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Post-COVID-19 internet addiction, depression, and pornography addiction among adolescents: Findings from a nationwide study in Bangladesh

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Abstract

Background and Aims: Regulations response to COVID-19 has increased internet addiction (IA), depression, and pornography addiction (PA) among adolescents worldwide. The objective of this nationwide study was to assess the current prevalence rate of IA, depression, and PA after the post-COVID-19 period among school-going adolescents in Bangladesh.

Methods: A total of 8832 male and female adolescents participated in this research. The cross-sectional study was conducted online using a simple random sampling method. Including the sociodemographic variables, Young's IA Test (IAT-20) Scale, Patient Health Questionnaire (PHQ-9), and Pornography Craving Questionnaire (PCQ-12) were used to measure IA, depression, and PA. By SPSS version 25.0, the prevalence and correlation between IA, depression, and PA were analyzed using the Chi-square test, binary logistic regression, and a bivariate co-relation matrix.

Results: Sixty-three percent, 76.6%, and 62.9% of the students were suffering from IA, depression, and PA respectively. Depressive and anxious symptoms were significantly associated with IA. Female students were more depressed than males. Males were more addicted to pornography than females. Students who utilized social media but didn't exercise had greater depression and PA. IA, depression, and PA were correlated.

Conclusion: The research emphasizes the need for comprehensive mental health treatments, digital literacy programs, and family and teacher participation to reduce IA, depression, and PA among adolescents post-COVID-19. Promotion of physical exercise and supporting policies to build safer online settings for adolescents are also encouraged.

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1 | INTRODUCTION

Since the new coronavirus pneumonia pandemic broke out in December 2019, the COVID-19 has become a worldwide public health danger and international emergency.[1] There have been 615 million confirmed infections and 6.5 million losses recorded worldwide. Without viable vaccinations or antiviral medications, global communities had mobilized stringent anti-epidemic preventative measures.[2] These included closing administrative and educational facilities, the metro system, and public areas and implementing online/distance learning and work-from-home for workers.[3,4] Governments also attempted to raise public awareness by offering daily media updates to promote social distancing and home-keeping.[5] On March 8, 2020, a coronavirus infection was detected for the first time in Bangladesh, and Bangladesh's government has imposed a lockdown in response to the widespread COVID-19 outbreak.[6]

Due to COVID-19 prevention restrictions, educational institutions had closed, and instead of physical classes, institutions resorted to online classes.[7] These fueled fear and stress among students and decreased their mental stability as well, such as post-traumatic stress disorder (PTSD), internet addiction (IA), pornography addiction (PA), depression, stress, anxiety, and even suicidal.[8–10] A comprehensive review and meta-analysis integrated 15 papers on pandemic and isolation-related behavioral, emotional, and psychological issues in children and adolescents found that 41.7% of the adolescents had depression.[11] Another meta-analysis found rates for depressive symptoms from 2.2% to 63.8%.[12] A total of 94 research that included teenagers were looked at in depth for this meta-analysis. During the COVID-19 epidemic, they discovered that the frequency of IA ranged between 15% and 50%.[13] In China, cross-sectional research was conducted during the COVID-19 pandemic, finding that 23.5 percent of teenagers were affected by IA.[14] To maintain interpersonal and social connections and participate in events during the period of lockdown, adolescents became preoccupied with a variety of online activities, including pornography.[15,16] Several studies demonstrated an increased prevalence of pornography use during the COVID-19 pandemic.[17–19]

Numerous research has been undertaken to examine the effects of the COVID-19 epidemic on the mental health of students in Bangladesh. A notable incidence of IA, PA, depression, anxiety, stress, and PTSD was observed among students during the duration of the COVID-19 pandemic.[20–23] Furthermore, the prevalence of IA was evaluated by researchers to range from 35% to 80%, while the prevalence of depression ranged from 40% to 85% among students.[24–27]

