

Letter to the Editor

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Adverse events and barriers to reporting in hospitals in Southern Iran

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Dear Editor,

The World Health Organization (WHO) has indicated patient safety as a priority within the healthcare delivery system. Adverse events in the delivery of health care are a major threat to patient safety and approximately 10 per cent of patients admitted to hospitals in developed high-income countries (in GDP) suffered from adverse events.¹

Studies have shown that the causes of adverse events include lack of job training and experience, burnout, stress, heavy workload, and lack of communication among healthcare professionals, with medical knowledge deficiency being the most important one.² One of the main factors in the prevention of adverse events and thus increasing patient safety is reporting of medical errors (MEs) and near misses. Reporting is fundamental to the broad goal of error reduction. However, barriers to reporting must be addressed before an incident reporting system can have a substantial impact on patient safety. Reporting will occur only if practitioners feel safe doing so and it becomes a culturally accepted activity within the healthcare community. Until health care embraces such a culture, practitioner reporting will continue to be an untapped resource.³

The present study aims to identify adverse events and barriers to reporting them in public hospitals of Shiraz, Iran. Reducing the incidence of MEs in hospitals can in turn decrease the costs imposed on the patients and the healthcare system.

This cross-sectional, analytical study was conducted in Shiraz public hospitals in 2013. The data was gathered from 21 March 2012 to 21 March 2013 from the Clinical

Governance Department and recorded documentations in 13 hospitals. The most relevant factors that influenced the reporting of adverse events in the hospitals were identified using a validated questionnaire and 327 samples were selected to participate to determine barriers to reporting of adverse events. The data was entered into the SPSS statistical software (v. 16) and analysed using descriptive analysis, Spearman, Chi-square, one-way ANOVA, and t-test.

In this study, 4,379 adverse events were recorded within 12 months. The highest number of MEs was related to the largest hospital (2,045 MEs, 52.8 per cent). A previous study showed that adverse events in large hospitals resulted from high patient numbers and the fast-paced nature of care.⁴ Hence, health policy makers and managers should consider preventative measures to reduce the risk of errors in large hospitals. According to Table 1, most of the MEs in the hospitals were associated with nursing practice (2,951 or 67.3 per cent).

Since nursing is integral to patient care, nurses make up the majority of healthcare personnel in most settings, and they spend eight to 12 hours in each shift, fatigue and burnout may have led to adverse events. These results were in line with those of the study by Pham et al. indicating that nurses were responsible for 54 per cent of the adverse events.⁴ Therefore, decreasing nurses' workload, holding training workshops, and preparing safe working environments may decrease nurses' errors.

The results showed that 55 per cent of the errors had occurred in the morning shifts in each of the three groups (physicians, nurses, and services). This might be due to the fact that the personnel's workload is higher and they are forced to do their tasks faster at this time. Since the studied hospitals were public where more people tend to be admitted—because of the cost of the private sector—especially in the morning, the workload is quite high in this shift and the personnel, particularly nurses, are faced with more duties compared to other shifts. All these factors can result in errors committed by nurses and other personnel.

The study results indicated that means scores of individual and organisational factors (12.1 ± 3.27 and 46.6 ± 9.31) were higher compared to the basic means (10 and 32.5, respectively). Therefore, individual and organisational

factors were considered as the barriers to reporting the MEs in the study hospitals. Kaira et al. believed that systematic factors, such as managerial policies and fear of litigation in response to error disclosure, were important factors in reluctance to report MEs.⁵ Since full disclosure of MEs and adverse events is the key factor for quality improvement, error-reporting strategies are critical to reduce adverse events.

In conclusion, several strategies are recommended to increase the reporting of adverse events, including: agreement on the definition and categorisation of adverse events and supporting the individuals committing errors; improvement of patient safety culture that rewards and learns from error reporting; and establishment of a feedback system to determine the factors contributing to error. Using these simple strategies, managers and staff can prevent a high percentage of deaths and costs in hospitals.

Sincerely,

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Table 1: Recorded medical errors based on individuals and hospitals departments

Variables	Subheadings	Frequency	Frequency percentages (%)	Rank
Individual committing the error	Physician	885	20.2	2
	Nurse	2,951	67.3	1
	Services personnel	543	12.4	3
Ward	Internal	1,590	36.3	1
	Lab	392	9.0	4
	OR	519	11.9	2
	ICU	182	4.2	9
	CCU	188	4.3	7
	ENT	187	4.3	8
	Eye	84	1.9	10
	Surgery	457	10.4	3
	X-ray	43	1.0	13
	IVF	18	0.4	14
	NICU	76	1.7	11
	Emergency	357	8.2	5
	Pharmacy	23	0.5	13
	Norsurgery	58	1.3	12
	Women	192	4.4	6
	Others	9	0.2	15
Type of medical errors	Diagnosis	240	5.5	6
	Treatment	771	17.6	3
	Drug	754	17.2	4
	Record	526	12.2	5
	Systemic	1,189	27.2	1
	Technical	897	20.5	2
Time of medical error	Morning	2,410	55.0	1
	Afternoon	1,195	27.2	2
	Evening	774	17.6	3