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A study to assess the knowledge and effectiveness of structured planned teaching program regarding DOTS therapy among G.N.M. 3rd year student of selected Government College of Nursing N.S.C.B M.C.H Jabalpur M.P.

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Abstract

Tuberculosis in India is a major health problem causing about 220,000 deaths every year. The cost of the death and disease in the Indian economy between 2006 and 2020 was approximately used I billion. Despite the historical challenges, the technology and health care for treating tuberculosis have improved. Therefore researcher conducted a study to assess the knowledge and effectiveness of structured planned teaching programme regarding DOTS therapy among 30, G.N.M third year students of Government College of nursing Jabalpur Madhya Pradesh. The sample size comprised of 30 G.N.M students. The tool include sociodemographic variables and self-constructed rating scale on tuberculosis and DOTS therapy, the tool was found to be reliable 0.9, and pilot study was conducted. The final study findings revealed that out of 30 G.N.M students. In pre-test knowledge score in majority total 16 students having average score, 10 having good knowledge and 03 students having poor knowledge only one student having excellent knowledge. in post-test score in majority, 19 students having excellent knowledge, 09 having good knowledge and only 02 students having average knowledge regarding DOTS therapy. The study conclude that structured planned teaching programme increases the knowledge of students and it will be beneficiary for all tuberculosis patients those are taking treatment of tuberculosis and prevent themselves from fatal condition also indoor or outpatients department both rural and urban areas.

Keywords: DOTS therapy, structured planned, Jabalpur M.P

Introduction

Directly observed treatment, short course (DOTS, also known as TB-DOTS) is the name given to the tuberculosis control strategy recommended by the World health organization. It is only strategy, which has been documented to be effective worldwide on the program basis. According to WHO "The most cost effective way to stop the spread of TB in communities with high incidence is by curing it. The best curative method for TB is known as Dots." The technical strategy for DOTS was developed by Karel Styblo of the international union against TB and lungs disease in the 1970s and 80s. Styblo refined "a treatment system of checks and balance that provided a high cure rates at a cost affordable for most developing countries". The DOTS report was released to the public on March 20, 1995 at New York City health department. On March 19, 1997 at the Robert Koch Institute in Berlin, Germany, WHO announced that "DOTS was the biggest health breakthrough of the decade". Tuberculosis is a infectious disease cause by Mycobacterium Tubercul. The disease primarily affect the lungs and cause pulmonary tuberculosis. It can also affect structure such as intestine, meanings, bones, joints, lymph glands, skin and others tissue and body parts.

Need for Study, Review of Literature

In India, Tuberculosis remains a major public health problem. Every year approximately 18 lakh people develop tuberculosis and about 4 lakh die from it. India accounts for one fifth of global incidence of TB and tops the list of 22 high tuberculosis burden countries. Unless sustained and approximately 20 lakh people in India are estimated to die of tuberculosis in next five year. Tuberculosis is the major public health problem as well as work in a hospital or practice in the hospital we see many cases of tuberculosis admitted with serious condition

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various patient comes for taking DOTS therapy or treatment. Patients are highly infected due to improper care and inadequate management. Hence the researcher felt to need to assess the knowledge about DOTS therapy among GNM 3rd year students and teach them about DOTS therapy. So that they can educate community people regarding TB and DOTS therapy in further days in their nursing profession.

Sitikantha Benerjee 2019, *et al.* conducted a study on Effect of DOTS on quality of life among tuberculosis patient A follow-up study in a health district of Kolkata: aim & objectives; This study was carried out to assess quality of life (QoL) of tuberculosis patients receiving treatment from DOTS centers, to find out its change with treatment, and to ascertain its determinants. An institution based follow-up study was conducted in Bagbazar Urban Health District (UHD), Material & Methods;., Kolkata where all the tuberculosis patients registered within 1st 4 months of data collection were followed up for their current course of treatment. Findings; Quality of Life (QoL) was assessed using SF36v2 questionnaire at the start of treatment and after continuation phase (CP) (within 14 days) 61.4% and 16.4% patients were at the risk of depression at the start and end of their TB treatment respectively. Patient's per-capita monthly Income (PCI) and current smoking status interacted with time to predict trends in the Physical component scores. Similarly, PCI and educational status interacted with time to predict trends in the mental component scores. PCI and unemployment were found to be predictor of differences of Physical and mental component scores (between subject effects) respectively.

