

A PRE-EXPERIMENTAL STUDY TO ASSESS THE EFFECTIVENESS OF INFORMATION BOOKLET ON KNOWLEDGE REGARDING THE USE OF SOCIAL MEDIA AND ITS ADVERSE EFFECTS ON INTELLECTUAL DEVELOPMENT AMONG SCHOOL CHILDREN'S BETWEEN AGE GROUP OF 9-12 YEARS AT SELECTED SCHOOL OF NARMADA DISTRICT.

Nursing

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ABSTRACT

Social media has become an important part of modern life and is widely used by children for communication, entertainment, and learning. Children between the age group of 9-12 years are in a critical stage of intellectual and cognitive development. **Objectives of Study:** 1. To assess & Re-assess knowledge regarding the use of social media and its adverse effects on intellectual development among school children's (9-12) years before & after provided information booklet. 2. To compare pre-test and post-test knowledge score regarding the use of social media and its adverse effects on intellectual development among school children's (9-12) years. 3. To find out the association between pre-test knowledge score with selected demographic variables among school children's (9-12) years at selected school of Narmada district. **Methodology:** In this study is Quantitative research approach & pre-experimental one group pre-test post-test design was used. The 40 School children's (9-12) years at selected schools of Narmada District were selected by non-probability convenient sampling technique. The 10 sociodemographic questionnaire & 30 self-structured knowledge questionnaire was used. **Result:** In pre-test knowledge score, 10% of the school children had inadequate knowledge, 72.5% had moderately adequate knowledge, and 17.5% had adequate knowledge but post-test knowledge score none (0.0%) of the children had inadequate knowledge, 7.5% had moderately adequate knowledge, and 85% had adequate knowledge. The Paired "t" test calculate value 16.34, statistically significant difference at $p < 0.05$ level in respectively $df=39$. Hence, the knowledge score significantly increased after the administration of the information booklet. The association between pretest knowledge score with selected demographical variables such as Age (Year's), Gender, Types of family & Residence area were significant and other Class, Source of mobile provided, duration of mobile use, Primary activity, Parents supervisions & use of social media were not significant at the level of 0.05 ($P < 0.05$). **Conclusion:** concluded that use of social media indicates enhances awareness of intellectual harms and aids in mitigating potential cognitive impairment, such as decreased memory and attention, among school children & also effect to physical & Mental health.

KEYWORDS

Effectiveness, Social Media, Knowledge, Intellectual Development, School Age Children's.

INTRODUCTION:

"Let us sacrifice our today so that our children can have better tomorrow."

-Dr. A.P.J. Abdul Kalam

The 21st century has witnessed an unprecedented surge in the use of social media platforms, transforming the way individuals communicate, interact, and access information. In this modern time social media has become an important para in children for happy, Communication & learning. School age is very critical stage for developing the cognitive & intellectual development². This period, proper guidance and awareness are essential to help them use technology in a responsible manner. Although social media provides opportunities for gaining for information and improving communication skills, excessive use may negatively affect children's attention span, academic performance and intellectual development. Lack of awareness about the adverse effects of social media can influence their learning habits and behavior. Therefore, it is important to educate children regarding the appropriate use of social media. Providing information through an information booklet can help improve their knowledge and promote healthy use of social media. The superficial nature of many online interactions can hinder the development of empathy and social skills crucial for navigating complex social situations.

Over the past two decades, access to Smartphone, tablets, and internet-based applications has expanded dramatically, with children increasingly engaging with these technologies from early age. Social media platforms such as TikTok, YouTube, Face book, and Snap chat have become integral components of daily life for school-age children, with studies indicating that substantial percentages of children in this age group actively use these platforms.

Objectives:

1. To assess & Re-assess the knowledge regarding use of social media and its adverse effects on intellectual development among school children (9-12) years before & after provided of information booklet.
2. score regarding the use of social media and it's adverse effects on intellectual development among school children (9-12) years.
3. To find out the association between pre-test knowledge score with

selected demographic variables among school children (9-12) years at selected school of Narmada district.

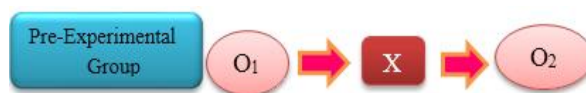
Review of Literature:

Vanitha Jagannath (2025): Social media plays a major role in the daily lives of children and young adults, influencing their cognitive development. This systematic review, guided by PRISMA 2020, analyzed 23 studies (2009–2024) focusing on attention, memory, executive function, and language. Findings showed mixed effects, where excessive use was linked to reduced attention, weaker memory, and poor executive functioning, especially in addicted adolescents. However, platforms like Facebook and YouTube can support language and memory when used for educational purposes. Overall, the impact depends on usage patterns and individual factors.

Research Methodology:

Research Approach: Quantitative research approach

Research Design: Pre-experimental one group pre-test and post-test design



O1 - Pre-test

X - Intervention (Provided of information booklet)

O2 - post-test

Target Population: School children (9-12) years of Narmada District.

Accessible population: School children (9-12) years who are studying in selected school, Narada.

