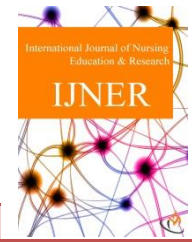




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EFFECTIVENESS OF A VIDEO-ASSISTED TEACHING PROGRAMME ON KNOWLEDGE AND ATTITUDE REGARDING MOBILE PHONE ADDICTION AMONG ADOLESCENTS AT SELECTED SCHOOLS

Vatcala Devi M^{1*}, Padmavathi R²

¹PhD Scholar, Omayal Achi College of Nursing affiliated to The Tamil Nadu Dr. MGR Medical University, Chennai, Tamil Nadu, India

²Research Guide, Principal & Professor, GRT College of Nursing, Tiruttani affiliated to The Tamil Nadu Dr. MGR Medical University, Chennai, Tamil Nadu, India.

Article Info <i>Received 21/04/2026</i> <i>Revised 19/05/2026</i> <i>Accepted 30/06/2026</i>	ABSTRACT Introduction: Mobile phone addiction has emerged as a major public health concern among adolescents due to excessive smartphone use, leading to poor academic performance, reduced social interaction, sleep disturbances, and psychological problems. This study aimed to evaluate the effectiveness of a video-assisted teaching programme on knowledge and attitude regarding mobile phone addiction among adolescents. Methods: A quantitative research approach with a pre-experimental one-group pre-test and post-test design was adopted. The study was conducted among 60 higher secondary school adolescents at Arakkonam. Participants were selected using a non-probability purposive sampling technique. Data were collected using a structured 25-item knowledge questionnaire and a 15-item five-point Likert attitude scale. A 30-minute video-assisted teaching programme on mobile phone addiction was administered. Results: Before the intervention, 71.67% of adolescents had inadequate knowledge and 68.33% had an unfavourable attitude regarding mobile phone addiction. Following the intervention, 85.0% achieved adequate knowledge and 81.67% demonstrated a favourable attitude. The mean knowledge score increased significantly from 11.05 ± 2.67 to 20.78 ± 2.54 ($t = 51.646$, $p < 0.001$). The mean attitude score improved from 33.30 ± 5.83 to 59.45 ± 6.08 ($t = 23.789$, $p < 0.001$). A significant positive correlation was observed between post-test knowledge and attitude ($r = 0.444$, $p < 0.001$). Significant associations were found between knowledge and age ($p = 0.045$), mother's occupation ($p = 0.030$), and between attitude and mother's occupation ($p = 0.040$). Conclusion: The findings support the incorporation of video-assisted health education programmes into school health services to promote responsible smartphone use and prevent mobile phone addiction among adolescents.
Key word: - Video-assisted teaching programme; Mobile phone addiction; Knowledge; Attitude; Adolescents.	

INTRODUCTION

Mobile phone use has increased rapidly worldwide, with approximately 8 billion mobile subscriptions and a substantial rise in internet access.

Corresponding Author

Vatcala Devi M

E-mail: vathsala.ragavan@gmail.com

Globally, internet use increased from 6.5% in 2000 to 57% in 2024, while household internet access rose from 18% in 2005 to 80% in 2024. India is the second-largest telecommunications market in the world, and smartphone use has become common among adolescents from an early age. Smartphones provide communication, education, entertainment, and access to social media platforms, gaming, and multimedia applications.¹



However, excessive mobile phone use has emerged as a major public health concern among adolescents. Smartphone addiction is associated with reduced face-to-face interaction, poor academic performance, sleep disturbances, anxiety, depression, and other psychological problems. The COVID-19 pandemic further increased adolescents' dependence on smartphones because of online learning and reduced social interaction, emphasizing the need for educational interventions to promote responsible smartphone use.²⁻⁴

