

A kap study on graduate Nursing Students of a tertiary health care Teaching Hospital in Rural West Bengal, India

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ABSTRACT

Nursing personnel are the largest deliverer of health care worldwide, responsible for the constant care of in-patients. They are the most important link between doctors and patients. This study evaluated the knowledge, attitudes and practices of nursing students about different health care related aspects, which must have a profound impact on the quality service of any health care setup. Nursing students from a tertiary care teaching hospital from West Bengal, India were interviewed using a semi-structured pretested questionnaire. The subjects had sound knowledge regarding malaria, HIV disease transmission; possess positive attitude and good practices about medications. There was increased tendency of self-medication, which was alarming. The study showed improvement in knowledge of the nursing students during their nursing curriculum. It is clear from the present study that the efforts in spreading the knowledge about medicaments and disease have met with success to some extent. Furthermore tremendous effort has to be taken to convert the theoretical knowledge into 'safe practices'.

Keywords: Nurses, knowledge, attitudes, practices.

INTRODUCTION

Patient safety is the central concern of current healthcare delivery systems. It is an important indicator of health care quality.¹ Amongst the health care professionals, nurses and nursing students are an important component of the health care delivery system.² Nurses are the largest deliverer of health care worldwide. They can be described as the "heart and soul" of every hospital. The U.S. Department of Labour has identified nursing as the fastest growing occupation in terms of growth through 2012.³

Since they are the ones who are responsible for the constant care of in-patients and thus, they can be the most reliable persons to encourage and spread their knowledge, attitude and practice on several medicine-related aspects, healthy habits and precautions among the patients. These knowledge and practice must be developed among them from their student life. Study results have indicated approximately one third of adverse drug occurrences are associated with medication errors that are viewed as preventable.^{4,5} 10% to 18% of all reported hospital injuries have been attributed to medication errors.^{6,7} Medication errors are caused by many health care professionals, such as physicians, pharmacists; however, nurses are important source for medication errors.⁸

Therefore assessment of student progress in developing requisite knowledge and skills is fundamental to the safe administration of medication. In modern times HIV/AIDS is one of the most threatening diseases, contributing to 95% of the total world's HIV infection and 90% death.⁹ In the

absence of effective cure to this disease, it can be very easily prevented by IEC (information, education, communication) activities regarding behavioral changes.⁹ Young students are healthy, active, dynamic, receptive and constitute a greater proportion of population. Better knowledge, attitude and practice (KAP) of nurses can be expected to result in improved compliance with standard treatment and universal precaution practices by them.¹⁰ Considering the importance and significance of nursing community in the health care system, this study has been carried out to understand the knowledge, attitude and practice of nursing students about some health related issues.

MATERIALS AND METHODS

This cross sectional study was conducted at a tertiary care teaching hospital in rural areas of West Bengal, India. The study subjects comprised of first, second and third year graduate nursing students. All nursing students of the college were included in the study. The purpose of the study was explained to all the participants. Verbal informed consent was taken from them. Information was collected on a pre-designed, pre-tested and self-administered questionnaire. Questionnaires were distributed to all the students simultaneously during their regular morning classes. Period of the study was July 2012 to December 2012.

RESULT

The age of all the 1st year nursing students and 96.9% of 2nd year students was below 20yrs and 83.3% of the 3rd

Table-1: General profile of the nursing students in a tertiary care hospital (n=number of nursing students answered the question)

Parameters		Number of nursing students answered		
		1 st year (n=50)	2 nd year (n=32)	3 rd year (n=49)
Place of residence	Village	52%	65.6%	63.3%
	Town	20%	15.6%	14.3%
	City	28%	18.75%	22.45%
		1 st year (n=49)	2 nd year (n=33)	3 rd year (n=48)
Age	< 20	100%	96.9%	16.6%
	< 30	0%	3%	83.3%
		1 st year (n=50)	2 nd year (n=32)	3 rd year (n=49)
Cast	General	66%	59.4%	75.5%
	SC	26%	28.1%	18.4%
	ST	4%	0%	4%
	OBC	4%	12.5%	0%
	Others	0%	0%	2%
		1 st year (n=50)	2 nd year (n=30)	3 rd year (n=44)
Education	Higher secondary (10+2 passed)	92%	46.7%	56.8%
	Graduate	4%	53.3%	40.9%
	Post graduate	0%	0%	0%
	Professional	0%	0%	2.3%
	Others	4%	0%	0%
		1 st year (n=34)	2 nd year (n=29)	3 rd year (n=45)
Family income per month	1K to 10K	61.8%	82.7%	73.3%
	11K to 20K	17.6%	17.2%	22.2%
	21K to 30K	17.6%	0%	2.2%
	Above 30K	2.9%	0%	2.2%

