

Research Article

Determine the Effectiveness of Yoga and Pranayama Therapy on Mobile Addiction among Students of Technical Colleges in Bhubaneswar

P. S Edwin Anand^{1*}, Dr. Rajathi², Dr. (Prof) Vishnu Dev Mishra³

^{1*}Research Scholar, Rourkela Senior Nursing College, Sundargarh.

²Professor, Rourkela Senior Nursing College, Sundargarh.

³Principal, Rourkela Senior Nursing College, Sundargarh.

Corresponding Author: P. S Edwin Anand

Research Scholar, Rourkela Senior Nursing College, Sundargarh.

Received: 14.04.26, Revised: 16.05.26, Accepted: 19.06.26

ABSTRACT

Introduction: Addiction to the internet varies among different societies and different age population. One of the group that are at higher risk for internet addiction is adolescents. Due to educational, information, entertainment needs and for other requirements, students tend to use more internets. Since they have more free time to use the internet, they are more susceptible to the phenomenon of internet addiction. The concept of quality of life broadly encompasses how an individual measure the “goodness” of multiple aspects of their life. These evaluations include one’s emotional reactions to life occurrences, disposition, sense of life fulfilment and satisfaction, and satisfaction with work and personal relationships. The main aim of the study was to determine the effectiveness of yoga and pranayama therapy on mobile addiction among students.

Methodology: A quantitative research approach with quasi experimental with control design was best suitable, In the present study dependent variable refers to the general condition (level of addiction) of the students of technical college. In present study independent variable refers to yoga and pranayama therapy. 300 students in which 150 students for experimental group and 150 for control group were be select from Ajay binay institute of technology, Cuttak, R. K. institute of engineering and technology, Banamalipur, Cuttak through purposive sampling technique. The data were collected by using demographic tool, smart phone addiction scale (SAS - SV) and Depression, Anxiety, Stress (DAS) scale.

Results: The analysis of data show that the pre test mean score of students is 37.33 while 20.63 for post test with 16.7 mean difference in experimental group. The median is 37 for the pre test and 20 is for post test. The SD is 2.80 for pre test and 3.30 for post test. The t value is 47.71 at 0.000 p value. This value is obtained by paired t test. The calculated value of t (47.71) is more than the tabulated value (1.96) at 0.05 level of significance. The pre test mean score of students is 41.14 in while post test mean score of students is 40.72 in control group with 0.47 mean difference. The median is 41 for bothe pre and post test in control group. The SD is 2.83 in pre test and 3.47 in post test. The t value is 1.56 at 0.76 p value. This value is obtained by paired t test. The calculated value of t (1.56) is more than the tabulated value (1.96) at 0.05 level of significance.

Conclusion: On the basis of the results it is concluded that yoga and pranayam therapy was effective for students to reduce the level of mobile addiction.

Keywords: Yoga, Pranayama Therapy, Mobile Addiction, Students.

INTRODUCTION

Mobile phone use has become an essential component of contemporary student life, providing access to academic resources, online classes, social networking, entertainment and emergency communication. India represents one of the world’s largest digital populations, with 1.06 billion cellular mobile connections and 1.03 billion internet users reported at the end of 2025, indicating that digital connectivity is now deeply embedded in daily life [1]. Although mobile technology supports learning

and communication, uncontrolled and compulsive use may progress to mobile addiction or problematic smartphone use, characterized by impaired control, preoccupation, withdrawal-like discomfort, excessive screen time and disturbance in academic, social and health-related functioning [2,3]. Students of technical colleges are particularly vulnerable because their curriculum requires frequent use of digital devices for coding, assignments, online resources, projects and communication,

thereby increasing exposure and habitual checking behaviour.

Evidence shows that problematic smartphone use is associated with poor sleep quality, depression, anxiety, stress, impulsivity and reduced educational performance among adolescents and young adults [4,5]. A systematic review and meta-analysis among Indian undergraduate medical students reported a pooled smartphone addiction prevalence of 60%, suggesting a substantial burden among higher-education students [6]. Studies from India have also shown that smartphone addiction can adversely affect cognitive, knowledge-based and psychomotor performance among students [7]. Standardized tools such as the Smartphone Addiction Scale–Short Version (SAS–SV) provide a brief, validated method for screening addiction risk among adolescents and young adults, while the Depression Anxiety Stress Scale (DASS) helps assess emotional morbidity associated with excessive mobile use [3,8]. Yoga and pranayama, as structured mind–body interventions, may improve self-regulation, attention, emotional stability and stress control. Therefore, the present study was designed to determine the effectiveness of yoga and pranayama therapy on mobile addiction among students of selected technical colleges in Bhubaneswar within a quasi-experimental control-group framework.