There is a direct connection between depression, addiction to pornography, and addiction to the internet among adolescents, and these three conditions often exacerbate one another.[28,29] It is possible that adolescents who are hooked to the internet may have heightened symptoms of depression as a result of social isolation and the displacement of interactions that take place in the actual world.[29] Because of this depression, some adolescents may seek out pornography as a kind of self-medication or as a means of escaping their feelings, which may ultimately develop into an addiction to pornography. As a result of the use of pornography, emotions of shame and guilt might become even more profound, which can exacerbate symptoms of depression.[30] In addition, the quick satisfaction that is delivered by both the internet and pornography may make it difficult for teenagers to develop appropriate coping skills, which can trap them in a cycle of addicted behavior and mental health problems.[29]

However, all the previous studies in Bangladesh conducted on the prevalence of IA, depression, and PA among students were conducted either during the COVID-19 outbreak or before the pandemic. After a long time, the lockdown was over, and all public movements and institutions reopened in August 2021.[31] After the steps taken by authorities had finished preventing the pandemic, we hardly found any research confirming the present means after the COVID-19 prevalence rate of IA, depression, and PA among adolescents. This study's main vision was to fill up the study gap by assessing the prevalence of IA, depression, and PA after the COVID-19 pandemic among Bangladeshi school-going students and to determine the associated factors conducting a nation-wide survey.

2 | METHODOLOGY

2.1 | Ethical approval and consent to participate

The Institutional Review Board of Noakhali Science and Technology University granted the study ethical clearance and logistical support. The study included only those participants who provided written consent, while individuals who did not provide consent were excluded from the study.

2.2 | Study design and data collection procedure

The cross-sectional study was conducted using a simple random sampling method to collect data. From August to December of 2022, the sample included 8832 students aged 13–19 from various schools located around Bangladesh. The average age of the research participants was 15.3 years, and 64.3% were female. At first, 104 students completed a pilot survey by completing a self-reported questionnaire. The full survey was executed after the pilot study

analysis, which had been done to ascertain the feasibility and efficacy of the research. Data was collected through Google Forms, a short online survey tool. The demographics section, the IA Test (IAT) Scale, the Patient Health Questionnaire (PHQ-9), and the pornography craving questionnaire (PCQ-12) sections made up the questionnaire.

2.3 | Criteria for selection

The study's inclusion and exclusion criteria were as follows: (i) enrollment of students presently attending school; (ii) inclusion of adolescents under 19; and (iii) requirement of Bangladeshi nationality by birth. The exclusion criteria for this research were as follows: (i) adolescents who had dual citizenship, (ii) international students presently enrolled in educational institutions in Bangladesh, and (iii) respondents who did not provide their permission.

3 | MEASURES

3.1 | Sociodemographic measures

Questions regarding socio-demographics were asked, including age, division (Dhaka, Chittagong, Rajshahi, Khulna, Rangpur, Sylhet, Barishal, and Mymensingh), gender (Male and Female), academic class (Eight, Nine, and Ten), marital status (Married and Unmarried), religion (Islam, Hinduism, and Others), use of social media (Yes and No), daily exercise (Yes and No), had online classes during the covid-19 period (Yes and No), any financial crisis due to Covid-19 (Yes and No).

3.2 | IAT scale

The Young's IAT Scale (IAT-20) is a unidimensional standardized psychometric tool developed by Young,[32] comprises 20 questions answered using a 5-point Likert scale, 0 = Not Applicable, 1 = Rarely, 2 = Occasionally, 3 = Frequently, 4 = Often, 5 = Always. The final score on the IAT is calculated by adding the examinee's scores for each of the 20 possible answers. One hundred points is the maximum possible. The above 50 scores are categorized as having IA, and the below 50 is not having addiction.[33] The scale was validated in Bangladesh and was also used in assessing IA among adolescents.[34,35] IAT was found consistent in the current study with a Cronbach alpha of 0.79.

3.3 | Patient depression questionnaire

To evaluate patients suffering from depressive disorders, the PHQ-9 was administered.[36] The measure consists of nine elements, each of which is graded using a Likert scale ranging from 0 (Not at all) to 3 (Nearly every day). Based on total scores ranging from 0 to 4, 5 to 9, 10 to 14, 15 to 19, and 20 to 27, the severity of depression was broken down into four distinct groups: none to a minimum, mild, moderate, and moderately severe, as well as severe, respectively. In the current research, participants who scored moderate to severe (above 10) were considered to have depressed symptoms.[37] This scale has been validated in Bangladesh and ha widely been used in various settings.[38,39] The internal consistency was good in this study with a Cronbach α of 0.81.

