

## ORIGINAL ARTICLE

## A study to assess the Mobile Phone Dependence level among students of selected ITI College of Sukma

B. Rajesh

**How to cite this article:**

**B. Rajesh.** A study to assess the Mobile Phone Dependence level among students of selected Iti College of Sukma. J Psychiatr Nurs. 2025; 14(1): 21-26.

**ABSTRACT**

The study aimed to assess the mobile phone dependence level among students of selected ITI colleges of Sukma. The conceptual framework was adopted for the study based on ROY's adaptation model. Instruments used for the data collection were socio demographic Performa, Dependence on mobile phone scale among selected students of selected ITI college of Sukma. Fifty students were selected by simple random sampling technique. Descriptive statistic (frequency, percentage), and inferential statistics (chi square, and correlation) were used to analyses the data and to test hypothesis.

All the items in the questionnaire were standardized. The reliability was assessed by using Karl Pearson's Correlation coefficient. The obtained reliability was 0.93 which indicates that the tool which is taken by the researcher is reliable, valid, and predictable of the desired objective. The data were analyzed by using descriptive and inferential statistics. The results of the study are suggestive of mobile phone dependence among students of selected ITI college of Sukma. Among 50 samples in those 8 members [16%] are not having any mobile dependency whereas 14 members [28%] are having mild dependence level on mobile phone, 10 members [20%] are having moderate level of mobile dependence at last 18 members [36%] are having severe dependence level on mobile. The data is indicative that Mobile phone dependence is an important health problem in the students. The sleep quality deteriorates with increasing dependence level. New studies are required to assess the real problem and thereby take appropriate steps to tackle the growing problem. It was concluded that referring the students with suspected dependence to advanced healthcare facilities, performing occasional scans for early diagnosis and informing the students about controlled mobile phone use are required for the purposes of definitive diagnosis and treatment.

**KEYWORDS**

• Assess • Effectiveness • Mobile phone dependency

**AUTHOR'S AFFILIATION:**

Professor, Maruthi College of Nursing, Devanahalli, Bengaluru, Andhra Pradesh 507111, India.

**CORRESPONDING AUTHOR:**

**B. Rajesh,** Professor, Maruthi College of Nursing, Devanahalli, Bengaluru, Andhra Pradesh 507111, India.

E-mail: gnanraj1986@gmail.com

Received: 02-04-2025

Accepted: 13-04-2025



Creative commons non-commercial CC BY-NC: This article is distributed under the terms of the creative commons attribution non-commercial 4.0 License (<http://www.creativecommons.org/licenses/by-nc/4.0/>) which permits non-commercial use, reproduction and distribution of the work without further permission provided the original work is attributed as specified on the Red Flower Publication and Open Access pages (<https://rfppl.co.in>)

## INTRODUCTION

The mobile phone contains so many qualities and characteristics that make it very attractive to both young and old 1, Whether sitting in a garden, or having food or at the movie theatres, it seems that cell phones find a way to interrupt the ambiance. In developing country cell phones are becoming more valuable than money as they are being paid in minutes instead of money.<sup>2</sup> With the advancement of modern technology and in particular mobile technology it is no wonder that cell phones and their popularity are on the rise. It is perhaps because of their ease of use and their ability to facilitate other applications.<sup>3</sup>

Smart phone contains all advance applications like messenger, mobile games, online purchasing applications, mobile banking, internet access etc, with made our life easy and comfortable as well. But Including all the advance applications it brings too many hazards like nausea, headache, insomnia, tumors and other physical and psychological health problems.<sup>4</sup>

The prevalence rate of mobile phone dependence in adolescent age between 11-14 years from Britain is estimated as 10% where adolescent consider them expert users of this technology.<sup>5</sup> complimentary to this in India it is estimated of among as 39-44%.<sup>6</sup>

Some researches reveal an association between mobile phone use and certain kinds of neuro and salivary gland tumours. Lennart Hardell *et al.*(2009) done a meta-analysis of 11 researches which were taken from peer-reviewed journals and they concluded that mobile phone usage continuously for at least 10 years “almost doubles the chances of brain tumor.”<sup>7</sup>

Based on the data of the online statistic portal Statista, as compared to year 2013, in India the estimated users of mobile phone has rise by 11% in the year 2015<sup>15</sup> and According to a report of Times of India, India will exceed 200 million smart phone users by the year 2016.<sup>16</sup> Now a days it is well understood that in India, the use of mobile Phone is very prevalent in population who are young and educated.

