

## ORIGINAL ARTICLE

# Comparative Study to assess the Knowledge Regarding ill Effects of Watching Mobile Phones among Children in Selected Rural and Urban Schools of Gonda

Jeya Beulah D.<sup>1</sup>, Sonam<sup>2</sup>, Swati<sup>3</sup>, Suchita<sup>4</sup>, Shushma<sup>5</sup>, Supriya<sup>6</sup>**How to cite this article:**

Jeya Beulah D., Sonam, Swati et al. Comparative Study to assess the Knowledge Regarding ill Effects of Watching Mobile Phones among Children in Selected Rural and Urban Schools of Gonda. J Psychiatr Nurs. 2025; 14(1): 07-12.

**ABSTRACT**

Modern life is becoming more and more reliant on mobile phones, which are a huge advancement over earlier telecommunications technology. Anxiety, depression, and loneliness are just a few of the mental health conditions that have been connected to excessive mobile phone use.

**Aims:** The objectives are to assess the level of knowledge on prevention of ill effects of watching mobile phone among children in selected rural and urban schools of Gonda district, to compare the level of knowledge on prevention of ill effects of watching mobile phone among children in selected rural and urban schools of Gonda district.

**Methods:** Comparative descriptive survey design was chosen in this study. Sample size was 80 students.

**Results:** The majority of 45% were have poor knowledge, 42.5% average knowledge, and, 12.5% good knowledge regarding the ill effect of watching phone among rural children population. In urban school, 42.5% were have good, 30% were have average, and 27.5% were have poor knowledge.

**Conclusion:** Thus, it was concluded that, nurses should play major role in creating awareness about ill effects of watching mobile phones among children.

**KEYWORDS**

• Comparative • Knowledge • Ill effects • Mobile phone • Children

**AUTHOR'S AFFILIATION:**

<sup>1</sup>HOD, Department of Community Health Nursing, SCPM College of Nursing and Para Medical Sciences, Gonda, Uttar Pradesh, India.

<sup>2-6</sup>B.Sc Nursing Fourth Year, SCPM College of Nursing and Para Medical Sciences, Gonda, Uttar Pradesh, India.

**CORRESPONDING AUTHOR:**

**Jeya Beulah D.** HOD, Department of Community Health Nursing, SCPM College of Nursing and Para Medical Sciences, Gonda, Uttar Pradesh, India.

**E-mail:** jeya.beulah09@gmail.com

➤ **Received:** 29-01-2025 ➤ **Accepted:** 21-03-2025



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

Mobile phone reception has significantly improved in recent years. The significance of cell phones grew in tandem with their advancements and ease of use. Teenagers who use cell phones are at risk for mental health issues, bullying, eye strain, digital thumb, brain tumours, low sperm counts, sleep deprivation, addiction, and a lack of self-control. Lopez-Fernandez et al. (2019) Teens' problematic phone use is becoming a bigger problem as research shows a strong correlation between excessive phone use and a higher risk of stress, anxiety, and depression. According to their research, educational initiatives can cut smartphone addiction by 30%. The most successful programs, according to the researchers, are multi-component ones.<sup>1</sup>

**Adnan Lutfi Sarhan (2024)** According to cross-sectional study research which was carried out in 2021 from January 26 to March 3, smartphone addiction and depression were positively correlated. ( $r=0.375, p<0.01$ ), anxiety ( $r=0.253, p<0.01$ ), and stress ( $r=0.328, p<0.05$ ).<sup>2</sup> **Kuss and Griffiths (2017)** He investigated the connection between brain anatomy and phone addiction. According to their research, phone addiction is associated with a reduction in gray matter in the brain, specifically in regions related to impulse control and concentration. The researchers hypothesized that long-term alterations in brain structure and function could result from phone addiction.<sup>3</sup>

**Li G, Conti AA, Qiu C, Tang W. (2022)** A web-based survey was administered to 1609 senior high school student (mean age = 16.53 years, SD = 0.97 years; 63.5% female). Even after adjusting for the effects of depression and daytime sleepiness, the regression analysis showed that mobile phone addiction during quarantine was a direct predictor of suicidality during the following five months.<sup>4</sup> **Wang JC, Hsieh CY, Kung SH (2022)** This study looked into how elementary school pupils' perceptions of their academic performance were affected by their use of smartphones. The findings suggest that among elementary school pupils, smartphone use may lead to unequal learning opportunities.<sup>5</sup>