3.4 | PCQ-12

The PCQ-12 has dual purposes: first, as a research instrument to determine the frequency and environmental triggers of seeking among various pornographic user types, and second, as a therapeutic tool to plan and assess treatment for problematic pornographic users. A 7-point Likert scale, from one (strongly disagree) to seven (strongly agree), is used to score each of the 12 items that comprise the measure. From items 1 to 12, a mean score between 1.0 and 7.0 is calculated. Craving is deemed positive when the score is 5.0 or above.[40] The internal consistency was good in this study with a Cronbach α of 0.77.

3.5 | Statistical analysis

Descriptive analysis included sociodemographic, IA, depressive, and PA variables. Score bands on the IAT-20, PHQ-9, and PCQ-12 Likert scale classified respondents as internet addicted, depressed, or pornography addicted. We used the Pearson Chi-square test to find connections between our parameters and IA, depression, and PA. In a binary logistic regression model, depression and PA were the dependent variables, while all other components were independent variables. A Shapiro−Wilk test verified multivariate normality before chi-square and logistic regression studies. Data set multicollinearity was examined using a correlation matrix. The Kolmogorov-Smirnov test determined data dependence and confirmed multivariate normality, independence, and absence of multicollinearity. In all categorical variables, odds ratios (OR) and 95% confidence intervals (CIs) were determined. A bivariate correlation matrix was employed to assess the correlation between IA, depression, and PA. IA, depression, and PA were shown in bar charts by divisions. In a pie chart, IA, depression, and PA rates among schoolchildren were revealed. All analyses used SPSS 25.0, released in 2017, New York, USA.

4 | RESULTS

4.1 | Demographical description

Table 1 shows the demographic description of this research. Eight thousand eight hundred thirty-two students filled out the survey. There were 64.3% female and 35.7% male participants; 7.4% were

TABLE 1 Descriptive outline for dependent versus independent variables.

