

A CROSS SECTIONAL STUDY ON KNOWLEDGE AND AWARENESS OF MEDICAL STUDENTS REGARDING NATIONAL HEALTH PROGRAMMES IN TERTIARY CARE HOSPITAL

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ABSTRACT

OBJECTIVE - To assess the prefinal and final year students' acquaintance with 3 major National Health Programmes (NTEP, NLEP, NACP) in a tertiary care hospital.

MATERIALS AND METHODS- This cross-section descriptive study was undertaken using pre-designed, pre-tested, anonymous, self-administered, semi-structured questionnaire.

After explaining study objective, seeking informed verbal consent and ensuring confidentiality, students were given 45 minutes to complete the questionnaire without mutual consultation under the supervision of investigator. The research was conducted after getting IEC approval. The sample size was around 127 students from both prefinal and final year batch.

RESULTS: A total of 127 participants from prefinal and final year took part in the research. About 74.8% students knew all cases of TB is notifiable. Questions regarding hallmark of leprosy was answered correctly by 61.4% students. About 24.79% believed that HIV is a curable condition, 16.24% of the students indicated that it can be prevented by vaccination.

Key words: National health programmes, medical students, knowledge, attitude, practice

INTRODUCTION

Since India's independence, several measures have been undertaken by the national government to improve the health of the people. Prominent among these measures are the national health programmes⁽⁴⁾. The main objective of these National Health programmes are protection and promotion of national and individual health by controlling or eradicating disease which cause considerable morbidity and mortality⁽¹⁶⁾

According to WHO's World Health Report 2006, there are At least 57 countries in the world with a critical shortage of Health care workers^(2,3). India has a severe shortage of human resources for health⁽⁴⁾. There are about 69 medical Colleges in the state of Tamilnadu offering more than 10,000 seats per year. The majority of the number of Doctors prefer urban setting, leaving the rural setting free, where the actual need arise.

The government of India runs several national public Health programs (NHPs) for both communicable and non-communicable diseases such as HIV/AIDS control, Tuberculosis control, Vector Borne disease control, Leprosy eradication, program for control of blindness etc⁽¹⁴⁾. Today's medical students are the future physicians. It is therefore essential that medical students possess the appropriate knowledge regarding different health programs.

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Medical students have a major role in community health promotion. A prerequisite for their contributions is that they are well trained in NHPs during their under-Graduate studies. This will enable the young doctors to take interest in real life field work apart from studying just for the theory purposes.

The aim of this study was to measure the knowledge, and awareness of major National Health Programmes to equip medical students with enough knowledge and make them capable of spreading awareness further to patients and their families, thus improving community health.

OBJECTIVE

To assess the prefinal and final year students' acquaintance with 3 major National Health Programmes in tertiary care hospital.

MATERIAL AND METHODS:

Study population: Prefinal and Final year students of Government medical hospital, Omandurar estate, Chennai -02

Study design: cross sectional study. data is collected by google forms using a semi structured, standardized questionnaire.

Study setting: government medical hospital, omandurar estate, chennai-02

Inclusion criteria: prefinal and final year students of government medical hospital, omandurar estate, chennai-02 willing to participate in the study

Sampling procedure: convenient sampling

Study period: 4 weeks

Sample size: 200

Data collection: based on a semi structured questionnaire

Analysis plan: Descriptive analysis will be done. Categorical variables will be expressed in frequency and percentages. Continuous variables will be expressed in mean and SD. The data will be statistically analyzed using SPSS software version 26.0 and the results will be submitted.

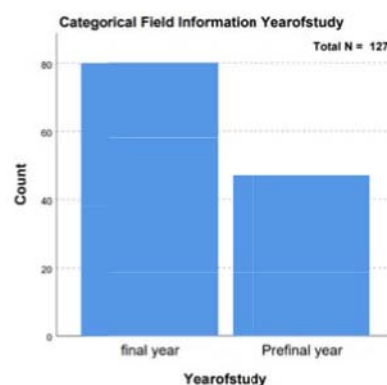
RESULTS

The data was entered in MS Excel and analysed using descriptive statistics. The data

collected was qualitative data with nominal variable, so non parametric test was Applied to test the significance. Since there is many groups chi square test was applied and The results are tabulated below. Descriptive analysis of the study is done and the results are Given below in the form of pie and bar charts.