A 2024 WHO report showed that problematic social media use among adolescents increased from 7% in 2018 to 11% in 2022, while 12% were at risk of problematic gaming. Girls reported higher problematic social media use, whereas boys had a greater risk of problematic gaming.² Gangadharan et al. reported a 33.0% prevalence of mobile phone addiction among 264 adolescents in Delhi, highlighting it as an emerging public health concern.⁵ A study among 1,083 Palestinian high school students found a 57.3% prevalence of smartphone addiction, which was significantly associated with anxiety, depression, poor teacher relationships, sleep disturbances, and weak social support.³ Similarly, a study among 802 Chinese adolescents found that mobile phone addiction increased psychological distress through reduced self-control and academic procrastination, while strong family functioning acted as a protective factor.⁴

SIGNIFICANCE OF THE STUDY

Mobile phone addiction is characterized by excessive and uncontrolled smartphone use, leading to emotional, social, and behavioral problems such as poor academic performance, social isolation, withdrawal symptoms, dependence, and compulsive behavior. These adverse consequences highlight the importance of early identification and preventive interventions among adolescents. Venkatesh Murthy J and Veena Greta Tauro reported that among 209 adolescents, 66.99% were at high risk of mobile phone addiction and 27.75% were already addicted, emphasizing the urgent need for awareness and preventive strategies.⁶

OBJECTIVES

1. To assess the pretest and post test levels of knowledge and attitude regarding mobile phone addiction among the adolescent
2. To determine the effectiveness of video assisted teaching on knowledge and attitude regarding mobile phone addiction among adolescents.
3. To correlate the posttest level of knowledge and attitude regarding mobile phone
4. addiction among adolescents.
5. To associative the mean improvement posttest level of knowledge and attitude regarding mobile phone addiction with the selected demographic variable among adolescents.

NULL HYPOTHESES

NH1: There is no significant difference between pre and posttest level of knowledge and attitude regarding impact of mobile phone addiction among adolescents.

NH2: There is no significant effectiveness of video assisted teaching programme on level of knowledge and attitude regarding impact of mobile phone addiction among adolescents

NH3: There is no significant co-relation between pre and posttest level of knowledge and attitude regarding impact of mobile phone addiction among adolescents.

NH4: There is no significant associated of selected demographic variable with pre and posttest mean score of knowledge and attitude regarding impact of mobile phone addiction among adolescents.

METHODS

A quantitative research approach with a pre-experimental one-group pre-test and post-test design was adopted to evaluate the effectiveness of a video-assisted teaching programme on knowledge and attitude regarding mobile phone addiction among adolescents. The study was conducted at selected Matric Higher Secondary School, Arakkonam. The study population comprised higher secondary school students. A total of 60 adolescents studying in grades XI and XII were selected using a non-probability purposive sampling technique. Adolescents aged 11–21 years who owned a mobile phone and were willing to participate were included in the study, whereas students outside the specified age group, those unwilling to participate, or those without a mobile phone were excluded. The independent variable was the video-assisted teaching programme, while the dependent variables were the level of knowledge and attitude regarding mobile phone addiction. Data were collected using a structured instrument developed through an extensive review of the literature and expert consultation. The instrument consisted of three sections: (1) demographic characteristics, (2) a 25-item multiple-choice knowledge questionnaire assessing knowledge regarding mobile phone addiction, and (3) a modified 15-item five-point Likert attitude scale developed by Ljiljana Stanojeic to assess attitudes toward mobile phone addiction.

The intervention comprised a 30-minute video-assisted teaching programme covering the meaning, causes, risk factors, symptoms, health consequences, prevention, and healthy smartphone use. Content validity of the instrument was established by a panel of five experts, including one psychiatrist and four Mental Health Nursing experts. Reliability of the knowledge questionnaire was assessed using the test-retest method and demonstrated good reliability ($r = 0.90$). A pilot study conducted among six adolescents confirmed the feasibility of the study and the suitability of the research instruments and intervention. Ethical approval and institutional permission were obtained before data collection, and written informed consent was secured from all participants. The main study was

conducted over four weeks. Baseline knowledge and attitude were assessed using the structured questionnaire, followed by the video-assisted teaching programme. A post-test was conducted seven days after the intervention using the same instruments.