Variable	Categories	Total N Count (%)	Internet addiction No Count (%)	Yes Count (%)	p Value	Depression No Count (%)	Yes Count (%)	p Value	Pornography addiction No Count (%)	Yes Count (%)	p Value
Age	Mean age 15										
Division	Barishal	856 (9.7%)	314 (9.6%)	542 (9.7%)	0.931	213 (10.3%)	643 (9.5%)	<0.001	328 (10.0%)	528 (9.5%)	<0.001
	Chittagong	1850 (20.9%)	704 (21.5%)	1146 (20.6%)		464 (22.5%)	1386 (20.5%)		725 (22.1%)	1125 (20.3%)	
	Dhaka	2267 (25.7%)	808 (24.8%)	1458 (26.2%)		425 (20.6%)	1842 (27.2%)		726 (22.1%)	1541 (27.7%)	
	Khulna	616 (7.0%)	225 (6.9%)	391 (7.0%)		138 (6.7%)	478 (7.1%)		220 (6.7%)	396 (7.1%)	
	Mymensingh	1009 (11.4%)	374 (11.4%)	635 (11.4%)		196 (9.5%)	813 (12.0%)		349 (10.6%)	660 (11.9%)	
	Rajshahi	742 (8.4%)	275 (8.4%)	467 (8.4%)		131 (6.3%)	611 (9.0%)		232 (7.1%)	510 (9.2%)	
	Rangpur	1088 (12.3%)	421 (12.9%)	667 (12.0%)		347 (16.8%)	741 (10.9%)		478 (14.6%)	610 (11.0%)	
	Sylhet	404 (4.6%)	146 (4.5%)	258 (4.6%)		150 (7.3%)	254 (3.8%)		220 (6.7%)	184 (3.3%)	
Gender	Female	5683 (64.3%)	2067 (63.3%)	3615 (65.0%)	0.207	1031 (50.0%)	4652 (68.7%)	<0.001	1415 (43.2%)	1734 (31.2%)	<0.001
	Male	3149 (35.7%)	1200 (36.7%)	1949 (35.0%)		1033 (50.0%)	2116 (31.3%)		1863 (56.8%)	3820 (68.8%)	
Class	Nine	2788 (31.6%)	2788 (85.3%)	0 (0.0%)	<0.05	702 (34.0%)	2086 (30.8%)	<0.05	1278 (39.0%)	1510 (27.2%)	<0.001
	Ten	6044 (68.4%)	479 (14.7%)	5564 (100.0%)		1362 (66.0%)	4682 (69.2%)		2000 (61.0%)	4044 (72.8%)	
Social Media	No	572 (6.5%)	230 (7.0%)	342 (6.1%)	<0.05	162 (7.8%)	410 (6.1%)	<0.05	244 (7.4%)	328 (5.9%)	<0.001
	Yes	8260 (93.5%)	3037 (93.0%)	5222 (93.9%)		1902 (92.2%)	6358 (93.9%)		3034 (92.6%)	5226 (94.1%)	
Religion	Hinduism	651 (7.4%)	219 (6.7%)	432 (7.8%)	0.873	165 (8.0%)	486 (7.2%)	0.965	213 (6.5%)	438 (7.9%)	0.676
	Islam	8144 (92.2%)	3043 (93.1%)	5100 (91.7%)		1896 (91.9%)	6248 (92.3%)		3059 (93.3%)	5085 (91.6%)	
	Others	37 (0.4%)	5 (0.2%)	32 (0.6%)		3 (0.1%)	34 (0.5%)		6 (0.2%)	31 (0.6%)	
Exercise	No	7788 (88.2%)	2840 (86.9%)	4947 (88.9%)	<0.05	1624 (78.7%)	6164 (91.1%)	<0.001	2693 (82.2%)	5095 (91.7%)	<0.001
	Yes	1044 (11.8%)	427 (13.1%)	617 (11.1%)		440 (21.3%)	604 (8.9%)		585 (17.8%)	459 (8.3%)	
Marital	Married	174 (2.0%)	69 (2.1%)	105 (1.9%)	0.756	46 (2.2%)	128 (1.9%)	0.334	74 (2.3%)	100 (1.8%)	0.235
	Unmarried	8658 (98.0%)	3198 (97.9%)	5459 (98.1%)		2018 (97.8%)	6640 (98.1%)		3204 (97.7%)	5454 (98.2%)	

Hindu, 92.2% Muslim, and 0.4% other participants; 53.01% were in class 10 and 46.99% were in class nine. Among the participants, 98% were unmarried, and the rest 2% were married. Respondents ranged from 13 to 19, with a mean of 15 years old. Figure 1 demonstrates the divisional distribution of the respondents.

4.2 | Prevalence of IA, depression, and PA

Figure 2 shows the prevalence of IA, depression, and PA among the participants. The study found that 63% of students were addicted to the internet, 77% were depressed, and 63% were addicted to pornography.

4.3 | Factors associated with IA, depression and PA

Table 1 displays the factors associated with IA, depression, and PA. Division ($p < 0.000$), gender ($p < 0.001$), class ($p < 0.05$), social media
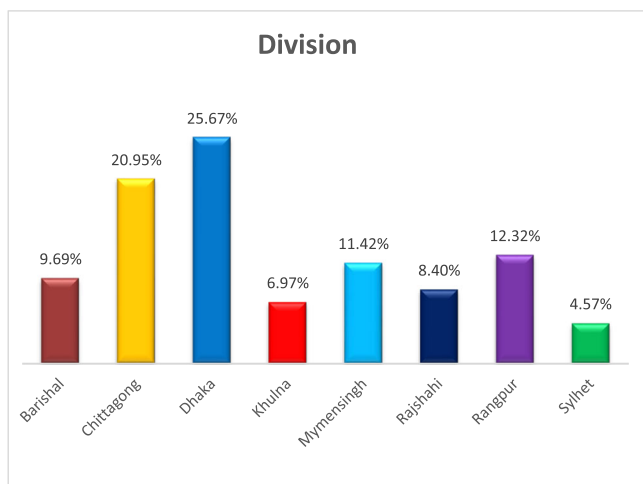

FIGURE 1 Divisional distribution.