A total of 127 participants from prefinal and final year took part in the research. Out of which 80 were final year students and 47 are from prefinal year students.

The demographic characteristics of the students are shown

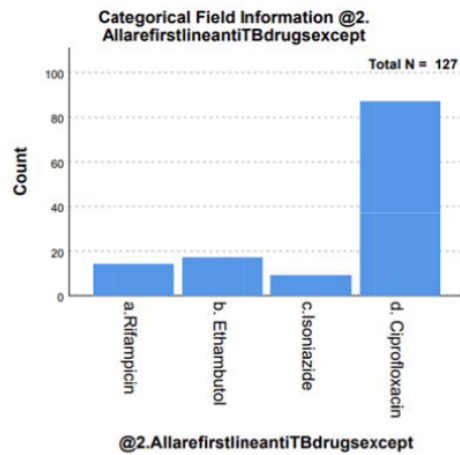
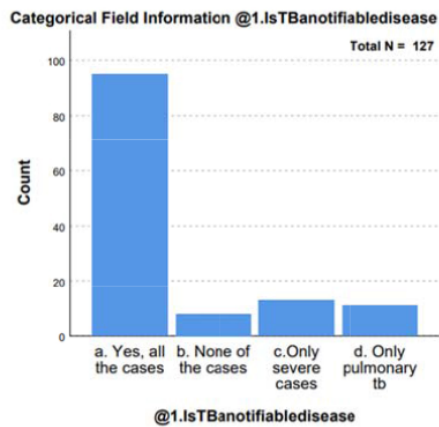


		Total
Yearofstudy	final year	80
	Prefinal year	47
Total		127

Gender	Frequency	Percentage (Total- 127)
Male	65	51.18%
Female	62	48.82%

NTEP

Most of the participants were aware about the Most common symptom of Pulmonary TB, first line Antitubercular drugs, common side effects, and that TB is A notifiable disease. Regarding Questions related to basic knowledge of Tuberculosis And Antitubercular drugs out of 127 response 74.8% students knew all cases of TB is notifiable. 68.5% participants knew ciprofloxacin is not a first line drug .



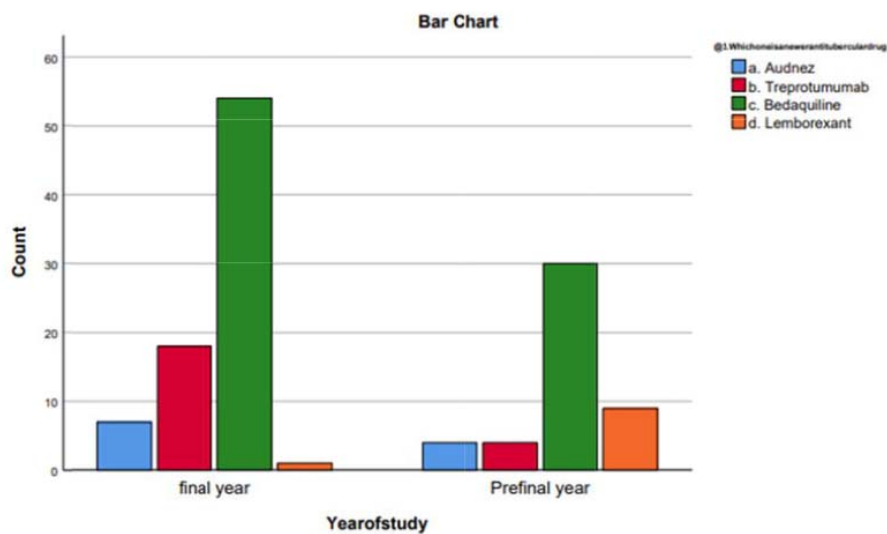
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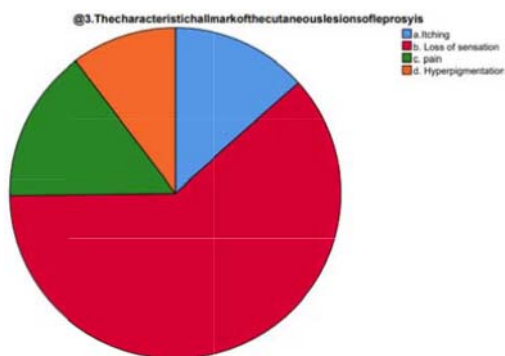
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	a. Yes, all the cases	95	74.8	74.8	74.8
	b. None of the cases	8	6.3	6.3	81.1
	c. Only severe cases	13	10.2	10.2	91.3
	d. Only pulmonary tb	11	8.7	8.7	100.0
Total		127	100.0	100.0	

