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EFFECTIVENESS OF STRUCTURED TEACHING PROGRAMME ON KNOWLEDGE REGARDING IMPACT OF EXCESSIVE TELEMEDIA USAGE AMONG PARENTS OF SCHOOL-AGE CHILDREN: A PRE-EXPERIMENTAL STUDY

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ABSTRACT

Background: Increased screen time among children due to widespread access to telemedia (television, smartphones, video games) poses significant risks to their cognitive, physical, and emotional development. Parental awareness regarding these risks remains inadequate, necessitating structured educational interventions. **Objectives:** (1) To assess the pre-test and post-test knowledge regarding the impact of excessive telemedia usage among parents of school-age children; (2) To evaluate the effectiveness of a structured teaching programme (STP); (3) To find the association between post-test knowledge scores and selected demographic variables. **Methods:** A pre-experimental one-group pretest-posttest design was used. Fifty parents of school-age children (6–12 years) were selected through convenience sampling from selected schools of Ghaziabad, Uttar Pradesh. A structured knowledge questionnaire comprising 30 items was administered before and after the STP intervention. The post-test was conducted 7 days after the intervention. Data were analysed using descriptive statistics, paired t-test, and chi-square test. **Results:** The mean pre-test knowledge score was 10.64 (SD = 5.85), which increased significantly to 23.88 (SD = 3.46) in the post-test. The paired t-test revealed a mean difference of 13.22 ($t = 13.57$, $p < 0.001$), confirming a statistically significant improvement. Pre-test showed 54% parents with inadequate knowledge and only 8% with adequate knowledge; post-test showed 74% with adequate knowledge and only 2% with inadequate knowledge. Chi-square analysis revealed significant associations between post-test knowledge and educational qualification ($\chi^2 = 28.758$, $p = 0.0023$) and number of children ($\chi^2 = 23.469$, $p = 0.003$). **Conclusion:** The structured teaching programme significantly enhanced parental knowledge about the risks of excessive telemedia usage. Educational interventions targeting parents can play a vital role in mitigating screen-related harms in children.

KEYWORDS: Structured teaching programme; telemedia; screen time; parental knowledge; school-age children; health education.

INTRODUCTION

The rapid proliferation of telemedia — encompassing television, smartphones, tablets, computers, and video games has fundamentally altered the daily routines of children worldwide. The World Health Organization has reported that over 80% of adolescents globally do not meet recommended guidelines for physical activity, a deficit closely linked to excessive screen time.[1] In the United States, children aged 8–18 years spend an average of 7.5 hours per day on entertainment media, well above the recommended two-hour limit set by the American Academy of Pediatrics.[2,3]

Excessive screen time has been associated with a range of adverse health outcomes in children, including obesity, sleep disturbances, poor academic performance, behavioural problems, delayed cognitive development, and increased risk of anxiety and depression.[4,5] A

systematic review by Sharma and Ahuja confirmed that prolonged screen exposure during childhood disrupts physical activity patterns, eating habits, and psychosocial well-being.[6] Furthermore, excessive media use in early childhood has been linked to reduced language development, attention deficits, and impaired social skills.[7,8]

Parents, as the primary regulators of children's media consumption, occupy a critical position in mitigating these risks. However, many parents lack adequate knowledge regarding the harmful effects of excessive telemedia use and the strategies available to manage their children's screen time effectively. Structured teaching programmes (STPs) have been demonstrated to be effective educational interventions for enhancing parental knowledge across a range of child health topics.[9,10]

Despite the growing body of evidence on the harmful effects of screen time, there remains a paucity of research evaluating structured educational interventions specifically targeting parental knowledge on telemedia impact among school-age children in the Indian context. The present study was therefore undertaken to assess the effectiveness of a structured teaching programme on knowledge regarding the impact of excessive telemedia usage among parents of school-age children in selected schools of Ghaziabad, Uttar Pradesh.

MATERIALS AND METHODS

Research Design and Approach

A pre-experimental one-group pretest-posttest design with a quantitative evaluative approach was adopted. This design enabled the measurement of changes in parental knowledge before and after the structured teaching intervention.