($p < 0.05$), IA ($p < 0.05$), and exercise ($p < 0.001$) had a significant effect on increasing depression. Division ($p < 0.001$), gender ($p < 0.001$), class ($p < 0.001$), social media ($p < 0.005$), IA ($p < 0.05$), and Exercise ($p < 0.000$) had a significant effect on increasing PA among the students.

Binary logistic regression in Table 2 shows the factors behind the development of depression and PA among the school students of the study. Male respondents were 0.573 times (OR = 0.573; 95% CI: 0.460–0.75) less likely to be depressed than female respondents, which means female students were two times more depressed than male students. The respondents using social media were 1.637 times (OR = 1.637; 95% CI: 1.092–2.454) more likely depressed than those who didn't. Respondents who were regular in physical exercise were 0.621 times (OR = 0.621; 95% CI: 0.474–0.814) less likely depressed, which means the respondents not engaging in physical exercise were 1.7 times more likely depressed. Students who had IA were 3.74 times (OR = 3.74; 95% CI: 0.371–10.67) more depressed than those who did not have IA.

Respondents whose location was in Sylhet division were 0.6 times (OR = 0.579; 95% CI: 0.427–0.785) less likely to have PA than respondents whose division is Barishal. The respondents in class nine were 0.6 times (OR = 0.607; 95% CI: 0.532–0.692) less likely to be addicted to pornography than those in class 10. The respondents using social media were 1.3 times (OR = 1.277; 95% CI: 1.024–1.593) more likely to have PA than respondents who didn't use social media. Respondents taking physical exercise were 0.7 times (OR = 0.681; 95% CI: 0.574–0.807) less likely to have PA than those not engaging in physical exercise, meaning those who did not regularly exercise were 1.5 times more addicted to pornography. Participants who had IA were 1.75 times (OR = 1.75; 95% CI: 0.68–4.78) more addicted to pornography than those who did not have IA.

4.4 | Co-relation between IA, depression, and PA

The bivariate correlation analysis in Table 3 shows statistically significant and robust positive associations between gender, IA,
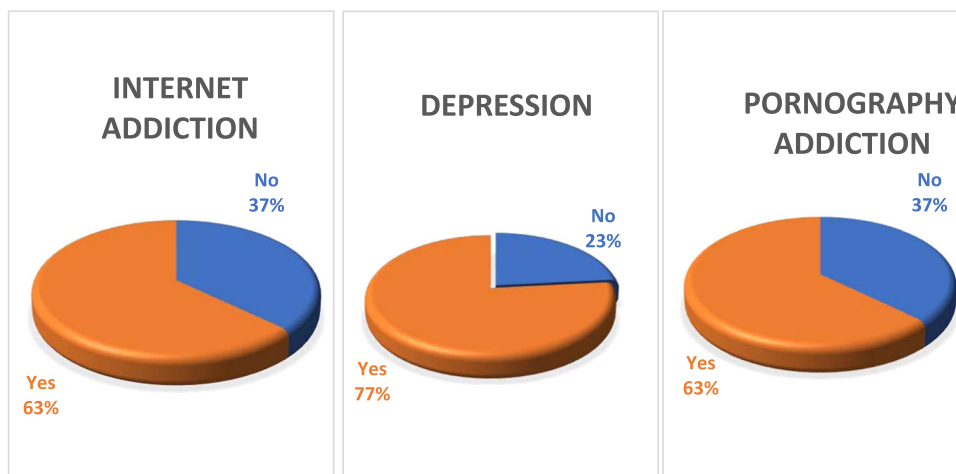

FIGURE 2 Prevalence of internet addiction, depression, and pornography addiction among the school students of Bangladesh.

TABLE 2 Factors associated with depression and pornography addiction.