Need of the Study

The need for this study arises from the rapid normalization of smartphone use in academic settings and the growing concern that excessive use may compromise students' mental health, academic productivity and interpersonal functioning. Technical college students spend prolonged hours on mobile phones for academic work, browsing, gaming, streaming and social media, and this exposure may blur the boundary between purposeful use and compulsive dependence. Globally, one in seven adolescents experiences a mental disorder, with depression, anxiety and behavioural disorders among the leading causes of illness and disability in this age group [9]. When mobile overuse coexists with academic pressure, poor sleep and reduced physical activity, students may become more vulnerable to stress, anxiety and depressive symptoms [4,5].

There is a need for feasible, low-cost, non-pharmacological interventions that can be implemented within college schedules. Yoga

and pranayama are culturally acceptable in India and can be practiced in short sessions without expensive equipment. The Ministry of AYUSH describes yoga as beneficial for reducing stress, anxiety, depression and fatigue [10]. Recent evidence supports the role of yogic breathing and yoga-based practices in reducing anxiety, depression and stress among students [11]. An Indian randomized controlled trial further reported that yoga added to multimodal psychological intervention significantly reduced internet use, smartphone use and psychological distress among young adults with excessive technology use [12]. These findings justify testing a structured yoga and pranayama therapy module for mobile addiction in students.

Despite available evidence, limited quasi-experimental studies have evaluated yoga and pranayama specifically among technical college students in Odisha using a control-group design and standardized measures such as SAS–SV and DASS. Assessing pre-test and post-test levels in experimental and control groups can generate local evidence on intervention effectiveness and identify demographic factors associated with addiction. The findings may guide college-based digital wellness programmes, student counselling services and preventive mental health strategies in Bhubaneswar.

Objectives of the Study

1. To assess the level of mobile addiction among the students of technical college before administration of yoga and pranayam therapy.
2. To assess the level of mobile addiction among the students of technical college after administration of yoga and pranayam therapy
3. Assess the effectiveness of yoga and pranayama therapy on mobile addiction among the students of technical college.
4. Find out the association between level of mobile addiction with selected demographic variable among the students

Hypotheses

- H₀₁: There will be no significant relationship between yoga and pranayam therapy and mobile addiction among the students
- H₁: There will be significant relationship between yoga and pranayam therapy and mobile addiction among the students
- H₀₂: There will be no significant

association between level of mobile addiction with selected demographic variables

- H₂: There will be significant association between level of mobile addiction with selected demographic variables

METHODOLOGY

For present study a quantitative research approach was found appropriate. A quasi experimental with control design was best suitable, as it was used to examine characters of a single sample. In the present study dependent variable refers to the general condition (level of addiction) of the students of technical college. In present study independent variable refers to yoga and pranayama therapy. Demographic variables selected for this study are age, gender, religion, type of family, no. of family member, type of mobile phone using, facilities of recreational, ways of spending free time, screen time use. 300 students in which 150 students for experimental group and 150 for control group were be select from Ajay binay institute of technology, Cuttak, R. K. institute of engineering and technology, Banamalipur, Cuttak through purposive sampling technique.

The data were collected by using demographic tool, smart phone addiction scale (SAS – SV) and Depression, Anxiety, Stress (DAS) scale. The study was done on 300 students in which 150 for experimental group and 150 for control group from selected technical college and data collected through by using a standardized tool i.e. smart phone addiction scale and Depression, Anxiety and stress (DAS) scale. A yoga and pranayama therapy was administered to the students of the experimental group (150 students) for a duration of 15 to 20 minutes and covered the daily targeted samples of around 20 students from 9 a.m. to 2 p.m. In this way, around 20 students were covered daily, and 120 students in a week. 10 extra students were taken in view of the dropout of the study sample until the post assessment. Then a post assessment was administered to both groups after prescribed time of the pretest. In this way, a total of 150 students were covered in first cycle and then the next cycle started for another set of students in the same way and covered another 150 students, completing the total data collection of 300 students.