Setting and Sample

The study was conducted in selected schools of Ghaziabad, Uttar Pradesh, India. A total of 50 parents of school-age children (6–12 years) were selected using non-probability convenience sampling. Inclusion criteria were: parents of children aged 6–10 years, willingness to participate, and ability to read and understand Hindi or English. Parents who had participated in the pilot study or were unable to participate due to health constraints were excluded.

Variables

The independent variable was the structured teaching programme on the impact of excessive telemedia usage. The dependent variable was the knowledge level of parents. Demographic variables included age, relationship to child, educational qualification, occupation, monthly family income, number of children, age group of child, and area of residence.

Description of the Tool

The data collection tool consisted of two sections. Section A comprised socio-demographic data. Section B comprised a structured knowledge questionnaire containing 30 multiple-choice items covering concepts of telemedia, types of telemedia, effects of excessive telemedia usage on physical health, mental health, social development, and academic performance, and strategies for managing screen time. Each correct response was scored one mark, with a maximum possible score of 30. Knowledge was categorised as: inadequate (0–10), moderate (11–20), and adequate (21–30).

Validity and Reliability

Content validity was established through expert review by specialists in child health nursing. Reliability was confirmed using the split-half method, yielding a reliability coefficient of 0.80, indicating good reliability.

Intervention

The structured teaching programme was delivered using audio-visual aids and interactive discussions. The content covered the types and prevalence of telemedia usage, health risks associated with excessive screen time, age-appropriate screen time guidelines, and practical strategies for parents to regulate their children's media consumption.

Data Collection Procedure

Data collection involved three phases. The pre-test was administered using the structured questionnaire to assess baseline knowledge. The STP intervention was then delivered. The post-test was conducted 7 days after the intervention using the same questionnaire. Informed consent was obtained from all participants, and ethical clearance was obtained from the institutional review board.

Data Analysis

Descriptive statistics (frequency, percentage, mean, standard deviation) were used for demographic data and knowledge scores. Inferential statistics included the paired t-test for pre-test and post-test comparison, and chi-square test for associations between demographic variables and post-test knowledge. A p-value of <0.05 was considered statistically significant.

RESULTS

Socio-Demographic Characteristics

Among the 50 participants, 36% were aged 20–25 years, 32% were 30–35 years, 22% were above 35 years, and 10% were 25–30 years. Regarding relationship to the child, 44% were mothers, 40% were fathers, 14% were guardians, and 2% were others. Educational qualification showed 32% postgraduates, 32% with primary education, 24% undergraduates, and 12% with secondary education. The majority (52%) were private employees, followed by self-employed (28%), government employees (12%), and homemakers (8%). Monthly family income was ₹40,001–₹60,000 for 40%, less than

₹20,000 for 24%, ₹20,011–₹40,000 for 20%, and above ₹60,000 for 16%. Regarding number of children, 36% had 1–2 children, and 32% each had 2–3 or more than 3 children. Children's age groups were 6–8 years (40%), 8–10 years (32%), and 10–12 years (28%). Residential area distribution was rural (40%), urban (36%), and semi-urban (24%).

Table 1: Distribution of Parents According to Pre-test and Post-test Knowledge Levels (N = 50).

Knowledge Level	Scoring	Pre-test f (%)	Post-test f (%)
Inadequate	0–10	27 (54%)	1 (2%)
Moderate	11–20	19 (38%)	12 (24%)
Adequate	21–30	4 (8%)	37 (74%)

Table 1 reveals that in the pre-test, 54% of parents had inadequate knowledge, 38% had moderate knowledge, and only 8% had adequate knowledge. Following the STP intervention, the post-test showed a dramatic improvement: 74% achieved adequate knowledge, 24% had moderate knowledge, and only 2% remained in the inadequate category.

