ORIGINAL ARTICLE

PERCEPTIONS OF POSTGRADUATE STUDENTS ABOUT PATIENT SAFETY AS PART OF THE CURRICULUM AT UNDERGRADUATE AND POSTGRADUATE LEVEL

Ismail Alam Khan[1], Aziza Alam[2], Mushyyada Durrani[1], Nayab Iqbal[1], Rubeena Gul[2], Ambreen Akhtar[3]

[1]Department of Medical Education, Rehman College of Dentistry, Peshawar - Pakistan

[2]Department of Community Medicine, Khyber Medical College, Peshawar - Pakistan

[3]Department of Population welfare, Peshawar - Pakistan

ABSTRACT

Objectives: To explore the perceptions and attitudes of postgraduate trainee medical officers towards patient safety in undergraduate and postgraduate medical curricula.

Materials and Methods: A cross-sectional study was conducted through a self-administered questionnaire by a simple random sampling technique. The target population for this study consisted of all postgraduate training residents working in two selected teaching hospitals in Peshawar. The total sample size was 80 and data was analyzed by using SPSS software version 20.

Results: Out of the total 80 participants 16% were female and 84% were male having clinical experience of 2-5 years. 17(21.3%) strongly agreed that making errors in medicine is inevitable, while 52(65%) participants said that consciousness after encountering errors could reduce the occurrence. About one-third reported that competent physicians do not make medical errors and 55 (68.8%) agreed that patient safety is our moral responsibility. However, there is a lack of a proper reporting system which acts as a barrier. Less than half of the participants were in support of routinely reporting medical errors while 58 (72.5%) disagreed.

Conclusion: The Postgraduate medical students of selected tertiary care hospitals had a positive attitude toward patient safety to be part of undergraduate and postgraduate medical curricula in Pakistan. They were aware of medical errors being inevitable but the magnitude may vary from situation to situation

Key Words: Patient safety, post-graduate trainees, medical curriculum

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INTRODUCTION

Recently, patient safety has emerged as a distinct discipline of health care services and raised considerable public concerns at the global level. A large number of studies have been conducted on this issue since the publication of the landmark report on patient safety issues by the Institute of Medicine, 'To err is human'.[1] Though, there is insufficient research done on patient safety in Pakistan, however, the media have reported a significant number of patients being harmed and even dying due to medical errors, thus emphasizing the need for patient safety[2, 4].

Correspondence
Dr Aziza Alam
Lecturer
Department of Community Medicine, Khyber Medical College Peshawar - Pakistan
Email: azizagrc@yahoo.com
Cell: +92-333-9231819
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Patient safety, especially in tertiary care hospitals in developing countries including Pakistan demonstrates a high prevalence of adverse events, an excessive rate of death and disability, and high preventability. [2] But there is a slow and steady increase in the level of awareness of the risk of unsafe healthcare practices among policy-makers and practitioners. The risk of healthcare-associated infections in some developing countries is as much as 20 times higher than in developed countries. [2] Even in developed countries like the US, Medication Errors (MEs) are reported to be responsible for as high as 7000 deaths per year. [3, 4]

In the healthcare system of Pakistan, there is a lack of trans-disciplinary, evidence-based strategies for patient safety. Furthermore, there is also a lack of incident reporting systems and risk management strategies in our health care system, especially at public hospitals. [1, 2] Riaz and Hashmi conducted a study in two different hospitals in Lahore. In the study, it was discovered that the outpatient departments of both hospitals had 44% and 39% errors

respectively while in the emergency department alone, it was found to be 60% and 73.5% respectively. Only prescription errors ranged from 39% in the outpatient departments and 73.5% in the emergency department in one hospital. [3]

Calculating the medical error rate at the national level is a challenging task due to factors such as lack of standardization in hospital practices and variations in data collection and information management systems. [5] Universal benchmarking is generally very difficult. Even for individual organizations, it is difficult to have a true rate as most systems rely on voluntary reporting of actual events or near-miss events. The problem with voluntary reporting is that the actual number of events could be much higher than the reported events. [6] In addition, organizations having good reporting systems have a high number of events and can be safer as compared to organizations having fewer reported incidents which could be due to poor reporting system. [7]

Regarding the contributing factors, literature has reported patient safety concerns and adverse events over the last decade in health care. [4, 5] These adverse events occurred not because of incompetent healthcare professionals who are intentionally harming patients, but rather due to the complexity of healthcare systems, where successful treatment and outcomes depend on many factors in addition to the competence of healthcare professionals. [4, 5] This study aimed to explore the perceptions and attitudes of postgraduate trainee medical officers towards patient safety issues in undergraduate and postgraduate medical curricula.

MATERIALS AND METHODS

This was a cross-sectional study, conducted through a self-administered questionnaire. The target population for this study consisted of all postgraduate(PG) trainee residents working in two selected teaching hospitals in Peshawar. All PG residents working in the two institutes for the past two years were included in the study (medicine and allied and surgery and allied) by simple random sampling technique. There were 120 PG trainees working at one private and around 300 trainees working at a public-sector hospital at the time of data collection in 2016. All PGs from the two selected tertiary care hospitals having experience of more than two years were included in the study. A modified integrated self-administered tool developed by Madigosky et al. was used to assess students' perceptions of patient safety. [6] A total of 80 residents were included in the study by simple random sampling from the two medical institutes. Data were entered and analyzed using the SPSS version 20 and presented in terms of frequencies and percentages.