RESULTS

Table No 1: Description of Demographic Characteristics of the Students

S. No.	Variables	Experimental group		Control group	
		Frequency	Percentage	Frequency	Percentage
1	Age				
	17 – 20	54	36%	45	30%
	21 – 24	43	28.66%	41	27.33%
	25 – 28	31	20.66%	33	22%
	Above 28 years	22	14.66%	31	20.66%
2	Gender				
	Male	84	56%	79	52.66%
	Female	66	44%	71	47.33%
3	Religion				
	Hindu	41	27.33%	39	26%
	Muslim	21	14%	23	15.33%
	Christian	77	51.33%	73	48.66%
	Other	11	7.33%	15	10%
4	Type of family				
	Nuclear	54	36%	48	32%
	Joint	73	48.66%	71	47.33%
	Extended	23	15.33%	31	20.66%
5	No. of family member				
	3	76	50.66%	69	46%
	4	39	26%	41	27.33%
	5	19	12.66%	25	16.66%
	6 and above	16	10.66%	15	10%
6	Type of mobile phone using				
	Android phone	141	94%	139	92.66%

	Keypad phone	9	6%	11	7.33%
	None	0	00%	0	00%
7	Facilities of recreational				
	Mobile phone	93	62%	91	60.66%
	Laptop	31	20.66%	29	19.33%
	Television	17	17%	19	12.66%
	Others	9	6%	11	7.33%
8	Way of spending free time				
	Alone	31	20.66%	29	19.33%
	With family/ Friends	43	28.66%	39	26%
	With mobile	69	46%	71	47.33%
	Others	7	4.66%	11	7.33%
9	Screen time use				
	2 – 3 hours/ day	29	19.33%	27	18%
	4 – 5 hours / day	61	40.66%	63	42%
	6 – 7 hours / day	43	28.66%	39	26%
	More than 7 hours	17	11.33%	21	14%

The table no 1 represent that In experimental group majority 54 (36%) of students were from the age group of 17 – 20 years, 84 (56%) of students were male, most of 77 (51.33%) of students were Christian, most of 73 (48.66%) of students have Joint family, most of 76 (50.66%) of students have 3 family member, 141 (94%) of students have use android phone, most of 93 (62%) of students have use mobile phone for recreational facility, majority of 69 (46%) of students were spend their free time with mobile, most of 61 (40.66%) of students were 4 – 5 hour / day,

Whereas in control group whereas majority 45 (30%) of students were from the age group of 17 – 20 years, 79 (52.66%) of students were male, 73 (48.66%) of students were Christian, most of 71 (47.33%) of students have joint family, most of 69 (46%) of students have 3 family member, 139 (92.66%) of students have use android phone, 91 (60.66%) of students have use mobile phone for recreational facility, majority of 71 (47.33%) of students were spend their free time with mobile, screen time use of most of 63 (42%) of students were 4 – 5 hour / day,

Table No 2: Level of Mobile Addiction among Students in Experimental Group

S. No.	Level Of Addiction	before intervention		after intervention	
		Frequency	Percentage	Frequency	Percentage
1.	Normal Level	00	00%	39	26%
2.	Mild level of mobile addiction	34	22.66%	67	44.66%
3.	Moderate level of mobile addiction	65	43.33%	27	18%
4.	Severe dependence	51	34%	17	11.33%

The table no. 2 showed the level of mobile addiction of students. With regard to scores, out of 150 students there were 00 (00.00%) students have normal level of mobile addiction, 34 (22.66%) students had mild level of mobile addiction, 65 (43.33%) students had moderate level of mobile addiction and 51 (34%) students had severe dependence or severe level of mobile addiction before administration of yoga and pranayam

therapy and there were 39 (26%) students have normal level of mobile addiction, 67 (44.66%) students had mild level of mobile addiction, 27 (18%) students had moderate level of mobile addiction and 17 (11.33%) students had severe dependence or severe level of mobile addiction after administration of yoga and pranayam therapy in experimental group.