@2.AllarefirstlineantiTBdrugsexcept

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	a. Rifampicin	14	11.0	11.0	11.0
	b. Ethambutol	17	13.4	13.4	24.4
	c. Isoniazide	9	7.1	7.1	31.5
	d. Ciprofloxacin	87	68.5	68.5	100.0
Total		127	100.0	100.0	

Regarding questions on newer drugs, new drug Bedaquiline, 78.74% responded correctly regarding the properties of Delamanid. 64.56% of the Participants were aware about the

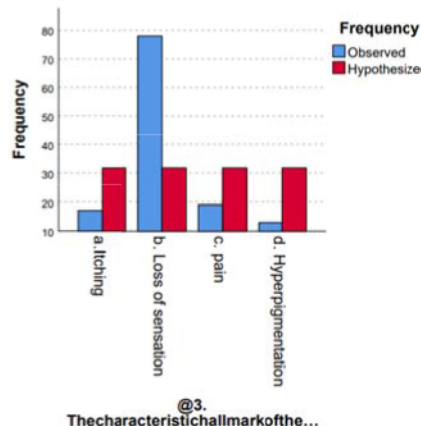
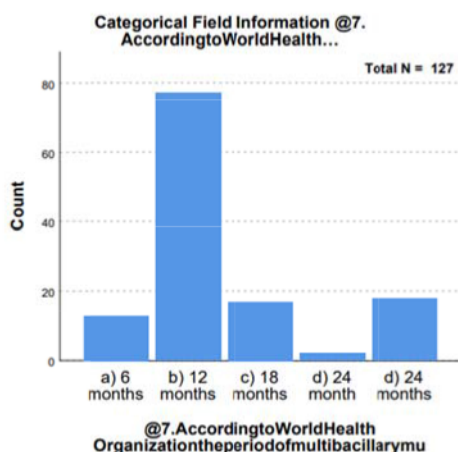
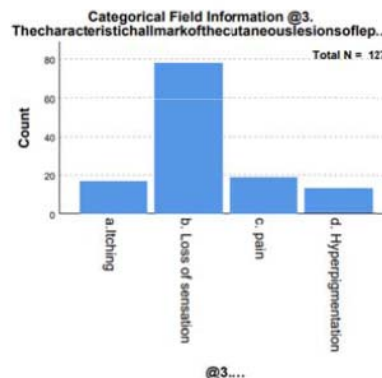




NLEP

In the present study questions regarding hallmark of leprosy was answered correctly by

61.4% students. Questions regarding the treatment protocol for multibacillary leprosy was answered correctly by 63.5% of students.



NACP

The survey revealed that all the students (100%) had heard about HIV and AIDS and its causative agent. The majority of students (82.91%) knew that it suppresses the host's immunity and it can be diagnosed by blood tests (88.89%). Among the participants, 24.79%

believed that HIV is a curable condition, 16.24% of the students indicated that it can be prevented by vaccination.

The students' knowledge about different modes of transmission is fairly good ranging between 83%-98%. However, only 54.7% indicated that HIV is transmitted from the mother to the baby through breast milk.

