

A Study to Assess the Effectiveness of Self Instructional Module on Knowledge of Teenagers Regarding the Psycho-Physiological Hazards of Mobile Phones in Selected Higher Secondary School Bandikui, Jaipur

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Abstract: Introduction: Using cellular phone has rapidly increased all over the world. Also, the concern on the possible health hazards of electromagnetic fields (EMF) induced from cell phone to reproduction has been growing in many countries. The dramatic growth of mobile phone (MP) use among teenagers students has increased interest in its possible health hazards in this age group. Material & Methods: Samples selected for the study was teenagers in higher secondary school of Bandikui, Jaipur city. Using simple randomized sampling technique 80 samples were selected and assessed by self-administer questionnaire tool. The data collected were analyzed using descriptive and inferential statistics. Result: The Mean & S.D of Pre Vs Post on knowledge of selected school in Bandikui, Jaipur regarding knowledge regarding Psycho physiological hazards of mobile phones i.e. Pre group are 13.49 ± 4.421 , Post are 24.60 ± 4.651 . As per the table the mean difference of pre Vs post group selected school in Jaipur is (11.113) and the t-test was statistically significant as the obtained value (15.632) is higher than the tabulated value (1.97) required for t-ratio to be significant at .05 level of confidence. Discussion: The findings of the study were discussed in terms of objectives and hypothesis of the study. The tool had two sections, Section I deals with demographic data, Section II deals with structured questionnaire on knowledge and preventive measures hazards of mobile phone to evaluate the effectiveness of self-instructional module.

Keyword: Assess Effectiveness, Psycho-physiological Hazards, and Higher Secondary School

1. Introduction

The mobile phone industry has been one of the fastest growing industries in modern history. Today, India has million mobile phone users, and mobile phones account for 88% of all telecommunication users. The rural sector accounts for more than 25% of all wireless phone users and this proportion is bound to grow as affordability of mobile phones continues to increase.¹

Mobile phones form an integral part of our modern lifestyle. Following the drastic rise in mobile phone use in recent years, it has become important to study its potential public health impact²

The effect of mobile phones on auditory function has rarely been studied. The aim of this review is to determine if there is evidence that mobile phones have a detrimental effect on auditory function³. Mobile phones (MP) emit low-level electromagnetic fields that have been reported to affect neural function in humans; however, demonstrations of such effects have not been conclusive.⁴

The main attention was paid to the usefulness of some neurophysiological methods, such as electroencephalography (EEG), multimodality evoked potentials (MEP), and event related potentials (ERP) in the evaluation of the bioelectrical activity of the brain.⁵

The effects of electromagnetic fields (EMFs) emitted by mobile phones on humans hold special interest due to their use in close proximity to the brain. The current study investigated the number of pyramidal cells in the cornu ammonis (CA) of the 16-week-old female rat hippocampus following postnatal exposure to a 900 megahertz (MHz) EMF.⁶

The issue of possible health effects of cellular phones is very much alive in the public's mind where the rapid increase in the number of the users of cell phones in the last decade has increased the exposure of people to the electromagnetic fields (EMFs).⁷

The present results provide pioneering information about human pain sensation in relation to RF EMF exposure and thus may contribute to cover the existing gap between safety research and applied biomedical science targeting the potential biological effects of environmental RF EMFs⁸.

2. Material and Methods: Research Approach

The research approach adopted for this study was an evaluative approach.

Research Design: Evaluative the Pre-experimental one group pretest posttest design was considered as the appropriate design for this study .the purpose of a Pre-

experimental research design was to describe the variables and examine relationship among these variable.

Research setting: In this study data's are collected from higher secondary school, Bandikui, Jaipur. The selection of school was done on the Geographic proximity, Feasibility of conducting study and availability of sample.

Sample: In this study the higher secondary school students, Bandikui, Jaipur city are the samples.

Data Collection Instruments

Section A: Demographic Data
Section B: Structured Knowledge Questionnaire
Section C: information booklet

3. Result

Table 1: Pre Test Knowledge

Level of knowledge	Pre Test	
	Frequency(f)	Percentages (%)
Poor (0-35%)	39	48.8
Average (36-70%)	26	32.5
Good (71%)	15	18.8
Total	80	100.0

Table shows the pre test level of knowledge regarding knowledge psycho physiological hazards of mobile phone.

Table 2: Post Test Knowledge

Level of knowledge	Post -Test	
	Frequency(f)	Percentage (%)
Poor (0-35%)	23	28.8
Average (36-70%)	19	23.8
Good (71%)	38	47.4
Total	80	100.0

Table shows the post test level of knowledge regarding knowledge psycho physiological hazards of mobile phone.

Table 3: Scores and responses of participants on the level of knowledge regarding Psycho physiological hazards of mobile phones Bandikui, Jaipur

Level of Knowledge	Pre Test		Post Test	
	Frequency (f)	Percentage (%)	Frequency (f)	Percentage (%)
Poor (0-35%)	39	48.8%	23	28.8%
Average (36-70%)	26	32.4%	19	23.8%
Good (71%)	15	18.8%	38	47.4%
Total	80	100.0	80	100.0

The above table 5.15 shows the Level of Knowledge (pre-test) of Psycho physiological hazards of mobile phones. About 48.8 % (39) of Poor Knowledge, 32.40 % (26) of had Average Knowledge and 18.80 % (15) of had Good Knowledge. Level of Knowledge (post-test) of Psycho physiological hazards of mobile phones. About 28.8 % (23) of Poor Knowledge, 23.80 % (19) of had Average Knowledge, and 47.4 % (38) of had Good Knowledge regarding of higher secondary school of Jaipur.

4. Discussion

The findings of the study were discussed in terms of objectives and hypothesis of the study. The tool had two sections, **Section I** deals with demographic data, **Section II** deals with structured questionnaire on knowledge and preventive measures hazards of mobile phone to evaluate the effectiveness of self-instructional module.

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