Table No 3: Level of Depression among Students in Experimental Group

S. No.	Levels of depression	Score	Before intervention		After intervention	
			Frequency	Percentage	Frequency	Percentage
1.	Normal	0 – 9	00	00%	73	48.66%
2.	Mild	10 – 13	13	08.66%	55	36.66%
3.	Moderate	14 – 20	131	87.33%	22	14.66%
4.	Severe	21 – 27	06	04%	00	00%
5.	Extremely severe	28+	00	00%	00	00%

The table no. 3 showed the severity level of depression among the students. With regard to scores, out of 150 students there were 00 (00%) students have normal level of depression, 13 (8.66%) students had mild level of depression, 131 (87.33%) students had moderate level of depression, 06 (04%) students had severe level of depression and also 00 (00%) students had extremely severe

level of depression before intervention whereas 73 (48.66%) students have normal level of depression, 55 (36.66%) students had mild level of depression, 22 (14.66%) students had moderate level of depression, 00 (00%) students had severe level of depression and also 00 (00%) students had extremely severe level of depression after intervention in experimental group.

Table No 4: Level of Anxiety among Students in Experimental Group

S. No.	Levels of anxiety	Score	Before intervention		After intervention	
			Frequency	Percentage	Frequency	Percentage
1.	Normal	0-7	00	00%	32	21.33%
2.	Mild	8-9	00	00%	35	23.33%
3.	Moderate	10-14	24	16%	72	48%
4.	Severe	15-19	105	70%	11	7.33%
5.	Extremely severe	20+	21	14%	00	00%

The table no. 4 showed the severity level of anxiety among the students. With regard to scores, out of 150 students there were 00 (00%) students have normal level of anxiety, 00 (00%) students had mild level of anxiety, 24 (16%) students had moderate level of anxiety, 105 (70%) students had severe level of anxiety and also 21 (14%) students had extremely severe level of anxiety before

intervention whereas 32 (21.33%) students have normal level of anxiety, 35 (23.33%) students had mild level of anxiety, 72 (48%) students had moderate level of anxiety, 11 (7.33%) students had severe level of anxiety and also 00 (00%) students had extremely severe level of anxiety after intervention in experimental group.

Table 5: Level of Stress among Students in Experimental Group

S. No.	Levels of stress	Score	Before intervention		After intervention	
			Frequency	Percentage	Frequency	Percentage
1.	Normal	0-14	23	15.33%	141	94%
2.	Mild	15-18	87	58%	09	6%
3.	Moderate	19-25	40	26.66%	00	00%
4.	Severe	26-33	00	00%	00	00%
5.	Extremely severe	34+	00	00%	00	00%

The table no. 5 showed the severity level of stress among the students. With regard to scores, out of 150 students there were 23 (15.33%) students have normal level of stress, 87 (58%) students had mild level of stress, 40 (26.66%) students had moderate level of stress, 00 (00%) students had severe level of

stress and also 00 (00%) students had extremely severe level of stress before intervention whereas 141 (94%) students have normal level of stress, 9 (6%) students had mild level of stress, 00 (00%) students had moderate level of stress, 00 (00%) students had severe level of stress and also 00

(00%) students had extremely severe level of stress after intervention in experimental group.

Table No 6: Level of Mobile Addiction among Students in Control Group

S. No.	Level Of Addiction	Before intervention		After intervention	
		Frequency	Percentage	Frequency	Percentage
1.	Normal Level	12	8%	16	10.66%
2.	Mild level of mobile addiction	34	22.66%	37	24.66%
3.	Moderate level of mobile addiction	61	40.66%	57	38%
4.	Severe dependence	43	28.66%	40	26.66%

The table no. 6 showed the level of mobile addiction of students. With regard to scores, out of 150 students there were 12 (8%) students have normal level of mobile addiction, 34 (22.66%) students had mild level of mobile addiction, 61 (40.66%) students had moderate level of mobile addiction and 43 (28.66%) students had severe dependence or severe level of mobile addiction before administration of yoga and pranayam

therapy and there were 16 (10.66%) students have normal level of mobile addiction, 37 (24.66%) students had mild level of mobile addiction, 57 (38%) students had moderate level of mobile addiction and 40 (26.66%) students had severe dependence or severe level of mobile addiction after administration of yoga and pranayam therapy in control group.