RESULTS

Section I: Distribution of adolescents based on their background variables

Among the 60 adolescents, 17 (28.4%) were 17 years of age, while 15 (25.0%) were aged 15 years and 14 (23.3%) each were aged 16 and 18 years. Nearly two-thirds, 37 (61.7%), were male, whereas 23 (38.3%) were female.

Regarding parental education, the majority of fathers 37 (61.6%) and mothers 35 (58.3%) had completed higher secondary education. A small proportion of fathers 7 (11.7%) and mothers 9 (15.0%) were graduates, while the remaining had secondary or primary school education.

With respect to occupation, most fathers, 47 (78.3%), and more than three-fifths of mothers, 37 (61.7%), were employed in the private sector. Nearly one-third of mothers, 17 (28.3%), were homemakers, whereas only a few fathers 4 (6.7%) were government employees or daily wage workers, and 5 (8.3%) were farmers.

The vast majority of participants, 49 (81.7%), belonged to nuclear families, while 9 (15.0%) belonged to joint families and 2 (3.3%) to single-parent families. Most adolescents, 44 (73.3%), were Hindus, followed by 9 (15.0%) Muslims and 7 (11.7%) Christians.

Regarding mobile phone use, almost all participants, 55 (91.7%), used Android smartphones, whereas 3 (5.0%) used tablets and 2 (3.3%) used iPods. The overwhelming majority, 53 (88.4%), accessed the internet through 4G services, while 5 (8.3%) used Wi-Fi and 2 (3.3%) used 5G networks.

Concerning the duration of mobile phone use, more than half, 36 (60.0%), had been using mobile phones for 2–3 years, whereas 15 (25.0%) had used them for less than one year and 9 (15.0%) had been using mobile phones for more than three years.

Section II: Assessment of Level of Knowledge Regarding Mobile Phone Addiction

Figure 1.1 presents the distribution of pre-test and post-test knowledge levels regarding mobile phone addiction among adolescents. During the pre-test, the majority of participants, 43 (71.67%), had inadequate knowledge, while 17 (28.33%) had moderately adequate knowledge. None of the participants demonstrated adequate knowledge before the intervention. Following the video-assisted teaching programme, the majority of adolescents, 51 (85.0%), achieved adequate knowledge, whereas 9 (15.0%) had moderately adequate knowledge. Notably, none of the participants remained in the inadequate knowledge category after the intervention, indicating a

substantial improvement in knowledge regarding mobile phone addiction.

Section III: Assessment of Level of Attitude Regarding Mobile Phone Addiction

Figure 3.3 presents the distribution of pre-test and post-test attitude levels regarding mobile phone addiction among adolescents. During the pre-test, the majority of participants, 41 (68.33%), exhibited an unfavourable attitude, while 19 (31.67%) demonstrated a moderately favourable attitude. None of the participants had a favourable attitude before the intervention. Following the video-assisted teaching programme, the majority of adolescents, 49 (81.67%), exhibited a favourable attitude, whereas 11 (18.33%) demonstrated a moderately favourable attitude. None of the participants remained in the unfavourable attitude category after the intervention, indicating a marked improvement in attitudes toward mobile phone addiction.

Section IV: Effectiveness of video assisted teaching on knowledge and attitude regarding mobile phone addiction among the adolescents.

The effectiveness of the video-assisted teaching programme on adolescents' knowledge and attitude regarding mobile phone addiction is presented in Table 3.1. The mean knowledge score increased significantly from 11.05 ± 2.67 during the pre-test to 20.78 ± 2.54 during the post-test, with a mean difference of 9.73 ($t = 51.646$, $p < 0.001$). Similarly, the mean attitude score improved from 33.30 ± 5.83 to 59.45 ± 6.08 , with a mean difference of 26.15 ($t = 23.789$, $p < 0.001$). These findings indicate that the video-assisted teaching programme was highly effective in significantly improving both the knowledge and attitudes of adolescents regarding mobile phone addiction.