year students' age was above 30 years. Most of them have come from villages and had very poor monthly family incomes (from 1K to 10K). All of them were unmarried except 2% of the 2nd yr students. In case of 3rd yr students 56.8% are higher secondary passed and 40.9% are graduates while in 2nd yr 53.3% are graduates. But in case of 1st yr students 92% have joined after qualifying higher secondary (10+2). The basic demographic profile is shown in Table-1.

Table-2 showed the knowledge, attitude and practice of the students regarding medications and some related aspects. With increase in their study period habit of preservation of prescription and knowledge about the expiry date of medicine have increased proportionally and data has shown that 100% of the 1st yr and 3rd yr students used to check the expiry date before use of medicines. On the other hand self-medication/

OTC medication use tendency have grown into them simultaneously though the percentage was very low and most of the nursing students informed that they became aware about the drugs used in self-medication from their physicians (Table-3, Fig 1).

The overall frequency of correct responses to malaria and HIV transmission showed in Table-4. Most of the study population responded correctly regarding malaria or HIV/AIDS. Cent percent of the study population responded that HIV affects human through unprotected sexual intercourse. 98% of 3rd yr and 94% of the 2nd yr students have some idea about contraceptive devices like condom/pills.

DISCUSSION

In spite poor monthly family income, nursing students in the present study were mostly graduates. 56.8% of the 3rd yr students were higher secondary passed and 40.9% were

Table-2: KAP study among the nursing students about medicine use (n=number of nursing students answered the question)

Parameters		Number of nursing students answered		
		1 st yr (n=14)	2 nd yr (n=25)	3 rd yr (n=40)
Habit of preservation of prescription	Yes	42.8%	76%	80%
	No	57.1%	24%	20%
		1 st yr (n=40)	2 nd yr (n=29)	3 rd yr (n=36)
Habit of following the instructions given in prescription	Yes	100%	86.2%	97.2%
	No	0%	13.8%	2.8%
		1 st yr (n=45)	2 nd yr (n=29)	3 rd yr (n=43)
Knowledge on expiry date of medicine	Yes	77.8%	89.6%	95.3%
	No	22.2%	10.3%	4.7%
		1 st yr (n=49)	2 nd yr (n=31)	3 rd yr (n=46)
Habit of self-medication/OTC medicine use in last three (3) months	Yes	10.2%	12.9%	21.7%
	No	89.8%	87.1%	78.3%

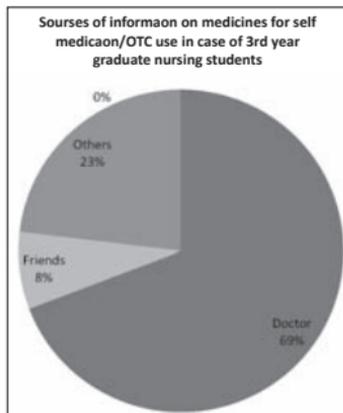


Figure 1: Sources of knowledge on use of medicine for self-medication/OTC medicine use for 3rd year nursing students

graduates while in 2ndyr 53.3% were graduates, whereas 92% of the 1styr students have joined after qualifying higher secondary (10+2). It was observed that there was increase in tendency to join in the nursing at an early age. It is encouraging that many of the girls from the village, town and city are expressing their interest to join in the nursing profession and to serve as care givers.

Previous studies indicated that the rate of medication errors among nursing students was high and it may be more frequent than suspected.^{11,12} Till now very little study was conducted in our country to survey the knowledge and practice of the nursing professionals in the field of use of medicine, prescription or self-medication and related parameters. The present study evaluated some of these parameters among the nursing students and explored that, they were oriented about the expiry date of the medicines and 100% of the 1styr and 3rdyr students assured that they usually check the expiry dates before use. This is one of the most important practices developed among them, which can minimize the medication error by nursing personnel.