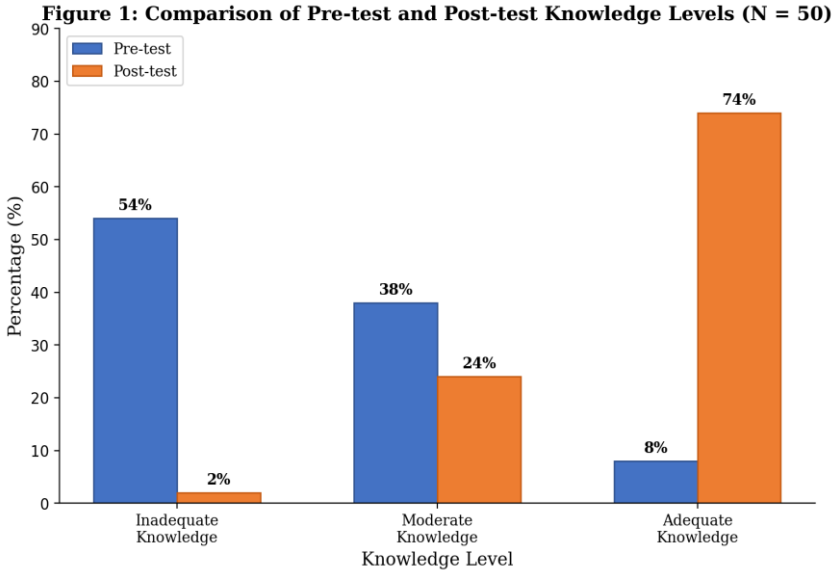

Figure 1: Comparison of pre-test and post-test knowledge levels regarding impact of excessive telemedia usage among parents of school-age children (N = 50).

Figure 1 illustrates the dramatic shift in knowledge levels. The proportion of parents with adequate knowledge increased from 8% to 74%, while those with inadequate knowledge dropped from 54% to just 2% following the structured teaching intervention.

Table 2: Comparison of Pre-test and Post-test Knowledge Scores Using Paired t-test (N = 50).

Test	Mean	SD	Mean Diff.	t-value	p-value	Result
Pre-test	10.64	5.85	13.22	13.57	<0.001*	Significant
Post-test	23.88	3.46				

**Significant at $p < 0.05$ level*

The paired t-test (Table 2) revealed a mean difference of 13.22 between pre-test (10.64) and post-test (23.88) scores, with a t-value of 13.57 ($p < 0.001$), confirming a highly significant improvement. The null hypothesis was rejected, and H^1 was accepted.

Table 3: Association Between Post-test Knowledge and Selected Demographic Variables (N = 50)

Variable	χ^2 Value	df	p-value	Result
Age of parents	5.582	6	0.472	NS
Relationship to child	2.414	6	0.878	NS
Educational qualification	28.758	6	0.0023*	S
Occupation	8.381	6	0.211	NS
Monthly family income	9.608	6	0.142	NS

Number of children	23.469	4	0.003*	S
Age group of child	6.245	4	0.182	NS
Area of residence	4.578	4	0.333	NS

**Significant at p < 0.05; S = Significant; NS = Not Significant*

Table 3 shows that educational qualification (χ^2 = 28.758, p = 0.0023) and number of children (χ^2 = 23.469, p = 0.003) were significantly associated with post-test knowledge levels. No significant associations were found with age (p = 0.472), relationship to child (p = 0.878), occupation (p = 0.211), monthly family income (p = 0.142), age group of child (p = 0.182), or area of residence (p = 0.333).

DISCUSSION

The present study evaluated the effectiveness of a structured teaching programme on parental knowledge regarding the impact of excessive telemedia usage among school-age children. The findings are discussed in relation to the study objectives and supported by existing literature.

Pre-test and Post-test Knowledge Assessment

The pre-test findings revealed that the majority of parents (54%) had inadequate knowledge, 38% had moderate knowledge, and only 8% demonstrated adequate knowledge, with a mean score of 10.64 (SD = 5.85). These findings are consistent with Ibrahim et al.[11] who found that mothers had limited knowledge and practices regarding children's screen viewing time and its effects on developmental health prior to educational intervention. Similarly, Raj et al.[12] reported that parents from low socioeconomic backgrounds had poor awareness regarding screen time guidelines, highlighting the universal need for structured educational programmes.