Table No 7: Level of Depression among Students in Control Group

S. No.	Levels of depression	Score	Before intervention		After intervention	
			Frequency	Percentage	Percentage	Percentage
1.	Normal	0 – 9	00	00%	00	00%
2.	Mild	10 – 13	08	5.33%	34	22.66%
3.	Moderate	14 – 20	140	93.33%	102	68%
4.	Severe	21 – 27	02	1.33%	14	9.33%
5.	Extremely severe	28+	00	00%	00	00%

The table no. 7 showed the severity level of depression among the students. With regard to scores, out of 150 students there were 00 (0%) students have normal level of depression, 08 (5.33%) students had mild level of depression, 140 (93.33%) students had moderate level of depression, 02 (1.33%) students had severe level of depression and also 00 (00%) students had extremely severe

level of depression before intervention whereas 00 (00%) students have normal level of depression, 34 (22.66%) students had mild level of depression, 102 (68%) students had moderate level of depression, 14 (9.33%) students had severe level of depression and also 00 (00%) students had extremely severe level of depression after intervention in control group.

Table No 8: Level of Anxiety among Students in Control Group

S. No.	Levels of anxiety	Score	Before intervention		After intervention	
			Frequency	Percentage	Percentage	Percentage
1.	Normal	0-7	00	00%	03	02%
2.	Mild	8-9	00	00%	32	21.33%
3.	Moderate	10-14	23	15.33%	91	60.66%
4.	Severe	15-19	115	76.66%	24	16%
5.	Extremely severe	20+	12	08%	00	00%

The table no. 8 showed the severity level of anxiety among the students. With regard to scores, out of 150 students there were 00

(00%) students have normal level of anxiety, 00 (00%) students had mild level of anxiety, 23 (15.33%) students had moderate level of anxiety, 115 (76.66%) students had severe

level of anxiety and also 12 (08%) students had extremely severe level of anxiety before intervention whereas 03 (02%) students have normal level of anxiety, 32 (21.33%) students had mild level of anxiety, 91 (60.66%)

students had moderate level of anxiety, 24 (16%) students had severe level of anxiety and also 00 (00%) students had extremely severe level of anxiety after intervention in control group.

Table No 9: Level of Stress among Students in Control Group

S. No.	Levels of stress	Score	Before intervention		After intervention	
			Frequency	Percentage	Percentage	Percentage
1.	Normal	0-14	25	16.66%	32	21.33%
2.	Mild	15-18	99	66%	59	39.33%
3.	Moderate	19-25	26	17.33%	59	39.33%
4.	Severe	26-33	00	00%	00	00%
5.	Extremely severe	34+	00	00%	00	00%

The table no. 9 showed the severity level of stress among the students. With regard to scores, out of 150 students there were 25 (16.66%) students have normal level of stress, 99 (66%) students had mild level of stress, 26 (17.33%) students had moderate level of stress, 00 (00%) students had severe level of stress and also 00 (00%) students had extremely severe level of stress before

intervention whereas 32 (21.33%) students have normal level of stress, 59 (39.33%) students had mild level of stress, 59 (39.33%) students had moderate level of stress, 00 (00%) students had severe level of stress and also 00 (00%) students had extremely severe level of stress after intervention in control group.

Table No 10: Mean, Median, SD and T Value of Mobile Addiction in Experimental Group

S. No.	Awareness	Mean	Median	SD	Mean difference	Df	t value	p value
1.	Pre Test	37.33	37	2.80	16.7	149	47.71	0.000
2.	Post test	20.63	20	3.30				

The above table no. 10 revealed that the pre test mean score of students is 37.33 while 20.63 for post test with 16.7 mean difference in experimental group. The median is 37 for the pre test and 20 is for post test. The SD is 2.80 for pre test and 3.30 for post test. The t value is 47.71 at 0.000 p value. This value is obtained by paired t test. The calculated value of t (47.71) is more than the tabulated value (1.96) at 0.05 level of

significance. Here the calculated value i.e. 47.71 is more than the tabulated value i.e. 1.96; so we can say that the yoga and pranayam therapy is effective for students to reduce the mobile addiction in experimental group. In other words we can say that yoga and pranayam therapy is beneficial for students to reduce the the level of mobile addiction in experimental group.

