

A Pre-experimental Study to Assess the Effectiveness of Structured Teaching Program on Knowledge Regarding Psychological Effects of Computer Addiction Professionals among the IT in a Selected Setting, Bangalore

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Abstract

‘A study to assess the effectiveness of structured teaching programme on knowledge regarding psychological effects of computer addiction among the IT Professionals in a selected setting, Bangalore’. Objectives are assesses and compares the pre and post-test level of knowledge regarding psychological effects of computer addiction. Quantitative Pre -experimental one group pre-test and post- test only design. Setting was Cerulean Information Technology Pvt Ltd, Bangalore. 60 IT Professionals Self-administered structured questionnaire. Both descriptive and inferential statistics were used for data analysis. Findings, at the pretest level majority of the IT Professionals (52) had inadequate knowledge, 5 had moderately adequate knowledge, 3 had adequate knowledge. At the post test level most of the IT Professionals 37 had adequate knowledge and 23 had moderately adequate knowledge. There is a significant difference between the pre and posttest level of knowledge among IT Professionals. There is a statistically significant association of mean improvement knowledge score of IT Professionals with their selected demographic variables. Majority of the IT Professionals 37 exhibited adequate level of knowledge in the post test.

Keywords: Effectiveness, Structured Teaching Programme, Knowledge, Psychological effects, Computer addiction, IT (Information Technology) professional.

Introduction

In the 21st century, the computer is the uninvited member of the family rather than the television. Most of the people are spending more time on- line, and less time with their family members and friends. People are increasingly depending on the computer not only to get our work done, but also for entertainment, fun and even to sustain ourselves.

According to Orzack Computer use has risen exponentially in the past decade. Almost everyone has some access to a computer, whether it is at home, work, school, the public library, or a local community centre¹.

In globally, statistics concluded that 9-15 million people access net each day, with an estimated 200 million total worldwide user. Some people spend 14-18 hours a day on-line and they work 10 hours in computer and then go home and get on-line². Areport says that in USA above 5 years of age children spend lot of time on

computer and spend monthly internet bill of 2000\$³.

According to WHO, The sub-continent of India with a population of above one billion is rated as a “dynamic adapter” in Technology Advancement India (TAI). This indicated that our country is having a faster rate of technological advancement especially related to computerization is evident from the statistical figures, which show that the percentage of industrial development is 12.5% whereas that of agricultural sector is only 2.4% . The main reason behind that is the Information Technology (IT) revolution-taking place in India⁴.

A survey report says that IT demand in India is 4, 00,000 per year⁵. A report says that 30% of Indians are addicted to Internet⁶. A study concluded that 16% of schoolboys are addicted to computer⁷.

Objectives:

1. To assess the pre-test level of knowledge regarding

psychological effects of computer addiction among the IT Professionals.

2. To assess the post-test level of knowledge regarding psychological effects of computer addiction among the IT Professionals.
3. To compare the pre and post -test level of knowledge regarding psychological effects of computer addiction among the IT Professionals.
4. To associate the mean improvement knowledge score regarding psychological effects of computer addiction among the IT Professionals with selected demographic variables.

Research Hypothesis:

NH₁: There is a significant difference in the pre and post-test level of knowledge regarding psychological effects of computer addiction among the IT Professionals.

NH₂: There is a significant association of mean improvement knowledge Score regarding psychological effects of computer addiction among the IT Professionals with selected demographic variables.

Research Methodology: Methodology is the significant part of any research study which enables the researcher to project a blue print of the research undertaking.

Research Approach: Quantitative Research Approach

Research Design: Pre Experimental One group Pre- test and Post- test only Design

Variables: Variables are concepts which can take different values at different situation.

Independent Variable: Structured teaching program regarding psychological effects of computer addiction.

Dependent Variable: Knowledge of IT Professionals regarding computer addiction.

Setting: The study was conducted in Cerulean Information Technology Pvt Ltd, Bangalore. This setting comprises of nearly 100 employees. This is one of the private organizations

Population: The study population comprises of nearly 60 IT Professionals those who are working in

Cerulean Information Technology Pvt Ltd, Bangalore.

Sample: The study sample comprises of IT Professionals who fulfilled the inclusive criteria.

Sample Size: The sample size consists of 60 IT Professionals.