Effectiveness of the Structured Teaching Programme

The post-test results demonstrated a dramatic improvement, with 74% of parents achieving adequate knowledge compared to 8% in the pre-test. The mean score increased from 10.64 to 23.88, and the paired t-test (t = 13.57, p < 0.001) confirmed the statistical significance of this improvement. These results are in strong agreement with Naveena and Santhosh[13] who found that a structured teaching programme on the adverse effects of television significantly improved parental knowledge, with post-test scores ranging from 23 to 29 out of 29 and a t-value of 19.51. Santhosh[14] further demonstrated that STPs were effective in enhancing adolescents' knowledge regarding harmful effects of prolonged screen viewing, with a t-value of 15.39 (p < 0.05).

Several other studies corroborate these findings. Priya et al.[15] reported that structured teaching significantly improved mothers' knowledge and practice regarding care of children with leukaemia. Nelson and Varghese[16] found that an STP significantly enhanced primary school teachers' knowledge and attitudes regarding child mental disorders. A video-assisted teaching programme on parenting styles also demonstrated significant knowledge gains among parents of preschoolers.[17] These findings collectively validate that structured educational interventions, regardless of the specific health topic, are effective in improving knowledge among caregivers and parents.

Ibrahim et al.[11] specifically found that implementing structured educational guidelines significantly improved mothers' knowledge and practices related to children's screen time, with improvements sustained post-intervention. The "Stop and Play" digital intervention by Raj et al.[12] in Malaysia showed that structured parental education delivered via mobile platforms effectively increased parents' knowledge and reduced children's screen time over a three-month period. Kumar and Sharma[25] also found that an STP significantly improved students' knowledge regarding social networking addiction, with a t-value of 13.109 (p < 0.0005), further supporting the utility of structured educational interventions in addressing digital media-related concerns.

Association with Socio-Demographic Variables

Chi-square analysis revealed that educational qualification (p = 0.0023) and number of children (p = 0.003) were significantly associated with post-test knowledge levels. Parents with postgraduate education and those with more than three children demonstrated higher knowledge scores, suggesting that educational background and parenting experience positively influence awareness levels. However, other variables such as age, occupation, income, and area of residence did not show significant associations.

These findings are partially supported by Carson and Janssen[18] who found that demographic factors such as income and education showed only weak associations with children's screen time, while parental cognitive factors — attitudes, self-efficacy, and perceived barriers — were more influential. Arippin et al.[19] also found poor parental health knowledge about screen time regardless of demographics in Brunei, indicating that awareness levels may not vary significantly across demographic groups. Shah et al.[20] reported similar findings from rural India, where maternal occupation and other demographic variables were not significantly associated with children's screen usage levels. Studies on the relationship between technology use and mental health by Bi et al.,[21] Asselin et al.,[22] Tan et al.,[23] and Chang et al.[24] further emphasise that behavioural and environmental factors may outweigh demographic variables in shaping both knowledge and screen time

practices, reinforcing the value of universal educational interventions regardless of parental background.

The present study concludes that the structured teaching programme was highly effective in enhancing parental knowledge about the impact of excessive telemedia usage on school-age children. The significant improvement in post-test scores confirms the potential of structured educational interventions in addressing the growing concern of excessive screen time. The findings further emphasise that educational qualification and number of children are important predictors of knowledge levels, while other demographic factors did not significantly influence awareness. The study recommends that structured teaching programmes on telemedia impact be integrated into school health services, community health programmes, and antenatal/postnatal education to promote responsible media practices and protect children's cognitive, physical, and emotional well-being.

