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AN EXPERIMENTAL STUDY TO ASSESS THE EFFECTIVENESS OF HEALTH EDUCATION ON THE USE OF CELL PHONES AMONG THE STUDENTS OF 8TH AND 9TH GRADE OF MOUNT VIEW SENIOR SECONDARY SCHOOL, BAHADURGARH, DISTT. JHAJJAR

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ABSTRACT

INTRODUCTION

During early life (13 to 15 years) verbal exchange and connectedness with friends is a fundamental phase of adolescents' self identity, cell phones are a conduit that continues each conversation and connectedness amongst kids where by social interactions and connectedness are now not constrained by using place, context or time. Nowadays, cell phone usage has become a major issue on students' physical, mental and social health. They are spending more time with their cell phones rather than getting involved in any kind of physical activities such as outdoor games, sports, exercises etc. The students, who are cell phone addicted, often show more aggressive and violent behaviour rather than those who are not using so. They give the reason for using more cell phone is to eliminate their loneliness, depression and anxiety issue. Peer group has the most influence on the lives of these students to become cell phone addicted.

Objectives

To evaluate the baseline level of cell phone usage and associated behaviours among 8^{th} and 9^{th} grade students at Mount View Senior Secondary School.

Material /Method

An experimental study to assess the effectiveness of health education on the use of cell phones among the students of 8th and 9th grade of Mount View Senior Secondary School, Bahadurgarh, Distt. Jhajjar. 50 students who fulfilled the inclusive criteria were selected for the study. Pre–test was done with structured teaching programme was carried out, then after five days Post-test was done through non probable purposive sample technique questionnaire was given with demographic variables.

Result

The statistical analysis shows that in pre-test the mean was 11.16 with standard deviation 2.79 and the post-test score mean was 16.92 with standard deviation 2.88. The improvement score shows that the mean was 5.76 with standard deviation 2.835 and the 'Z' value is 0.017. It shows that effectiveness of the teaching programme was highly significant with P=0.493 (P<1 level).

The overall finding shows that the pre-test and post-test effectiveness of teaching programme is highly significant.

Conclusion

Structured teaching programme carried out in Mount View Senior Secondary School, Bahadurgarh among the students of 8^{th} and 9^{th} grade to increased awareness about the impact of cell phone usage on Mental, Physical, and Social in the students health.

Nursing implications

The research project work gives knowledge among nurses in identifying the problem and complaints at an early stage, nurses have major role in any health care setting, so nurses should have knowledge about the modern lifestyle of students and teens and their excessive screen time which affects their physical and mental health. The implications on their wellbeing and what should be done to effectively use their screen time and what are the precautions that should be taken to avoid any complications as the students are the most susceptible.

Recommendations

Based on the study, the following recommendations are put forward for the further research

1. A similar study can be conducted on a large sample size.
2. A comparative study can be conducted to assess the knowledge regarding cell phone addiction among adults.
3. A similar research project work can be carried in various geographic areas.

CHAPTER 1

INTRODUCTION

INTRODUCTION

"Most people are prisoners of their phones: that's why they're called 'cell' phones." (Simon Sinek)

Background of Cell Phone

Cell phones have been identified as one of the most vital technological improvements in human history, and with enhancing purchaser pride from 7 to 70 years. Cell phones have turn out to be a fundamental phase of day by day life. Cell phones, about first of all put ahead by way of Motorola in 1973, and made accessible from 1984, have affected nearly the world over the years. However, cell phone dependency manifests itself as a pandemic in the 21st century and immoderate use cell phones, accompanied with the aid of many health problems.

Depression and visible impairment are the most frequent issues. The most vital trouble anatomically is the soreness of the musculoskeletal system. The most pronounced musculoskeletal device grievance is the pain and ache symptoms that can be considered in the body, specifically in the fingers, wrist and shoulders.

As the period of cell phone use increases, these complaints additionally increase. In addition, the use of cell phone influences positive areas of the brain. The immoderate use of cell phones and the swiftly lowering age of use have ended up as vital danger elements for the public health. Therefore it is very essential to outline fitness complaints associated to immoderate use of cell phones and supply the customers with different preventive measures.

Cell phones, also known as mobile phones are portable devices used for communication. They operate through a cellular network, allowing users to make calls, send text messages, and access the internet wirelessly. Modern cell phones also feature cameras, multimedia capabilities, GPS navigation and a wide range of application for productivity, entertainment and social networking. They have become an essential part of daily life for billions of people worldwide, enabling instant communication and access to information from anywhere at any time.

In the bustling streets of urban India, a ubiquitous site is that of adolescents engrossed in their smart phones, seemingly oblivious to the world around them. While smart phones have undoubtedly revolutionized communication and access to information, they have also ushered in a new era of concern: cell phone addiction among adolescents.

The proliferation of cell phone in India has been nothing short of transformative, especially among adolescents. With the advent of affordable smart phones and data plans, coupled with the rise of social media platforms and online gaming, cell phones have become an integral part of adolescent life. However, this increased connectivity comes at a cost – the risk of addiction.

One of the primary drivers of cell phone addiction among adolescents in India is the allure of social media. Platforms like Instagram, Snapchat, and Tik Tok provide a constant stream of social validation through likes, comments, and followers, creating a dopamine- driven cycle of seeking approval . Moreover, the fear of missing out (FOMO) drives adolescents to constantly check their phones for updates, exacerbating their dependence on social media.

Another contributing factor is the addictive nature of online gaming. Games like PUBG mobile, Free Fire, and Call of Duty, have captured the imagination of Indian adolescents, offering immersive experiences and social interaction. However, excessive gaming can lead to neglect of academic responsibilities, poor sleep hygiene, and even aggressive behaviour.

Furthermore, cell phones serve as a gateway to a world of unlimited entertainment and information , making it challenging for adolescents to resist the temptation of constant stimulation. Whether its binge watching videos on You tube or scrolling through endless feeds on Reddit, the allure of instant gratification keeps adolescents tethered to their screens.

The consequences of cell phone addiction among adolescents in India are manifold. For academic under achievement to impaired social skills, from sleep disturbances to mental health issues, the impact can be far reaching. Studies have shown a correlation between excessive cell phone use and anxiety, depression and low self esteem among adolescents. Moreover, addiction to screens can lead to sedentary lifestyles, contributing to the growing problem of childhood obesity in India .

Addressing cell phone addiction among adolescents requires a multifaceted approach. Firstly, parents and educators need to foster digital literacy and responsible cell phone usage from an early age. This includes setting limits on screen time, encouraging outdoor activities, and modelling healthy tech habits themselves. Secondly, mental health professionals should raise awareness about the signs and consequences of cell phone addiction and provide support for adolescents struggling with excessive cell phone use. Thirdly, policy makers should work towards regulating the gaming industry and promoting initiatives that promote digital wellness among adolescents.

In conclusion, cell phone addiction among adolescents in India is a complex and pressing issue that requires urgent attention. While smart phone have undoubtedly enriched our lives in many ways, they also pose significant risks, especially for the younger generation. By fostering a culture of digital balance and mindfulness, we can empower adolescents to harness the potential of technology while mitigating its adverse effects on their well being. Only then can we ensure that the cell phone remains a tool for empowerment rather than a source of addiction among India’s youth.

Background of the study

In contemporary society, adolescents are increasingly reliant on cell phones, utilizing them for various purposes such as communication, entertainment and accessing information. This pervasive use of cell phones among adolescents has raised concerns regarding its potential impact on their health and wellbeing .excessive use of cell phones has been associated with various negative outcomes, including poor academic performance, sleep disturbances, mental health issues such as anxiety and depression, and physical health problems such as musculoskeletal disorders and eyestrain.

Health education interventions have been proposed as a promising approach to address these concerns by promoting responsible and balanced cell phone use among adolescents. By providing adolescents with knowledge and skills related to potential risks associated with excessive cell phone use and strategies for managing their usage, health education programs aim to empower adolescents to make informed decisions regarding their cell phone usage and adopt healthier behaviours.

However, while there is growing interest in implementing health education interventions targeting cell phone use among adolescents, there is a paucity of empirical evidence evaluating the effectiveness of such interventions. Existing research in this area is limited in scope and methodological rigor, highlighting the need for further investigation to establish the efficacy of health education interventions in promoting healthy cell phone use behaviours among students.

Need for study

The pervasive use of cell phones among students has raised concerns regarding its potential impacts on their physical, mental, and socio emotional well-being. Despite the widespread recognition of these concerns, there is a notable gap in empirical research evaluating the effectiveness of interventions aimed at promoting responsible and balanced cell phone use among students. Several key reasons_underscore the need for conducting a study to assess the effectiveness of health education interventions in this domain:

1. **Rising Concerns:** With the increasing prevalence of cell phone use among students, there is a growing recognition of the potential negative consequences associated with excessive use, including adverse effects on academic performance, sleep quality, mental health, and physical health.
   Addressing these concerns is crucial to safeguarding the well being of students.
2. **Limited Empirical Evidence:** Despite the widespread concerns, there is a scarcity of rigorous empirical research evaluating the effectiveness of interventions targeting cell phone use behaviours among students. Existing studies are often limited by methodological shortcomings, such as small sample sizes, lack of control groups , and reliance on self- report measures. As such, there is a need for well-designed experimental studies to provide robust evidence regarding the efficacy of health education interventions.
3. **Public Health Implications:** Excessive cell phone use among students poses significant public health challenges, given its potential impacts on various aspects of their well-being. By identifying effective strategies for promoting healthy cell phone use behaviours, such as through health education interventions, policymakers, educators, and healthcare professionals can develop targeted interventions to mitigate the adverse effects associated with excessive use and promote overall students health.
4. **Empowerment through Education**- Health education interventions have the potential to empower students by equipping them with knowledge and skills to make informed decisions regarding their cell phone use. By raising awareness about the risks associated with excessive use and providing practical strategies for managing usage, health education programs can empower students to adopt healthier behaviour and foster greater self regulation.
5. **Long-Term Impact**- Assessing the effectiveness of health education interventions in promoting healthy cell phone use behaviours among students is essential for understanding there long term impact on student health outcomes. By conducting follow-up assessments, researchers can determine whether the effects of the intervention persist over time and inform the development of sustainable interventions with lasting benefits.

In light of these considerations, conducting a rigorous experimental study to evaluate the effectiveness of health education on the use of cell phones among students is imperative to inform evidence based interventions and address the pressing public health concerns associated with excessive cell phone use in this population.

Problem statement

An experimental study to assess the effectiveness of health education on the use of cell phones among the students of 8th and 9th grade of Mount View Senior Secondary School, Bahadurgarh, Dist. Jhajjar.

Objectives

- To assess the knowledge of pre test among the students of 8th and 9th grade regarding cell phone addiction.
- To assess the knowledge of post test among the students of 8th and 9th grade regarding cell phone addiction.
- To evaluate the effectiveness of teaching programme on cell phone addiction among the students.

Hypothesis

- **H_1** - The mean post test level of knowledge should be significantly higher than pre-test.
- **H_2** – There would be a significant effectiveness of STP on level of knowledge of students on cell phone addiction.

Inclusion criteria

- Students who are having cell phones. Students who are living in Bahadurgarh Distt. Jhajjar
- Students who are able to understand Hindi and English.
- Students who are willing to participate in the study

Exclusive criteria

- Students who were selected for conducting pilot study.
- Students who were not willing to participate at the time of data collection.
- Students who were unable to understand both Hindi and English.
- Students who were selected in pilot study

Operational definitions

- **Impact-** the force of impression of one thing on another.
- **Effectiveness-** it is the extent to which the objectives of a research project have been realized.

