

# Study to Assess Correction between Cell Phone Addiction and Classroom Alertness among Basic Nursing Students

Renuka Jalihal<sup>1\*</sup>, Deelip S Natekar<sup>2</sup>, Amaresh<sup>3</sup>, Prashanth Pammar<sup>3</sup>, Nivedita<sup>3</sup>, Sunita<sup>3</sup>, Swapna<sup>3</sup>

<sup>1</sup>Lecturer, Dept of Child Health Nursing, B.V.V.S Sajjalashree Institute of Nursing Sciences Navanagar Bagalkot, Karnataka, India

<sup>2</sup>Principal, Dept of Child Health Nursing, B.V.V.S Sajjalashree Institute of Nursing Sciences, Navanagar, Bagalkot, Karnataka, India

<sup>3</sup>Student, Dept of Child Health Nursing, B.V.V.S Sajjalashree Institute of Nursing Sciences, Navanagar, Bagalkot, Karnataka, India

**\*Address for Correspondence:** Renuka Jalihal, Lecturer, Department of Child Health Nursing, B.V.V.S Sajjalashree Institute of Nursing Sciences Navanagar Bagalkot, Karnataka, India

**E-mail:** [renukajalihal3@gmail.com](mailto:renukajalihal3@gmail.com)

Received: 16 Jun 2023/ Revised: 18 Aug 2023/ Accepted: 13 Oct 2023

## ABSTRACT

**Background:** Cell phones have advanced to the degree of becoming a necessary piece of individuals' lives. Cell phones are utilised for correspondence, diversion, efficiency, interpersonal interaction, and gaming. In addition to supplanting the conventional cells, cell phones have likewise supplanted personal computers and numerous other comparative gadgets. Individuals these days feel indistinguishable from their cell phones. In lined with the rising improvement of innovation and excessive utilisation of cell phones, one of the significant issues that scientists have noticed and are chipping away at is cell phone addiction.

**Methods:** It was a graphic study directed among 100 nursing students aged 19-22 in B.V.V.S. Institute of Nursing Sciences Bagalkot. Information was gathered utilising a structured knowledge questionnaire to survey socio-demographic information. The Stanford Sleepiness Scale (Alertness Test) was utilised to evaluate the classroom alertness of the nursing students and the Cell phone Addiction Scale-Short Version (SAS-SV) was utilised to assess the cell addiction of the nursing students.

**Results:** An association was found between the year of studying and the classroom alertness of students ( $\chi^2 = 3.9102$ )  $p < 0.05$ . There was a significant negative correlation between cell phone addiction and classroom alertness of the nursing students,  $p < 0.05$ . The r-value obtained was 0.80. Thus, the correlation between the two factors is seen as statistically significant.

**Conclusion:** In the wake of acquiring the consequences of the current work, the scientists saw a negative relationship between cell phone addiction and the classroom alertness of the students.

**Key-words:** Addiction, Alertness, Cell phone, Classroom, Phone addiction

## INTRODUCTION

Cell phone misuse is expanding in the 21<sup>st</sup> century as an ever-increasing number of youths appreciate investigating their Cell phones in their free hours <sup>[1]</sup>. A new examination in US recommends that unnecessary use of Cell phones builds the gamble for serious psychopathologies in teenagers.

There is developing proof of risky utilisation of Cell phones that influences both social and well-being parts of users' lives. The investigation of 200 teenagers in Korea likewise showed that unusual users of Cell phones had fundamentally more hazardous ways of behaving, physical side effects, consideration deficiencies, and hostility and this investigation additionally discovered that adolescents were more dependent on Cell phones they had more extreme psychopathologies <sup>[2]</sup>.

A Cell phone consolidates the administrations of the Web and a cell phone. Cell phones offer subjectively various administrations, notwithstanding the Web's advantages <sup>[3]</sup>. Youngsters watch recordings, put themselves out there, speak with companions, and quest

### How to cite this article

Jalihal R, Natekar DS, Amaresh, Pammar P, et al. Study to Assess Correction between Cell Phone Addiction and Classroom Alertness among Basic Nursing Students. SSR Inst. Int. J. Life Sci., 2023; 9(6): 3382-3388.



Access this article online  
<http://ijils.com/>

for data utilising Cell phones, while more seasoned individuals utilise their Cell phones for having video calls with their kids living far away and for messing around. Young people are a high-risk group for Cell phone addiction<sup>[4]</sup>.

