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A Study to Assess the Knowledge of Primary School Teachers and Effectiveness of the Computer Assisted Planned Teaching Program on Health Appraisal of School Children in Selected Schools of Dhamtari District, Chhattisgarh

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Abstracts

The main aim of the study was to assess the knowledge of primary school teachers and effectiveness of computer assisted planned teaching program on health appraisal of school children in selected schools of Dhamtari District, Chhattisgarh. Keeping the objectives of the study in view, the researcher selected one group pretest and post-test pre-experimental design. The study was carried out in a group of 50 primary school teachers from selected schools of Dhamtari Chhattisgarh, selected by non-probability purposive sampling and a self-structured questionnaire was administered to assess the knowledge of primary school teachers. After pre-test a computer assisted planned teaching program on health appraisal of school children was administered. Data collection was analyzed by using descriptive and inferential statistics. Results of the study revealed that primary school teachers have average knowledge

Keywords: Health Appraisal of School Children; Primary School Teacher.

Introduction

Children are the nation's hope and pride. Since they are the future of the country an unhealthy malnourished child today will contribute to unhealthy future of the country. Dr. A.S.K. Felix (2005) in School Health Program in Manipur under NRHM of India (2005-2010) quotes that "childhood holds a very important place in the life of every human being". It is observed that school going children suffer from various diseases. When these diseases are not recognized and treated initially and allowed to progress to chronic stage, the child becomes slave from the particular disease which remains as an obstacle all through his school age preventing him to achieve academic success as well as all round development.

Schools are powerful places to shape the health, education and well-being of our children.Health appraisal is of benefit to school health program in a number of ways. First, it affords the school authorities the opportunity to detect signs and symptoms of common diseases as well as signs of emotional disturbances that could impede the learning activities of school children. Besides, health appraisal helps in providing information to parents and school personnel on the health status of school children (Cornacchia, Olsen & Nickerson). The teacher needs to observe children carefully every day. The teacher should be given certain hints to identify any defects in children who need medical attention. These include unusually flushed face, rash, cough, sneezing, sore throat, fever, rigid neck, restlessness, vomiting, headache, diarrhea, dullness and scabies. This helps the child to seek early medical aid. Only with the nurses continued guidance the teacher will be able to fulfill these tasks.

Ananthakrishnan, et al. (2001) conducted a study in Kedar village in Tamilnadu to evaluate the health status of 1349 school children and assess the community's perception of their health problems. The important morbidities observed were anaemia (57.1%), worm infestation (46.4%), malnutrition

(57.6%), riboflavin deficiency (32.9%), nutritional skin disorders (11.6%), and dental caries (27.9%), etc. This emphasizes on the need of early identification and treatment of the health problems of the school children.

Madhu Gupta et al. 2009 observed in their study that there is high prevalence of ocular morbidity among school children. Refractive errors were the most common ocular disorders. Prevalence of ocular morbidity was 31.6% (CI=29.9-32.1%), refractive errors 22% (CI=21.1-22.8%), squint 2.5% (CI=2.4-2.6%), color blindness 2.3% (CI=2.2-2.4%), vitamin A deficiency 1.8 % (CI=1.7-1.9%), conjunctivitis 0.8% (CI=0.79-0.81%). This emphasizes on the strong need for the early identification of vision impairment in the school children.

Health appraisal includes an assessment of the present health and health needs of students as well as teachers. Both health professional and teachers participate in this activity. Observation, identification and encouragement in the correction of remedial defects are important steps in health appraisal. At the time of health check-up of children, the parents should preferably be present to give the full history of the child's health and the present illness if any. All possible measures should be taken to promote normal health and development of the child. Health counseling of pupils and parents is also part of health appraisal. School health services assist in the identification and education of scholastically backward or handicapped (physically, mentally and psychologically) or sick children and their follow-up (S. Kamalam).

Since the role of teachers is pivotal, their training and continuing education must be pursued with vigor and concern. The basic training program of school teachers covers most of the area of child learning, the teachers are provided in-service training for school health activities. The purpose of their training is to motivate school teachers to play effective and assisted role and responsibility of ensuring good health and clean environment conductive for education / learning for school children. Besides short term training, the medical officer and health workers maintain regular contact with teachers for school health activities. So there is a need for health personnel to take active part in educating the teachers on health appraisal of school children.

Statement of Problem

"A study to assess the knowledge of primary school teachers and effectiveness of the computer assisted planned teaching program on health appraisal of school children in selected school of Dhamtari District, Chhattisgarh."