World Health Organization reported on 31 May 2011, that mobile phone use accompany with health risk which is long term and harmful too, whereas the radiation from mobile phone is strong etiological factor for occurrence of

carcinoma in humans

**Gazelle** reported in his survey that, there were more than 25% of participant who reported that they ‘almost always’ use their mobile phones in almost every social gathering and activity like eating time, or in meeting. contributing to this point 58% of participant reported that they use it ‘usually’ or ‘occasionally’ in these activities.<sup>19</sup>

In addition,

- 70% of participant recheck their mobilephones within just one hour of getting up in morning.
- Before going to sleep 56% uses their phones.
- Over the weekend 48% check their phones.
- During vacation 51% constantly check their phones.
- 44% said that if they don’t interact with their mobile phone within in a week, they would have complaints of anxiety and irritation.<sup>20</sup>

## MATERIALS AND METHODS

The objectives of the study were to assess the mobile phone dependence level as measured by dependence on mobile phone scale among students and to find the association between mobile phone dependence level with their selected demographic variables. The conceptual framework was adopted for the study based on ROY’s adaptation model. Instruments used for the data collection were socio demographic Performa, Dependence on mobile phone scale among selected students of selected college of Sukma. Fifty students were selected by simple random sampling technique. Descriptive statistic (frequency, percentage) and inferential statistics (chi square, and correlation) were used to analyses the data and to test hypotheses.

All the items in the questionnaire were standardized and Ten experts constituting of three psychiatrists, two psychologists, and six mental health nursing personnel validated the Tool. The reliability was assessed by using Karl Pearson’s Correlation coefficient. The obtained reliability was 0.93 which indicates that the tool which is taken by the researcher is reliable, valid, and predictable of the desired objective. The data were analyzed by using descriptive and inferential statistics.

The reliability was assessed by using Karl Pearson's Correlation coefficient. The obtained reliability was 0.93 which indicates that the tool which is taken by the researcher is reliable, valid, and predictable of the desired objective. The data were analyzed by using descriptive and inferential statistics.

## RESULTS

Table 1: Frequency and percentage distribution of demographic variables among students. N=50

| Demographic Variables | Frequency | Percentage |
|-----------------------|-----------|------------|
| Age in years          |           |            |
| 18-19                 | 19        | 38%        |
| 20-21                 | 23        | 46%        |
| 22-23                 | 06        | 12%        |
| 24-25                 | 2         | 4%         |
| Gender                |           |            |
| Male                  | 23        | 46%        |
| Female                | 27        | 54%        |
| No of sibling         |           |            |
| No                    | 07        | 14%        |
| 1 sibling             | 13        | 26%        |
| 2 sibling             | 19        | 38%        |
| 3 or more             | 11        | 22%        |
| Family                |           |            |
| Joint                 | 33        | 66%        |
| Nuclear               | 17        | 34%        |
| Occupation of mother  |           |            |
| House wife            | 41        | 82%        |
| Employee              | 9         | 18%        |
| Daily wages           | 0         | 0%         |
| Occupation of father  |           |            |
| Not working           | 2         | 4%         |
| Employee              | 23        | 46%        |
| Business man          | 22        | 44%        |
| Daily wages           | 3         | 6%         |
| Family income / month |           |            |
| Below 10,000          | 4         | 8%         |
| 10001-15001           | 4         | 8%         |
| 150001-20000          | 08        | 16%        |
| Above 20000           | 34        | 68%        |
| Domicile              |           |            |
| Rural                 | 37        | 74%        |
| Urban                 | 13        | 26%        |
| Health problem        |           |            |
| Yes                   | 1         | 2%         |
| No                    | 49        | 98%        |
| Emotional problem     |           |            |
| Yes                   | 1         | 2%         |
| No                    | 49        | 98%        |
| Family problem        |           |            |
| Yes                   | 1         | 2%         |
| No                    | 49        | 98%        |