Akaninyene Asuquo 2013, conducted study of the status of tuberculosis control program based on the implementation of the directly observed treatment short course strategy (DOTS) Aims and Objectives; This study aimed to assess the Tuberculosis Control Program from 2005 to 2012 to determine the overall situation of disease epidemiology and prioritized strategies in disease control program within the south of Tehran This cross-sectional study was extracted and analyzed retrospectively on the basis of records of all TB patients in TB health center and TB software in south Tehran in 2005-2012 During 2005-2012, 1242 TB cases have been registered and they were treated by DOTS method. Findings; there were 553 cases of new smear-positive pulmonary TB (44%), 222 cases of smear-negative pulmonary TB (18%) and 336 cases of extra-pulmonary tuberculosis (27%), 26 cases of recurrence (2%) and 11 cases of MDR (0.9%). Smear-positive pulmonary tuberculosis has included 67.4% of all tuberculosis.

Fadia Maamari 2017, conducted study on Review related to the knowledge, practice and training on tuberculosis and its management; aims and objectives, undertaken a survey among physician to evaluate their knowledge, practice and adherence to national guidelines regarding tuberculosis control. Material and method, the respondents were asked to fill the self-administered questions. There were 2000 respondents who filled the questions of which 715 were from private sector, 421 from public sector and 864 from both public and private. Findings, Most of them 92.7% were notified the TB cases to control program, 69.5% were given correct drug and 79.4% were given the treatment for correct duration. It says that most of the patients were using public service where the health care providers were adhering to the national control program guidelines, so regular training is

insisted to continue with the provision of quality of care to the TB patients.

Statement Problem

A study to assess the knowledge and effectiveness of structured planned teaching program regarding DOTS therapy among GNM 3rd year student of selected Government College of Nursing NSCB MCH Jabalpur M.P.

Objective

1. To assess the pretest knowledge score regarding DOTS therapy among GNM 3rd year students of selected Government College of Nursing NSCB MCH Jabalpur M.P.
2. To assess the post-test knowledge score regarding DOTS therapy among GNM 3rd year students of selected Government College of Nursing NSCB MCH Jabalpur M.P.
3. To assess the co-relation between knowledge and effectiveness regarding DOTS therapy among GNM 3rd year students of selected Government College of Nursing NSCB MCH Jabalpur M.P.

Hypothesis

All hypotheses will be test of significance.

1. H1; - There will be significant difference between pre-test and post-test knowledge score knowledge regarding DOTS therapy among GNM 3rd year students
2. H2; - there will be no significant difference between pre-test and post-test knowledge regarding DOTS therapy among GNM 3rd year students.
3. H3; - there will be significant association between knowledge and demographic variables regarding DOTS therapy among GNM 3rd year students.

Methodology

Research Approach: Quantitative research approach.

Research Design: Pre-experimental, one group pretest posttest design to measure the effectiveness.

Setting of the Study: The study was conducted in N.S.C.B. (MCH) Collage of Nursing Jabalpur. The course offered in the institution is B.Sc. Nursing & GNM .There is 30 students of GNM 3rd year.

Population: In this study the population consist of the 30 GNM 3rd year students of Collage of nursing N.S.C.B.M.C.H. Jabalpur (M.P.) Sample.

Sample: In this study the sample was comprised of 30 GNM 3rd year students.

Sample Size: The sample of the study was consisting of 30 GNM 3rd year students based on the inclusion and exclusion criteria.

Sampling Technique: The sampling technique used for this study was convenient sampling technique to select sample from Collage of Nursing N.S.C.B.MCH Jabalpur (M.P.) Variables.

Independent Variables

In this study the independent variables were age, education,

previous knowledge, if yes, from where and planned teaching programme.

Dependent Variables

In this study depended variables were knowledge of GNM 3rd year students.

Description of the Tool

The tool consists of two parts:-

Part I: It deals demographic variables such as age, education, source of information and previous knowledge.

Part II: This is used to assess the level of knowledge of GNM 3rd year students. This questionnaire consists of 30 questions, each question consists of 4 options, 3options are wrong answers, and 1 option is right answer.

Scoring Questionnaire

- The present scoring consist of 30 multiple choice question.
- Each correct answer will have (1) mark
- Each wrong answer will (0) mark.
- Total marks 30. Scoring Category =
- Poor score - 0-07.
- Average score - 08-15.
- Good score - 16-23.
- Excellent score - 24- 30.

Data Collection Method

Written permission was obtained from principal of N.S.C.B. M.C.H. Collage of Nursing Jabalpur (M.P.)