Youths are unequivocally joined to their Cell phone and view a cell phone as their subsequent self. Numerous Cell phone users have detailed that they would not have the option to live without a Cell phone informatively; youths experience a few physical and mental changes<sup>[5]</sup>. Cell phone addiction/abuse/misuse is one of the forms of compulsive use of “a mobile phone” by young people worldwide. Another sort of wellbeing problem in this classification among young people, “Cell phone's dependence/misuse/abuse” is presently a difficult well-being strategy for producers to think about this quickly arising issue. This high Cell phone commitment likewise impacts Indian teenagers, and the ongoing paper utilising meta-examination to talk about their habit-forming ways of behaving<sup>[6]</sup>.

## MATERIALS AND METHODS

**Study Design and Participant-** The Present study was led from 07-07-2022 to 26-07-2022 at B.V.V.S. Institute of Nursing Sciences Bagalkot, India. The college has been selected by convenient sampling technique i.e. B.V.V.S. Institute of Nursing Sciences Bagalkot, and the sample has been selected by proportionate stratified random sampling method by using lottery method to select the students studying 1<sup>st</sup>, 2<sup>nd</sup> and 3<sup>rd</sup> year B.Sc nursing students. In 1<sup>st</sup> year B.Sc 37 students, in 2<sup>nd</sup> year B.Sc 37 students and in 3<sup>rd</sup> year B.Sc 35 students were studying. The researcher has followed a proportionate stratified random sampling technique to select students. In the current review, the researcher includes students who can participate in the review and can read & write English and Kannada available at the time of information assortment.

### Inclusion criteria

- Ready to read and write English.
- Accessible at the time of information assortment.
- Ready to participate p-value in the study.

### Exclusion criteria

- Ill physically or mentally, that would interfere with the data collection process.

- Not ready to coordinate during information assortment.

## Instruments

**Tool I: Part 1: Socio-demographic factors of Students-** Student age, gender, religion, year of studying, type of family, number of siblings, family income, and place of residence.

**Part 2: Items to Assess the Cell Phone Addiction by Using Likert Scale-** Likert scale is prepared to assess the students' cell phone addiction. The Likert scale consists of 10 items with 6 points ranging from strongly disagree, disagree, Disagree, weakly disagree, weakly agree, Agree, and strongly agree.

**Tool II: Part 1: Items classroom using a rating scale-** Rating scale is prepared to assess the calls room alertness of students. The rating scale consists of 7 items with 7 points ranging from:

**Data collection procedures-** In the current review, the researcher gathered the information after getting a formal administrative endorsement from the principal of Sajjalashree Institute of Nursing Science Bagalkot and permission from the B.V.V.S. Institute of Nursing Sciences Bagalkot, India.

**Statistical Analysis-** Statistical analysis in the current review was finished with the assistance of SPSS28. Expressive measurements, for example, recurrence rate dissemination and mean, middle and standard deviation, were utilized to portray the socio-segment factors and result factors. Inferential insights, Karl Pearson's correlation coefficient test and the chi-square test were used to test the hypothesis.

**Ethical Approval-** Ethical clearance was obtained from the institutional ethical committee of BVVS Sajjalashree Institute of Nursing Sciences, Bagalkot, India.

## RESULTS

**Socio-demographic variables of Students-** The rate-wise circulation of students as per their age group, the larger part (33%) of students were in the age group of 20 years, followed by 30% of students in the age group of 19 years, 20% of students were in the age group 22 years, and 17% of students were in the age group of 21 years. The greater part (71%) of members were girls, trailed by

29% of members who were boys. The majority (90%) of students were Hindu, followed by 9% of students were Muslim, (1%) were Christian and 0% were others. The larger part (34%) of students were first years, followed by 34% of students were second years, 32% were third years. The greater part 82% of students, were from nuclear families, trailed by 18% of students from joint families. The majority (39%) of students have 2 siblings, followed by 22% of students who have 1 kin, 18% have 3 kin, 14% have 4 kin, and 7% have more than 4 siblings. Most (48%) of students had an income of Rs. 10,001-15,000, trailed by 18% of students beneath Rs. 10,000, 18% of students had Rs. 15,001-20,000 and just 16% of students had Rs. 20,000 or more. Most (59%) of students were from rural areas and just 41% were from urban areas (Table 1).