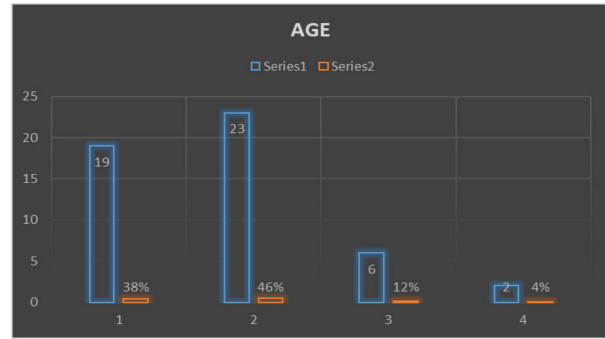


Figure 1: Frequency and Percentage distribution of Students on age

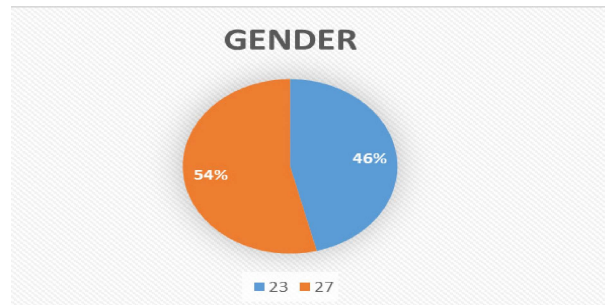


Figure 2: Frequency and Percentage distribution of Students on gender

Table 2: Frequency and percentage distribution of level of Mobile dependence among students

| Level of Knowledge  | Range   | Frequency | Percentage |
|---------------------|---------|-----------|------------|
| No Dependence       | 90<     | 08        | 16%        |
| Mild Dependence     | 91-110  | 14        | 28%        |
| Moderate Dependence | 111-130 | 10        | 20%        |
| Severe Dependence   | 131-150 | 18        | 36%        |

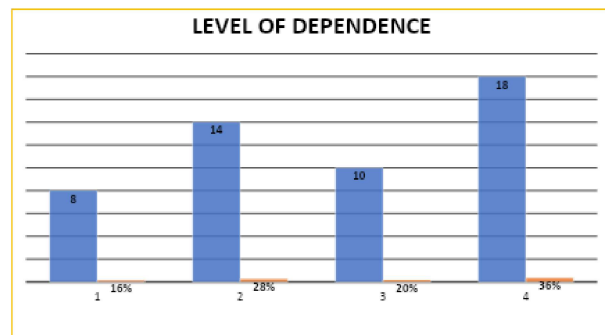


Figure 3: Frequency and percentage distribution of level of mobile dependence among students

Table 3: Distribution of mean and standard deviation of level of Mobile dependence among students.

| Content            | Level of Mobile Dependence |
|--------------------|----------------------------|
| Mean               | 24.16                      |
| Standard deviation | 5.641                      |