Modes of Transmission	Number of Students Responded "Yes"
Hugging and handshaking with an HIV infected person	15 (12.82%)
Sharing toilets and bathroom with an HIV infected person	33 (28.21%)
HIV spreads by the bite of blood-sucking insects	46 (39.32%)
Sharing glass and utensils with an infected person	17 (14.52%)

Table 3 depicts the participants' misconceptions about HIV transmission. A small percentage of students had a misbelief that HIV is transmitted by hugging and handshaking (12.82%),

sharing toilets and bathrooms (28.21%), sharing glass and utensils (14.52%), and through the bite of blood-sucking insects (39.32%).

Awareness about Prevention	Number of Students Responded with "Yes"
Avoiding sex with multiple partners	117 (100%)
Screening and safe transfusion of blood and blood products	109 (93.16%)
Use of condoms	91 (77.78%)
Avoiding sharing of needles with intravenous drug users	87 (74.36%)
Health professionals should treat all the patients as if potentially infectious of HIV and HBV	83 (70.94%)
Immediate measure one should take following accidental needle stick injury includes	
Wash with soap and Water	12 (10.26%)
Inform the infection control head	39 (33.33%)
take post-exposure prophylaxis	10 (8.55%)
All of the above	56 (47.86%)

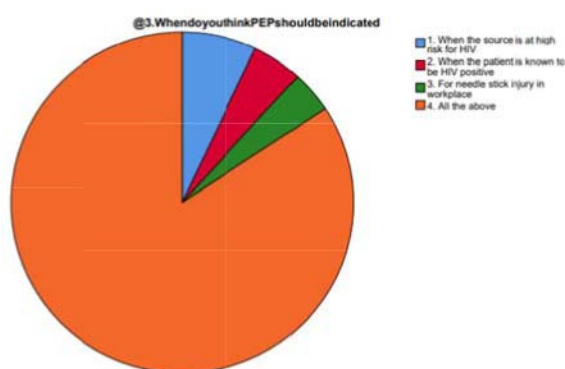


Table 4 shows students’ responses to the questions related to the prevention of HIV. The majority of the students opined that avoiding multiple sexual partners (100%), safe blood transfusion (93.16%), use of condoms (77.78%), and avoiding sharing needles and syringes (74.36%) are important measures for halting HIV transmission. Approximately 70% of the students stated that healthcare professionals should treat all patients as potentially infectious of HIV and HBV. However, only 47.86% of the students had correct knowledge about immediate measures to be taken for accidental needle sticks injuries that would occur during patient care.

DISCUSSION

Most of the students from final year knew that Bedaquiline was newer ATT. Whereas only 63.8% of prefinal students marked the correct option.

In 2014, A Study on Awareness of Tuberculosis and RNTCP among Undergraduate Medical students and Interns concluded that a moderate level of knowledge about tuberculosis and

RNTCP was found among study participants, and suggested towards the need of innovative, effective active learning experiences to modify the scenario.⁵ In 2017, assessment of knowledge of intern doctors of a medical college hospital in Karnataka on revised national TB control program concluded that the awareness regarding updates on RNTCP was inadequate and needed constant update with a focus on interns who are first contact health care providers in medical college settings.

In our study, 88.26% of the participants were aware of Nikshay portal, 85.47% were aware about sputum collection for AFB testing and 94.7% were aware about facilities provided at DOTS centre under RNTCP. As the NTEP goals and guidelines were announced recently, students are less likely to come across the changes in the basic academic books they refer. But, 83% of the participants responded that they are aware of the NTEP programme. Out of which, 61% were aware of the aim of NTEP, 12.75% were aware about new guidelines regarding the use of streptomycin, 18.79 % were aware about the categorization of TB treatment under NTEP, 32.88 % were aware about the modification in INH prophylaxis guidelines for contacts.