Study Setting: Shree Swaminarayan Gurukul Vidhyalaya, Kevadia Colony, Narmada.

Sample Size: 40 School children (9-12) years

Sampling technique: Non-Probability in convenient sampling method

Criteria For Sample Section:

Inclusion Criteria:

1. Willing to participate in the study.
2. Able to read and write in the local language (e.g., Gujarati/English, as per the school's medium of instruction).
3. Present at the time of data collection.

Exclusion Criteria:

1. Not willing to participate in the study.
2. Unable to read and write in the local language.
3. Not present at the time of data collection.
4. Not within the age group of 9-12 years.

Research Variable:

- **Independent Variable:** Administration of an information booklet regarding the use of social media and its adverse effects on intellectual development.
- **Dependent Variable:** Knowledge regarding the use of social media and its adverse effects on intellectual development among school children's
- **Socio Demographic variable:** Demographic variable in this study includes age, Gender & type of family.

Hypothesis:

H₁- There will be a significant difference between pre-test and post-test knowledge scores regarding social media use and its adverse effects on intellectual development among school children's (9-12) years.

H₂- There will be a significant difference between the pre-test knowledge scores with selected demographical variable's

Tools: Self Structure Knowledge Questionnaires

Development & Data Collection Of Tool: Section: A- Demographic profile: 10 socio demographic questionnaire such as age, Gender and type of family.

Section: B- 30 Self Structured Knowledge Questionnaire regarding anemia. This section divided in 2 parts:

Part-A: In this part include 10 questionnaires regarding general information & Use of social media.

Part-B: In this part include 20 items regarding advantage, disadvantage & safety precaution of the social media.

Scoring key:

Every "right" questions were awarded a score "1" (one) and every "wrong" response was awarded a score of "0" (zero). Thus, a total of 30 marks were given for knowledge assessment. To interpret the level of knowledge the score was distributed as follows:

Maximum score = 30

Adequate knowledge: 67% to 100% (21-30)

Moderate knowledge: 34% to 66% (10-20)

Inadequate knowledge: 0-33% (0-10)

The tools content validity was done in 5 Expert pediatricians, child psychologists, educators & 1 Expert in local language. The reliability was conduct in 04 sample by the Karl Pearson's correlation coefficient that the value obtained was ($r=0.99$) which indicates that tool is reliable.

The research problem and objectives were approved in research ethical committee. After the formal administrative (Principal) permission of was obtained for approval of the study at Shree Swaminarayan Gurukul Vidhyalay, Kevadia colony, Dist. Narmada, Gujrat from 4th, 5th, 6th & 7th school age children's (9-12) Year's. The data collection was done within given period 1 week. (20.2.2026 to 26.02.2026) & Informed written consent of the participants. The data confidentiality was maintained.

Plan For Data Analysis:

The data obtained were analyzed in terms of the objects of the study, using Descriptive and Inferential analysis. Data was entered in Master data sheet and analyzed using SPSS software version 25. The data

obtained was using both descriptive statistics and inferential statistics.

RESULTS:

The Socio demographic characteristics of School age children's (9-12) Year's- majority of the sample 17 (42.5%) were 11 year's, 12(30%) in 12 year's, 8 (20%) 10 year's & 3 (7.5%) 9 years. 25(62.5%) sample were girls & 15(37.5%) were boys. 10 (25%) sample in each class 4th, 5th, 6th & 7th class students. 27(67.5%) participants were residence area in urban & remaining 13(32.5%) were in rural. Out of 40 sample in which 24 (60%) were Nuclear & 16(40%) were joint family. Majority 28(70%) sample received mobile phone in mother, 9(22.5%) sample by father, 2(5%) by other & 1(2.5%) by sibling. 37(92.5%) participants were use of mobile phone in <1 hours, 1(2.5%) sample used 1-2 hours, 1(2.5%) sample 2-4 hours & 1 (2.5%) sample were >4 hours. 21(52.5%) school age children's mobile phone used for study, 15(37.5%) sample used in videos, 4(10%) sample used in games & none (0%) used for chatting. 34 (85%) participants have parental supervision & 6(15%) participants haven't parental supervision. 27 (67.5%) sample weren't using social media & 13(32.5%) were using the social media sites.

Table 1: Frequency and percentage distribution of pre-test & post-test score among school age children's on the basis of knowledge score. N=40

level of Knowledge	Knowledge Score	Pre-test		Post-test	
		(F)	(%)	(F)	(%)
Inadequate (0-33%)	0-10	04	10%	00	00%
Moderate (34-66%)	11-20	07	17.5%	06	15%
Adequate (67-100%)	21-30	29	72.5%	34	85%

The table 1 & graph 1 showing the comparison between that pre test & Post Test knowledge regarding the use of social media & it's adverse effect in school age children's (9-12) year's that pre test have Inadequate knowledge was 04(10.00%), moderate knowledge 07 (17.50%) and Adequate knowledge 29 (72.5%), but Post test Inadequate knowledge 0(0.00%), Moderate Knowledge 06(15.0%) & Adequate knowledge 34(85.00%).