**Table 4:** Association of demographic variables with the level of Mobile dependence among students

N = 50

| Variable              | Mobile phone dependence |      |          |        | $\chi^2$ | Df | P Value | Inference |
|-----------------------|-------------------------|------|----------|--------|----------|----|---------|-----------|
|                       | No                      | Mild | Moderate | Severe |          |    |         |           |
|                       | F                       | F    | F        | F      |          |    |         |           |
| Age in years          |                         |      |          |        |          |    |         |           |
| 18-19                 | 7                       | 9    | 12       | 11     | 14.61    | 9  | 16.91   | NS        |
| 20-21                 | 7                       | 11   | 21       | 7      |          |    |         |           |
| 22-23                 | 2                       | 7    | 2        | 1      |          |    |         |           |
| 24-25                 | 0                       | 1    | 0        | 2      |          |    |         |           |
| Gender                |                         |      |          |        |          |    |         |           |
| Male                  | 6                       | 13   | 15       | 12     | 2.21     | 3  | 7.81    | NS        |
| Female                | 10                      | 15   | 20       | 8      |          |    |         |           |
| No of sibling         |                         |      |          |        |          |    |         |           |
| No sibling            | 4                       | 2    | 4        | 4      | 7.20     | 9  | 16.91   | NS        |
| 1 sibling             | 2                       | 11   | 9        | 5      |          |    |         |           |
| 2 sibling             | 5                       | 10   | 15       | 8      |          |    |         |           |
| 3 or more             | 5                       | 5    | 7        | 4      |          |    |         |           |
| Family                |                         |      |          |        |          |    |         |           |
| Joint                 | 8                       | 17   | 25       | 15     | 2.76     | 3  | 7.81    | NS        |
| Nuclear               | 8                       | 11   | 10       | 6      |          |    |         |           |
| Occupation of mother  |                         |      |          |        |          |    |         |           |
| House wife            | 15                      | 27   | 32       | 17     | 3.89     | 6  | 12.59   | NS        |
| Employee              | 1                       | 1    | 4        | 2      |          |    |         |           |
| Daily wages           | 0                       | 1    | 0        | 0      |          |    |         |           |
| Occupation of father  |                         |      |          |        |          |    |         |           |
| Not working           | 0                       | 3    | 1        | 0      | 24.87    | 9  | 16.91   | S         |
| Employee              | 6                       | 11   | 19       | 11     |          |    |         |           |
| Business man          | 10                      | 13   | 12       | 9      |          |    |         |           |
| Daily wages           | 0                       | 1    | 3        | 1      |          |    |         |           |
| Family income / month |                         |      |          |        |          |    |         |           |
| Below 10,000          | 1                       | 2    | 3        | 2      | 10.04    | 9  | 16.91   | NS        |
| 10001-15001           | 1                       | 1    | 5        | 1      |          |    |         |           |
| 150001-20000          | 6                       | 5    | 4        | 1      |          |    |         |           |
| Above 20000           | 13                      | 17   | 20       | 18     |          |    |         |           |
| Domicile              |                         |      |          |        |          |    |         |           |
| Rural                 | 7                       | 7    | 16       | 7      | 2.22     | 3  | 7.81    | NS        |
| Urban                 | 9                       | 21   | 19       | 14     |          |    |         |           |
| Health problem        |                         |      |          |        |          |    |         |           |
| No                    | 16                      | 28   | 32       | 21     | 5.73     | 3  | 7.81    | NS        |
| Yes                   | 00                      | 00   | 3        | 00     |          |    |         |           |
| Emotional problem     |                         |      |          |        |          |    |         |           |
| No                    | 16                      | 28   | 32       | 21     | 5.73     | 3  | 7.81    | NS        |
| Yes                   | 00                      | 00   | 3        | 00     |          |    |         |           |
| Family problem        |                         |      |          |        |          |    |         |           |
| No                    | 15                      | 28   | 35       | 21     | 8.06     | 3  | 7.81    | NS        |
| Yes                   | 1                       | 00   | 00       | 00     |          |    |         |           |

## DISCUSSION

The level of mobile phone dependence was measured by Dependence on mobile phone use scale. It was a 5point likert scale, containing 30 statements, for each statement there was response varying from strongly disagree to

strongly agree, and the score vary from 1-5 for each response. Total score <90 indicate no dependence on mobile phone, score 91-110 indicate mild dependence, score 111-130 indicate moderate dependence, whereas score 130-150 indicate severe mobile phone

dependence. The data was collected among 50 samples in those 8 members (16%) are not having any mobile dependency whereas 14 members (28%) are having mild dependence level on mobile phone, 10 members (20%) are having moderate level of mobile dependence at last 18 members (36%) are having severe dependence level on mobile. The mean value obtain out of the result is 24.16 where as the standard deviation value is 5.641. There is no statistically significant association between level mobile dependence with their demographic variables like age, gender, no of sibling, types of family, occupation of mother, family income per month, domicile area, health problem, emotional problem. Whereas there is statistically significant association between level of mobile dependence with their demographical variables like occupation of father and family problem.

## CONCLUSION

The results of the study are suggestive of mobile phone dependence among students of selected ITI college of Sukma. Among 50 samples in those 8 members (16%) are not having any mobile dependency whereas 14 members (28%) are having mild dependence level on mobile phone, 10 members (20%) are having moderate level of mobile dependence at last 18 members (36%) are having severe dependence level on mobile. The data is indicative that Mobile phone dependence is an important health problem in the students. The sleep quality deteriorates with increasing dependence level. New studies are required to assess the real problem and thereby take appropriate steps to tackle the growing problem.

It was concluded that referring the students with suspected dependence to advanced healthcare facilities, performing occasional scans for early diagnosis and informing the students about controlled mobile phone use are required for the purposes of definitive diagnosis and treatment. It may be required to give priority to this matter, conduct more studies and evaluate them.