Assumption

- Student will have inadequate knowledge about cell phone addiction.
- Teaching program will enrich the student's knowledge about cell phone addiction.
- Demographic variable of student may influence the knowledge on cell phone addiction.

Delimitations

- The study cannot be generalized.
- The study is limited to 50 samples.
- The sample is limited to the students of 8^{th} and 9^{th} grades.
- The study is limited to Bahadurgarh.

Project outcome

The findings of the study may be helpful in knowing the effectiveness of teaching programme regarding the knowledge of cell phone addiction, which may increase the knowledge of the students.

Conceptual framework

Conceptual framework is a written or visual presentation that explains the main things (such as the key factor, concept or variables and the presumed relationship among them) to be studied in either graphical form or narrative form. It is the precursor of a theory which provides broad perspectives for nursing practice, research and education.

The present study is based on assessing the effectiveness of health education on cell phone addiction among adolescents in Mount View Sr. Sec. School, Bahadurgarh, Distt – Jhajjar. The study is based upon **Albert Bandura's Social learning theory**.

In the context of cell phone addiction, individuals may observe and imitate the behaviour of others who excessively use their phones, leading to reinforcement through social approval or perceived rewards such as likes and comments on social media. Additionally, the constant availability of smart phones and the reinforcement provided by notifications and updates contribute to the development and maintenance of cell phone addiction according to this theory.

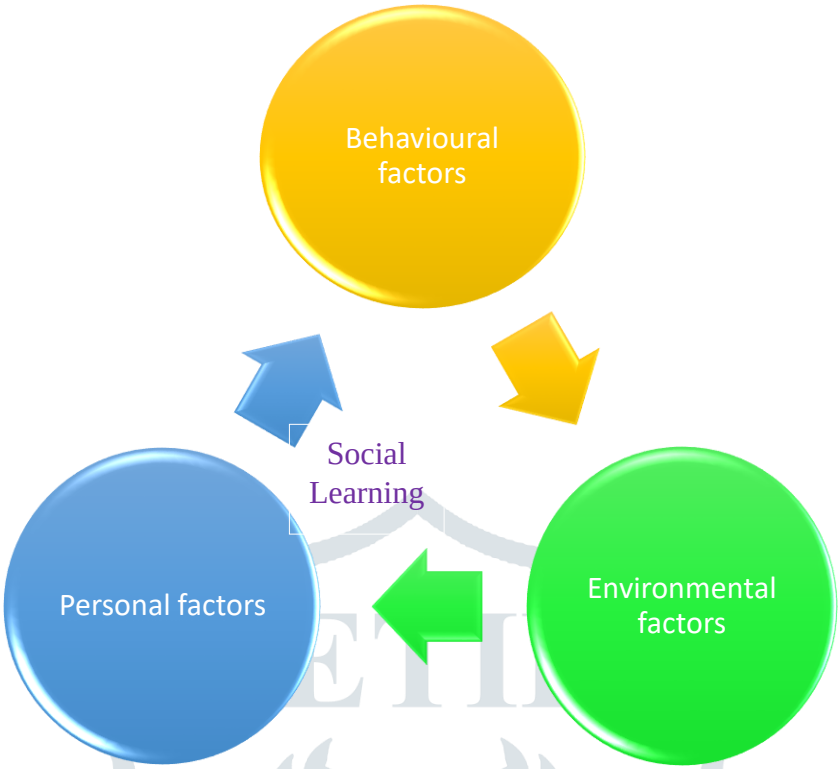

Fig A. Social Learning Theory Model

Summary

In this chapter we conclude the introduction, background of the study, need for the study, problem statement, objective and hypothesis, operational definitions, assumption, delimitations, project outcome and conceptual framework.

CHAPTER II

REVIEW OF LITERATURE

REVIEW OF LITERATURE

Literature assessment is one of the important elements of lookup process. A literature assessment is a comparison file of facts determined in the literature associated to chosen location of study. The evaluation describes, summarizes, assessment and clarifies this literature. It offers a theoretical base for the research and helps to decide the nature of research.

Lenhart et al. (2015) highlights the pervasive nature of cell phone use among adolescents, indicating its significant role in their daily lives. The study emphasizes the need to understand the implications of this technology on adolescent behavior, including health-related aspects.

Twenge et al. (2018) and Elhai et al. (2017) delve into the potential adverse effects of excessive cell phone use on adolescent mental health, including increased anxiety and depression. This underscores the importance of promoting responsible cell phone usage among adolescents.

Numerous studies have documented the negative health impacts associated with excessive cell phone use among adolescents. These include increased risk of musculoskeletal problems (Gustafsson et al., 2017), disrupted sleep patterns (Hysing et al., 2015), decreased academic performance (Lepp et al., 2015), and heightened levels of anxiety and depression (Elhai et al., 2017).

Koo et al. (2018) demonstrated that a school-based health education program effectively reduced problematic cell phone use among adolescents, leading to improvements in academic performance and mental well-being.

Lee et al. (2020) concluded that health education interventions incorporating behavioural strategies, such as goal-setting and self-monitoring, were effective in reducing excessive cell phone use among adolescents.

Numerous studies have documented the extensive use of cell phones among adolescents, including frequent texting, social media engagement, and gaming ***(Leung, 2020).***

Adolescents often report high levels of dependency on their phones, with feelings of anxiety and stress when separated from them ***(Bian & Leung, 2021).***

Excessive cell phone use among adolescents has been linked to various negative health outcomes, including poor sleep quality, decreased physical activity, and increased risk of mental health issues such as depression and anxiety ***(Twenge & Campbell, 2018).***

Excessive cell phone use has also been associated with negative impacts on academic performance and interpersonal relationships ***(Lepp et al., 2014).***

Wang et al. (2021) implemented a school-based intervention program combining educational workshops, parental involvement, and peer support, which resulted in reduced problematic cell phone use and improved self-regulation skills among adolescents.

Li et al. (2020) found that a brief intervention incorporating cognitive-behavioral strategies and motivational interviewing led to decreased excessive cell phone use and improved well-being among participating adolescents.

CHAPTER III
METHODOLOGY

RESEARCH METHODOLOGY

This chapter deals with the methodology used for present research project work which aims to assess the effectiveness of STP on the addiction of cell phone use in the students of 8th and 9th grade of Mount View Senior Secondary School, Bahadurgarh, Distt. Jhajjar.

- Research approach
- Research design
- Variables under study
- Research setting
- Population
- Sample, sample size and sampling techniques
- Criteria for sample selection
- Ethical considerations
- Data collection instruments

- Description of tool for data collection
- Content validity of tool
- Reliability of tool
- Pilot study
- Data collection procedure
- Plan for data analysis

Research approach

In this present study, the researcher aimed at assessing the effectiveness of structured teaching programme on the addiction of cell phone use in the students of 8th and 9th grade of Mount View Senior Secondary School, Bahadurgarh, Distt. Jhajjar. Research approach is plans and the procedures for research that span the steps from broad assumptions to detailed methods of data collection, analysis, and interpretation. To accomplish the objectives of the present study was Quantitative Approach considered to be most appropriate. Research approach is an important element of the research design which governs it. The approach of the present study was **Quantitative Approach**.

Research design

In this study, experimental was adopted to evaluate the effectiveness of teaching programme on the addiction of cell phone use in the students of 8th and 9th grade.

Research setting

Research setting refers to the physical location and condition in which data collection takes place in a study. The study was conducted in Mount View Senior Secondary School, Bahadurgarh, Distt. Jhajjar. It is situated 2km away from the college.

Population

- **Target population:** Students of 8th and 9th grade
- **Accessible population:** Students who meet the desired criteria and available for the research study

Sample

Students of 8th and 9th grade.

Sample size

Total 50 samples

Sampling technique

The participants of the study were selected by non probable purposive sampling technique. Researcher selected the participants based on age of students and students who were willing to participate in the study.

Sampling criteria

The samples will be selected on the basis of the following criteria:

Inclusive criteria:

- Students who are having cell phones. Students who are studying in Mount View Senior Secondary School, Bahadurgarh, Distt. Jhajjar.
- Students who are able to understand Hindi and English.
- Students who are willing to participate in the study.

Exclusive criteria:

- Students who were selected for conducting pilot study.
- Students who were not present at the time of data collection.
- Students who were unable to understand both Hindi and English.
- Students who were selected in pilot study.

Data collection instruments

Two types of instruments are used in this study are:

Part A: Socio demographic variables

Part B: Pre test and Post test questionnaire

Description of the tool

Part A: Socio demographic variables like Age of students, Religion, Education and Occupation of parents, Type of family

Part B: Structured multiple choice questionnaire regarding knowledge of cell phone usage. Total number of questionnaire is 20

Scoring interpretation

S.No.	TOTAL SCORE (20)	CODE NO.
1.	Inadequate knowledge	0-9
2.	Moderate knowledge	10-13
3.	Adequate knowledge	14-20

Research variable

- **Dependent variable –** Knowledge of students on cell phone addiction
- **Independent variable –** Structured teaching programme on cell phone addiction

Validity and Reliability of the tool

- **Validity:**

The tool along with the problem statement, objectives and hypothesis were submitted to the experts in the field nursing for validating the tool. A few changes were made in the tool as per the suggestions (Appendix-III).

- **Reliability:**

In Order to ensure content validity; the tool was submitted to experts in the field of mental health nursing and department of community health nursing. Based on expert's suggestions the items were modified and tool got its final form.

Report of pilot study

Pilot study was conducted to determine the reliability of the tool and feasibility of the study. The study was conducted in Mount View Sr. Sec School, Bahadurgarh, Distt- Jhajjar. Study will be conducted on 10% of the total subject. The study was found to be feasible in terms of availability of samples, cooperation of the samples and time, money and material.

It was conducted in New Brain Public School. Five students who met the inclusion criteria were selected by non probable purposive sampling technique. The knowledge among the students were assessed with STP given to enhance the knowledge among the students with the help of educational models such as flash cards and charts through lecture cum discussion method.

Ethical considerations

- A written permission was obtained from the principal of Mount View Senior Secondary School.
- Informed consent will be taken from the subjects.
- Confidentiality of information about subjects will be maintained.

Data collection procedure

Data collection is the method of gathering and measuring statistics on centred variables in a systematic fashion, which then permits one to answer applicable questions and consider outcomes. It is the systematic method to gather and measure facts from a range of sources to get an entire and correct image of the area of interest, thus allowing the individual to answer applicable questions, consider results and make predictions about future chances and trends.

Before collecting the data, formal administrative permission was obtained from the principal, PDM College of Nursing as well as from the principal, Mount View Senior Secondary School and also from the participants. The confidentiality of the information given by them was assured. The investigators, before the data collection ensured that students included in the study had access to cell phones.

The data was collected for a period of 5 days at before administrating the questionnaire, the purpose of study was explained to the students with self introduction and privacy was maintained. The student candidates were made comfortable and relaxed.

The data was collected from (10AM to 4PM). The time taken for each student candidate was 35-40min. During the data collection period, the students were very cooperative. On completion of questionnaire, each one was given time to clarify their doubts and ask questions.

Plan for the data analysis

The data will be analyzed based on the research objectives and hypothesis of the study. It was analyzed by using descriptive and inferential statistics.