Section V: Relationship Between Post-Test Knowledge and Attitude Regarding Mobile Phone Addiction

Table 5.1 presents the correlation between post-test knowledge and attitude scores regarding mobile phone addiction among adolescents. The mean post-test knowledge score was 20.78 ± 2.54 , while the mean post-test attitude score was 59.45 ± 6.08 . Karl Pearson's correlation analysis revealed a moderate positive correlation between knowledge and attitude ($r = 0.444$, $p < 0.001$), indicating that adolescents with higher knowledge levels tended to exhibit more favourable attitudes toward preventing mobile phone addiction. This relationship was statistically highly significant, suggesting that improved knowledge was associated with a positive change in attitude following the video-assisted teaching programme.

Section VI: Association Between Knowledge and Attitude with Selected Demographic Variables

A statistically significant association was observed between the mean difference in knowledge scores and age

($F = 2.853$, $p = 0.045$) as well as mother's occupation ($F = 3.192$, $p = 0.030$). However, no statistically significant association was found with gender, parents' education, father's occupation, type of family, religion, type of mobile phone used, or type of internet data service ($p > 0.05$).

A statistically significant association was observed only between the mean difference in attitude scores and

mother's occupation ($F = 2.964$, $p = 0.040$). No statistically significant association was found between attitude scores and age, gender, parents' education, father's occupation, type of family, religion, type of mobile phone used, or type of internet data service ($p > 0.05$).

Table 1: Comparison of Pre-Test and Post-Test Knowledge and Attitude Scores Regarding Mobile Phone Addiction Among Adolescents to Assess the Effectiveness of Video-Assisted Teaching N = 60.

Knowledge		Mean	Mean	Mean Difference Score	Paired "t" & p-Value
Knowledge	Pretest	11.05	2.67	9.73	$t = 51.646$ $p = 0.0001$, S***
	Post test	20.78	2.54		
Attitude	Pretest	33.30	5.83	26.15	$t = 23.789$ $p = 0.0001$, S***
	Post test	59.45	6.08		

*** $p < 0.001$, S – Significant

Table 2: Assessment of Correlation Between Post-Test Knowledge and Post-Test Attitude Scores Regarding Mobile Phone Addiction Among Adolescents (N = 60)

Variables	Mean	Standard Deviation	Karl Pearsons r value & p-value
Knowledge	20.78	2.54	$r = 0.444$ $p = 0.0001$, S***
Attitude	59.45	6.08	