Table No 11: Mean, Median, SD and T Value of Mobile Addiction in Control Group

S. No.	Group	Mean	Median	SD	Mean difference	Df	t value	p value
1.	Before intervention	41.14	41	2.86	0.47	149	1.15	0.76
2.	After intervention	40.72	41	3.47				

The above table no. 11 revealed that the pre test mean score of students is 41.14 in while post test mean score of students is 40.72 in control group with 0.47 mean difference. The median is 41 for bothe pre and post test in control group. The SD is 2.83 in pre test and 3.47 in post test. The t value is 1.56 at 0.76 p value. This value

is obtained by paired t test. The calculated value of t (1.56) is more than the tabulated value (1.96) at 0.05 level of significance. Here the calculated value i.e. 1.56 is less than the tabulated value i.e. 1.96; so we can say that the yoga and pranayam therapy is not effective for students to reduce the mobile addiction in control group. In other words we

can say that yoga and pranayama therapy is not beneficial for students to reduce the level of mobile addiction in control group.

DISCUSSION

The present study revealed that yoga and pranayama therapy was effective in reducing mobile addiction among students of technical colleges. In the experimental group, the mean mobile addiction score decreased from 37.33 in the pre-test to 20.63 in the post-test, with a mean difference of 16.70. The calculated paired t value was 47.71, which was statistically significant at $p < 0.001$. In contrast, the control group showed only a minimal reduction in mean score from 41.14 to 40.72, which was statistically not significant. This indicates that the improvement observed in the experimental group was mainly due to yoga and pranayama therapy.

The findings are supported by Tadpatrikar et al., who conducted a randomized controlled trial in India and reported that yoga as an adjuvant intervention significantly reduced excessive technology use, smartphone use and psychological distress among young adults [13]. Similarly, Mona et al. found that yoga practice significantly reduced Smartphone Addiction Scale–Short Version scores, screen time, depressive symptoms and generalized anxiety among adolescents, supporting the role of yoga in digital-use regulation [14]. These findings are consistent with the present study, where mobile addiction, depression, anxiety and stress were reduced after yoga and pranayama therapy.

The present study also showed improvement in psychological variables. Depression shifted mainly from moderate level to normal and mild levels after intervention. Anxiety also reduced from severe and extremely severe levels to moderate, mild and normal levels. Stress showed marked improvement, with normal stress increasing from 15.33% to 94%. These results are supported by Liu et al., who reported that a brief mindfulness intervention significantly reduced problematic smartphone use and improved self-control among college students [15]. Boumosleh and Jaalouk also observed that depression and anxiety were independent positive predictors of smartphone addiction among university students [16]. Sarhan further reported positive correlations between smartphone addiction and depression, anxiety and stress among medical students [17]. Thus, the present findings support that yoga and pranayama may reduce mobile addiction by improving self-control, emotional

regulation and stress-coping ability among students.

CONCLUSION

The present study concluded that yoga and pranayama therapy was effective in reducing mobile addiction among students of technical colleges. Before the intervention, a considerable proportion of students in the experimental group had moderate and severe levels of mobile addiction. After administration of yoga and pranayama therapy, there was a clear shift from severe and moderate addiction levels to mild and normal levels. The mean mobile addiction score in the experimental group reduced from 37.33 to 20.63, with a statistically significant paired t value of 47.71 at $p < 0.001$, indicating the effectiveness of the intervention. In contrast, the control group showed only a minimal and statistically non-significant reduction in mobile addiction score. The study also revealed improvement in associated psychological variables such as depression, anxiety and stress among students in the experimental group. Depression shifted from predominantly moderate level to normal and mild levels. Anxiety reduced from severe and extremely severe categories to moderate, mild and normal categories. Stress showed marked improvement, with the majority of students reaching the normal stress category after intervention.

Thus, yoga and pranayama therapy can be considered a simple, cost-effective, non-pharmacological and feasible intervention for reducing mobile addiction and improving psychological well-being among technical college students.

Recommendations

The following recommendation were drawn based on the findings of the study

1. A similar study can be replicated on a samples with different demographic variables
2. A similar study can be conducted by taking samples from two different settings area.
3. A similar study on a large sample may help to draw more definite conclusions and make generalization.
4. A similar study can be conducted by descriptive approach, often serves to generate hypothesis for future research.
5. A similar study can be conducted use of different research design.