N=40

Graph 1: Bar Diagram showing that level of knowledge in Pre test and Post test

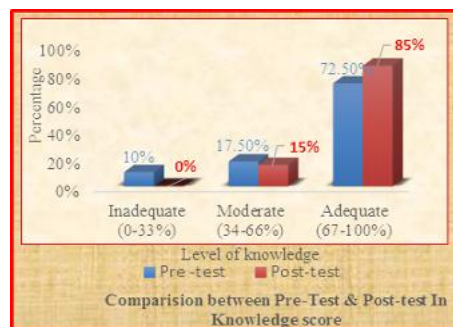


Table 2: Comparison between pretest & post test knowledge score among school age children's N=40

Area	Max. Score	Pre -Test (a)		Post -Test(b)		Effectiveness (a-b) value
		Mean±S.D	Mean%	Mean±S.D	Mean %	
Part-A	10	6.11±1.02	20.36%	9.28±0.99	30.93%	3.17±0.03 (10.56%)
Part-B	20	11.07±2.90	36.90%	14.17±2.31	47.23%	3.10±0.59 (10.33%)
Total	30	17.18±3.92	57.26%	23.45±3.30	78.16%	6.27±0.62 (20.09%)

Table 2 showing that comparisons of area wise Mean ±S.D., Mean Score % between pretest & Post test. The effectiveness of part A Mean ±S.D. 3.17±0.03, Mean score 10.56%, Part-B Mean ±S.D. 3.10±0.59, Mean Score 10.33%. The Overall improvement Mean ±S.D. 6.27±0.62, Mean Score 20.09%.

Table 3: Significance difference between Pre test & Post Test knowledge score school age children's N=40

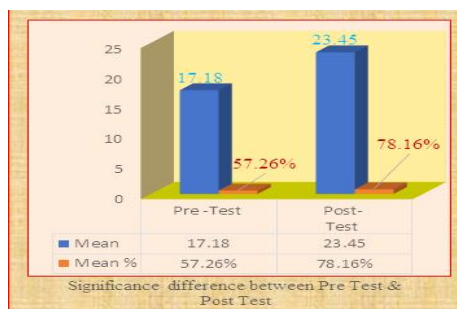
Parameter	Mean±S.D.	Mean %	Paired "t" Test	Result
Pre -Test	17.18±3.92	57.26%	16.34***	HS P<0.05 df=39
Post- Test	23.45±3.30	78.16%		
Improvement	6.27±0.62	20.09%		

Note: *** Denote significant at 0.05 level

Table 3 & Graph 2 showing that Pre-test Mean±S.D. 17.18±3.92, Mean% 57.26% but post-test Mean±S.D. 23.45±3.30, Mean% 78.16%. The overall effectiveness of Mean±S.D. 6.27±0.62, Mean% 20.09%. The Paired "t" test value 16.34***df=39, P<0.05 level was highly significant. Hence it can be interpreted that the information booklet was very effective in all areas.

The association between pretest knowledge score with selected demographical variables such as Age (Year's), Gender, Types of family & Residence area were significant and other Class, Source of mobile provided, duration of mobile use, Primary activity, Parents supervisions & use of social media were not significant at the level of 0.05 (P<0.05).

N=40

Graph 2: Showing that Comparisons between pre-test & Post Test

DISCUSSION:

The study was result to show that the information booklet was very effective. This study to support other study **Ms. Priyanka Mathew (2024)** among school age children's (9-12) years in Bangalore that students had varying levels of knowledge about social media addiction and its impact, with some having very poor knowledge and others having average knowledge.

Summery:

The Pre-test of Mean % 57.26 % but after provided of Information booklet Mean % 78.16%. The overall effectiveness of Mean % 20.09%, Paired "t" test value 16.34***df=39, P<0.05 level was highly significant. Hence it can be interpreted that the information booklet was very effective in all areas. Use of social media negatively impacts children aged 9–12 by causing poor mental health (anxiety, depression), severe sleep disruption, and body image issues. Excessive use leads to addiction-like behaviors, cyber bullying, exposure to inappropriate content, and reduced face-to-face social skills, crucial for this developmental stage.

CONCLUSION

This study indicates structured education reduces risky usage, enhances awareness of intellectual harms, and aids in mitigating potential cognitive impairment, such as decreased memory and attention, among school children's.

Implications:

Nursing education: Nurse educator can organized continue nursing education programmes & paper presentation on social media and adverse effect on intellectual development.

Nursing administration: The nurse administrator has a very major role in taking actions of creating awareness about social media and its adverse effect on intellectual development by preparing the nurses.

Nursing practice: Community nurse should be knowledgeable and skill full on providing knowledge & implement teaching programme regarding Social media and its adverse effect on intellectual development.

Nursing research: The finding of the study would help to expand the scientific body of professional knowledge upon which further research can be conducted.

Recommendations:

1. A similar study can be conducted among different groups of school children in various age groups and different schools.
2. An experimental study with a control group can be conducted to obtain more reliable and valid results.
3. A longitudinal study can be carried out to assess long-term retention of knowledge and behavioral changes in social media usage among school children

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