Research Paper

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Awareness of Patient Safety Isssues and Expectations Among Undergraduate Medical Students in a Government Medical College

Medical Science

KEYWORDS : Medical students, Patient safety, Curriculum

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ABSTRACT

Background: The perspectives of medical students on patient safety curricula in the classroom and clinical setting is one necessary component for understanding the success with which patient safety concepts are integrated and actualised in medical education

Aim: To study awareness of patient safety issues and expectations among undergraduate medical students in a medical college

Study design and methods: Cross-sectional questionnaire based study carried out among 140, third and fourth year medical students. The questionnaire consisted of six sections with 32 questions consisting of demographic scales, knowledge about patient safety and medical errors.

Results: Of the five subscales, the overall average score of section 3, "Knowledge of actions to take," was the lowest, while that of section 6, "Personal Attitudes towards patient safety," was highest.

Conclusion: Recognition of the students' attitude towards this topic is important for the design and implementation of the educational program.

INTRODUCTION

Patient safety is central and critical in providing quality healthcare, and the need for urgent patient safety reform is recognised on a global level [1-5]. Effectively integrating patient safety science into the training programmes of healthcare professionals is essential for advancing this initiative. A need for greater emphasis on the socio-cultural aspects of patient safety has been established [6] and recent literature suggests that we are slow to incorporate this into our curricula [5,7,8].

The perspectives of medical students and postgraduate trainees (collectively referred to as learners) on patient safety curricula in the classroom and clinical setting is one necessary component for understanding the success with which patient safety concepts are integrated and actualised in medical education. How learners' perspectives on patient safety learning evolve at various stages of training is also useful for reforming and developing patient safety education. While there is a growing literature showing that learners are not necessarily accurate at self-assessing performance when compared with external assessments, social cognitive theory suggests how self -assessment is important. Self-efficacy (an individual's perceived ability to succeed at a task), including academic self-efficacy, has been shown to influence behaviour and task performance. [9,10]

Patient safety is a fundamental principle of health care. The simplest definition of patient safety is the prevention of errors and adverse effects to patients associated with health care [11]. It was defined by the Institute of Medicine as "the prevention of harm to patients" [12]. In developed countries as many as one out of 10 patients is harmed while receiving hospital care with higher probabilities in developing countries [11].

The US medical errors cost the US economy $19.5 billion in 2008 [13]. With the growing recognition of the harms caused by health care, attention has been made to the importance of teaching about patient safety in graduate medical education [14]. A report from the Institute of Medicine emphasized that incorporating patient safety education into clinical training programs is a key mechanism for improving patient safety [15].

Furthermore, it is recommended that the initial exposure to patient safety should occur early in undergraduate and graduate medical education programs and be ongoing throughout medical education [16].

Recognition of the students' attitude towards this topic is important for the design and implementation of the educational program. As there is no related local published data, the aim of this study was to explore the knowledge and attitudes of undergraduate medical students towards patient safety concepts. What is their attitude towards learning this topic in the curriculum? Is there a difference in this attitude by mode of learning?

AIM

To study awareness of patient safety issues and expectations among undergraduate medical students in a medical college

OBJECTIVES

To measure the level of knowledge of patient safety among the Undergraduate students of a Government Medical College

To find out positive and negative attitudes towards Patient safety among students

To identify the obstacles and difficulties faced due to lack of knowledge about patient safety

d) To suggest the factors that can improve the knowledge of Patient Safety among the students if any.

MATERIALS AND METHODS

The ''Medical students questionnaire of knowledge, skills, and attitudes regarding patient safety'' was developed and translated based on the WHO Patient Safety Curriculum

Guide for Medical Schools. The questionnaire consists of six sections with 32 questions

Our finalized questionnaire included the following sections:

Section 1: Demographic characteristics, including medical school, gender, and level.

Section 2: Knowledge about medical errors' (seven items)

Section 3: Safety of the Healthcare System (six items).

Section 4: Personal Influence over safety (five items)

Section 5: Personal attitudes to patient safety' (four items).

Section 6: Safety at the workplace (five items)

All items in sections 3–6 were developed based on a Likert Scale. Items in sections 2 were rated from "Not at all" to "Very Much Knowledge", while sections 3–6 had answers ranging from "strongly agree" to "strongly disagree."

This study was conducted from 01 Nov to 30 Nov 2014 among 140 Medical students (3rd and 4th year medical students) in a Government Medical College in India, as these students had finished their basic medical knowledge courses but had not yet received clinical skills training.

Permission to conduct the investigation was granted by the related tutors at the medical schools. The students were informed of the purpose of the survey and asked to complete a validated questionnaire distributed after their classes and a period of 30 minutes was given before the same was returned.

STATISTICAL ANALYSIS

Microsoft Excel 2007 was used to input all the data. SPSS 20.0 was used to analyze all the baseline data including number of participants, gender, level, and the missing rate and average score for each item of the questionnaire. The Kruskal–Wallis test was used to analyze the statistical differences in students' responses. The level of significance was set at α = 0.05. Overall scores for each questionnaire and each score value of five subscales were calculated using SPSS 20.0 software.

In order to evaluate the quality of the questionnaire, a reliability analysis and an exploration factor analysis was done. An internal consistency value (Cronbach's alpha ≥ 0.70) for the newly developed scale was calculated.