Sampling Technique: Non- probability convenient sampling technique was used to select the sample.

Development and Description of the Tool: After extensive review of literature and discussion with the experts and with the investigator's personal and professional experience, a structured questionnaire was developed to assess the effectiveness of structured teaching programme on knowledge regarding psychological effects of computer addiction among the IT professionals.

The tool for the data collection consists of two sections:

Section A: Demographic Variables consists of age, sex, educational status, nature of work, occupational status, years of experience, monthly income, marital status, type of family and residential area.

Section B: Consists of structured questionnaire to assess the knowledge of the IT Professionals regarding psychological effects of computer addiction, totally 50 questions were formulated under separate sub-headings.

Scoring Key: Total numbers of items are 50 and each item is scored as,

Never - 0, occasionally -1, Always - 2, Total score -100.

Level of knowledge:

Inadequate - < 50%

Moderately adequate - 51 -75

Adequate - >75%

Data Analysis and Interpretation: The data findings have been tabulated and interpreted according to plan for data analysis.

The data collected from 60 samples were grouped and analyzed using descriptive and inferential statistics. The results are presented under the following sections.

Table 1: Frequency and percentage distribution of pre-test level of knowledge different aspects of psychological effects of computer addiction among IT Professionals. N=60

Knowledge	Frequency	Percent
Inadequate	52	86.7
Moderately Adequate	5	8.3
Adequate	3	5.0
Total	60	100.0

Table 1 depicts the frequency and percentage distribution of pre-test level of knowledge on different aspects of psychological effects of computer addiction among IT professionals.

With respect to psychological effects of computer addiction, 52(86.7%) had inadequate knowledge, 5(8.3%) had moderately adequate knowledge, 3(5%) had adequate knowledge.

Table 2: Frequency and percentage distribution of post-test level of knowledge on Different aspects of psychological effects of computer addiction among IT Professionals N=60

Knowledge	Frequency	Percent
Moderately Adequate	23	38.3
Adequate	37	61.7
Total	60	100.0

Table 2 depicts the frequency and percentage distribution of post-test level of knowledge on different aspects psychological effects of computer addiction among IT professionals.

With respect to psychological effects of computer addiction, 37(61.7%) had adequate knowledge, 23(38.3%) had moderately adequate knowledge.

Table 3: Comparison of pre-test and post- test level of knowledge regarding Psychological effects of computer addiction among IT professionals Mean, Mean Difference, SD, t –test value of level of Knowledge N= 60

S.No.	Group	Number	Mean	Mean Difference	Standard Deviation	‘t’ value
1	Pre-Test	60	51.41	22.45	15.93	16.68*** df=59 P=3.4632
2	Post-Test	60	73.86		8.47	

* Significant at 0.001 level

Table 3 reveals the comparison between the pre-test level of knowledge and post -test level of knowledge regarding psychological effects of computer addiction among IT professionals.

The comparison of pre test and post test level of knowledge of IT Professionals revealed the ‘t’ value was 16.68 which showed a high statistical significance at P<0.001 level

Discussion

This chapter concentrates on the findings of the study derived from the statistical analysis and its pertinence to the objectives set for the study.

The demographic data distribution of subjects who participated in the study has been presented in Table 3 reveals the frequency and percentage distribution of IT professionals based on demographic variables such as age, sex, educational status, nature of work and occupational status.

With regard to age, majority of IT professional 25(41.7%) were in the age group of 31 –40 yrs, 16(26.7%) were in the age group of 41 –50 yrs, 10(16.7%) are in the age group of above 50 yrs, 9(15.0%) were in the age group of 21 –30 yrs, with regard to sex 35(58.3%) were males, 25(41.7) were in female, with regard to education 35(58.3%) IT professionals had completed certified computer course, 15(25%) had completed their under graduate, 10(16.7%) had completed their post graduate, with regard to occupational status 36(60%) were in middle level, 12(20%) were in senior level, 7(11.7%) were in junior level, 5(8.3%) were in entry level, with regard to nature of work and 7(11.7%) were part time 53(88.3%) were full time IT professionals.