Objectives

- To determine the pre and post interventional knowledge of primary school teachers regarding health appraisal of school children.
- To seek relationship between selected demographic variables and level of knowledge in pre-test.
- To determine the effectiveness of computer assisted planned teaching program on health appraisal of school children in terms of gain in knowledge in post-test.
- To identify the association between the pretest knowledge level of teachers regarding health appraisal of school children with selected demographic variables.

Methods and Material

The study is evaluative in nature. One group pretest and post-test pre-experimental design was used in the study. In this design the investigator introduces a test before and after treatment (x), which is depicted as 01 and 02 respectively. In the present study the base measure will be the knowledge score and treatment will be computer assisted planned teaching program on health appraisal of school children.

Sample	Pre-test Day 1	Treatment Day 1	Post-test Day 8
Primary School Teachers	01	x	02

Key-

01- Pretest knowledge score

02- Post-test knowledge score

x- Computer assisted planned teaching program

The setting for the present study was in selected primary schools of Dhamtari, Chhattisgarh. In this study the target population consists of all primary school teachers in Dhamtari district (C.G.). Thesample for the study comprises of primary school

teachers in selected school of Dhamtari. Selection of population was as per non-probability purposive sampling method. The sample size consists of 50 subjects.The study protocolwas approved by the ethics committee of PG College of Nursing, Bhilai, Chhattisgarh and permission to conduct theresearch in schools was obtained from Headmasters of all schools included in study.

A tool was developed for primary school teachers to assess knowledge regarding health appraisal of school children. The self structured questionnaire consists of 3 sections, i.e. section A, section B and section C. Section A consists of socio demographic variables viz. type of school authority, age, sex, marital status, general education, professional qualification, teaching experience, teacher training program and source of information on health appraisal. Section B comprises of 10 questions of yes or no type, to assess the availability and practice of school health appraisal practice by school teachers. Section C comprises of 18 knowledge questions related to health appraisal of primary school children. The questions are prepared in different areas of viz. health appraisal, health record, physical examination and minor illnesses in primary school children. A score of 1 was given to each correct response and 0 scores for each wrong response.

Feasibility was established by administering the tool on 6 primary school teachers in DAV Public School, HUDCO, Bhilai. The tool was found reliable (r =0.82).Main study was carried out in a group of 50 primary school teachers from selected schools of Dhamtari Chhattisgarh, selected by non-probability purposive sampling and a self structured questionnaire was administered to assess the knowledge of primary school teachers. Followinga brief presentation about the study, a written consentwas sought from the school teachers for participation in the study. After pre-test a computer assisted planned teaching program on health appraisal of school children was administered.

Data collection was analyzed by using descriptive and inferential statistics. Results of the study revealed that primary school teachers have average knowledge regarding health appraisal of school children before administration of computer assisted planned teaching program.

Results

The total mean in pre-test is 9.5 and in post-test is 14.78 respectively. The 't' value calculated is 18.93, which shows that the difference in mean of pre-test and post-test is highly significant.

Table 1: Characteristics of study participants N=50

Variables		Frequency(f)	Percentage %
Age	< 21 years	8	16
	21-30 years	21	42
	31-40 years	10	20
	41-50 years	7	14
	51-60 years	3	6
	> 60 years	1	2
Gender	Male	20	40
	Female	30	60
Marital Status	Married	25	50
	Unmarried	25	50
General education	10+2	22	44
	Graduate	12	24
	Postgraduate	16	32
Professional Qualification	B.Ed.	8	16
	M.Ed.	1	2
	Nursery Teacher training	5	10
	Primary school teacher training	11	22
	Any other	5	10
	No special training	20	40
Teaching Experience	< 1 Year	12	24
	1-10 Years	24	48
	11-20 Years	8	16
	21-30 Years	2	4

	> 30 Years	4	8
Source of information on health appraisal	Through training	9	18
	Workshop	3	6
	Seminar	1	2
	Conference	1	2
	Health Professionals	26	52
	Mass media	5	10
	Health mela	2	4
	Reading literature	2	4
	Friends	1	2

Table 2: Analysis of check list to assess the participation of primary school teachers in health appraisal activities

Practice of health appraisal	Frequency(f)		Percentage %	
	Yes	No	Yes	No
Have you participated in health appraisal program	15	35	30	70
Have you got any special training in health appraisal of school children	6	44	12	88
Does your school include health appraisal as a part of school curriculum	43	7	86	14
Do you perform daily observation of student's health	36	14	72	28
Does your institute conduct additional teacher's training program on health appraisal	18	32	36	64
Do you maintain health records of students	35	15	70	30
Does you conduct interview / conferences with parents & guardians	21	29	42	58
Do you give health education to students regarding good health practices	50	0	100	0
Do you discuss with students about the screening tests and physical examination	41	9	82	18
Do you feel it is necessary to have additional information about health appraisal	50	0	100	0

Table 2 explains that 30% of school teachers have experience of participating in health appraisal program, 12% have special training in health appraisal of school children, 86% say that health appraisal is a part of school curriculum, 72% participated in the health check-up of students, 36% agreed that their institute conducted additional teacher's training program on health appraisal, 70% maintained health records of students, 42% conducted interview / conferences with parents & guardians, 100% of them give health education to students regarding good health practices, 82% discuss with students about the screening tests and physical examination, 100% of them agreed that it is necessary to have additional information about health appraisal.