Students are yet to grasp the changes in detail. This could be successful if the students involve themselves in exploring various online journals and official websites. Also, an informative session on the updates would be helpful. Updating the information to final year undergraduate students is very important as they may not come across the changes in the academic books.

These students should be considered for informative sessions on NTEP as much as the interns, post graduates and practitioners are considered. This would help in the implementation of the changes from the basic level without any confusions, as these students will soon be dealing with the patients.

In the research by Meena Jain et al¹⁹ among dental students, only 34.9% answered correctly. Based on the above statistics, it can be said that our medical undergraduates were well aware of the synonym of leprosy, aetiology and transmission when compared to non-medical students and among our undergraduates, outgoings had better knowledge than freshers.

The typical feature of absence of sensations over the affected skin in leprosy was known to most of the students irrespective of the batch.

Still 38.6% students marked wrong answer, which need to be considered for further intervention such as reteaching the topic in an interactive method.

Despite the knowledge acquired during the medicine course, erroneous concepts regarding few signs and symptoms, nerve commonly affected, medical emergency in leprosy, durations of PBMDT and MBMDT, isolation during treatment, deformities, vaccines and prevention of the disease remained in a significant percentage of the students at the end of the course, indicating that the topic was inadequately addressed. An identical research by Giri et al²⁰ on medical students showed similar deficiencies in knowledge.

A joint commitment of medical schools and the national health programmes is essential for the identification of gaps in theoretical and practical knowledge. Appropriate medical teaching should capacitate the medical students in terms of proficiency of subject and also the sensibility to treat the patients with dedication and empathy.

The HIV infected people face severe discrimination from the community as well as from the healthcare professionals. Inadequate knowledge about HIV transmission and fear of getting infected from HIV positive individuals is bestowed for this indifference attitude of the people and healthcare workers towards HIV and AIDS

patients. This would lead to the deprivation of HIV infected persons from proper medical care by healthcare workers. Inculcating proper knowledge about HIV and AIDS in medical students and other healthcare professionals is a critical component for reducing a gap of HIV related knowledge, attitude, and practice. Several studies conducted globally have shown that medical education plays a pivotal role in improving knowledge and changing the attitude of healthcare workers and medical students towards HIV and AIDS patients. The present study evaluated the fifth-year medical students' knowledge and attitude towards HIV and AIDS patients. In the present study, it was observed that all students had heard about HIV and AIDS and its causative agent and the majority of them knew that it attacks and destroys the immune system. However, their awareness with respect to transmission, treatment, and prevention of HIV is inadequate

CONCLUSION

- In conclusion, the present studies highlight important findings regarding the knowledge and attitudes of medical students towards tuberculosis (TB), leprosy, and HIV/AIDS. For tuberculosis, while the majority of participants were aware of the basics of TB symptoms, diagnosis, and first-line drugs, there is a need for more focused guidelines on TB-HIV co-infection and detailed information on newer drugs. However, participants were generally aware of the Revised National Tuberculosis Control Program (RNTCP) guidelines and the launching of the National Tuberculosis Elimination Program (NTEP).

- In medical schools such as that depicted in the present research, generally provide ample exposure to leprosy cases and how to approach various aspects of disease, such as contact examination, treatment of the infection and reactions, and prevention of disabilities and rehabilitation, in addition to the need to approach the social aspects. Still, the present study pointed out few deficiencies about this topic in our students which emphasizes the need for the topic to be addressed

in disciplines of basic as well as clinical sciences.

- Lastly, the study assessing the knowledge and attitudes of undergraduate medical students towards HIV and AIDS revealed a knowledge deficit in crucial aspects of control and prevention. It emphasizes the necessity for the development and implementation of proper training programs on HIV and AIDS. Disseminating accurate knowledge among healthcare workers and medical students not only raises public awareness but also contributes to changing attitudes towards patients living with HIV and AIDS.

- Overall, these conclusions underscore the importance of ongoing education, training, and awareness programs to ensure that future healthcare professionals are well-equipped with comprehensive knowledge and compassionate attitudes towards patients with tuberculosis, leprosy, HIV, and AIDS.

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