A cross sectional study on HIV/AIDS was conducted in a tertiary care hospital of South India showed 99.5% of the nurses answered correctly about the mode of

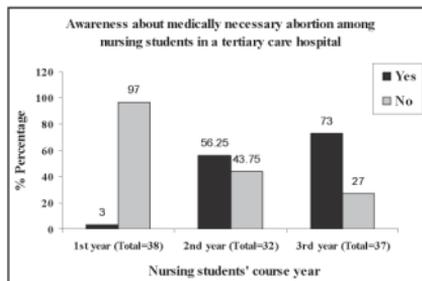


Figure 2: Awareness profile of nursing students about medical termination of pregnancy, i.e., abortion (n=number of nursing students answered the question).

transmission of HIV/AIDS.¹⁰ But another KAP survey, performed in Nepal, shows a somewhat different result among nursing students on attitudes and knowledge towards HIV/AIDS patients. The result showed that the respondents had a lack of knowledge and a need for more education about HIV/AIDS care, transmission, symptoms and treatment.¹³ According to some studies, negative attitudes tend to decrease as the level of knowledge increases.^{14,15} Other reports showed that one of the most important factors in changing nursing students' attitudes towards HIV/AIDS is acquiring knowledge about transmission and non-transmission

routes.¹⁶ Present study to evaluate the knowledge of the nursing students of the tertiary care hospital towards AIDS was found to be satisfactory. The most positive finding is that all the nursing students of all the 3 years have rightly answered the questions, their knowledge increased during the course duration from 1st year to 3rd yr. There was also increase in awareness and knowledge about the contraceptive devices and medically necessary abortion.

This study reflected the influences on nursing students by the health education interventions. As the nursing students represent the most vital subgroup of the health care professionals and they mostly interact with the patients, therefore their knowledge, attitude and practice towards important health related parameters, will be beneficial for dissemination of knowledge amongst the patients. Therefore it will help to improve the quality of current health care system.

Table-3: Sources of knowledge on use of medicine for self-medication/OTC medicine use (n=number of nursing students answered the question)

Parameters	Number of nursing students answered		
	1 st yr (n=4)	2 nd yr (n=6)	3 rd yr (n=13)
Sources of knowledge of drugs for self medication/OTC use	Magazine/book	0%	0%
	Television	25%	16.7%
	News paper	0%	0%
	Radio	0%	0%
	Informative daily digest	0%	0%
	Doctor	50%	66.7%
	Friends	0%	16.7%
	Others	25%	0%

Table-4: Awareness about some health related parameters among the nursing students
(n=number of nursing students answered the question)

Parameters		Number of nursing students answered		
		1 st yr (n=50)	2 nd yr (n=33)	3 rd yr (n=49)
Knowledge about carrier of Malaria	Fly	0%	3%	0%
	Ant	0%	0%	0%
	Dog	0%	0%	0%
	Mosquito	100%	97%	100%
	Don't know	0%	0%	0%
		1 st yr (n=46)	2 nd yr (n=17)	3 rd yr (n=39)
Knowledge about the transmission of AIDS in human	Unprotected sexual intercourse	100%	100%	100%
	Mosquito	0%	0%	0%
	External interactions	0%	0%	0%
	Not known	0%	0%	0%
		1 st yr (n=50)	2 nd yr (n=33)	3 rd yr (n=49)
Knowledge about contraceptive pill/condom etc.	Yes	12%	94%	98%
	No	88%	6%	2%

In the present study, it was noted that self-medication/OTC drug use in nursing students also increased during their study-course, though the percentage is very less. This also reflected that their source of knowledge about medicine use was mostly the doctors. A related study shows that, nursing students experience high levels of stress,¹⁷ have been shown to be at increased risk for physical and psychiatric illnesses.¹⁸ Student nurses experience stress at higher rates than other types of students. Nursing schools tend to have rigorous programs and students are expected to complete the clinical portions simultaneously, while maintaining competency. This study will help in planning of future education programs in the nursing colleges in India. Based on review of the reported literatures from India and some other parts of the world on the knowledge, practice of the nursing communities till now and the outcomes of the present study, it is clear that the efforts in spreading the knowledge about medicaments and disease have met with success to some extent. While on one hand, serious deficit in knowledge in specific areas need to be addressed, tremendous effort has to be put in to convert the theoretical knowledge into 'safe practices'.

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