Table 3: Area wise analysis of pre and post interventional knowledge level of school teachers regarding health appraisal of school children N=50

Areas of health appraisal	Maximum PossibleScore	Pre Test Mean	Pre Test MeanScore %	Pre Test SD	Post Test Mean	Post Test Mean Score %	Post Test SD
Health Appraisal	4	2.56	14.2	1.21	3.66	20.3	0.74
Health Record	2	1.02	5.6	0.49	1.46	8.1	0.5
Physical examination	7	3.5	19.4	1.08	5.58	31	0.92
Minor illnesses	5	2.46	13.6	1.12	4.08	22.6	0.82
Total	**18**	**9.54**	**52 .8**	**3.9**	**14.78**	**82**	**2.98**

Table 4: Overall comparison of pretest and posttest level of knowledge as per criteria N=50

Level of knowledge	Pre-test		Post-test	
	Frequency	Percentage %	Frequency	Percentage %
Excellent	2	4	45	90
Good	42	84	5	10
Average	6	12	0	0
Total	50	100	50	100

Table 3 indicates that the post-test knowledge mean score was (3.66) in health appraisal, (1.46) in health record, (5.58) in physical examination, (4.08) in minor illnesses was greater in all the area as compare to the pre-test knowledge mean score in (2.56), (1.02), (3.5), and (2.46) respectively.

Table 4 depicts the comparison between pretest and post test knowledge score. In the pre test 2 (4%)

are in excellent criteria, 42 (84%) in good criteria and 6 (12%) in average criteria. Where as in posttest level of knowledge 45 (90%) are in excellent criteria, 5 (10%) in good criteria and none 0 (0%) in average criteria

Table 5: 't' test analysis to find out the effectiveness of the computer assisted planned teaching program on health appraisal of school children N=50

Knowledge assessment test	Mean	Mean %	SD	't' value	P value	DF
Pre-test	9.5	52.7	2.25	18.93	0.05	49
Post-test	14.78	82.1	1.60			

Table 6: Chi-square analysis to find out the association of selected socio-demographic variable with pre-test knowledge score

Study Variable	Critical value	Chi-square value	DF	Inferences
Age	24.99	10.15	15	Not significant
Gender	7.82	0.77	3	Not significant
Marital status	7.82	1.18	3	Not significant
Education	18.9	1.8	6	Not significant
Teaching experience	21.03	22.01	12	significant

Table 5 indicates clearly that there is significant improvement in the knowledge level of pre-test and post-test scores. The total mean in the pre-test is 9.5 and in post test is 14.78. The SD in pre-test is 2.25 and in post-test is 1.60 which shows that the data is consistent. As 't' value calculated is 18.93, which is highly significant i.e. greater than (P>0.05) level of significance at df = 49. This data signifies that the computer planned assisted teaching program was effective in improving the knowledge of the primary school teachers regarding health appraisal of school children.

Table 6 shows that the chi-square value of teaching experience (22.01) at df 12 (P<0.05) is greater than the critical value (22.03), it indicates that there is significant association betweenlevel of knowledge and teaching experience, while there is no significant association between other variables.

Discussion

The present study shows that the primary school teachers are lacking in knowledge about health appraisal of school children. They are not aware about the importance of keeping health records and regular physical observation. They also were having less knowledge regarding the minor illnesses in school children. Based on assessment researcher has prepared the computer assisted planned teaching programme on health appraisal of school children. This can be useful to all primary school teachers in assessing the health status of school children.

The findings of this study suggest that the teachers were having average knowledge about health appraisal of school children. The reason for this inadequate state of affairs could be that no particular school personnel are specifically detailed to take responsibility for the provision of health appraisal practices. Every teacher does whatever she thinks should be done at a particular time, and that is all. School health appraisal should not be handled haphazardly. It is the contention of this author that the purpose of school health appraisal would be better served if it is rendered under the portfolio of the school counsellor. So, it is necessary that the nurse directed program should be conducted to impart knowledge to primary school teachers regarding the health appraisal of school children. The findings of the present study have implications for nursing practice, nursing administration, nursing education, nursing research; community. This is a humble attempt by researcher in improving the knowledge of primary school teachers regarding health appraisal of school children.

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