*** $p < 0.001$, S – Significant

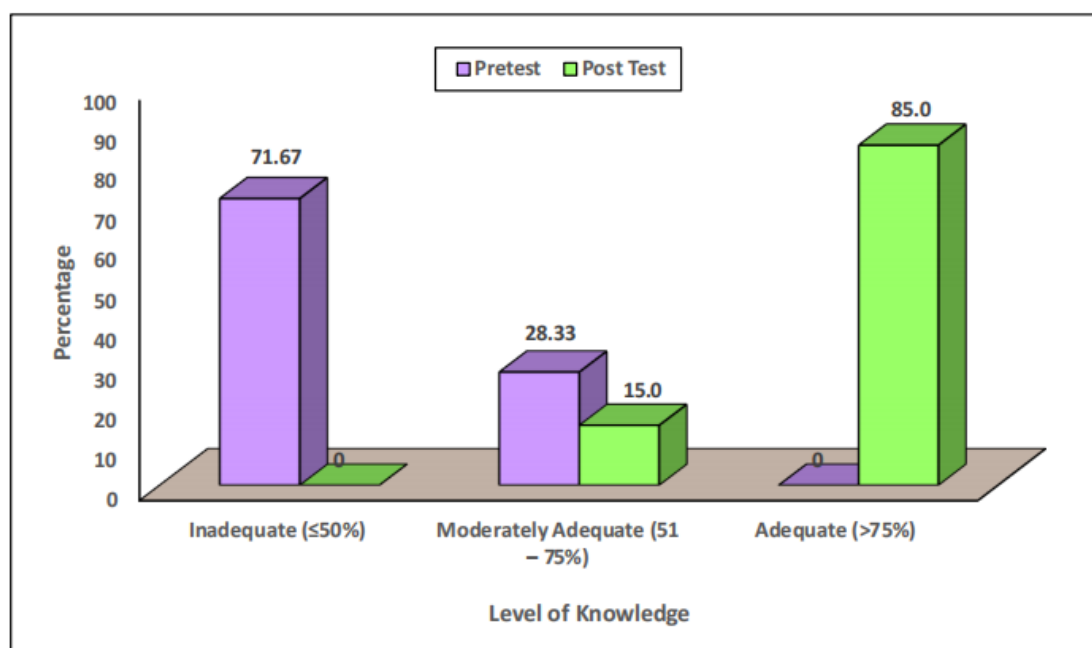


Figure 1: Percentage distribution of pretest and post test level of knowledge regarding mobile phone addiction among the adolescents.

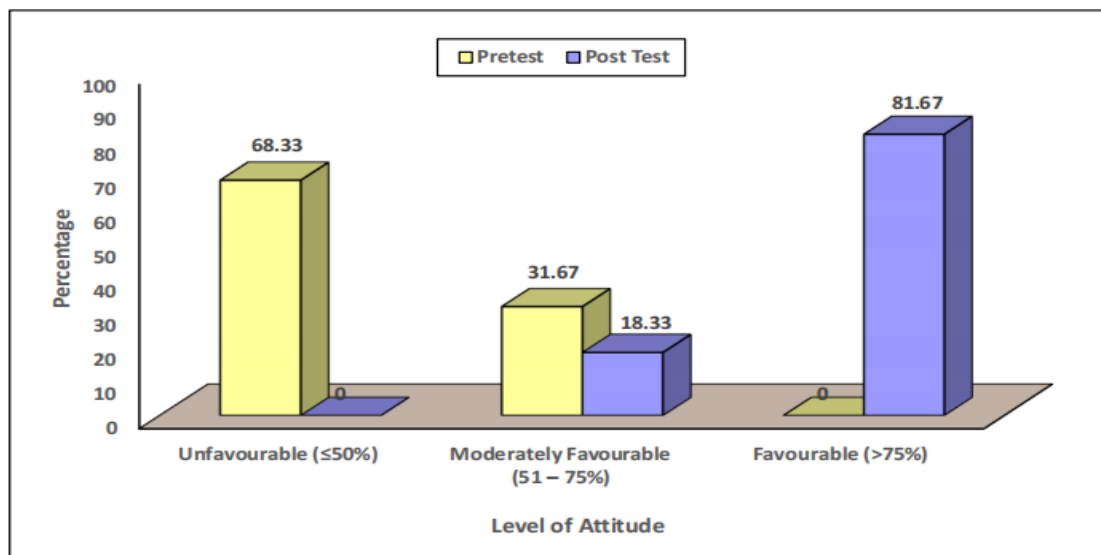


Figure 2: Assessment of Level of Attitude Regarding Mobile Phone Addiction.