## REFERENCES

1. Chóliz M. Mobile phone addiction: a point of issue. *Addiction*. 2010;105(2):373-74.

2. Oscar Flores English 1 college of the sequoias <https://sites.google.com/site/celladdicts/introduction>
3. <https://sites.google.com/sites/celladdicts/review-of-literature>
4. Khan MM. Adverse effects of excessive mobile phone use. *Int J Occup Med Environ Health*. 2008;21:289-93.
5. Lopez-Fernandez O, Honrubia-Serrano L, Freixa-Blanxart M, Gibson W (2014). "Prevalence of problematic mobile phone use in British adolescents"; *Cyberpsychol Behav Soc Netw*. 17 (2):91-98. doi:10.1089/cyber.2012.0260. PMID 23981147.
6. Davey S, Davey A (2014). "assessment of Smartphone Dependence in Indian Adolescents: A Mixed Method Study by Systematic-review and Meta-analysis Approach"; *J Prev Med*. 5 (12): 1500-1511. PMID 25709785
7. Khurana, VG; Teo C; Kundi M; Hardell L; Carlberg M (2009). "Cell phones and brain tumors: A review including the long term epidemiologic data"; *Surgical Neurology* 72 (3): 205-214. doi:10.1016/j.surneu.2009.01.019. PMID 19328536.
8. Smartphone addiction statistics@digitaltimes.com
9. Terrifying statistic on your smartphone@the richest times.com
10. Cell phone addiction and sign and symptoms, article @psychguides.com
11. Antao L. How to curb smartphone dependence. [Last cited on 2013 Jan 05]. Available from: <http://www.timesofindia.indiatimes.com/life-style/health-fitness/health/How-to-curb-smartphone-dependence/articleshow/14711322.cms>
12. Katz, J. E., & Akhus, M. Perceptual contact: Mobile communication, private talk, public performance. Cambridge University Press, 2002.
13. Sanjay Dixit Harish Shukla AK Bhagwat, Arpita Bindal, Abhilasha Goyal, Alia K Zaidi and Akansha Shrivastava A Study to Evaluate Mobile Phone Dependence Among Students of a Medical College and Associated Hospital of Central India *Indian J Community Med*. 2010 April; 35(2): 339-341 doi: 10.4103/0970-0218.66878 PMID: PMC2940198.
14. An J., Sun Y., Wan Y., Chen J., Wang X. & Tao F. (2014). Associations between problematic

- Internet use and adolescents' physical and psychological symptoms: Possible role of sleep quality. *Journal of Dependence Medicine*, 8(4), 282-287.
15. [www.statista.com/statistics/25](http://www.statista.com/statistics/25)
  16. Indian smart phone market 2015: Analysts' view- The times of India Times of india. [Indiatimes.com](http://Indiatimes.com)
  17. Iarc Classifies Radiofrequency Electromagnetic Fields As Possibly Carcinogenic To Humans (Pdf). World Health Organization.
  18. Gibson, E. (27 July 2011). Smartphone dependency: a growing obsession with gadgets. Retrieved 27 September 2013 from USA Today website: <http://usatoday30.usatoday.com/news/health/medical/health/medical/mentalhealth/story/2011/07/Smartphone-dependency-a-growing-obsession-to-gadgets/49661286/1>.
  19. Belardi, B. (Ed.). (18 June 2012). Consumers Crave iPhone More Than Facebook, Sex. Retrieved 15 October 2013 from PR Newswire website: <http://www.prnewswire.com/news-releases/consumers-crave-iphone-more-than-facebook-sex-according-to-gazelle-159430685>.
  20. Perlow, Leslie A. (2012). *Sleeping with your smartphone : how to break the 24/7 habit and change the way you work*. Boston, Mass.: Harvard Business Review Press .ISBN 9781422144046.
  21. Sar AH, Isiklar A. Adaptation of problem mobile phone use scale to Turkish. *Int J Human Sci*.2012;2:264-275.
  22. Griffiths M.D. Internet gambling: Issues, concerns and recommendation. 2003;6:557-568. [PubMed] .Öztürk, M. O. (2002). *UykuBozuklukları, RuhSağlığı ve Bozuklukları* (Vol. 9. Basım). Ankara: FeryalMatbaas.
  23. Khan, A. F. (2004). Sleep characteristics and sleep deprivation in infants, children and adolescents. In: *Who technical Meeting on Sleep and Health*. Bonn, Germany. WHO Regional Office for Europe, European centre for Environment Health Bonn Office. 3861.
  24. Şenol, Soyuer, Akça, & Argün, (2012). Şenol, V., Soyuer, F., Akça, R. P., & Argün, M.(2012). *Adolesanlarda Uyku Kalitesi ve Etkileyen Faktörler*. Kocatepe medical journal,14, 93-102.
  25. Hyun Young & Hyun Sook *Journal of Korean academy of child health nursing*.01/2010;16(1).DOI: 10.4094/jkachn.2010.16.1.56.