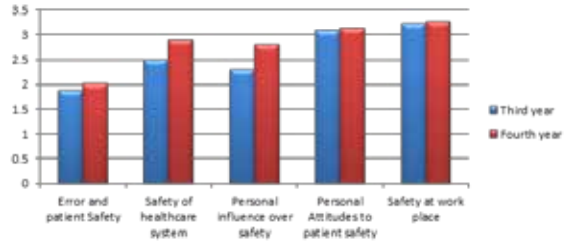
RESULTS

A total of 140 questionnaires were distributed, with 140 (100 %) returned with valid and complete responses. Six of the questions had one incidence each of non-answering, while the item 2.5, "What should happen if an error is made?" went unanswered 15times.The lowest average score was for item 2.6, self-assessed knowledge of "How to report an error?"(Figure 1), while the highest score was for item 6.4, "I plan to make a point of learning from the mistakes of others" (Graph 2).

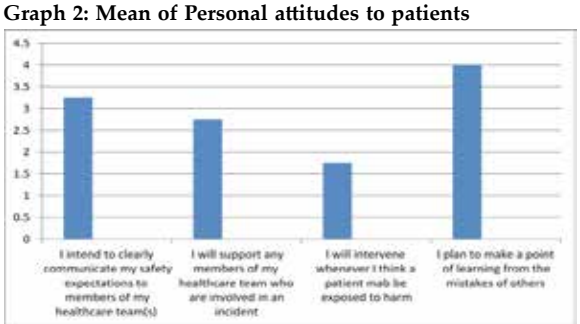
There were 32 items in five sections rated into five levels and scored as 1 to 5 (1 = low/strongly disagree; 2 =lower/ disagree; 3 = average/neutral; 4 = higher/agree; 5 =

High/strongly agree) as shown in (Graph 1).

Graph 1: Mean Ranks of Awareness among Third & Fourth Year Students towards each Domain



Graph 2: Mean of Personal attitudes to patients



The highest possible overall score was 160 (5×32), and actual questionnaire responses ranged from 47 to 127 with an average score of 90.8.Of the five subscales, the overall average score of section 3, "Knowledge of actions to take," was the lowest, while that of section 6, "Your intentions regarding patient safety," was highest. Internal consistency a value was evaluated using Cronbach's alpha.

DISCUSSION

Although our literature search turned up many studies related to attitudes to patient safety, none of the studies identified were from India. To improve patient safety, it is not enough to construct a system of medical quality assurance and continuous improvement and to build up a harmonious medical and patient safety culture. Addressing the issue at a fundamental level, namely that of undergraduate medical education, is the most important step.

The students' survey responses indicate they have little knowledge about medical error or appropriate actions to take after one occurs, but do have positive attitudes toward acquiring this knowledge in their future careers.

Our results are similar to those from other countries in several respects. For example, The study in UK by Flin et al. found that the majority of the year 1 medical students reported 'medium', low' or 'average' levels of knowledge of error and patient safety issues(17).

A study in US by Moskowitz et al suggests that students are uncertain about what defines an error, and several students also noted that they cannot distinguish errors from other medical activity (18). Similarly, our study found that responses to items about level of patient safety knowledge were negative, especially for the items "Different types of medical error" and "How to report an error"?

The study in Turkey by Karaoglu et al. found that when medical students were asked what they would do if they made a medical error, 60.7% (n = 147) stated that they would report it to the hospital committee, while 68.6% (n = 166) of the students stated that they would report to the hospital committee if they witnessed a medical error [19]. Medical students' attitudes to good patient safety practices were generally positive, but the students had little knowl-

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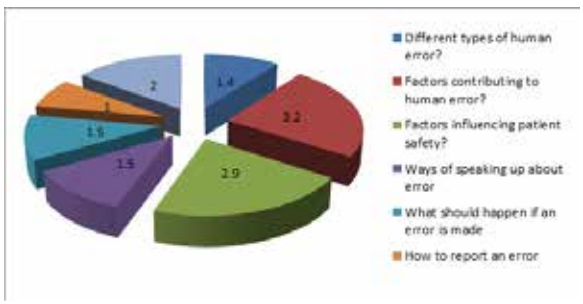
edge of how to report errors and were unsure about what to do if a colleague made an error, or if a patient indicated that an error had been made[17].

The study also found that students" "knowledge of actions to take" is poor while that of section 6 "Personal attitudes towards patient safety" was the highest (Fig 1).

Figure 1: Mean Level of Knowledge about Medical Errors



Knowledge regarding patient safety issues could be acquired from a formal curriculum or from job training. Patient safety topic is not included as a clear subject in the undergraduate curriculums which could be a factor of participants' low self- rating of good general knowledge. However, one of the main findings arising from this study was the agreeability of the majority of the students towards teaching patient safety on the level of undergraduate curriculum, especially in the third year, fourth year and internship when actually, the students come in contact with the patient. Participants' recognition of their own knowledge gap related to patient safety could motivate and enhance the implementation of a formal teaching program in the curriculum.

RECOMMENDATIONS

The study has shown that medical undergraduates in India need more exposure to knowledge, skills and attitudes towards patient safety and they exhibit willingness to learn about it. Patient safety culture should therefore be established early in undergraduate medical education.

The results of the study recommended strongly the need of effective structured educational interventions targeting undergraduate medical students. The program should educate patient safety concepts, basic knowledge and basic skills of problem solving and error management with focusing on the role of physician and role of patient.

CONCLUSION

Although medical students' understanding of patient safety is quite poor, the students have positive attitudes towards learning about the knowledge of patient safety in their future careers, therefore Patient safety program needs to be incorporated in undergraduate medical curriculum so as to improve the quality of service and avoid medical error from the very beginning of their medical careers.

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