**Hinnah B, (2023)** In the framework of the COVID-19 epidemic, a study was carried out

in Brazil to find out how teenagers saw the connection between self-reported smartphone addiction and emotional and behavioral issues. The results produced two categories that explain how teenagers use smartphones to avoid the reality imposed by the COVID-19 pandemic and how they view the behavioral and emotional changes brought on by this addiction. They engage in this conduct in an attempt to escape reality and lessen unpleasant feelings, but this is only temporary and ineffectual because the addicted relationship just serves to intensify emotional suffering.<sup>6</sup> **Gopalakrishnan et al. (2021)**, South India's baseline prevalence of myopia among children aged 5 to 16 is higher than that of earlier research, suggesting that mobile phone use is contributing to the country's growing myopia problem.<sup>7</sup>

## PROBLEM STATEMENT

A Comparative study to assess the knowledge regarding ill effects of watching mobile phone among Children in selected rural and urban schools of Gonda district.

## OBJECTIVES OF STUDY

1. To assess the level of knowledge on prevention of ill effects of watching mobile phone among children in selected rural and urban schools of Gonda district.
2. To compare the level of knowledge on prevention of ill effects of watching mobile phone among children in selected rural and urban schools of Gonda district.
3. To associate the level of knowledge on prevention of ill effects of watching mobile phones with selected socio demographic variables.

## HYPOTHESIS

**H<sub>1</sub>:** There is significant difference between level of knowledge on prevention of ill effects of watching mobile phone among children in selected rural and urban schools of Gonda district.

**H<sub>2</sub>:** There is a significant association between level of knowledge on prevention of ill effects of watching mobile phone among children with their selected socio-demographic variables.

## ASSUMPTIONS

- Most children have inadequate knowledge regarding ill effects of watching mobile phone.
- Adolescents may have inadequate knowledge about importance of millets.

## MATERIAL METHOD

**Research design:** comparative descriptive survey.

### Sample size

Sample size consisted of 80 children, in that 40 children from rural school and 40 from urban school.

### Sampling Technique

Nonprobability purposive sampling technique was adopted.

**Setting:** Children 11-15 years from Modern Public School (urban), Composit Vidyalaya, Bhabhni, Gonda (Rural).

## CRITERIA FOR SAMPLE SELECTION

### Inclusion criteria

1. Children in the defined age group (11 to 15 years) .
2. Children studying in the selected rural and urban school of Gonda District.
3. Children who are regular users of mobile phones.

### Exclusion criteria

1. Children with disabilities that prevent them from using mobile phones.
2. Children who do not have access to mobile phones.
3. Children whose parents/guardians do not provide consent for participation

## Description of tool

### Section-A

**Section A:** Demographic variables it includes the Demographic variables such as age, gender, class studying, Education of father, education of mother, occupation of father, occupation of mother, income of family per month, type of family, type of residence, previous source of information.

**Section B:** Questionnaire [multiple choices questions] survey regarding ill effects of watching mobile phone

### Data collection procedures

A formal written permission was the authority of urban and rural schools. The data collected from 80 children's[40 urban and 40 rural schools of Gonda District). The socio-demographic data, surveys were administered to collect background information of the sample. The data collection took 30 - 40 min before conducting the study consent was taken sample is explaining the purpose of the study

### Content validity:

To obtain the content validity of the tool, a problem statement with objective, operational definition, hypothesis, lesson plan for data collection, demographic profile and structured knowledge questionnaire was submitted to experts. Experts were chosen based on their experience and interest in this area requested to give their opinions and suggestions regarding the tool.

### Reliability of the tool

The reliability of the structured knowledge questionnaire was determined by using the test and retest method of 'Karl Pearson's formula' to obtain the reliability of the tool. The intra class coefficient correlation of the structured knowledge Questionnaire was  $r=0.938$  which was more than  $r=0.70$ ; hence the structured knowledge questionnaire was found to be reliable.

### Ethical considerations

1. Prior permission was obtained from school principal.
2. Informed consent obtained in that parents or guardians gave their consent before a questionnaire is given or a child interview is conducted.
3. A kid-friendly strategy Children should feel at ease and eager to share their knowledge when using tools that are designed with their comfort in mind.

### Procedure for data collection:

Data collection was carried out by taking formal permission from concerned authorities of a selected schools. A formal written permission

was the authority of urban and rural schools. The data collected from 80 children's (40 urban and 40 rural schools of Gonda District). The

collected data was tabulated and analyzed using descriptive and inferential statistics.