- A master datasheet was prepared by the investigators to compute the data.
- Baseline data was analyzed in terms of frequency and percentage.
- The knowledge of the students regarding cell phone addiction after conduction of STP was calculated by mean and standard deviation.
- The significant difference between the mean pre-test and post-test knowledge was calculated using Z test.

Summary

This chapter deals with research approach, research design, variables, research setting, population, sample, sample size, sampling technique, inclusion and exclusion criteria, tool for data collection, description of the tool, validity, reliability, report for the pilot study, data collection procedure and plan for data analysis.

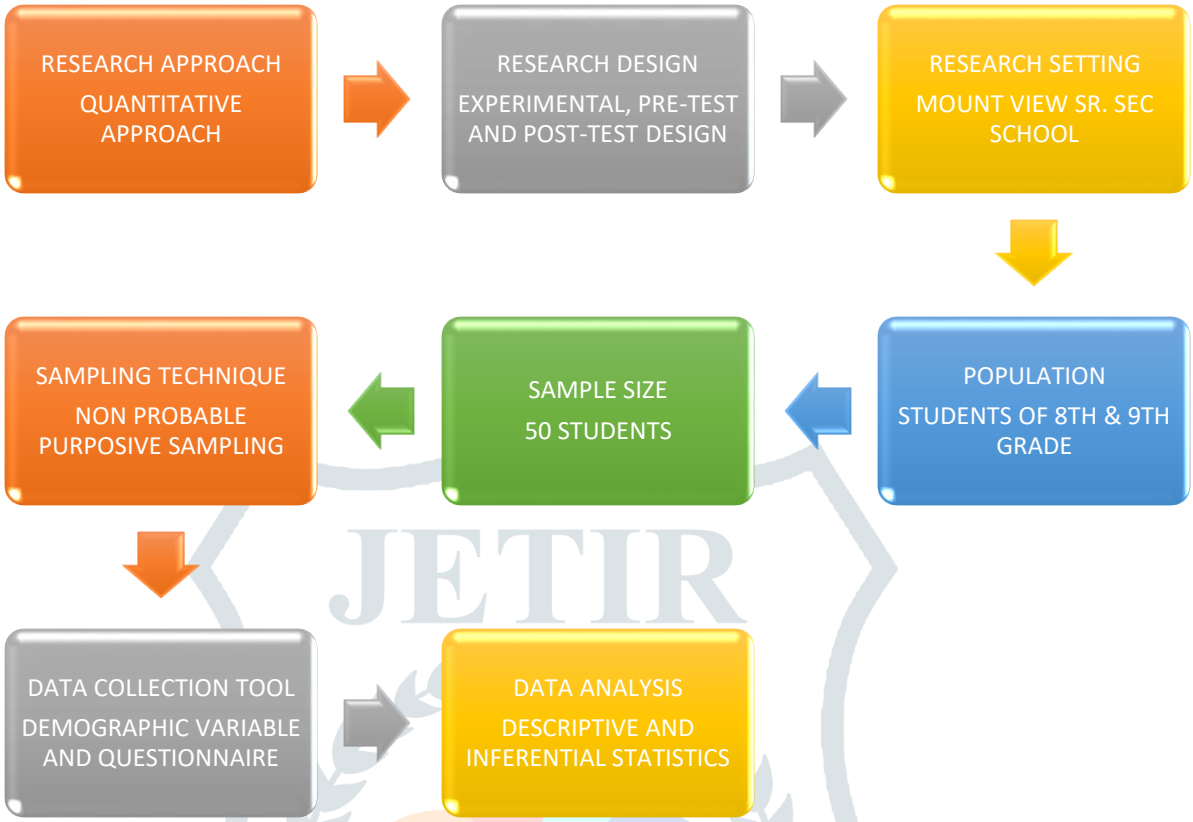

Fig B – Schematic presentation of Methodology Chart

CHAPTER –IV

DATA ANALYSIS AND INTERPRETATION

DATA ANALYSIS AND INTERPRETATION

This chapter explains the statistical analysis performed on the collected data. Analysis is a method for rendering quantitative, meaningful and providing intelligible information so that the research problem can be studied and tested including the relationship between the variables.

Data is organized according to the objective and hypothesis.

Objectives

- To assess the knowledge of pre test among the students of 8^{th} and 9^{th} grade regarding cell phone addiction.
- To assess the knowledge of post test among the students of 8^{th} and 9^{th} grade regarding cell phone addiction.
- To evaluate the effectiveness of teaching programme on cell phone addiction among the students.

Hypothesis

- **H_1** - The mean post test level of knowledge should be significantly higher than pre-test.
- **H_2** – There would be a significant effectiveness of STP on level of knowledge of students on cell phone addiction.

Descriptive statistics

- Frequency and percentage computed to describe the demographic data
- Tabulated and graphical representation of the demographic data
- Mean and standard deviation of observation of knowledge scores of pre test and post test calculated

Inferential statistics

Z test applied to find out the significant difference between two means i.e. pre test knowledge and post test knowledge

Description of the tool

The instrument used for the data collection was an interview guide. This was developed based on the objectives of the study and review of literature. The instrument research tool consists of two parts as Part A and Part B.

Part A : It consists of information on demographic variables such as age, religion, education, occupation, type of family. This was not scored but used for demographic analysis.

Part B : It consists of multiple choice questionnaires to assess the knowledge on cell phone addiction among the students.

Scoring interpretation

The instrument of Part B consists of 20 structured multiple choice questionnaires regarding knowledge of cell phone addiction. The maximum score was 20 and minimum score was 0 based on the scoring.

The score was interpreted as follows:

(0-9) – Inadequate knowledge

(10-13) – Moderately adequate knowledge

(14-20) – Adequate knowledge

Validity and Reliability of the tool

- **Validity**

The tool along with the problem statement, objectives and hypothesis were submitted to the experts in the field of nursing for validating the tool. A few changes were made in the tool as per the suggestions (Appendix III).

- **Reliability**

In Order to ensure content validity; the tool was submitted to experts in the field of mental health nursing and department of community health nursing. Based on expert's suggestions the items were modified and tool got its final form.

Informed consent

The Principal prior to conducting the pilot study, approved the research proposal. Permission was obtained from the Principal of Mount View Sr. Sec. School. Written consent was taken from the students to conduct the study. The data collection was done in school by using Questionnaire method.

Data collection procedure

Data collection is the method of gathering and measuring statistics on centred variables in a systematic fashion, which then permits one to answer applicable questions and consider outcomes. It is the systematic method to gather and measure facts from a range of sources to get an entire and correct image of the area of interest, thus allowing the individual to answer applicable questions, consider results and make predictions about future chances and trends.

Before collecting the data, formal administrative permission was obtained from the principal, PDM College of Nursing as well as from the principal, Mount View Senior Secondary School and also from the participants. The confidentiality of the information given by them was assured. The investigators, before the data collection ensured that students included in the study had access to cell phones.

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The data was collected from (10AM to 4PM). The time taken for each student candidate was 35-40min. During the data collection period, the students were very cooperative. On completion of questionnaire, each one was given time to clarify their doubts and ask questions.

Plan for the data analysis

The data will be analyzed based on the research objectives and hypothesis of the study. It was analyzed by using descriptive and inferential statistics.

- A master datasheet was prepared by the investigators to compute the data.
- Baseline data was analyzed in terms of frequency and percentage.
- The knowledge of the students regarding cell phone addiction after conduction of STP was calculated by mean and standard deviation.
- The significant difference between the mean pre-test and post-test knowledge was calculated using Z test.

Statistical method

The statistical method used for analysis was number, percentage, mean, standard deviation and Z test. The data were interpreted under following section:

A. Frequency and percentage distribution of demographic characteristics of the students of 8^{th} and 9^{th} grade.
B. Comparison between pre-test and post-test level of knowledge regarding cell phone addiction among the students of 8^{th} and 9^{th} grade.
C. Mean and standard deviation of knowledge regarding cell phone addiction among the students of 8^{th} and 9^{th} grade.
D. Improvement score of mean and standard deviation of knowledge regarding cell phone addiction.

SECTION A

Frequency and percentage distribution of demographic characteristics of the students of 8th and 9th grade

S. NO.	VARIABLES		NO.	%
1.	Gender	Male	30	60
		Female	20	40
		Other	0	0
2.	Type of family	Nuclear	35	70
		Joint	15	30
3.	Cell phone usage	1hour	10	20
		2-4 hours	15	30
		5-7 hours	25	50
		8-10 hours	0	0
4.	Education of father	Illiterate	5	10
		Elementary	10	20
		Secondary	15	30
		Higher secondary	10	20
		Graduate	10	20
5.	Education of mother	Illiterate	10	20
		Elementary	10	20
		Secondary	15	30
		Higher secondary	10	20
		Graduate	5	10
6.	Father's occupation	Self employee	15	30
		Coolie worker	5	10
		Government employee	10	20
		Private employee	20	40
7.	Mother's occupation	Self employee	0	0
		Coolie worker	0	0
		Government employee	5	10
		Private employee	5	10
		Housewife	40	80
8.	Number of siblings	0	10	20
		1	5	10
		2	10	20
		3	20	40
		3+	5	10

Table 4.1 depicts the frequency and percentage distribution of the personal factors of demographic variables, which include gender, type of family, no. of

siblings, education of father and mother and occupational status of father and mother of the students.

Regarding gender, 60% of the students were male, 40% were females and 0% others.

Regarding type of family, 70% students were from nuclear family, while 30% were from joint family.

In number of siblings, 10% were one in number, 20% had two, 40% had three and 10% had more than three siblings, while 20% of students are single child.

Regarding educational status of father, 10% were illiterate, 20% were elementary educated, 30% were secondary educated, 20% were higher secondary educated and 20% were graduate and above.

Regarding educational status of mother, 20% were illiterate, 20% were elementary educated, 30% were secondary educated, 20% were higher secondary educated and 10% were graduate and above.

Regarding occupation of father, 30% were self employee, 10% were coolie workers, 20% were Govt. Employee, 40% were Pvt. Employee.

Regarding occupation of mother, 10% were Govt. Employee, 10% were Pvt. Employee and 80% were housewives.

Fig 1 : Frequency and Percentage distribution of gender of the students of 8th and 9th grade .

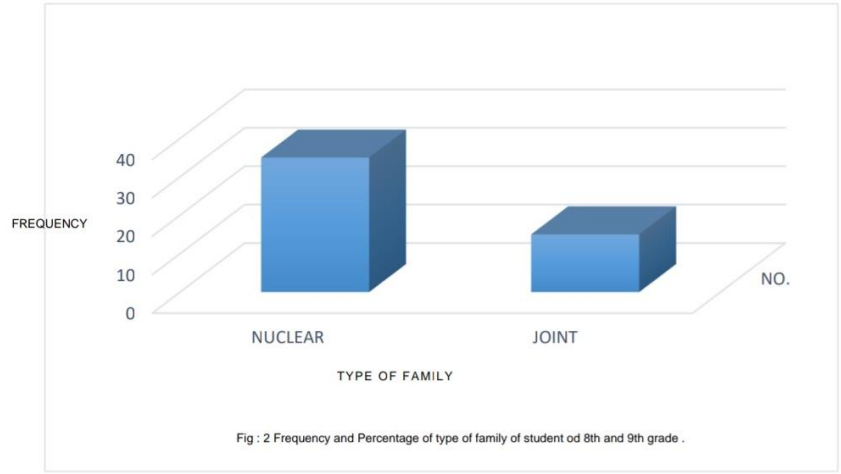

Fig : 2 Frequency and Percentage of type of family of student od 8th and 9th grade .