RESULTS

Out of 80 residents who participated in the study, there were 13 females (16%) and 67 males (84%). The age of the participants ranged from 24 years to 37 years (Mean age = 29.4 years ± 2.8 SD). The findings indicate that some of the participants 17 (21.3%) strongly agreed and 35 (43.8%) agreed and expressed that making errors in medicine is inevitable. However, 14 (17.5%) and 13 (16.2%) showed disagreement and strong disagreement respectively. Regarding the accident of medical errors, 52(65%) and 20 (25%) of the participant showed agreement (strongly agree and agree respectively) that after an error occurs, an effective strategy is to work harder to be more careful. Table 1 shows details of the responses of participants. A positive attitude has been reported regarding evidence-based practice. They were of the view that error occurs because there is a gap between what we know as 'best care' and what we provide on a day-to-day basis.

Table 1: Perceptions of post graduate residents towards patient's safety

Perceptions	Strong agree	Agree	Neutral	Disagree	Strong disagree
1. Making errors in medicine is inevitable.	17(21.3%)	35(43.8%)	1(1.3%)	14(17.5%)	13(16.2%)
2. After an error occurs, an effective strategy is to work harder to be more careful.	52(65.0%)	20(25.0%)	0(0.0%)	5(6.3%)	3(3.8%)
3. Competent physicians do not make medical errors that lead to patient harm.	29(36.3%)	14(17.5%)	0(0.0%)	28(35%)	9(11.3%)
4. The culture of medicine makes it easy for providers to deal constructively with errors.	12(15.0%)	46(57.5%)	2(2.5%)	16(20%)	4(5.0%)
5. Physicians should routinely spend part of their professional time working to improve patient care.	55(68.8%)	14(17.5%)	0(0.0%)	7(8.8%)	4(5.0%)
6. Reporting systems do little to reduce future errors.	11(13.8%)	17 (21.3%)	0(0.0%)	24 (30.0%)	28(35.0%)
7. There is a gap between what we know as 'best care' and what we provide on a day to day basis	31(38.8%)	29(36.3%)	0(0.0%)	9(11.3%)	11(13.8%)
8. In my clinical experiences so far, faculty and staff communicate to me that patient safety is a high priority	29(36.3%)	29(36.3%)	1(1.3%)	18(22.5%)	3(3.8%)

DISCUSSION

As health care institutions constantly endeavor to improve health and health care, establishing a culture of safety got a significant value and recognition recently. [7, 9] The World Health Organization in 2009, introduced the Patient Safety Curriculum Guide for Medical Colleges/ Schools. A group of experts from various universities was commissioned to develop a curriculum that should contain the topics from the WHO Patient Safety Curriculum Guide for Medical Colleges. [10]

In recent years, medical incidents have become an important educational resource, and the introduction of patient safety in the medical curriculum signifies a major change in health care strategies in many teaching hospitals and their associated medical colleges. [11] There is a wide range of patient safety literature addressing the importance of the topic since its emergence in the mid-1990s; however, there has been little reported in the literature on an evidence-based patient safety education program in academic medical curricula, especially in developing countries, and little research documenting that such a program has improved health outcomes. However, few medical universities have successfully implemented a comprehensive and multidisciplinary safety curriculum to address the "Accreditation Council for Graduate Medical Education's (ACGME's) core competencies and to establish a culture of safety for sustainable improvement in healthcare through the integration of safety into the students' daily activities. [12]

The current study found a number of vital findings, which may inform the decision-makers to make room for the change in the undergraduate and postgraduate medical curriculum. The result indicates that the majority of PG residents agreed that medical errors are inevitable, more than one-fourth of the students were of the view that "after an error occurs, an effective strategy is to work harder to be more careful". A similar finding was also reported by Leung GK, Patil NG [13] and about half of them were of the opinion that competent doctors do not make errors, which indicated a fundamental misconception about the nature and pattern of human errors. [14] A major proportion of participants agreed that physicians should routinely spend part of their professional time working to improve patient care. Literature also proposed such strategies and an evidence-based model has been prepared. A "unit-based Patient Safety Leadership Walk-rounds (PSWR)" model was found very effective in patient safety and quality health improvement. In this model, physicians spare time for the quality health improvement and continuous assessment of patient safety measures in multiple units of the hospital to identify patient safety issues in the clinical micro-system. [15] The vote for reporting system was also high which showed the importance of incident reporting in hospitals. Research also revealed that properly reporting errors will reduce the occurrence of future medical errors. According to Shaw et al., the introduction of medical errors (medication) reporting system in a pediatric unit has significantly improved patient safety and quality of health care. [16] They also reported that the gap in knowledge and real practice is one of the important factors contributing to medical errors. The same has been reported by Ghalandar poorattar et al.[17] According to them, there is a clear gap between physicians' knowledge and actual practices concerning patient safety. Hence an evidence-based suggestion emerged that "education in medical error management to professionally support error disclosure might help reduce the gap". [17]

One of the limitations of our study was the small sample size. Future studies with a larger sample size are advisable. More research is recommended at a national level to define the scope of the problem, and measure its magnitude with renewed precision to elicit the appropriate policy and clinical solutions fully.

CONCLUSION

The Postgraduate medical students of selected tertiary care hospitals have a positive attitude toward patient safety to be part of undergraduate and postgraduate medical curricula in Pakistan. They were aware of medical errors and that these are inevitable aspects of healthcare that vary from situation to situation. There was however poor response in terms of agreement regarding incidence reporting.

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AUTHOR'S CONTRIBUTION

Following authors have made substantial contributions to the manuscript as under

Khan IA: Principal author and article writing.

Alam A: Statistical analysis and review.

Durrani M: Data Collection

Iqbal N: Literature searching & Writing References.

Gul R: Literature searching & Writing References.

Akhtar A: Data Collection.

Authors agree to be accountable for all aspects of the work in ensuring that questions related to the accuracy or integrity of any part of the work are appropriately investigated and resolved.