Depression						Pornography Addiction			
				95% CI for Exp (B)				95% CI for Exp (B)	
Variables		p Value	Exp (B)	Lower	Upper	p Value	Exp(B)	Lower	Upper
Gender	Female (Reference)								
	Male	<0.001	0.573	0.460	0.715	0.178	1.92	1.819	2.038
Class	Nine (Reference)								
	Ten	0.976	0.000	0.000		<0.001	0.607	0.532	0.692
Social Media	No (Reference)								
	Yes	<0.05	1.64	1.09	2.454	<0.05	1.277	1.024	1.593
Exercise	Yes (Reference)								
	No	<0.001	0.621	0.474	0.814	<0.001	0.681	0.574	0.807
Internet Addiction	Yes	<0.001	3.74	0.371	10.67	<0.001	1.75	0.68	2.78
	No (Reference)								

TABLE 3 Bivariate correlation analysis.

Variables	1	2	3	4
Gender	1			
Internet addiction	0.664**	1		
Depression	0.673**	0.748**	1	
Pornography addiction	0.666**	0.712**	0.783**	1

Note: Gender is a dummy Variable.

**p < 0.01.

depression, and PA. There is a high correlation between gender and IA ($r = 0.664$), depression ($r = 0.673$), and PA ($r = 0.666$). IA had significant connections with both depression ($r = 0.748$) and PA ($r = 0.712$). The most significant association exists between depression and PA, with a correlation coefficient of 0.783.

5 | DISCUSSION

COVID-19 was the world's worst public health disaster.[41] In addition to a rising number of deaths, countries throughout the world have also seen an increase in adverse psychological effects, such as IA, depression, and anxiety.[42] Moreover, the COVID-19 pandemic caused increased reliance on screens for work, socializing, and daily activities, contributing to the high risks of problematic internet and pornography use.[43] During COVID-19, most adolescents studying in 9th and 10th grade used the internet and one in five was at risk of psychosocial problems linked to daily internet use time and various sociodemographic factor.[44] Analyzing Google Trends, a study found that the Relative Search Volume for "pornography" increased after late March 2020, near the WHO's declaration of COVID-19 as a global pandemic.[45]

In Bangladesh, all educational institutions were unusually closed for more than 1.5 years, including schools, colleges, and universities during the COVID-19 pandemic.[46] Closure often makes educators confused about academic and professional prospects and worsens students' mental health issues, especially school students.[47,48] Hence, the prime goal of this study was to find out the present prevalence of IA, depression, and PA among school students after the COVID-19 period, while investigating the factors of IA, depression, and PA.[49] The study compared the percentages between the post-COVID and COVID-19 periods.

Our study found that 63% of Bangladeshi adolescent students had IA. A multinational study conducted during COVID-19 found a rate of IA among students of 67.6%.[50] According to the findings of a study conducted in Lebanon, the prevalence rate was 56.5 percent.[33] Indian researchers found the rate of IA was 70.29%.[51] A group of researchers from Bangladesh discovered that almost 80% of the students suffered from IA.[20] Another research from Bangladesh assessed the prevalence rate as 81.7%[25] among students. Our study found the prevalence rate of IA among students is 63%, which is quite similar to the previous studies. However, after the COVID-19 period, IA among 63% students is still alarming, according to the study's findings.

As for the prevalence of depression, the current study found that 66% of Bangladeshi adolescent students faced depression in the post-COVID-19 period. During COVID-19, 80.2% of medical students faced depression[52] whereas 76.1%,[53] 72%,[21] and 80.2%[54] university students had depression during the COVID-19 period. Among the adolescent students, the rate was 67%.[55] A study conducted after COVID-19 among adolescents measured 60% depression.[34,56] This matches with the present study. This study measured a 67% depression rate among school students in Bangladesh. That means, after the pandemic period, compared with the pandemic period, the prevalence of depression rate among students is quite similar, showing only a little variation.

Our study also found PA among 62% of Bangladeshi adolescent students in the post-COVID-19 period. A global analysis found that

the COVID-19 outbreak led to increased searches for online porn, including coronavirus-themed content, following national self-restriction orders.[57] A Bangladesh-based study conducted during the third wave of the COVID-19 pandemic found that 75.9% of students were exposed to pornography and they preferred to watch the amateur/professional genre of pornography.[49] As PA did not decrease much in the post-COVID-19 period, the trend of PA among adolescent students in Bangladesh can be identified as a habit developed in the COVID-19 period.

