.987	1.002–3.941	0.049	1.174	0.607–2.271	0.634
Domination	3.575	1.214–10.525	0.021	2.567	0.870–7.573	0.088
Impress	4.511	1.934–10.525	<0.001	4.918	2.145–11.274	<0.001
Time pass	2.182	1.027–4.639	0.043	1.288	0.628–2.644	0.490
Others	1			1		

Note: *p* values are significant at 95% confidence interval ($p < 0.05$). Significant *p* values are shown in bold.
Abbreviations: CI, confidence interval; N, number; OR, odd ratio; SNS, social networking sites.

population are depicted in the present study. We tried to assess how two crucial mental health issues-loneliness and depressive disorders-might be impacted by users' opinions about these SNSs and how users express themselves on these sites.

SNSs have been recognized as a tool for coping with loneliness and depressive symptoms, increasing self-esteem and social support, and improving overall well-being.[56–58] These platforms may be seen by the population as a safer place to express oneself those with low self-esteem.[59] Nonetheless, using SNS can develop into a problematic or pathological practice in a section of people and it may eventually impair every day functioning, social interactions, and performance in academic settings or at work.[60] Online social networking activity that is excessive and obsessive has lately been proposed as a behavioral addiction.[61–63] According to Ryan & Xenos, shy and anxious people spend more time on SNS to escape reality and satisfy their social requirements. This tendency may in certain cases cause addiction to develop.[64,65] According to a research study, young people associated with using SNSs for more than 2 h per day report having poor mental health, psychological discomfort, suicidal thoughts, and unmet needs for psychiatric help.[29] Users indulge in an expansive range of activities on SNSs, and these potentially distracting activities can be accompanied by other behaviors including short-term attention, restlessness, forgetfulness, impulsiveness, and a reduced capacity for knowledge retention.[66] Another study stated that SNS addicts had inferior emotion recognition abilities.[67] People who are addicted to SNSs may have social connection disruption (such as showing disrespect to their family and friends) and diminished functional capacity (such as losing interest in hobbies, leisure activities, exercise, and work).[68] Continuous access to social media allows SNS users to see what they are missing out on rather than concentrating on what they have, leading to emotions of discontent, anxiety, unworthiness, and a momentarily lowered self-esteem.[69] Beliefs such as "I am not likable" or "I have poor social skills," coupled with the expectation that gaining many "friends/followers" through social networking will alter these self-perceptions, may stimulate frequent usage of SNS, and lead to addiction to SNS.[70] Long-term costs to well-being might result from an over-dependence on external approval in the quest for self-esteem.[71] Furthermore, SNSs serve to develop and sustain presumed societal norms, normalizing youth alcohol consumption through peer-to-peer transmission and encouraging several types of cyber harassment, including online bullying and stalking, all of which are linked to negative mental health.[72,73]

Psychiatric illnesses have a considerable impact on the global disease burden and are costly for the public health system.[74] It is very unfortunate that in Bangladesh, mental health concerns are still stigmatized and given little attention.[75] According to a World Health Organization (WHO) report, the "treatment gap" for individuals with mental problems in Bangladesh is 92.3%, implying that only 7.7% receive mental health care.[76] Therefore, the current crisis calls for research on the factors that provoke mental health problems in this region. A study involving Bangladeshi ethnicity demonstrated that excessive usage of social media such as Facebook causes psychological distress.[77] Another study found links between Facebook addiction and depressive symptoms in the people of Bangladesh.[78] Other research has identified favorable connections between prolonged social media usage and poor sleep in the populace.[79] According to another recent Bangladeshi report, students and young people are prone to using Facebook during suicide attempts.[80] Hussain and Griffith discovered that PSNSU was linked directly to symptoms of psychopathological and psychiatric illnesses.[66] A recent study investigated the relationship between SNS and psychological disorders in Bangladesh and found similar associations. The study suggested that identifying the adverse effects of SNS use should be targeted to enhance the mental well-being of Bangladesh's young population.[81] It is becoming extremely essential to tackle the potentially dire effects of problematic use of SNS with a growing number of people using these sites. We anticipate that this study will enrich existing research and provide a better understanding of the SNS usage habits of Bangladeshi people in general and how they relate to mental health. There has been a substantial number of studies on the general Bangladeshi population's mental health to date, but there is still a paucity of studies on problematic SNS use, psychosocial behavior patterns in SNS usage, and their links to mental disorders. It is hoped that this research will assist in

identifying potential variables that have a detrimental effect on the mental health of persons residing in Bangladesh. This study will aid in our understanding of the mental health problems that Bangladesh is experiencing, which is symbolic of regional and, to a greater extent, global issues brought on by social media abuse.