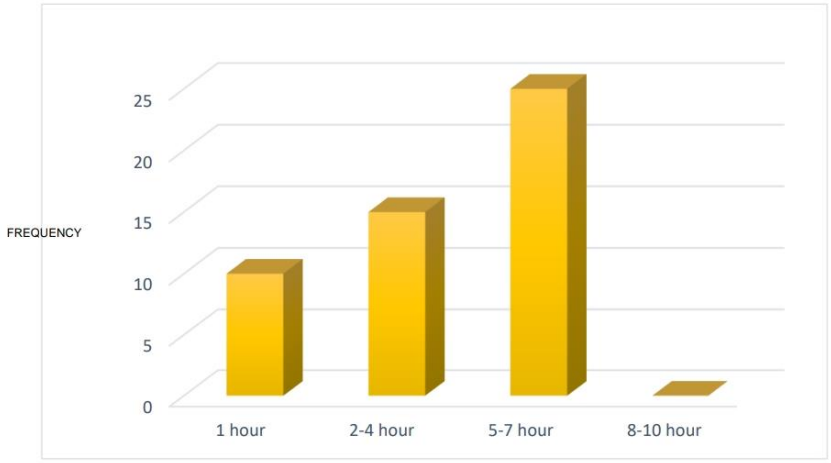

Fig : 3 Frequency and percentage distribution of cell phone usage of student of 8th and 9th grade

Education of father	NO.
Illiterate	5
Elementary	10
Secondary	15
Higher secondary	10
Graduate	10

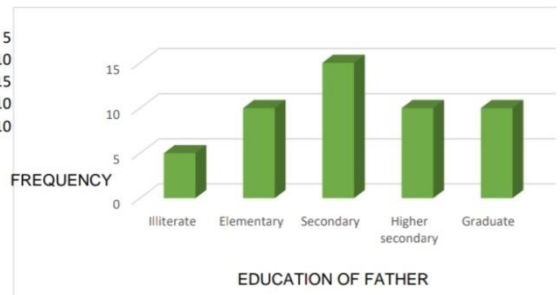

Fig : 4 Frequency and Percentage distribution of education of father of the student of 8th and 9th grade .

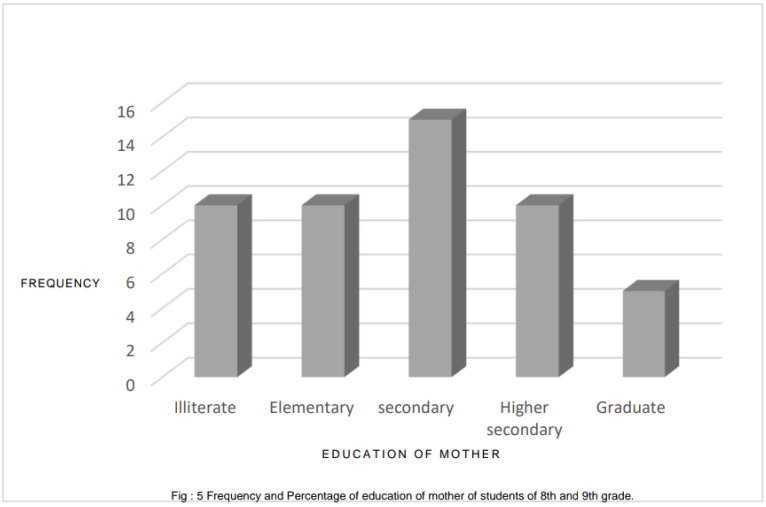

Fig : 5 Frequency and Percentage of education of mother of students of 8th and 9th grade.

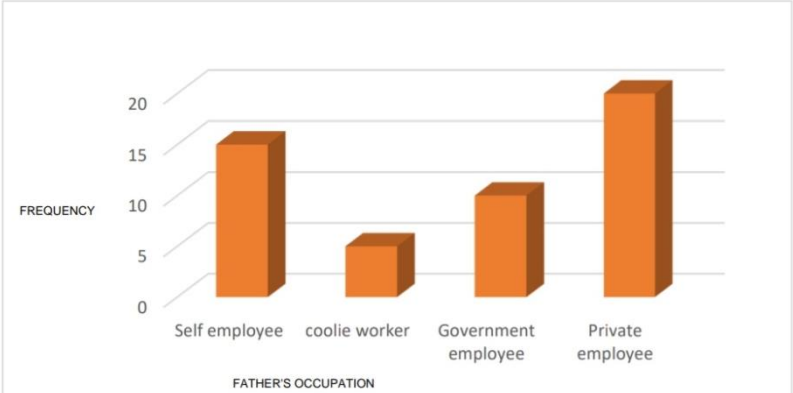

Fig : 6 Frequency and Percentage pf farher's occupation of students of 8th and 9th grade.

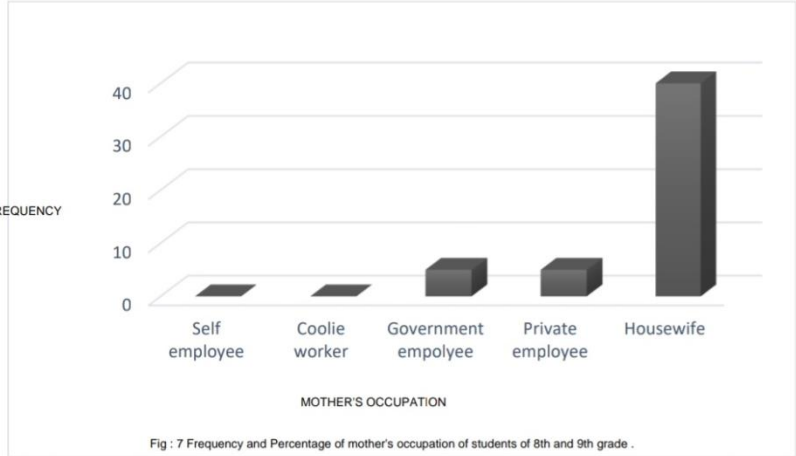

Fig : 7 Frequency and Percentage of mother's occupation of students of 8th and 9th grade .

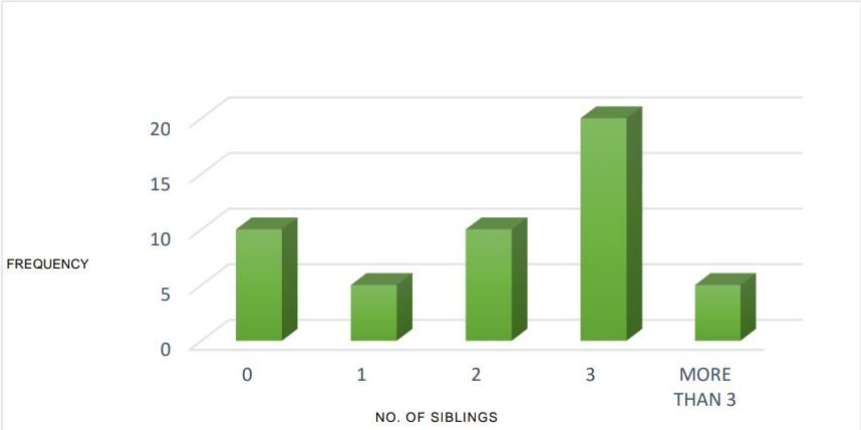

FIG : 8 frequency and Percentage of no. of siblings of students of 8th and 9th grade.

SECTION B

Comparison between pre-test and post-test levels of knowledge regarding cell phone addiction among the students of 8th and 9th grade

N = 50

S. No.	Description	Level of knowledge					
		Inadequate knowledge		Moderate knowledge		Adequate knowledge	
		No.	%	No.	%	No.	%
1.	Pre test	15	30	28	56	7	14
2.	Post test	2	4	8	16	40	80

Table 4.2 reveals that in the pre-test, 30% students had inadequate knowledge, 56% of the students had moderately adequate knowledge and 14% had adequate knowledge. In the post-test, only 16% students have moderately acquired knowledge while 80% had acquired adequate knowledge.

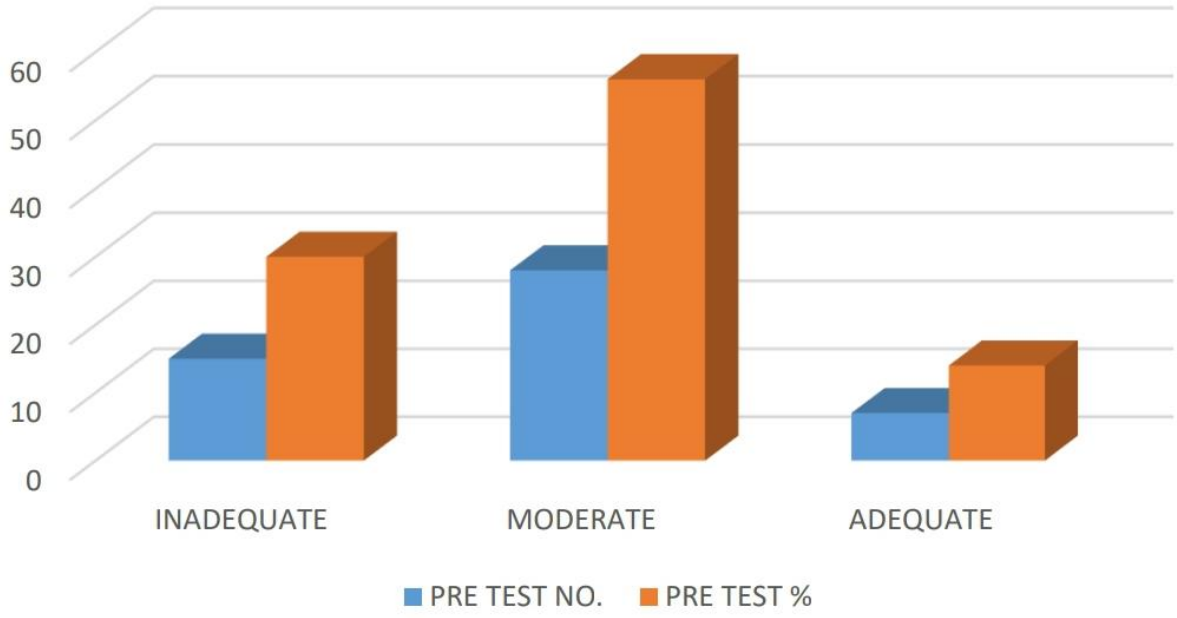

Fig 9. Frequency and percentage distribution of pre-test and post-test results

SECTION C

Mean and standard deviation of pre test and post test on levels of knowledge on cell phone addiction among the students of 8th and 9th grade

N=50

S. NO.	Level of knowledge	Mean	Standard Deviation
1.	Pre test	11.16	2.79
2.	Post test	16.92	2.88

Table 4.3 reveals that in the pre test overall mean of the knowledge were 11.16 with standard deviation of 2.79. In the post test overall mean of knowledge were 16.92 with standard deviation of 2.88.