REFERENCES

1. World Health Organization. Guidelines on physical activity, sedentary behaviour and sleep for children under 5 years of age. Geneva: WHO, 2019.
2. Rideout V, Robb MB. The Common Sense Census: Media use by tweens and teens. San Francisco: Common Sense Media, 2019.
3. American Academy of Pediatrics Council on Communications and Media. Media and young minds. Pediatrics, 2016; 138(5): e20162591.
4. Stiglic N, Viner RM. Effects of screentime on the health and well-being of children and adolescents: a systematic review of reviews. BMJ Open, 2019; 9(1): e023191.
5. Madigan S, Browne D, Racine N, Mori C, Tough S. Association between screen time and children's performance on a developmental screening test. JAMA Pediatr, 2019; 173(3): 244-50.
6. Sharma H, Ahuja S. Mitigating factors of screen time on children: a systematic review. Int J Contemp Pediatr, 2024.
7. Domingues-Montanari S. Clinical and psychological effects of excessive screen time on children. J Paediatr Child Health, 2017; 53(4): 333-8.
8. Hinkley T, Verbestel V, Ahrens W, et al. Early childhood electronic media use as a predictor of poorer well-being: a prospective cohort study. JAMA Pediatr, 2014; 168(5): 485-92.
9. Pandey R. A study to assess the effectiveness of structured teaching programme regarding healthy eating habits among the parents of school going children at selected rural areas of Moradabad, U.P. Asian J Nurs Educ Res., 2017; 7: 499-501.
10. Kaur R, Chanu S, Sorte D. A study to assess the effectiveness of structured teaching program on knowledge regarding home management of side effects of chemotherapy among parents. Pediatr Ther., 2017; 7: 1-5.
11. Ibrahim AIA, Abd elmonem HH, Abdel Aziz RE, Sayed MA, El-Houfey AA. Effect of educational guidelines on mothers' knowledge and practice regarding using of screen viewing time on their children developmental health. Egypt J Health Care., 2023.
12. Raj D, Ahmad N, Zulkefli NAM, Lim P. Stop and Play digital health education intervention for reducing excessive screen time among preschoolers from low socioeconomic families: cluster randomized controlled trial. J Med Internet Res., 2022; 25.
13. Naveena JH, Santhosh SU. Effectiveness of structured teaching programme on knowledge regarding adverse effects of television on children among parents. Int J Health Sci Res., 2021.
14. Santhosh SU. Effectiveness of structured teaching programme on knowledge regarding harmful effects of prolonged screen viewing habits in digital age among adolescents. Int J Nurs Educ Res., 2022.
15. Priya V, David A, Geetha D. Effectiveness of structured teaching programme on knowledge and practice regarding care of children with leukemia among mothers. J Exp Ther Oncol, 2019; 13(2): 147-54.
16. Nelson, Varghese A. Effectiveness of a structured teaching program on knowledge and attitude regarding child mental disorders among primary school teachers at selected schools in Vijayapur, Karnataka. Int J Sci Res Arch., 2024.
17. Effectiveness of video assisted teaching programme on knowledge regarding parenting styles and its influence on development of children among parents of preschoolers. J Perinat Pediatr Neonatal Nurs., 2023.
18. Carson V, Janssen I. Associations between factors within the home setting and screen time among children aged 0-5 years: a cross-sectional study. BMC Public Health, 2012; 12: 539.
19. Arippin N, Haji-Alidin NO, Hj-Mohd-Sofian SM. Parental knowledge, attitude and practices regarding young children's screen time in Brunei Darussalam. Southeast Asia Early Childhood J., 2021; 10(1): 40-53.
20. Shah R, Fahey N, Soni A, Phatak AG, Nimbalkar SM. Screen time usage among preschoolers aged 2-6 in rural western India: a cross-sectional study. J Family Med Prim Care., 2019; 8(6): 1999-2003.
21. Bi J, Zhou W, Li L, et al. Interpersonal relationship stress and WeChat addiction among Chinese undergraduate students: the mediating roles of WeChat use intensity and social interaction. Curr Psychol, 2024.
22. Asselin H, Thompson S. Technology use, mental health, and interpersonal relationships among Canadians. Stat Can Health Rep., 2024.
23. Tan Y, Wang L, Chen M. Impact of social media on interpersonal relationships: a mixed-methods study. Comput Human Behav, 2024; 300.

24. Chang FC, Chiu CH, Miao NF, et al. Personality traits, internet interpersonal interaction feelings, and internet addiction. Cyberpsychol Behav Soc Netw, 2024.
25. Kumar S, Sharma A. Effectiveness of structured teaching programme on knowledge regarding social networking addiction among students. J Health Allied Sci., 2023.