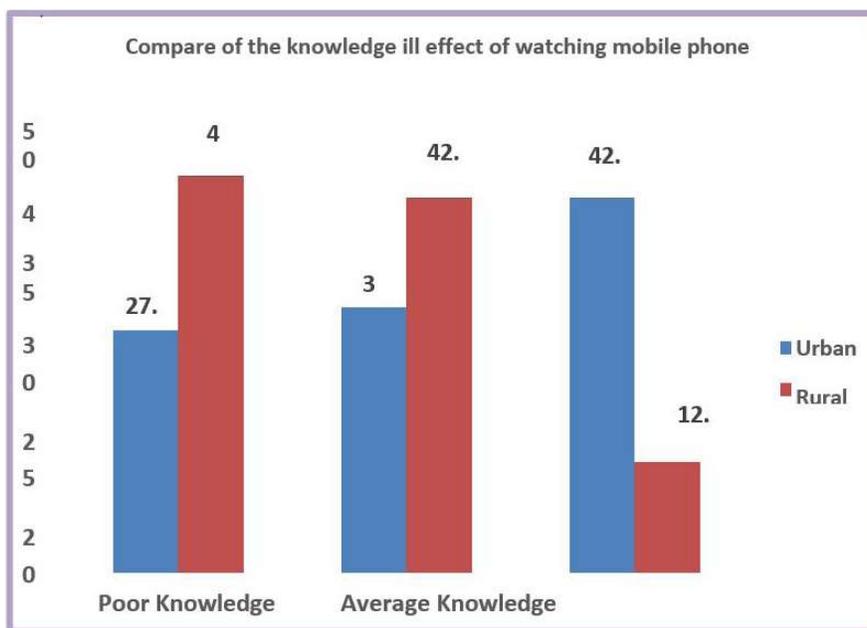
**Results and interpretation**

**Table 1:** showing the distribution of level of knowledge regarding ill effect of watching mobile phone among children in urban and rural population

Knowledge	Rural		Urban	
	Frequency	Percentage	Frequency	Percentage
Poor	18	45	11	27.5
Average	17	42.5	12	30
Good	5	12.5	17	42.5

(N=40+40=80)

(40+40=80)



**Figure 1:** Shows the distribution of level of knowledge on ill effect of watching mobile phone among children in Urban and Rural population

Figure depicts that the out of 40 study participants, that the majority of 45% were have poor knowledge, 42.5% were have average knowledge, and, 12.5% were have good knowledge regarding the ill effect of watching phone among rural children

population. Moreover, additionally, 42.5% were have good knowledge, 30% were have average knowledge, and 27.5% were have poor knowledge regarding the ill effect of watching phone among urban children population.

**Table 2:** Comparison of level of knowledge regarding ill effect of watching mobile phone among children in urban and rural population

Area	Minimum	Maximum	Mean	SD	df	Pvalue
Urban	7	24	16.15	4.137	29	0.001
Rural	7	24	13.45	5.283		

N= (40+40=80)

Above the table shows among urban children population means and standard deviation (16.15±4.13), is higher than the rural children population means and standard deviation was ((13.45±5.25). Moreover, the p-value was significantly less than 0.05, that the null hypothesis ( $H_0$ ) was rejected and statistical hypothesis ( $H_1$ ) was accepted.

## DISCUSSION

The findings of this study stated that, In urban school, most of the participants 26 (65%) belong to age group 11-12 years, females were 24 (60%), maximum children's father studied degree or other courses, and most of them 15 were working in private companies, family income for many parents was above 15000rs and maximum children coming from nuclear family 27 (67.5%) and many of them have knowledge regarding ill effects of mobile phone through health workers. In rural school, Maximum children belong to 12-13 year that is 15 (37.5), male participants 24 (60%), females were 16 (40%), most of them studying in 8<sup>th</sup> standard 16 (40%), a high percentage 17 (42.5%) of participants father were farmer. It was also stated that, maximum children's mother 25 (62.5%) were home maker and half of the participants family income was below 5000rs, most of the children gained knowledge through health workers.

### **The first objective was to assess the level of knowledge on ill effects of watching mobile phone.**

Out of 40 study participants, that the majority of 45% had poor knowledge, 42.5% were have average knowledge, and, 12.5% had good knowledge regarding the ill effect of watching phone among rural children population. Moreover, additionally, 42.5% had good knowledge, 30% had average knowledge, and 27.5% had poor knowledge regarding the ill effect of watching phone among urban children population. From the above discussion it is understand that the majority of the children lacks knowledge and practices regarding ill effects of watching mobile phones which seeks the need for the development of education programme. When comparing the knowledge level, children from urban school had more awareness about ill effects of watching mobile phone.