The feasibility of conducting the study was ensured. Data collection was started from established a report with the GNM 3rd year students. Sample was selected through non-probability questionnaire method was explained to the GNM 3rd year students with self introduction and the subject was made comfortable. During the period the students were very cooperative.

Section I

Findings related to demographic variables

Age: Majority of samples 21(70%) are in the age group of 21-22 years, 05(16.67%) in 19-20years and 4(13.3%) in above 22 years.

Education: Majority of samples 25(83.34%) are 12th pass and 05(16.67%) are graduated.

Previous Knowledge: Majority of samples 28(93.34%) have previous knowledge and 2(6.67%) students have no previous knowledge.

Source of Knowledge: Majority of samples 16(53.34%) are having knowledge from text book, 13(43.34%) are having knowledge from clinical teaching, 01(3.34%) are having knowledge from television and no one having knowledge from journals.

Section II

Findings related to grade wise distribution of pre and post-test knowledge score: • table no.1 grade wise distribution of frequency, percentage, mean and standard deviation of knowledge score.

Table 1: S. No, Test Grade Range Frequency % Age Mean SD

S. No	test	grade	Range	frequency	frequency	mean	SD
01.	Pre-test	1. Poor	0-7	03	10.0%	13.58%	4.87%
		2. Average	8-15	16	53.34%		
		3. Good	16-23	10	33.34%		
		4. Excellent	24-30	01	3.34%		
02.	Post-test	1. Poor	0-7	00	00	20.84%	5.41%
		2. Average	8-15	02	6.67%		
		3. Good	16-23	09	30%		
		4. Excellent	24-30	19	63.34%		

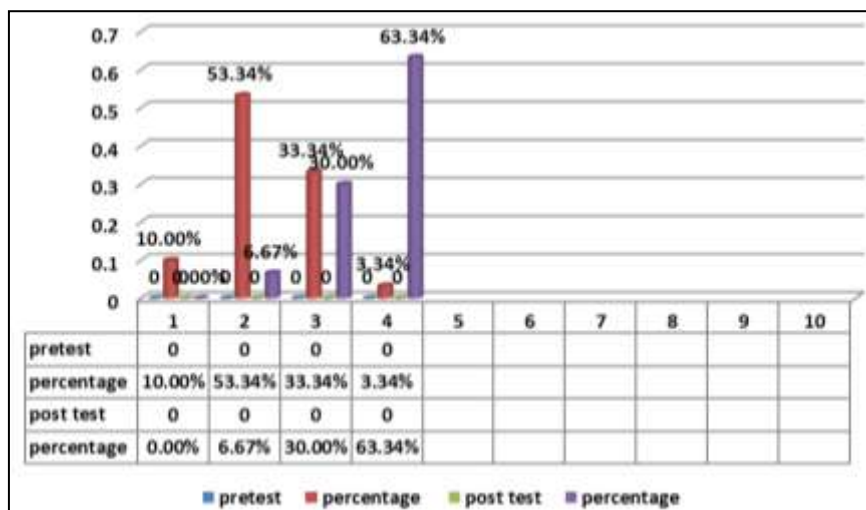


Fig 1: grade wise distribution of frequency percentage pre & post-test knowledge score

In pre-test 01(3.34%) GNM 3rdyear students have excellent knowledge, 10(33.34%) have good knowledge, 16(53.34%) have average knowledge and 03(10%) have poor knowledge.

In post-test 19(63.34%) GNM 3rdyear students have excellent knowledge, 09(30%) have good knowledge, 02(6.67%) have average knowledge and there are no student who have poor knowledge.

Hence H1, "There will be significant difference between pre and post-test knowledge score, is accepted.

Table 2: Findings Related To Difference between Mean Pre-Test and Mean Post-test Knowledge among GNM 2nd Year Students Regarding Hemodialysis

S. no	Test	Mean score	Mean difference
1.	Pre-Test	13.58%	7.26%
2.	Post-Test	20.84%	

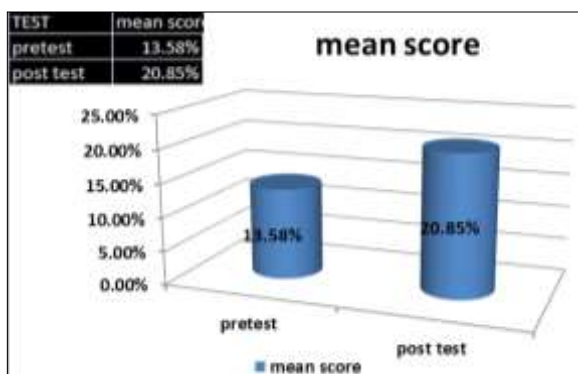


Fig 2: Mean Score

The pre-test mean score is 13.58 with standard deviation 4.87 and the mean post-test score is 20.84 with standard deviation 11.00. The mean difference between mean pre and post score is 7.26%.