It reveals that frequency and percentage distribution of IT professionals based on demographic variables such as years of experiences, monthly income, marital status, type of family, residential area. With respect to the years of experience, 5(8.3%) had 1–3 years of experience, 17(28.3%) had 4-6 yrs of experience, 18(30%) had

7-10 yrs of experience, 20(33.3%) had above 10 yrs of experience, with regard to monthly income 7(11.7%) had a monthly income Rs. ≤ 20,000, 11(18.3%) had a monthly income between Rs. 20,001-30,000, 23(38.3%) had a monthly income between Rs. 30001 –40000, 19(31.7%) had a monthly income between Rs. Above 40,000, with regard to marital status 11(18.3%) were single, 46(76.7%) were married, 1(1.7%) were divorced, 2(3.3%) were widow, with regard to type of family 52(86.7%) were from nuclear family, 8(13.3%) were from joint family and with regard to residential area 52(86.7%) were living in urban area, 5(8.3%) were living in semi urban area, 3(5%) were living in rural area

The overall pre-test level of knowledge score among IT professionals revealed that 52(86.7%) of IT professionals had inadequate knowledge, 5(8.0%) had moderately adequate knowledge and 3(5%) had adequate knowledge.

The overall post-test level of knowledge score among IT Professionals revealed that 37 (61.7%) of IT Professional gained adequate knowledge and only 23 (38.3%) had moderately adequate knowledge.

Overall post-test mean score in the level of knowledge was 73.86 and standard deviation was 8.47 with 't' value of 16.68. This showed that there was a high statistically significant difference in the level of knowledge at 0.001 levels. Based on the 't' test result, the null hypothesis H_1 "There is no significant difference in the pre and post-test level of knowledge regarding psychological effects of computer addiction among the IT Professionals" stated earlier was rejected.

The association of demographic variables with mean improvement knowledge score was done using chi square test.

The findings revealed that there was a significant association in the mean improvement knowledge scores with age, nature of work, and marital status of the IT Professionals. The null hypothesis H_2 "There is no significant association of mean improvement knowledge score regarding psychological effects of computer addiction among IT Professionals with selected demographic variables" stated earlier was rejected for some of the demographic variables like age, nature of work, and marital status and accepted for other demographic variables like sex, educational status, occupational status, years of experience, monthly income, type of family and residential area.

Conclusion

The present study assessed the effectiveness of structured teaching programme on knowledge regarding psychological effects of computer addiction among IT Professionals. The results revealed that with structured teaching programme relevant to psychological effects of computer addiction was highly significant to improve the IT Professional's knowledge with the statistical value of 0.001 level.

Implications: The investigator has drawn the following implications from the study that is vital concern for nursing service, nursing education, nursing administration and nursing research.

Nursing Service: The study has got a long term visionary implication in terms of nursing practice. Advanced nursing practice is one of the evolving trend in nursing practice in which defines specified roles of nurse clinician, nurse practitioner etc., are emerging. Studies like present one contribute to development of a new specialization itself in nursing of that of 'nurse ergonomist' a specialist role of nurse who tackles the ergonomic case management in all work settings.

Nursing Education: Nurse educators to give importance to currently involving work related risk computer addiction in nursing. Specialization courses in office ergonomics can be given. In collaboration with the regulation bodies, educational institutions can arrange and conduct workshops and seminars on computer addiction as an evolving health problem to be tackled.

Nursing Administration: The necessity of an occupational health nurse is implicated not only in "environmentally unclean" but also "environmental clean" inclusive like Information Technology (IT). Provide opportunity for nurses to get involved in client teaching programmes in IT industries. Conduct occupational health check-ups and psychological assessment frequently in the work setting.

Nursing Research: Promote more research in innovative areas like computer related mental health problems. Long term longitudinal studies can be carried out as team collaborative research work in prevention of computer addiction. Efforts can be made by nurse researchers to conduct interactive session with computer professionals for maintenance of healthy working practice and also to disseminate the finding of research on psychological health problems related to prolonged computer use.

Recommendations:

- The study can be replicated in various settings with larger samples to facilitate generalization of the result.
- Various forms of interventional programme can be conducted in order to improve the knowledge regarding psychological effects of computer addiction.
- The same study can be done as comparative study among different types of workers.
- The prevalence study can be carried out to assess the computer addiction rate among computer professionals.

Ethical Consideration: Informed consent received from the subjects before conducting study

Conflict of Interest: Nil

Source of Funding: Self

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