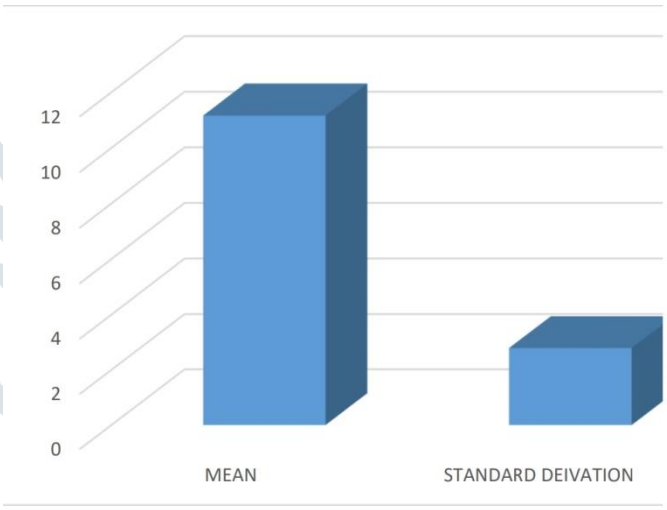

Fig 10. Pre-test result

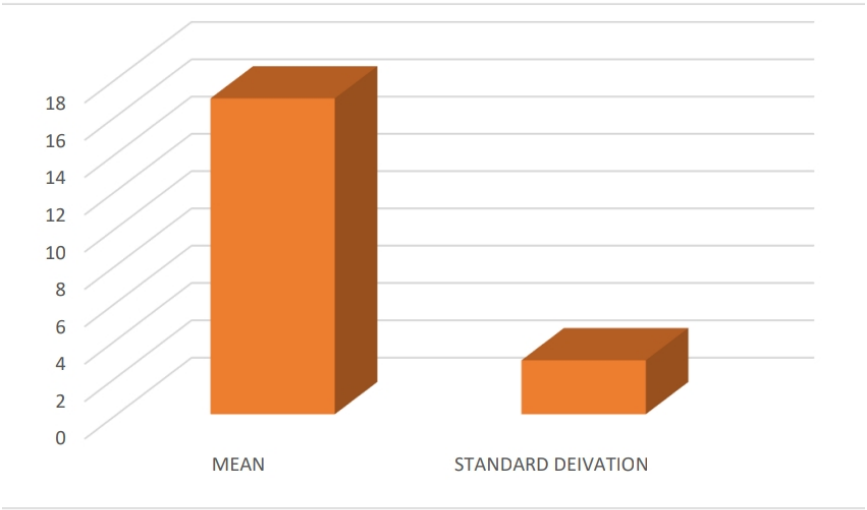

Fig 11. Post-test result

SECTION D

Improvement score of mean and standard deviation on the levels of knowledge regarding cell phone addiction.

Variable	Mean	Standard deviation	Z test
Level of knowledge	5.76	2.835	0.017

Table 4.4 reveals that the improvement mean and standard deviation in the knowledge of cell phone addiction was 5.76 with standard deviation of 2.835. The effectiveness of the STP regarding knowledge was done by 'Z' test comparing the calculated value at *P*=0.493. It was highly significant.

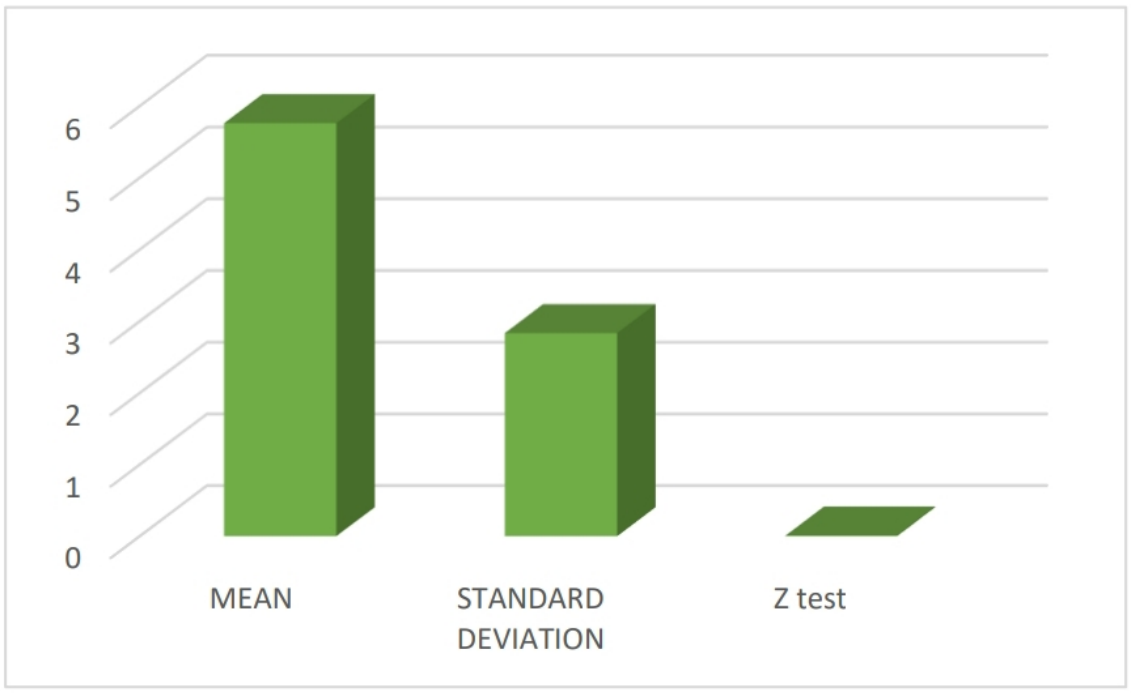

Fig 12. Improvement Score

CHAPTER V
RESULT AND DISCUSSION

RESULT AND DISCUSSION

This study was done to assess the effectiveness of the structured teaching programme on cell phone addiction knowledge among the students of 8th and 9th grade of Mount View Sr. Sec. School, Bahdurgarh, Distt-Jhajjar. This study was an experimental study having Pre-test and Post-test only design. The analysis and findings were presented in Chapter IV. Findings of the present study were presented in this chapter according to the objectives.

Objectives

- To assess the knowledge of pre test among the students of 8th and 9th grade regarding cell phone addiction.
- To assess the knowledge of post test among the students of 8th and 9th grade regarding cell phone addiction.
- To evaluate the effectiveness of teaching programme on cell phone addiction among the students.

Major findings of the study

- **The first objective was to assess the pre-test knowledge of cell phone addiction among the students.**

In the pre-test, 30% of students had inadequate knowledge, 56% of the students had moderately adequate knowledge and 14% had adequate knowledge. The Pre-test overall mean of the knowledge was 11.16 with standard deviation of 2.79.

- **The second objective was to assess the post-test knowledge of cell phone addiction among the students.**

In the post-test, only 16% students have moderately acquired knowledge while 80% had acquired adequate knowledge. In the post-test, the overall mean of knowledge was 16.92 with standard deviation of 2.88.

- **The third objective was to evaluate the effectiveness of structured teaching programme on cell phone addiction among the students.**

The improvement mean in the knowledge of cell phone addiction was 5.76 with standard deviation of 2.835. The Z test value overall score 0.017 of knowledge is highly significant at *P*=0.493 level.

Summary

This chapter thus deals with the discussion of the study with reference to the objective and supportive studies.

CHAPTER VI

SUMMARY AND CONCLUSION

SUMMARY, MAJOR FINDINGS, IMPLICATIONS, RECOMMENDATION, LIMITATION AND CONCLUSION

This chapter presents the summary, conclusion, implications in nursing service, nursing education, nursing administration and nursing research and recommendation for the future research.

Problem statement

An experimental study to assess the effectiveness of health education on the use of cell phones among the students of 8th and 9th grade of Mount View Senior Secondary School, Bahadurgarh, Distt. Jhajjar.

Objectives

- To assess the knowledge of pre test among the students of 8th and 9th grade regarding cell phone addiction.
- To assess the knowledge of post test among the students of 8th and 9th grade regarding cell phone addiction.
- To evaluate the effectiveness of teaching programme on cell phone addiction among the students.

Summary

The present study aims to assess the effectiveness of STP on knowledge of cell phone addiction among the students of 8th and 9th grades of Mount View Sr. Sec. School, Bahadurgarh, Distt- Jhajjar. The research design is Experimental (pre-test and post-test) research design. Samples N=50 were selected by non probable purposive sampling technique. Tools used for the collection of data are socio-demographic variables and pre-test and post-test questionnaire, which was prepared to assess the knowledge on cell phone addiction.

The data was collected by administering the structured interview schedule, which was prepared to assess the knowledge of the students on cell phone addiction. The students were educated with the help of charts. Education was given in various aspects such as meaning of cell phone addiction, causes of cell phone addiction, harmful effects and health impacts of cell phone addiction and the strategies that can be adopted to reduce it.

After five days interval from the teaching programme, the knowledge on students were assessed on the same aspect. Data analysis was done by means of descriptive and inferential statistics. The collected data was then tabulated. In post-test, most of the students gained adequate knowledge about cell phone addiction.

Major findings of the study

The major findings of the pre-test and post-test are as follows:-

- With regards to socio demographic variables, Sixty (60%) students were male while Forty (40%) students were female. Seventy (70%) students belonged from nuclear family and Thirty (30%) were from a joint family. Regarding no. of siblings, Ten (10%) students had one sibling, Twenty (20%) had two siblings, Forty (40%) had three siblings, Ten (10%) of them had more than three siblings, while only Ten (10%) were single child. Regarding educational status of father, Ten (10%) were illiterate, Twenty (20%) were elementary educated, Thirty (30%) were secondary educated, Twenty (20%) were higher secondary educated and Twenty (20%) were graduate and above. Regarding educational status of mother, Twenty (20%) were illiterate, Twenty (20%) were elementary educated, Thirty (30%) were secondary educated, Twenty (20%) were higher secondary educated and Ten (10%) were graduate and above. Regarding occupation of father, Thirty (30%) were self employee, Ten (10%) were coolie workers, Twenty (20%) were Govt. Employee, Forty (40%) were Pvt. Employee. Regarding occupation of mother, Ten (10%) were Govt. Employee, Ten (10%) were Pvt. Employee and Eighty (80%) were housewives.
- In the pre-test, Thirty (30%) students had inadequate knowledge, Fifty six (56%) of the students had moderately adequate knowledge and Fourteen (14%) have adequate knowledge. In the post-test, only Sixteen (16%) students have moderately acquired knowledge while Eighty (80%) had acquired adequate knowledge.
- In the Pre-test overall mean of the knowledge was 11.16 with standard deviation of 2.79. In the post-test, the overall mean of knowledge was 16.92 with standard deviation of 2.88.
- The improvement mean in the knowledge of cell phone addiction was 5.76 with standard deviation of 2.835. The effectiveness of the STP regarding knowledge was done by ‘Z’ test comparing the calculated value at P=0.493. It was highly significant.

Conclusion

In pre-test, level of knowledge of the students showed that 30% students had inadequate knowledge, 56% of students had moderately adequate knowledge and 14% of students had adequate knowledge.

In post-test, evaluation showed that 16% of students had moderately adequate knowledge, 80% students had adequate knowledge. There was statistically P=0.493 significant improvement in knowledge.

Hence H_1, H_2 hypothesis is accepted.

H_1 – The mean post-test level of knowledge is significantly higher than the pre-test.

H_2- There is a significant effectiveness of STP on level of knowledge of students on cell phone addiction.