The study identified different factors, including sociodemographic factors, of IA, depression, and PA. According to the study, female students had higher levels of depression than male classmates. Males were more addicted to pornography than females. Some studies have similar findings that female students were more depressed during the COVID-19 pandemic period.[58,59] A Bangladeshi study among adolescents described females as more depressed than males during COVID-19.[55] Studies conducted on university and medical college students stated the same result,[54,60] similar to the present study.

Our study found a correlation between students' use of social media and their lack of regular exercise, such that depression and PA were all more prevalent among students who used social media and did not regularly exercise. According to a study, the use of social media has risen during the pandemic.[61] According to a meta-analysis of the studies conducted among medical students, the use of social media had increased IA.[62] A strongly significant connection between using social media and the prevalence of depression was determined to persist, according to two comprehensive meta-analyses.[63,64] This study pointed out the same results. We found that articipants not engaging in regular physical exercise were more likely to experience IA, depression, and PA, which supports findings from previous Bangladeshi and other studies.[65–68] Research more generally has indicated that those experiencing these disorders tend to have more sedentary lifestyles.[69,70] According to a recent study, healthy individuals experience less IA, depression, and PA than individuals who are obese. Such individuals are more likely to have sedentary lifestyles and are less likely than healthy individuals to engage in physical exercise.[71,72] This study found the same result.

According to our study, the correlations between IA, depression, and PA were extremely consistent. Studies conducted by researchers revealed that those who engage in prolonged internet usage are more likely to develop IA, which in turn is associated with PA.[73,74] A very recent study in Bangladesh among the adolescents demonstrated a direct link between IA and depression.[34] The findings of these studies are similar to our study finding that IA, PA, and depression are interconnected among the adolescents of Bangladesh.

6 | STRENGTHS AND LIMITATIONS

The major limitation of this study is the cross-sectional design. Moreover, self-reported online data collection could decline the data quality. Additionally, this research could not include more associated factors. The future researchers could find out more the prime factors behind IA, depression, and PA among students, especially school students. The main strong point of this study is the sample size. A number of students across the nation from all the administrative divisions of Bangladesh participated in the survey. Hence, to our knowledge, this is the first research regarding IA, depression, and PA after the covid-19 pandemic. Despite the limitations, this study will help the policymakers to introduce necessary policies regarding the mental health of school going students.

7 | CONCLUSION

Following the epidemic in Bangladesh, we observed that a significant number of students were suffering from signs of significant IA, depression, and PA. The investigation of IA and PA is especially vital in nations like Bangladesh, where the expansion of internet use is outpacing socioeconomic development growth. This is especially true because IA, depression, and PA are all closely connected. The findings of the research could be useful for mental health experts in their therapeutic work, especially in the treatment of individuals who are addicted to the internet and pornography and suffer from depression. The results of the current research may also assist policymakers in identifying target populations, which is helpful in creating intervention programs to avoid excessive use of these. In addition, appropriate preventative actions, such as teaching about mental health and providing treatment for those already hooked to the internet and pornography.

AUTHOR CONTRIBUTIONS

Md Abu Bakkar Siddik: Conceptualization; investigation; writing—original draft; writing—review and editing; formal analysis; supervision; data curation; validation; methodology; software. **Irin Pervin**: Data curation; investigation; writing—original draft; writing—review and editing. **Md Khalid Syfullah**: Writing—review and editing; writing—original draft; data curation; investigation. **Akher Ali**: Data curation; formal analysis; writing—original draft; writing—review and editing. **Al Mahmud**: Data curation; writing—original draft; writing—review and editing; formal analysis. **Mahedi Hasan**: Data curation; writing—review and editing. **Sheikh Muzzammil Hussen**: Data curation; writing—review and editing. **Monia Manjur**: Data curation; project administration. **Zobayer Ahmed**: Writing—review and editing; validation. **Mohammad Meshbahur Rahman**: Writing—review and editing; validation.

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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