**Table 1:** Distribution of socio-demographic factors of the students

Socio-demographic variables	Number of respondents	Percentage (%)
<b>Age (Year)</b>		
19 years	30	30
20 years	33	33
21 years	17	17
22 years	20	20
<b>Gender</b>		
Male	71	71
Female	29	29
<b>Religion</b>		
Hindu	90	90
Muslim	9	09
Christian	1	01
Others	0	00
<b>Year of studying</b>		
First year	34	34
Second year	34	34
Third year	32	32
<b>Type of Family</b>		
Nuclear	82	82
Joint	18	18
<b>Number of Siblings</b>		
1	22	22
2	39	39
3	18	18
4	14	14

5 and more	07	07
<b>Religion</b>		
Hindu	90	90
Muslim	9	09
Christian	1	01
Others	0	00
<b>Year of studying</b>		
First year	34	34
Second year	34	34
Third year	32	32
<b>Type of Family</b>		
Nuclear	82	82
Joint	18	18
<b>Number of Siblings</b>		
1	22	22
2	39	39
3	18	18
4	14	14
5 and more	07	07
<b>Family in come</b>		
Below Rs: 10000	18	18
Rs: 10001-15000	48	48
Rs: 15001-20000	16	16
Rs: 20001 & above	18	18
<b>Residential area</b>		
Rural	41	41
Urban	59	59

**Assessment of Student cell phone addiction-** The students for cell phone addiction shows that (51%) of students had an average level of cell phone addiction, 38% of students had a poor level of cell phone addiction, 9% of students had a moderate level of cell phone addiction, 1% of students had Sever level of cell phone addiction, and only 1% of students had very poor level of cell phone addiction (Table 2).

**Table 2:** Distribution of students based on their cell phone addiction

Range of score	Cell phone addiction	Number of respondents	Percentage (%)
0-10	Very poor	1	1
11-20	Poor	38	38
21-30	Average	51	51
31-40	Moderate	9	9
41-50	Sever	1	1

**Assessment of Students classroom alertness-** The level of classroom alertness shows 5% of students had an active, vital alert, 38% of students were functioning at high levels but were not fully alert, 41% of students having responsive, and 16% of students had somewhat foggy, let down in the classroom (Table 3).

**Table 3:** Distribution of Classroom alertness of students

Classroom alertness	Rang of score	Number of respondents	Percentage (%)
Feeling active, vital, alert	1	5	5
Functioning at high levels but not fully alert	2	38	38
Responsive	3	41	41
Somewhat foggy	4	16	16

The portrayal of Table 4 shows no significant association between chosen socio-demographic factors and Cell phone addictions of students ( $p < 0.05$ ). This shows a non-significant association between students' cell phone addiction and  $p < 0.05$ .

Hence,  $H_1$ : There is no significant association between students' cell phone addiction and choosing socio-demographic factors, which is rejected for all socio-demographic factors.

**Table 4:** Association between the Cell phone addictions with their selected socio-demographic variables

socio-demographic variables of	Chi-square test
Age (year)	0.23
Gender	0.04
Religion	0.67
Year of studying	1.24
Type of Family	0.15
Number of siblings	0.06
Family income	0.01
Residential area	0.44

df= 1, Level of significance= 0.05, table value= 3.846

Portray of Table 5 shows no significant association between the chosen socio-demographic factors and students' classroom alertness  $p < 0.05$ . The determined chi-square incentive for the socio-demographic variable in the year of studying is 3.9102; the chi-square table value is 3.846. Here, the Chi-square determined esteem is higher than the chi-square table value. This shows a significant association between studying years and students' classroom alertness ( $p < 0.05$ ).

Hence,  $H_1$ : There was a significant association between the classroom alertness of students and their choice of socio-demographic factor is accepted for socio-demographic factor Year of studying.

Hence,  $H_2$ : There was a significant association between the classroom alertness of students and their choice of socio-demographic factors, which is rejected for all socio-demographic factors.

**Table 5:** Association between the Classroom alertness and their selected socio-demographic variable

Socio-demographic variables of children	Chi-square test
Age	3.78
Gender	2.01
Religion	2.20
Year of studying	3.91
Type of family	0.67
Number of siblings	0.13
Family income	1.82
Place of residence	0.01

df= 1, Level of significance=0.05, table value=3.846

## DISCUSSION

This descriptive study assessed the correlation between Cell phone addiction and Classroom alertness among basic B. Sc Nursing students studying at B.V.V.S. Institute of Nursing Science in Bagalkot, India. The researchers found that the larger part (33%) of students were in the age gathering of 20 years. Similar discoveries were found in the review led by Lin *et al.* [7]. To decide the impact of age cell phone addiction and academic performance of the students. Concerning gender, religion, year of study and nuclear family, Comparable discoveries were found in the review led by Cholz *et al.* [8].