Recommendations

Based on the study, the following recommendations are put forward for the further research

1. A similar study can be conducted on a large sample size.
2. A comparative study can be conducted to assess the knowledge regarding cell phone addiction among adults.
3. A similar research project work can be carried in various geographic areas.

Nursing implications

This study helps in establishing the effectiveness of health education on cell phone addiction among adolescents. Nursing professionals working in hospitals as well as community can impact the health education to adolescents regarding cell phone addiction. This involves promoting awareness, providing education on healthy technology use, offering support groups, implementing interventions for managing screen time, and collaborating with other healthcare professionals for comprehensive care.

The implication of the study can be seen in fields of Nursing practice, Nursing education and Nursing research.

Implication for Nursing practice: Nurses play a vital role in providing care and comfort to carry out specific nursing practices and functions. The planned health education programme is to be scheduled in the school on a fixed date, at a fixed time for the students and (or) their care takers.

This study implies that the nurses should help the students to regain knowledge through teaching programme (lecture cum discussion method), emphasizing on knowledge regarding cell phone addiction.

Implication for Nursing administrator: As a nursing administrator, focus on developing policies and procedures to address cell phone addiction in community health settings. This includes training nursing staff to recognize addiction signs, implementing screening protocols, coordinating multidisciplinary interventions, and ensuring access to resources for patients and families.

Additionally, a nurse should oversee the evaluation of program effectiveness and advocate for ongoing education and support initiatives within the community.

Implication for Nursing research: Develop evidence based interventions tailored to this population, collaborating with schools, community organizations and healthcare providers to implement prevention and intervention programs, and evaluating the effectiveness of these initiatives.

The present research study contributes to the body of knowledge through publishing research findings and presenting at conferences to raise awareness and inform policy decisions.

Implication for Nursing education: Focus on raising awareness about the risks f cell phone addiction among adolescents, emphasizing the importance of moderation and healthy habits.

Provide educational materials, workshops and resources for both adolescents and their parents on managing screen time, promoting digital detoxes, and fostering offline activities.

Additionally, offering support and counselling services for adolescents struggling with advocating for policies that address cell phone use in schools and communities.

Limitations

1. The study was conducted only on the students of 8^{th} and 9^{th} grade (12-14yrs).

2. The study was conducted on only 50 samples.

Summary

This chapter deals with the summary of the present study, major findings related to the result of the study, recommendations, implications and limitations of the present study.

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INTERNET LINKS

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APPENDIX

APPENDIX – I

Established under Haryana Private Universities Act
No .32 of 2006 and Haryana Private Universities (Amendment)
Act 2015 (Haryana Act No.1 of 2016)

To,

Faculty of Nursing,

P.D.M University, Bahadurgarh

Subject: Expert opinion for the content validity of "An experimental study to assess the effectiveness of health education on the use of cell phones among the students of 8th and 9th grade of Mount view Senior Secondary School, Bahadurgarh, Distt- Jhajjar"

Sir/Madam,

We are the students of 4th year B.Sc Nursing at P.D.M University. I have selected mentioned topic for research project to be submitted to University as a partial fulfilment of University requirement for award of Bachelor's of Nursing degree.

TOPIC: "An experimental study to assess the effectiveness of health education on the use of cell phones among the students of 8th and 9th grade of Mount view Senior Secondary School, Bahadurgarh, Distt - Jhajjar"S

We would request you to kindly go through the tool, and give your expert opinion for any modification and improvement. I shall be grateful for your remarks and suggestions.

Thanking you

Yours faithfully,

Group D students: Anjali (N40120024), Dipisha Basu (N40120023) Lucky (N40120004), Vishal Singh (N40120021), Ritik (N40120012), Kanchan (N40120026), Aman Dabas (N40120010)

APPENDIX – II

APPENDIX – II

pdm UNIVERSITY

COLLEGE OF NURSING

ENGLISH EDITING CERTIFICATE

This is to certify that the Group D students (Anjali, Dipisha Basu, Lucky, Vishal singh, Ritik, Kanchan, Aman Dabas) of B.Sc Nursing 4th year has made editorial changes successfully under my guidance in Research project Work entitled "An experimental study to assess the effectiveness of health education on the use of cell phones among the students of 8th and 9th grade of Mount view Senior Secondary School, Bahadurgarh, Distt - Jhajjar".

Name: Sikha Singh
Designation: A.P
Place: Sonita vihar
Date: 01/05/24

APPENDIX – III

LIST OF EXPERTS FOR VALIDATION OF RESEARCH TOOLS

S. NO.	NAME OF EXPERT	DESIGNATION
1.	Mrs. Santosh Hooda	Professor and H.O.D M.Sc. MSN
2.	Mrs. Santosh Kumari	Professor and Vice Principal M.Sc. MHN

APPENDIX – IV

PERMISSION LETTER FOR PARTICIPANTS

DEAR PARTICIPANTS,

Objective of this study is **"An experimental study to assess the effectiveness of health education on the use of cell phones among the students of 8th and 9th grade of Mount view Senior Secondary School, Bahadurgarh, Distt - Jhajjar".** You are requested to participate in this study, your cooperation is highly respected and your honest feedback is valued. I assure you that the information you provide will be kept strictly confidential and will be used only for the purpose of the study. If you are willing to participate in this study, please sign the consent form below.

Thank you for participating in the study.

Yours truly,

Anjali, Dipisha Basu, Lucky, Vishal, Ritik, Kanchan, Aman Dabas

Place: Date:

CONSENT

I have been informed about the purpose of the study and I give my willing consent to the study participants.

Signature:

APPENDIX – V

TOOLS FOR DATA COLLECTION

Description of tools

Part A : Socio demographic variable

Part B : Pre and Post test questionnaire

Instructions

i. Read the questions carefully
ii. Your information will be kept confidential and the data will be used for research purpose only

PART – A

DEMOGRAPHIC DATA

1. Age of students (in years)
   - 12-13 yrs
   - 14-15 yrs
   - 15-16 yrs
   - 16-17 yrs
2. Religion of students
   - Hindu
   - Muslim
   - Christian
   - Any other
3. Gender of students
   - Male
   - Female
   - Others
4. Type of family
   - Nuclear
   - Joint
5. Number of siblings
   - 0
   - 1
   - 2
   - 3
   - More than 3
6. Hours spent on cell phone (daily)
   - 1hr
   - 2-4hrs
   - 5-7hrs
   - 8-10hrs
7. Education of father
   - Illiterate
   - Elementary education

- Secondary education
- Higher secondary education
- Graduate

8. Father's occupation
- Self employee
- Coolie worker
- Government employee
- Private employee

9. Education of mother
- Illiterate
- Elementary education
- Secondary education
- Higher secondary education
- Graduate

10. Mother's occupation
- Self employee
- Coolie worker
- Government employee
- Private employee
- Housewife

11. Information about using cell phones
- By parents
- By peer group
- By siblings
- By education

PART – B

PRE AND POST TEST QUESTIONNAIRE

1. Which organ is the most affected by the cell phone?
    a) Kidney
    b) Eye
    c) Ear
    d) Lungs
2. Which of the following applications do you use most often?
    a) Youtube
    b) Whatsapp
    c) Chrome
    d) Gaming apps
3. What type of radiations do cell phones emit?
    a) CFC
    b) RF
    c) UV
    d) α rays
4. What are the effects of excessive screen time on the eye?
    a) Retina blockage
    b) Increased vision
    c) Improved focus
    d) Maintained blood circulation
5. Cell phone screens emit _____ light.
    a) Red
    b) Green
    c) Blue
    d) Black
6. Which of the following hormones is produced while using cell phones?
    a) GABA
    b) Dopamine
    c) Growth hormone
    d) None of these
7. What is the healthy amount of screen time (per day) for children?
    a) Zero screen time
    b) 1-2 hrs
    c) 3-5 hrs
    d) More than 5 hrs
8. Excessive use of cell phones may lead to
    a) Sleep disturbances
    b) Anxiety
    c) Both a and b
    d) None of these

9. _____ is a disease caused by excessive screen time.
    a) Lymphoma
    b) Diabetes mellitus
    c) Scoliosis
    d) Computer vision syndrome
10. What is the most common cause of road traffic accidents nowadays?
    a) Play
    b) Using cell phones while driving
    c) Overloaded passengers
    d) None of these
11. At which time of the day do you use your cell phone more oftenly?
    a) Day
    b) Afternoon
    c) Evening
    d) Night
12. What is the minimum time of a single distraction by cell phone?
    a) 5min
    b) 15min
    c) 25min
    d) 40min
13. What is the most common effect of the cell phone on children?
    a) Myopia
    b) Cancer
    c) Renal calculi
    d) Tuberculosis
14. Which age group is the most vulnerable to cell phone addiction?
    a) 15-20yrs
    b) 30-35yrs
    c) 40-45yrs
    d) Oldage (60-65yrs)
15. What are the causes of cell phone addiction?
    a) Escapism and loneliness
    b) Work
    c) Habit
    d) None of these
16. Which of the following are the signs and symptoms of cell phone addiction?
    a) Constant checking
    b) Not working
    c) Studying less
    d) All of the above
17. How can one diagnose cell phone addiction?
    a) MRI
    b) CT scan
    c) X ray
    d) Mental status examination (MSE)
18. What is the main physical health impact of cell phone addiction?

a) Eye strain
b) Muscular atrophy
c) Hair fall
d) Tympanic membrane perforation

19. Which of the following can be a strategy to manage cell phone addiction?
a) Use keypad phones
b) Establishing healthy relations
c) Do not use cell phone at all
d) Both a and b

20. What are the social implications of cell phone addiction?
a) Reduced face to face interactions
b) Social withdrawal
c) Isolation
d) All of these

APPENDIX – VI

ANSWER KEY

1. b
2. c
3. c
4. a
5. c
6. b
7. b
8. c
9. d
10. c
11. d
12. c
13. a
14. a
15. a
16. d
17. d
18. a
19. d
20. d

APPENDIX-VII
LESSON PLAN

Topic: Cell phone addiction

Group: Adolescents (students of 8th and 9th standard)

Place: Mount View Senior Secondary School

Time: 30 min

Instructor: Group D students

Method of teaching: Lecture cum discussion

Teaching aids: Charts, Flashcards

❖ General objective:

To give proper knowledge to the students regarding cell phone addiction and at the end of teaching, the group will be able to know about cell phone addiction and its side effects on health.

❖ Specific objective:

At the end of teaching, the group is able:

- To define the term cell phone addiction
- To state the prevalence of cell phone addiction
- To state the etiological factors/causes of cell phone addiction
- To explain the signs and symptoms of cell phone addiction
- To enlist the assessment and diagnostic procedures of cell phone addiction
- To enlist the consequences of cell phone addiction
- To explain the strategies to manage cell phone addiction

❖ Introduction:

We are the nursing students Anjali, Dipisha Basu, Lucky, Vishal Singh, Ritik, Kanchan, Aman Dabas came here to discuss regarding cell phone addiction. Cell phones have become an integral part of our daily lives, but excessive use can lead to addiction and negative health effects. Let's explore the signs, consequences and strategies to manage cell phone addiction for a healthier lifestyle.