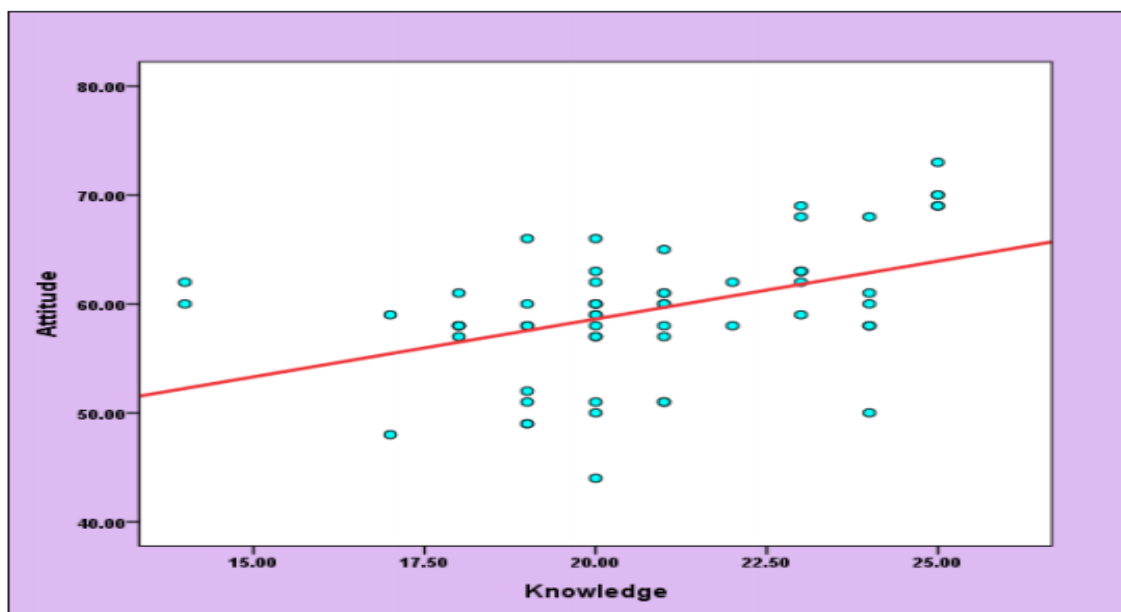


Figure 3: Scatter diagram showing the correlation between post test knowledge and attitude regarding mobile phone addiction among the adolescents ($r=0.444$).

DISCUSSION

The baseline findings showed that most participants had inadequate knowledge (71.67%) and an unfavourable attitude (68.33%) towards mobile phone addiction before the intervention. These findings are consistent with the study by Venkatesh Murthy J. and Veena Greta Tauro (2023), who reported that although many adolescents possessed moderate knowledge, a large proportion (66.99%) were at high risk of mobile phone addiction, highlighting the need for structured educational interventions.⁷

Following the video-assisted teaching programme, knowledge improved markedly, with 85.0% of adolescents attaining adequate knowledge, compared to none during the pre-test. Similarly, favourable attitude increased from 0% at baseline to 81.67% after the intervention. The improvement was statistically significant, as reflected by the increase in mean knowledge score (11.05 ± 2.67 to 20.78 ± 2.54 ; $t = 51.646$, $p < 0.001$) and mean attitude score (33.30 ± 5.83 to 59.45 ± 6.08 ; $t = 23.789$, $p < 0.001$). These findings are in agreement with Shruthi Y. (2022), who demonstrated that a video-assisted teaching programme significantly improved adolescents' knowledge regarding mobile phone addiction.

Similar findings were also reported by Mini Joseph (2022), Kannammal C. et al. (2020), and Moulasab N. et al. (2019), all of whom concluded that video-assisted educational interventions effectively enhanced knowledge regarding mobile phone addiction among adolescents.⁸⁻¹¹

The present study also identified a significant positive correlation between post-test knowledge and attitude ($r = 0.444$, $p < 0.001$), indicating that improved knowledge was associated with a more favourable attitude towards preventing mobile phone addiction. This finding supports the concept that educational interventions positively influence behavioural attitudes by increasing awareness and understanding.⁸⁻¹¹

CONCLUSION

The study highlights the importance of structured educational interventions in promoting awareness about the harmful effects of excessive mobile phone use. Video-assisted teaching was found to be an engaging and effective educational strategy for enhancing adolescents' understanding and encouraging healthier mobile phone usage practices. Based on the findings, it can be concluded that video-assisted teaching programmes can serve as an effective health education tool in school settings to improve adolescents' knowledge and attitude toward preventing mobile phone addiction. Regular awareness programmes and educational initiatives should be incorporated into school health services to promote responsible mobile phone use and support the overall well-being of adolescents.

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