A supportive report on cell phone addiction and academic delay among medical students has been broadly recognized<sup>[9]</sup>. This study intended to investigate the impact of demographic factors on cell phone addiction, academic procrastination, and academic accomplishment among medical students. Further, it examined the relationship between cell phone addiction, academic procrastination, and academic achievement<sup>[10]</sup>. A sum of 3511 medical students took part in a web-based questionnaire survey (successful reaction rate=81.70%).

Demographic factors, the scale of academic achievement, the short scale of the Cell Phone problem Use (MPPUS-10), and the Academic Procrastination Scale–Short (APS-S) were used. Progressive different relapse examination revealed that the normal academic procrastination, cell phone addiction, and academic achievement scores were  $2.66\pm 0.91$ ,  $5.13\pm 1.53$ , and  $4.51\pm 0.71$ , respectively. Cell phone dependence and academic procrastination were revealed as pervasive among Chinese medical students and adversely impacted their academic achievement<sup>[11]</sup>. This study investigates the determinants which attract customers to adopt Internet banking in Pakistan by employing internal and external customers, with a sample size of 210 internal and 151 external respondents, using the survey research instrument questionnaire. This study proves that external customers can be more emphasized, if they believe in convenience in adopting the services<sup>[12]</sup>.

The information has been gathered from 453 students of a private sector higher education institute in Pakistan through an online questionnaire. The consequences of the review showed that both Cell phone utilization and digital loafing positively and essentially influence Cell phone addiction<sup>[13,14]</sup>. A relational screening model was used for the study. The study's data were obtained from 214 students studying in the nursing department. The result of the study Smartphone addiction levels of students are below average ( $86.43\pm 29.66$ ). Students think that their communication skills are at a good level ( $98.81\pm 10.88$ ). Correlation analysis results show that students have a negative, significant, and very weak relationship between the Smartphone addiction of students and communication skills ( $r=-.149$ ). Smartphone addiction explains 2.2% of the variance in communication skills. The study is consistent with and supports the study contacted by Rathakrishnan *et al.*<sup>[15]</sup>.

The result showed that the greater the Smartphone addiction, the lower the academic performance of university students. Smartphone addiction and sleep quality positively correlated ( $r=0.49$ ,  $p<0.05$ ).

Smartphone addiction was associated with sleep quality, whereas overusing smartphones was related to poor sleep quality in university students. This study investigated the structural relationship between avoidant attachment, self-esteem, anxiety, and smartphone addiction among college students. The results showed that avoidant attachment indirectly affected smartphone addiction i.e. avoidant attachment influenced smartphone addiction through the self-esteem and the full mediation path of self-esteem and anxiety<sup>[16]</sup>.

The study is in line with the study counted by Yoon *et al.*<sup>[17]</sup>. The result showed that the achievement goal score was the highest in the learning group and lowest in the recreational group. Academic achievement was higher in the learning and minimal use groups than in the recreational use group.

In this study, the relationship between adolescent Smartphone usage patterns, achievement goals, and academic achievement is ( $\beta=0.30$ ,  $p=0.01$ )<sup>[18]</sup>. Carried out a study in Tokyo, where a questionnaire was applied in five public institutions to 651 middle-school students. The researchers found that the mobile phone was mainly used for e-mails rather than phone calls. The results also showed students use mobile phones to forge friendships, though their use caused them to be awake for most of the night, creating a certain insecurity about the possibility of not always keeping their mobile phones with them. The study is consistent with and supports the study conducted by Garcia-Santillan *et al.*<sup>[19]</sup>.

The study aimed to determine if high-school students presented mobile phone addiction and if this addiction differs in gender. This research showed an acceptable internal consistency ( $\alpha=0.78$ ), while the polychoric correlation matrix showed an acceptable correlation between the studied variables, which were in the range of 0.11 to 0.87 and all of them were positive, proving it is not an identity matrix and it does not present multicollinearity problems.

## CONCLUSIONS

The review is useful for finding the connection between cell phone addiction and the classroom alertness of the



students. A positive relationship between cell phones and the classroom alertness of the students. Students make use of cell phones for study purposes. Using cell phones may help to improve attention, alertness, knowledge, skill, attitude, and performance in class. Furthermore, for future analysts to direct comparable concentrate in huge scope and genuine exploratory examination additionally ought instructively missions to lead this field.