**Ramya Rathi Devi, M. Srimathi, A. Eswari et al. (2018).** A study to evaluate mothers

of teenagers in a chosen community in the Kancheepuram District regarding their knowledge and attitudes regarding the effects of mobile phones and internet usage. 100 samples that met the requirements for inclusion were chosen using a convenient non-probability sampling technique. 37 (37%) mothers of adolescents have inadequate, 54 (54%) have moderate, and 9 (9%) have adequate knowledge, according to the analysis's findings. Of the mothers of teenagers, 10 (10%) have a bad attitude, 72 (72%) have a fair attitude, and 18 (18%) have a good attitude.<sup>8</sup>

These cond objective was to associate objectives to compare the level of knowledge regarding ill effects of watching mobile phones among children in selected urban and rural schools at Gonda.

The study findings also depicted that categorically significant association between knowledge ill effect watching phone and selected demographics such as previous source of information. However, there was no significant between ill effect of knowledge and age, gender, standard of class, educational status of mothers, occupational status of mothers, and educational status of father, occupational status of father, income of family, type of family among rural children. In urban school, significant association between knowledge ill effect watching phone and selected demographics such as, age, gender, standard of class, educational status of mothers, occupational status of mothers. Additionally, there was no significant association between knowledge on ill effect of watching mobile phone and educational status of father, occupational status of father, income of family, type of family and previous source of information.

A study to determine adolescents' knowledge of the negative impacts of mobile use in selected colleges in Kancheepuram District, Tamil Nādu. According to the results, there was a significant correlation between the number of mobile phones in the home and demographic factors like age in years, gender, family type, monthly income, and the type of mobile phone in the home and the negative effects of teen mobile usage. It was also concluded that there is a strong correlation between the degree of knowledge that children in particular rural schools have about the negative effects of using mobile phones and their prior information sources.

## CONCLUSION

The primary finding of the current study was that the majority of kids knew very little about the negative consequences of using cell phones. Therefore, it was determined that informational education and communication regarding the negative effects of children's mobile phone use may raise their level of understanding. Thus, the children received the information booklet.

## RECOMMENDATIONS

- A similar study can be conducted for a larger group of children.
- A similar study can be conducted with a true experimental design.
- The same study can be conducted in a different setting such as a hospital.
- A comparative study can be done regarding ill effects of watching mobile phones among children in selected urban and rural schools at Gonda.
- The similar study can be done to test the effectiveness of various teaching aids in imparting knowledge on ill effects of watching mobile phones among children in selected urban and rural schools at Gonda.

## ACKNOWLEDGEMENT

I would like to say heartfelt gratitude my family and colleagues for their valuable support to complete my study.

*Funding and Conflict of Interest:* None

## REFERENCES

1. Lopez-Fernandez O, Honrubia-Serrano L, Freixa M, Gibson W. Prevalence of Problematic Mobile Phone Use in British Adolescents. *Cyberpsychology, Behavior and Social Networking*. 2014 Feb; 17(2): 91-8.
2. Adnan Lutfi Sarhan. The relationship of smartphone addiction with depression, anxiety and stress among medical students. *Sage Open Medicine*. 2024 Jan 1; 12.
3. Kuss D.J., Griffiths M.D. Internet and Gaming Addiction: a Systematic Literature Review of Neuro imaging studies. *Brain Sciences* [Internet]. 2010. Sep 5; 2(3): 347-74. <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4061797/>
4. Li G, Conti AA, Qiu C, Tang W. Adolescent mobile phone addiction during the COVID-19 pandemic predicts subsequent suicide risk: a two-wave longitudinal study. *BMC Public Health* 2022 Aug 12; 22(1).
5. Wang J.C., Hsieh C.Y., Kung S.H. The Impact of Smartphone Use on Learning effectiveness: a case study of Primary School Students. *Education and Information Technologies* [Internet]. 2022 Nov 11; 28(28). <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC9651103/>
6. Hinnah B, Aparecida M, Juliano Bortolini, Diogo P. Adolescents' Perception About the Relationship Between Self -Reported Smartphone Addiction and Emotional and Behavioral Problems During the COVID-19 Pandemic. *Journal of Adolescent Research*. 2023 Sep 4; <https://doi.org/10.1177/07435584231194869>
7. Gopalakrishnan A., Hussaindeen J.R., Sivaraman V., Swaminathan M, Wong YL, Amritage J.A., *et al.* Prevalence of myopia among urban and suburban school children in Tamil Nadu South India: finding from the Sankara Netralaya Tamil Nadu Essilor Myopia (STEM) study. *Ophthalmic and Physiological Optics*. 2022 Jan 12; 42(2):345-57. <https://doi.org/10.1111/opo.12943>
8. Ramya Rathi Devi, M. Srimathi, A. Eswari *et al.* assessment of the Level of Knowledge and Attitude on Effects of Mobile Phones and Internet Usage among Mothers of Adolescents. *International Journal of paediatric Nursing*. Volume 4 Number 2, May - August 2018.