This research has some important implications for theory, practice, and policy. SNS is quickly becoming an integral element of contemporary work and recreational culture. While appreciating the advantages of these technological tools for quick networking and communication, it is obligatory to also realize the deleterious repercussions of improper usage. Numerous new users sign up for various SNS platforms every day under the influence of the rapid evolution of digital culture. Our research showed that excessive dependence on digital platforms for communication, entertainment, and self-expression has serious ramifications for mental health issues including depression and loneliness symptoms. The results are suggestive of the fact that individuals should concentrate more on strengthening real-world social communication rather than spending an excessive amount of time on SNSs hunting for new connections. According to a prior study, the negative outcomes of compulsive SNS use may be amplified if users are always online and utilizing more than one SNS.[82] Regulatory bodies may take some initiatives to prevent SNS addiction and limit obsessive usage of these sites by restricting these servers every day for specific periods. The self-enhancement drive and social comparison focus may be diminished by authentic self-presentation in SNSs.[55] In terms of self-expression on these platforms, self-acceptance should be prioritized and authenticity should be practiced. To prohibit risky self-disclosure on these platforms, site developers should provide users with clear and simple comprehensible privacy options. These findings should help parents and educational institutions see the value of fostering a sense of positive self-image in children as they develop. Findings from this study might also motivate psychotherapists to develop appropriate cognitive-behavioral therapy strategies to combat mental disorders. According to earlier studies, utilizing SNS to relieve boredom was particularly damaging and was linked to problematic SNS use (PSNSU).[31,83] Due to the same reasons, the government should focus on constructing brand-new and attractive recreational facilities that are in line with the interests of people of various generations to keep them from relying too much on SNS for entertainment.

Numerous elements associated with people's perceptions and assessments of these sites were discovered to have a considerable influence on depressive disorders and feelings of loneliness. In the future, research should address the shortcomings of the present study. A larger sample size with a nearly equal distribution of users from each social media platform should allow for a more thorough investigation of how user attitudes about SNSs and site usage patterns affect the general public's mental health.[84] It would be fascinating to investigate the connections between self-expression inclinations on SNSs, site usage patterns, and user evaluations of these platforms with other mental health conditions such as sleep disturbances, anxiety, personality, and mood disorders. Additionally, we recommend that future studies explore the connection between SNS use or specific SNS usage behaviors, as well as diverse ranges of psychiatric and psychological issues in longitudinal studies. This can achieve detailed information on changes over time. Other approaches, such as observer ratings and implicit methods, may be beneficial if used in future studies to more accurately quantify SNS-influenced mental health concerns. Subsequent research may also investigate the association between problematic SNS usage tendencies and emotional problems as well as real-life social withdrawal behavior in Bangladeshi populace.

Our study used SNS usage trends to identify their effect on two primary mental health disorders among the general Bangladeshi population. This study, the first of its kind in Bangladesh, yields crucial findings about feelings of loneliness and depression as they are influenced by various SNS usage manners and user opinions about these sites. There are several limitations to the study. First, all data were based on online self-reports, which may have some biases and may not be representative of people without internet access. Second, as a result of the study's cross-sectional design, we were unable to determine the long-term effects of these mental diseases. Finally, because all information was self-reported, it is possible that respondents weren't entirely truthful when addressing sensitive questions concerning drug use. They could also have experienced social desirability biases while recalling information.

5 | CONCLUSION

This study discovered an increased risk of acquiring both loneliness and depressive symptoms in people who are heavily involved in SNS. Alternative ways to relieve boredom should be explored instead of spending long hours browsing SNS. We suggest that authenticity should be upheld in online self-expression strategies on social networks. While using SNS, individuals should demonstrate their acceptance of the actual self and cease depending on the approval of others to feed their egos. On the whole, peoples' mental well-being is afflicted by perceptions, attitudes, and expressions on these sites to a considerable extent. Hence, policies and therapeutic interventions should be established with a focus on social media use and usage patterns. Security and privacy settings on social media platforms should be rigorously inspected, updated, or strengthened to diminish the risk of dangerous self-disclosure. Furthermore, we recommend future studies on other mental health disorders that are accelerated by problematic SNS use. Raising public awareness and educating people about the importance of maintaining good mental health is crucial during the age of digital communication.

AUTHOR CONTRIBUTIONS

Nazmunnahar and **Rehnuma Nasim**: conceptualization, methodology, investigation, writing – original draft. **Iffat Hossain**, **Jannatul Saima**, and **Tania Taher**: data curation. **Rana Al Mosharrafa** and **Md. Jamal Hossain**: investigation, formal analysis. **Md. Ashrafur Rahman** and **Md. Rabiul Islam**: supervision, project administration, writing – review & editing.

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CONFLICT OF INTEREST STATEMENT

The authors declare no conflicts of interest.

DATA AVAILABILITY STATEMENT

All the relevant data and information will be available from the corresponding author upon reasonable request.

TRANSPARENCY STATEMENT

The lead author Md. Rabiul Islam affirms that this manuscript is an honest, accurate, and transparent account of the study being reported; that no important aspects of the study have been omitted; and that any discrepancies from the study as planned (and, if relevant, registered) have been explained.

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