S.No.	Time	Specific objective	Content	A.V AIDS	Evaluation
1.	1 min	Self introduction	Good Morning, we are the students of B.Sc Nursing final year in PDM University. Today we are here to discuss about the hazardous effects of cell phone addiction. We hope you will listen carefully and will able to give answers to our questions at the end		
2.	2 min	Introduce the topic	**INTRODUCTION** Cell phone addiction or nomophobia (fear of being without a cell phone) refers to the excessive and compulsive use of cell phones, leading to negative impacts on physical health, mental well being and social interactions.	Lecture cum discussion	What do you mean by cell phone addiction?
3.	2 min	Define the term cell phone addiction	**DEFINITION** A lack of control over the use of a cell phone , with consequences such as the inability to succeed in school , harm relationships and fear to be out of cell phone contact also known as nomophobia. -Family boot camp and English dictionary		Explain about cell phone addiction.
4.	2 min	Highlight the prevalence of cell phone addiction	**PREVALENCE** Research indicates a significant rise in smart phone addiction across all groups, with particularly concerning trends among adolescents and young adults.		What is the prevalence of cell phone addiction?

5.	4 min	State the etiological factors of cell phone addiction	**ETIOLOGY** It can be caused by various factors such as : ➢ Instant gratification ➢ Social media and online interactions ➢ Fear of missing out (FOMO) ➢ Escapism and entertainment ➢ Dopamine release ➢ Psychological factors ➢ Peer pressure ➢ Flaunt or Brag ➢ Loneliness ➢ Introvert behaviour ➢ Sleep disturbance ➢ Design and accessibility	Charts , Flashcards	Explain causes of cell phone addiction.
6.	4 min	Enlist the sign and symptoms of cell phone addiction	**SIGNS AND SYMPTOMS** 1. Constant checking - feeling the need to check your phone constantly even in inappropriate situations. 2. Withdrawal symptoms- anxiety, irritability or restlessness when unable to use your phone. 3. Physical and psychological symptoms- poor vision (computer vision syndrome), eyestrain, headache and pain and weakness in the thumb & poor posture from prolonged phone use, auditory and tactile illusions, depression.		What are the signs and symptoms of cell phone addiction?

			4. Neglecting responsibilities - neglecting work, studies or personal relationships due to excessive phone use.		
7.	2 min	Enlist the assessment and diagnostic procedures of cell phone addiction	**ASSESSMENT AND DIAGNOSIS** 1. History collection 2. Physical examination 3. Mental Status Examination	Charts , Flashcards	What are the diagnostic procedures of cell phone addiction?
8.	7 min	Enlist the consequences of cell phone addiction	**HEALTH IMPACTS** 1. Physical health ➢ Eyestrain, ocular redness and vision problems due to prolonged screen time as cell phones emit radio frequencies ➢ Neck and back pain from poor posture while using smart phones ➢ Sleep disturbances due to excessive screen exposure particularly before bedtime ➢ Increased risk of accidents and injuries due to distracted walking or driving ➢ Sedentary lifestyle leads to obesity, cardiovascular diseases and musculoskeletal problems 2. Mental health		What are the consequences of cell phone addiction?

			➢ Anxiety and stress stemming from constant notifications and FOMO due to the release of Dopamine hormone ➢ Depression and loneliness due to over reliance on virtual connections over real life connections ➢ Impaired cognitive function and attention span, leading to decreased productivity and academic performance ➢ Escapism and avoidance of real life problems through excessive smart phone usage, exacerbating mental health issues 3. Social implications ➢ Reduced face to face interactions with the real world, leading to feeling of loneliness and disconnection ➢ Dependency on smart phones for social validation		

9.	5 min	Explain the strategies to manage cell phone addiction	**STRATEGIES FOR MANAGING CELL PHONE ADDICTION** A. Establishing healthy boundaries ➢ Set specific time limits for smart phone usage each day ➢ Designate tech free zones such as during meals or before bedtime B. Prioritizing real life connections ➢ Nurture offline relationships by scheduling regular face to face interactions ➢ Engage in hobbies and activities that don't involve smart phones to cultivate a healthy balance C. Utilizing digital wellness tools ➢ Explore smart phone features and apps designed to monitor and limit screen time ➢ Seek support from digital detox programmes or online communities focused on reducing phone addiction ➢ If you find it challenging to control your phone usage, seek support from friends, family or mental health professionals	What are the strategies to manage cell phone addiction?

❖ Conclusion:

In conclusion, while smart phones offer immense benefits, it's crucial to be mindful our usage habits to safeguard our physical and mental well being. By fostering a healthy relationship with our devices, we can harness their potential while minimizing the risk of addiction.

❖ Summary:

While cell phones have undoubtedly revolutionized communication and access to information, it's essential to be mindful of the potential risk of excessive usage. By recognizing the signs of addiction and taking proactive steps to manage phone usage, we can protect our physical and mental well being in an increasingly digital world.

❖ Bibliography:

- http://www.siliconvalley.com/ci_22044223/10-tips-reducing-potential-harmful-effects-mobile-phone-radiation?source=most_viewed
- http://listdose.com/10-bad-effects-of-cellphone-on-health/
- http://en.wikipedia,org/wiki/Mobile_phone

APPENDIX – VIII

pdm UNIVERSITY

Established under Haryana Private Universities Act
No .32 of 2006 and Haryana Private Universities (Amendment)
Act 2015 (Haryana Act No.1 of 2016)

To,

Dated: 03/04/2024

The Principal,

Faculty of Nursing,

P.D.M University,

Bahadurgarh (Haryana)

Subject: Seeking permission to conduct main research study.

Respected ma'am,

This is to inform you that we are student of Group D of B.Sc Nursing final year at faculty of Nursing of P.D.M University, Bahadurgarh (Haryana) would like to conduct a research study on the topic – **"AN EXPERIMENTAL STUDY TO ASSESS THE EFFECTIVENESS OF HEALTH EDUCATION ON THE USE OF CELL PHONES AMONG THE STUDENTS OF 8TH AND 9TH GRADE, OF MOUNT VIEW SENIOR SECONDARY SCHOOL, BAHADURGARH, DISTT-JHAJJAR".** As a partial fulfilment of B.sc Nursing degree which is to be submitted to P.D.M University.

We would like to conduct main research study from 04/04/2024 to 05/04/2024. We will maintain confidentiality of the data and will not disclose it to anybody.

Yours faithfully,

Group D students: Anjali (N40120024)

Dipisha Basu (N40120023)

Lucky (N40120004)

Vishal Singh (N40120021)

Ritik (N40120012)

Kanchan (N40120026)

Aman Dabas (N40120010)

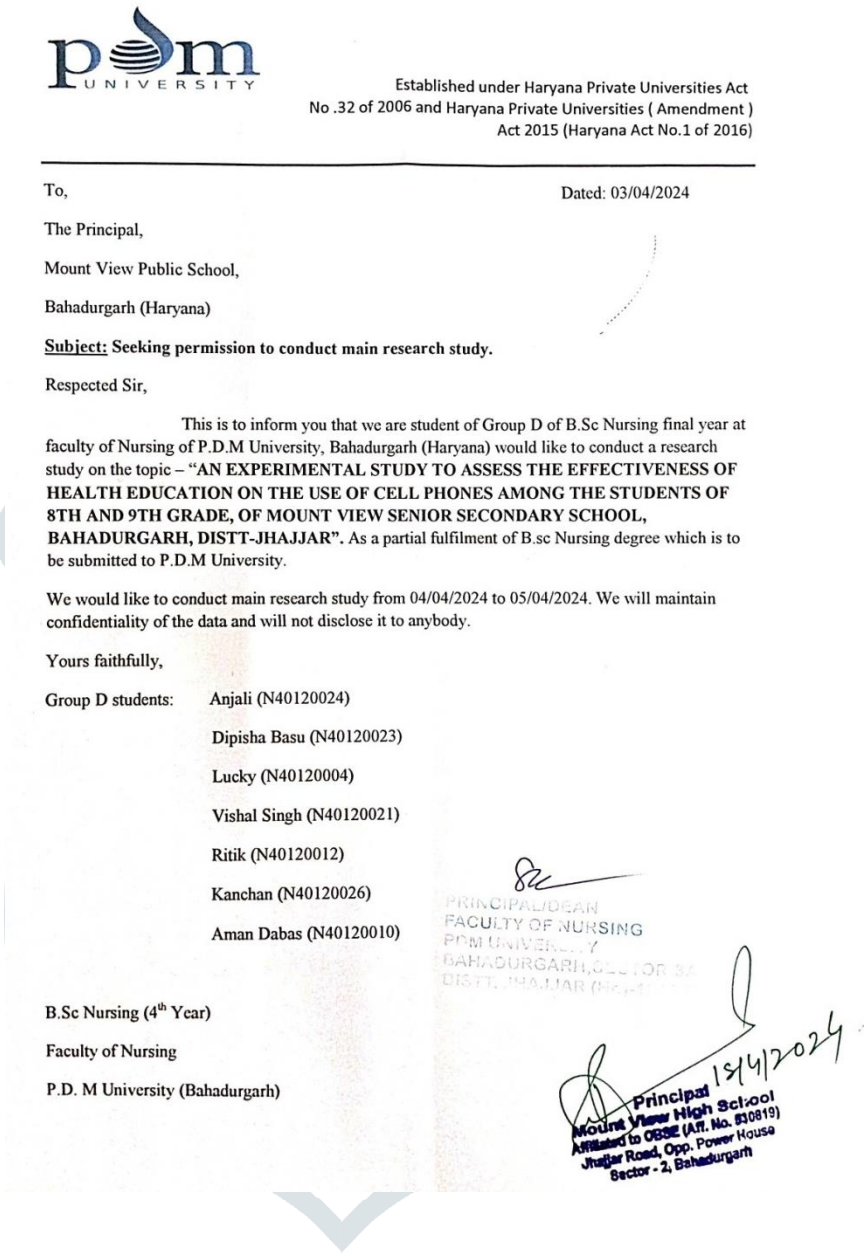
PRINCIPAL/DEAN
FACULTY OF NURSING
PDM UNIVERSITY
BAHADURGARH

B.Sc Nursing (4th Year)

Faculty of Nursing

P.D. M University (Bahadurgarh)

APPENDIX – IX



PDM UNIVERSITY

Established under Haryana Private Universities Act
No .32 of 2006 and Haryana Private Universities (Amendment)
Act 2015 (Haryana Act No.1 of 2016)

To,

Dated: 03/04/2024

The Principal,

Mount View Public School,

Bahadurgarh (Haryana)

Subject: Seeking permission to conduct main research study.

Respected Sir,

This is to inform you that we are student of Group D of B.Sc Nursing final year at faculty of Nursing of P.D.M University, Bahadurgarh (Haryana) would like to conduct a research study on the topic – **"AN EXPERIMENTAL STUDY TO ASSESS THE EFFECTIVENESS OF HEALTH EDUCATION ON THE USE OF CELL PHONES AMONG THE STUDENTS OF 8TH AND 9TH GRADE, OF MOUNT VIEW SENIOR SECONDARY SCHOOL, BAHADURGARH, DISTT-JHAJJAR".** As a partial fulfilment of B.sc Nursing degree which is to be submitted to P.D.M University.

We would like to conduct main research study from 04/04/2024 to 05/04/2024. We will maintain confidentiality of the data and will not disclose it to anybody.

Yours faithfully,

Group D students: Anjali (N40120024)
Dipisha Basu (N40120023)
Lucky (N40120004)
Vishal Singh (N40120021)
Ritik (N40120012)
Kanchan (N40120026)
Aman Dabas (N40120010)

PRINCIPAL/DEAN
FACULTY OF NURSING
PDM UNIVERSITY
BAHADURGARH, SECTOR 3A
DISTT. JHAJJAR (HR.)