Conflict of Interest: The authors certify that they have no involvement in any organization

or entity with any financial or non-financial interest in the subject matter or materials discussed in this paper.

Funding Source: There is no funding Source for this study

BIBLIOGRAPHY

1. Kemp S. Digital 2026: India. DataReportal; 2025.
2. Sohn SY, Rees P, Wildridge B, Kalk NJ, Carter B. Prevalence of problematic smartphone usage and associated mental health outcomes amongst children and young people: a systematic review, meta-analysis and GRADE of the evidence. *BMC Psychiatry*. 2019;19:356. doi:10.1186/s12888-019-2350-x.
3. Kwon M, Kim DJ, Cho H, Yang S. The Smartphone Addiction Scale: development and validation of a short version for adolescents. *PLoS One*. 2013;8(12). doi:10.1371/journal.pone.0083558.
4. Li Y, Li G, Liu L, Wu H. Correlations between mobile phone addiction and anxiety, depression, impulsivity, and poor sleep quality among college students: a systematic review and meta-analysis. *J Behav Addict*. 2020;9(3):551-571. doi:10.1556/2006.2020.00057.
5. Nikolic A, Bukurov B, Kocic I, Soldatovic I, Mihajlovic S, Nesic D, et al. Smartphone addiction, sleep quality, depression, anxiety, and stress among medical students. *Front Public Health*. 2023;11:1252371. doi:10.3389/fpubh.2023.1252371.
6. Pradeep C, et al. Prevalence of smartphone addiction among undergraduate medical students in India: a systematic review and meta-analysis. *Indian J Psychiatry*. 2025;67(9). PMID:41019262.
7. Karishma, Awinashe MV, Jain A, Santhosh VC, Choudhury BK, Alessa N, et al. Smartphone addiction and its impact on knowledge, cognitive and psychomotor skills among dental students in India: an observational study. *J Educ Health Promot*. 2023;12:77. doi:10.4103/jehp.jehp_1330_22.
8. Lovibond SH, Lovibond PF. Manual for the Depression Anxiety Stress Scales. 2nd ed. Sydney: Psychology Foundation; 1995.
9. World Health Organization. Mental health of adolescents. Geneva: WHO; 2025.
10. Ministry of AYUSH, Government of India. Common Yoga Protocol. New Delhi: Ministry of AYUSH; 2015.
11. Lata M, Kumar P, Tyagi A, Sharma S, Kaur A. Effect of practicing meditation, pranayama, and yoga on the mental health of female undergraduate medical students: an interventional study. *Cureus*. 2022;14(9). doi:10.7759/cureus.29148.
12. Tadpatrikar A, Sharma MK, Bhargav H, Anand N, Sharma P, Sharma S. Yoga as an adjuvant with multimodal psychological interventions for excessive use of technology: a randomized controlled trial from India. *Int J Yoga*. 2024;17(1):37-45. doi:10.4103/ijoy.ijoy_187_23.
13. Tadpatrikar A, Sharma MK, Bhargav H, Anand N, Sharma P, Sharma S. Yoga as an adjuvant with multimodal psychological interventions for excessive use of technology: a randomized controlled trial from India. *Int J Yoga*. 2024;17(1):37-45. doi:10.4103/ijoy.ijoy_187_23.
14. Mona M, Kumari S, Anand N, Sharma M. Safe use of screen time among adolescents: a randomized controlled study of the efficacy of yoga. *Cureus*. 2024;16(10). doi:10.7759/cureus.71335.
15. Liu F, Zhang Z, Liu S, Feng Z. Effectiveness of brief mindfulness intervention for college students' problematic smartphone use: the mediating role of self-control. *PLoS One*. 2022;17(12). doi:10.1371/journal.pone.0279621.
16. Matar Boumosleh J, Jaalouk D. Depression, anxiety, and smartphone addiction in university students: a cross sectional study. *PLoS One*. 2017;12(8). doi:10.1371/journal.pone.0182239.
17. Sarhan AL. The relationship of smartphone addiction with depression, anxiety, and stress among medical students. *SAGE Open Med*. 2024;12:20503121241227367. doi:10.1177/20503121241227367.