Hence, H2, "There will be significant difference between knowledge regarding hemodialysis" is accepted.

Association between the Knowledge and Selected Demographic Variables

- Association between the knowledge and age of the students is $\chi^2=8.6$ ($P>0.05$ in the degree of freedom 6) it is less than table value 12.59, hence there is significant no association between age and knowledge
- Association between the knowledge and education of the student is $\chi^2=19.2$ ($p<0.05$ in the degree of the freedom 6) it is higher than table value 12.59., hence there is significant association between knowledge and education
- Association between the knowledge and previous knowledge is $\chi^2=30$ ($p<0.001$ in the degree of freedom 10) it is higher than table value 29.58, hence there is significant association between knowledge and education
- Association between knowledge and source of information is $\chi^2=7.5$ ($P<0.05$ in the degree of freedom 5) it is higher than table value 7.2, hence there is significant association between knowledge and education.

Hence H3, "There will be significant association between the knowledge and selected demographic variables.

Discussion

The mean knowledge score of pre-test is 13.58 with standard deviation 4.87%, and the mean knowledge score of post-test is 20.84, with standard deviation 5.41,. The finding revealed that post-test knowledge score is higher than that of pre-test knowledge score before administration of lecture with the help of AV aids.

Hence, H1 "There will be significant difference between pre and post-test knowledge score "is accepted.

Difference between knowledge among GNM 3RDyear students regarding DOTS THERAPY the mean post-test knowledge score is 20.84, and the mean pre-test knowledge score is 13.58. So the mean difference between them is 7.26%.

Hence, H2 "There will be significant difference between knowledge regarding DOTS THERAPY among GNM 3RD year students" is accepted.

Association of demographic variables with knowledge score indicates that knowledge is associated with age, education, previous knowledge and source of information.

Hence H3, "There will be significant association between the knowledge and selected demographic variables

Conclusion

The study was conducted with the objective to assess the effectiveness structural planned teaching program on knowledge regarding dots therapy among GNM 3rd year students. The result of this study showed that there is a significant difference between pre and post-test knowledge score (7.26%).

Summary

The study was done to assess the effectiveness of planned teaching programme regarding DOTS THERAPY among GNM 3rdyear students. The evaluative research approach and design used for this study. The sample size was 30. The sample was selected by convenience sampling method and the instrument used for data collection was structured questionnaire to assess knowledge regarding DOTS THERAPY.

The investigator gave brief introduction about study then pre-test was conducted to answers the questions and asked to tick the correct answer. After that the post-test was conducted for the same sample. The data of demographic variables were analyzed by using descriptive statistics (frequency and percentage) Effectiveness of planned teaching programme was assessed. There was an improvement in knowledge regarding DOTS THERAPY among GNM 3rd year students.

Acknowledgement

- I am thankful to all the participants who have willingly participated in the study.
- Conflict of interest-None.
- Source of finding-self.

What does this study convey?

Tuberculosis is India's biggest health issue, but what make this issue worse is the recently discovered phenomenon of Total drug resistant tuberculosis. Tuberculosis causing about 220,000deaths every year .we see many cases of tuberculosis admitted with serious condition various patient comes for taking DOTS therapy or treatment. Patients are highly infected due to improper care and inadequate

management .Hence the researcher need to assess the knowledge about DOTS therapy among G.N.M third year students and teach them about DOTS therapy .so they can educate community people regarding tuberculosis and dots therapy in future days in their nursing profession.

Who will use these findings?

A study could be replicated on sample for making boarder generalization .of an observational study on “DOTS THERAPY” among GNM 3rd year students Collage of nursing N.S.C.B.MCH Jabalpur. • A similar study may be replicated on a large sample. • A study may be undertaken to assess the effectiveness & planned teaching program for GNM 3rd year student on DOTS THERAPY.

How can the findings be put into practice

Nurse Administered are challenged to take steps to educate nursing staff and students about the tuberculosis and its treatment. They have the responsibility of creating awareness regarding Dots therapy by facilitating free distribution of booklets and handouts to all tuberculosis patients in all outpatient departments of hospitals, health clinics in urban and rural settings.

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