B.Sc Nursing (4th Year)

Faculty of Nursing

P.D. M University (Bahadurgarh)

15/4/2024
Principal
Mount View High School
Affiliated to CBSE (Aff. No. 830819)
Jhajjar Road, Opp. Power House
Sector - 2, Bahadurgarh

APPENDIX – X

PDM UNIVERSITY

Established under Haryana Private Universities Act
No .32 of 2006 and Haryana Private Universities (Amendment)
Act 2015 (Haryana Act No.1 of 2016)

To,

Dated: 03/04/2024

The Principal,

Faculty of Nursing,

P.D.M University,

Bahadurgarh (Haryana)

Subject: Seeking permission to conduct main research study.

Respected ma'am,

This is to inform you that we are student of Group D of B.Sc Nursing final year at faculty of Nursing of P.D.M University, Bahadurgarh (Haryana) would like to conduct a research study on the topic – **"AN EXPERIMENTAL STUDY TO ASSESS THE EFFECTIVENESS OF HEALTH EDUCATION ON THE USE OF CELL PHONES AMONG THE STUDENTS OF 8TH AND 9TH GRADE, OF MOUNT VIEW SENIOR SECONDARY SCHOOL, BAHADURGARH, DISTT-JHAJJAR".** As a partial fulfilment of B.sc Nursing degree which is to be submitted to P.D.M University.

We would like to conduct main research study from 04/04/2024 to 05/04/2024. We will maintain confidentiality of the data and will not disclose it to anybody.

Yours faithfully,

Group D students: Anjali (N40120024)

Dipisha Basu (N40120023)

Lucky (N40120004)

Vishal Singh (N40120021)

Ritik (N40120012)

Kanchan (N40120026)

Aman Dabas (N40120010)

PRINCIPAL/DEAN
FACULTY OF NURSING
PDM UNIVERSITY
BAHADURGARH

B.Sc Nursing (4th Year)

Faculty of Nursing

P.D. M University (Bahadurgarh)

APPENDIX - XI

pdm UNIVERSITY

Established under Haryana Private Universities Act
No .32 of 2006 and Haryana Private Universities (Amendment)
Act 2015 (Haryana Act No.1 of 2016)

To,

Dated: 29/03/2024

The Principal,

New Brain Public School,

Bahadurgarh (Haryana)

Subject: Seeking permission to conduct Pilot study.

Respected ma'am,

This is to inform you that we are student of Group D of B.Sc Nursing final year at faculty of Nursing of P.D.M University, Bahadurgarh (Haryana) would like to conduct a Pilot study on topic – **"AN EXPERIMENTAL STUDY TO ASSESS THE EFFECTIVENESS OF HEALTH EDUCATION ON THE USE OF CELL PHONES AMONG THE STUDENTS OF 8TH AND 9TH GRADE, OF NEW BRAIN PUBLIC SCHOOL, BAHADURGARH, DISTT- JHAJJAR".** We would like to conduct Pilot study on 03/04/2024.

Yours faithfully,

Group D students: Anjali (N40120024)

Dipisha Basu (N40120023)

Lucky (N40120004)

Vishal Singh (N40120021)

Ritik (N40120012)

Kanchan (N40120026)

Aman Dabas (N40120010)

PRINCIPAL/DEAN
FACULTY OF NURSING
PDM UNIVERSITY
BAHADURGARH

B.Sc Nursing (4th Year)

Faculty of Nursing

P.D. M University (Bahadurgarh)

APPENDIX – XII

AV AIDS


Symptoms of Cell phone Addiction
Blurred Vision
Eyestrain
Dry Eyes
Headaches
Neck Pain
Difficulty in focusing
Reduces Memory
Increases Stress & Anxiety
Increases FOMO (Fear of Missing Out)


Harmful Effects of Cell phones
Disturbed Brain Activity
REELS
Sleep Disruption
Risk of Obesity & other Illnesses
Early Exposure to Inappropriate Content
Distraction from Studies

APPENDIX – XIII

MASTER DATASHEET

PRE- TEST

SAMPLES	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	TOTAL
STUDENT1	1	1	1	1	0	0	0	1	1	1	1	0	0	1	1	0	1	1	0	0	12
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STUDENT44	**1**	**0**	**0**	**1**	**0**	**0**	**0**	**1**	**0**	**1**	**0**	**0**	**0**	**1**	**1**	**0**	**1**	**1**	**0**	**1**	**9**
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STUDENT47	**1**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**1**	**0**	**1**	**1**	**0**	**0**	**0**	**1**	**0**	**0**	**5**
STUDENT48	**1**	**1**	**1**	**1**	**1**	**0**	**1**	**1**	**1**	**1**	**1**	**0**	**0**	**1**	**1**	**0**	**1**	**1**	**0**	**0**	**14**
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STUDENT50	**1**	**0**	**0**	**1**	**0**	**0**	**0**	**1**	**0**	**1**	**1**	**0**	**1**	**1**	**0**	**0**	**1**	**1**	**1**	**1**	**11**

POST- TEST

SAMPLES	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	TOTAL
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STUDENT2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	20
STUDENT3	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	20
STUDENT4	1	1	1	0	1	0	1	1	1	1	1	1	1	1	1	1	1	1	0	1	17
STUDENT5	1	1	1	1	1	0	1	1	1	1	1	1	1	1	1	1	1	1	0	1	18
STUDENT6	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	20
STUDENT7	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0	1	19
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STUDENT10	1	1	1	1	1	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	19
STUDENT11	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	20
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STUDENT14	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	20
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STUDENT16	1	1	1	1	1	1	1	0	0	1	1	1	1	0	0	1	1	1	0	1	15
STUDENT17	1	1	1	1	1	1	1	1	0	1	1	1	1	1	1	1	1	0	0	0	16
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STUDENT19	1	1	1	1	1	1	1	1	1	0	1	1	1	1	1	1	1	0	0	1	17
STUDENT20	1	1	1	1	1	1	1	1	0	1	1	1	1	0	1	1	1	1	1	1	18
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STUDENT23	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	20
STUDENT24	1	1	1	1	1	1	1	1	0	1	1	1	1	0	0	0	0	1	0	0	13
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STUDENT27	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0	0	1	0	1	1	17
STUDENT28	1	1	1	1	1	1	1	1	0	1	1	0	1	1	1	0	0	1	0	1	16
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STUDENT34	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	20
STUDENT35	1	1	1	1	1	0	1	0	1	1	1	1	1	1	0	1	1	0	0	0	14
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STUDENT39	1	1	1	1	1	1	1	0	1	1	1	1	1	1	0	1	0	1	0	1	16
STUDENT40	1	1	1	1	1	1	1	0	1	1	1	0	1	1	0	1	0	1	0	1	15
STUDENT41	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	20

STUDENT42	**1**	**1**	**0**	**0**	**1**	**1**	**0**	**0**	**0**	**1**	**1**	**1**	**0**	**1**	**0**	**0**	**0**	**1**	**0**	**0**	**9**
STUDENT43	**1**	**1**	**1**	**1**	**1**	**1**	**1**	**1**	**1**	**1**	**1**	**1**	**1**	**1**	**1**	**1**	**1**	**0**	**1**	**1**	**19**
STUDENT44	**1**	**1**	**1**	**1**	**1**	**1**	**0**	**1**	**1**	**1**	**1**	**1**	**1**	**1**	**1**	**1**	**1**	**0**	**0**	**1**	**17**
STUDENT45	**1**	**1**	**1**	**0**	**1**	**1**	**1**	**0**	**1**	**1**	**1**	**1**	**1**	**1**	**1**	**1**	**1**	**0**	**1**	**1**	**17**
STUDENT46	**1**	**1**	**1**	**0**	**1**	**1**	**1**	**0**	**1**	**1**	**1**	**1**	**1**	**1**	**0**	**0**	**1**	**1**	**0**	**1**	**15**
STUDENT47	**1**	**1**	**1**	**1**	**1**	**1**	**1**	**0**	**1**	**1**	**1**	**1**	**1**	**1**	**1**	**1**	**0**	**1**	**1**	**1**	**18**
STUDENT48	**1**	**1**	**1**	**0**	**1**	**1**	**0**	**1**	**1**	**1**	**1**	**0**	**0**	**0**	**1**	**1**	**1**	**1**	**1**	**0**	**13**
STUDENT49	**1**	**1**	**0**	**0**	**1**	**1**	**0**	**0**	**0**	**0**	**1**	**0**	**0**	**1**	**0**	**0**	**0**	**1**	**0**	**0**	**7**
STUDENT50	**1**	**1**	**1**	**1**	**1**	**0**	**1**	**1**	**0**	**1**	**1**	**0**	**1**	**1**	**0**	**0**	**1**	**1**	**0**	**1**	**14**

FINDINGS OF MASTER DATASHEET

❖ CRITERIA FOR KNOWLEDGE ASSESSMENT:-

INADEQUATE KNOWLEDGE : SCORE (0-9)

MODERATELY ADEQUATE KNOWLEDGE : SCORE (10-13)

ADEQUATE KNOWLEDGE : SCORE (14-20)

❖ PRE-TEST SCORES:-

INADEQUATE KNOWLEDGE: 15 STUDENTS

MODERATELY ADEQUATE KNOWLEDGE: 18 STUDENTS

ADEQUATE KNOWLEDGE: 7 STUDENTS

❖ POST – TEST SCORES:-

INADEQUATE KNOWLEDGE: 2 STUDENTS

MODERATELY ADEQUATE KNOWLEDGE: 4 STUDENTS

ADEQUATE KNOWLEDGE: 44 STUDENTS

APPENDIX – XIV

STATISTICAL FORMULAE

1. **Mean calculation:-**

Mean = Sum of all data points
Number of data points

Mean = Assumed Mean + Sum of All Deviations
Number of Data Points

2. **Grade deviation calculation :-**

$$\sigma = \sqrt{\frac{\sum (x\text{-mean})^2}{n}}$$

x is a set of numbers
mean is the average of the set of numbers
n is the size of the set
σ is the grade deviation

3. **'Z' test calculation :-**

$$Z = \frac{\bar{x} - \mu}{\sigma/\sqrt{n}}$$

$\overline{x}$ = sample mean
μ =population mean
σ =population grade deviation
n= sample size

4. **Chi square calculation formula:-**

$$X^{2=} \frac{\sum(0\text{-}E)^2}{E}$$

X^2 is the test statistics
$\sum$ is the sum of
0= observed frequencies
E= expected frequencies

5. ***P* value calculation formula:-**

$$Z= \frac{\hat{p} - p0}{\sqrt{\frac{p0(1-p0)}{n}}}$$

$\hat{p}$ is sample proportion

pO is assumed population proportion in the null hypothesis

n = is the sample size

6. **Degree of freedom formula:-**

n=1
n= no.of samples

7. Reliability formula:-

Split half method

$$\rho_{KR20} = \frac{k}{k-1}\left(1 - \frac{\sum_j^k = 1 p_j q_j}{\sigma^2}\right)$$

where
k= number of questions
p_j = number of people in the sample who answered question *j* correctly
q_j = number of people in the sample who didn't answer question *j* correctly
σ^2 = variance of the total scores of all the people taking the test.


COMPUTER LAB
Harmful Effects of Cell phones
Cell Phone Addiction
Symptoms of Cell phone Addiction
Causes of Cellphone Addiction


Addiction
Addiction
Addiction