#### CONTRIBUTION OF AUTHORS

**Research concept:** Ms. Renuka Jalihal

**Research design:** Renuka Jalihal

**Supervision:** Ms. Renuka Jalihal, Dr. Deelip S Natekar

**Data collection:** Ms. Renuka Jalihal.

**Data analysis and interpretations:** Renuka Jalihal

**Literature search:** Ms. Renuka Jalihal

**Writing articles:** Renuka Jalihal

**Critical review:** Dr. Deelip S Natekar

**Article editing:** Ms. Renuka Jalihal, Dr. Deelip S Natekar

**Final approval:** Dr. Deelip S Natekar

#### REFERENCES

- [1] Aggarwal K. Twenty-six percent doctors suffer from severe mobile phone-induced anxiety: excessive use of mobile phone can be injurious to your health. *Indian J Clin Pract.*, 2013; 24(1): 7-9.
- [2] Beranuy M, Belles A. A bibliometric analysis of the scientific literature on Internet, video games, and cell phone addiction. *J Med Library Assoc.*, 2009; 97(2): 102.
- [3] Jones T. Students' cell phone addiction and their opinions. *Elon J Undergraduate Res Commun.*, 2014; 5(1): 74-80.
- [4] Guardiola E. A bibliometric analysis of the scientific literature on Internet, video games, and cell phone addiction. *J Med Library Assoc.*, 2009; 97(2): 102.
- [5] Carbonell X, Guardiola E, Beranuy M, Belles A. A bibliometric analysis of the scientific literature on Internet, video games, and cell phone addiction analysis of the scientific association. *JMLA*, 2009; 97(2): 102.
- [6] Billieux J, Van der Linden M, Rochat L. The role of impulsivity in actual and problematic use of the mobile phone. *Applied Cognitive Psychology. J Soc Appl Res Memory Cognition*, 2008; 22(9): 1195-210.
- [7] Lin YH, Lin YC, Lee YH, et al. Time distortion associated with Smartphone addiction: Identifying smartphone addiction via a mobile application (App). *J Psych Res.*, 2015; 65: 139-45.
- [8] Choliz M. Mobile-phone addiction in adolescence: the test of mobile phone dependence (TMD). *Progress Health Sci.*, 2012; 2(1): 33-44.
- [9] Shoukat S. Cell phone addiction and psychological and physiological health in adolescents. *Excli J.*, 2019; 18: 47-50.
- [10] Tian J, Zhao JY, et al. Mobile phone addiction and academic procrastination negatively impact academic achievement among Chinese Medical Students. *Front Psychol.*, 2021; 12: 5561.
- [11] Lee J, Cho B, Kim Y, Noh J. Smartphone addiction in university students and its implication for learning. In *Emerging issues in smart learning*. Springer Berlin Heidelberg, 2015; pp. 297-305.
- [12] Raza SA, Hanif N. Factor's affecting internet banking adoption among internal and external customers: a case of Pakistan. *Int J Electronic Finance*, 2013; 7(1): 82-96.
- [13] Raza SA, Yousufi SQ, Rafi ST, Javaid ST. Impact of Smartphone addiction on students' academic achievement in higher education institute of Pakistan. *J Edu Social Sci.*, 2020; 8(1): 1-4.
- [14] Cerit B, Citak Bilgin N, Ak B. Relationship between Smartphone addiction of nursing department students and their communication skills. *Contemp Nurse*, 2018; 54(4-5): 532-42.
- [15] Rathakrishnan B, Bikar SS, et al. Smartphone Addiction and Sleep Quality on Academic Performance of University Students: An Exploratory Research. *Int J Environ Res Public Health*, 2021; 18: 8291. doi: 10.3390/ijerph18168291.
- [16] Kim E, Koh E. Avoidant attachment and Smartphone addiction in college students: The mediating effects of anxiety and self-esteem. *Computers Human Behavior.*, 2018; 84: 264-71.
- [17] Yoon M, Yun H. Relationships between adolescent smartphone usage patterns, achievement goals, and academic achievement. *Asia Pacific Educ Rev.*, 2023; 24: 13–23. doi: 10.1007/s12564-021-09718-5.

[18] Alhadabi A, Aldhafri S, et al. Modeling parenting styles, moral intelligence, academic self-efficacy and learning motivation among adolescents in grades 7-11. *Asia Pac J Educ.*, 2019; 39(1): 133-53.

[19] García-Santillán A, Espinosa-Ramos E. Addiction to the Smartphone in High School Students: How It's in Daily Life? *Contemp Educ Technol.*, 2021; 13(2): ep296.

**Open Access Policy:**

Authors/Contributors are responsible for originality, contents, correct references, and ethical issues. SSR-IJLS publishes all articles under Creative Commons Attribution- Non-Commercial 4.0 International License (CC BY-NC). <https://creativecommons.org/licenses/by-nc/4.0/legalcode>

