STUDENTS CORNER'S
SHORT REPORT

Attitudes and practice of surgeons in reporting medical errors at a tertiary care hospital

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Abstract

Medical error reporting is essential in creating a culture of accountability in our healthcare system. The aim of this study was to evaluate the frequency of reporting errors by surgeons in our setup and to analyse the factors resulting in under-reporting of medical errors. A total of 96 practicing surgeons at Mayo Hospital, Lahore were surveyed between the months of February, 2018 to June 2018 on their beliefs regarding the reporting of medical errors by means of a specifically designed questionnaire. This study revealed that 71 (74%) respondents had committed a medical error but only 16 (16.6%) of them reported those errors. Major factors in under-reporting of errors included work stress and fear of medico-legal consequences due to disclosure of error. Eighty-four (87.5%) believed that increase in reporting medical errors would contribute to a better system. Most surgeons had a positive view towards the process but believed that the reporting system was ineffective.

Keywords: Attitudes, error, reporting, surgeons, Mayo Hospital

Introduction

"A medical error is an act of omission or commission in planning or execution that contributes or could contribute to an unintended result."[1] Medical errors are responsible for a large number of fatalities; one study estimates that fatalities due to medical errors are the third largest cause of death in the United States.[2]

According to Bari, who conducted a study on 130 post-graduate residents, the most common causes of medical errors were fatigue due to long working hours, inadequate experience as well as inadequate supervision. Complexity of the cases was also considered to be a minor cause of medical error.[3]

Following the Institute of Medicine's 2002 report on the effects of medical errors in causing preventable deaths, there was an increase in attempts to reduce the effects of these errors. Medical error reporting became the crux of a new approach towards managing patient health. Unfortunately, despite these attempts, there is a culture of under-reporting medical errors.[4] According to data from the department of health in the UK, a fifth of hospital trusts in the UK were under-reporting medical errors.[5]

The causes of not reporting a medical error are numerous and include the fear of potential unemployment, a lack of support from hospital administration, the absence of any error-reporting system and a lack of knowledge relating to medical errors.[6] Among physicians, lengthy reporting processes and associated additional workload played a large part in not reporting errors. Kagan and Barnoy found that organisational commitment to a robust patient safety culture had a positive effect on reporting of medical errors.[7]

Despite the efforts being made to reduce medical errors worldwide, there is a scarcity of data when it comes to Pakistan. This study provides a valuable local perspective regarding reporting of errors among surgeons at Mayo Hospital, Lahore.

Methods and Results

This was a cross-sectional study performed at King Edward Medical University (KEMU), Lahore from February 2018 to November 2018. Sample size of 96 surgeons was estimated by using 95% confidence level, 7% margin of error with expected percentage of error reporting as 17.8%. A non-probability, convenient sampling technique was used to select participants. All house officers, post-graduate residents and consultants working in general surgery and allied surgical departments at Mayo Hospital were selected. A written informed consent was taken. All the researchers agreed to practise in accordance with the Helsinki Declaration 1964 and its later amendments. The study was approved by the institutional review board of KEMU (254/RC/KEMU). Data was collected using a pre-designed, pre-tested questionnaire adapted from a study carried out by Kaldjian.[8] A 15-minute interview with practising surgeons, covering all aspects of the research questionnaire (Table-1) was conducted by the same

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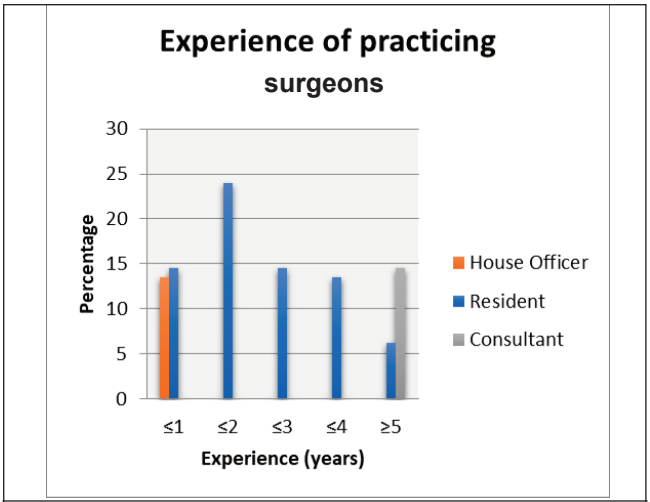

Figure-1: Experience of practicing surgeons.

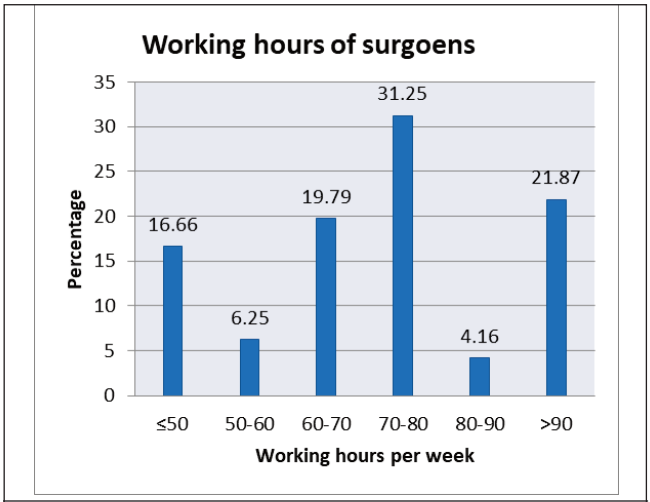

Figure-2: Working hours of surgeons surveyed.

research team member. Data was entered into SPSS-22. Quantitative variables such as age were presented as mean±standard deviation. Qualitative variables such as gender and responses were presented as frequencies and percentages. For the purpose of this study, medical errors were classified into major and minor errors. A major error was an error resulting in the death or disability of a patient, whereas a minor error was a medical error resulting in prolonged treatment or discomfort to a patient.

All the 96 respondents completed the questionnaires with a response rate of 100%. A total of 96 people responded to our questionnaire with a mean age of 27 years and a standard deviation of ±2.4 years. The participant pool consisted of 68 males (70.83) and 28 (29.16) females. All respondents had a chance to work in surgical indoor, outdoor and emergency. All other demographic information is given in Figure 1 and 2.

Seventy-one (74%) surgeons either themselves committed or saw a colleague commit a minor error, whereas, 48 (50%) had committed a major error themselves or saw a colleague commit one (Table 2, Figure 3). Sixteen (16.6%) respondents having disclosed the error informally with

Table-1: Questions related to error reporting by surgeons.

Questions	Agree n (%)	Don't know n (%)	Disagree n (%)
Reporting medical error to one's own institution improves quality of care for future patients	84 (87.5)	7 (7.29)	5 (5.20)
I know how to report medical errors to my institution	17 (17.70)	30 (31.25)	49 (51.04)
Our institute has effective mechanism of reporting errors	11 (11.45)	19 (19.79)	56 (58.33)
Staff roles and responsibility in responding to medical errors and other safety related issues are clearly laid out in their job descriptions	35 (36.45)	21 (21.87)	40 (41.66)
The medical administration office has a positive contribution in promoting error reporting	35 (36.45)	12 (12.50)	49 (51.04)
At my institution, system changes to improve patient safety occur after errors are reported	40 (41.66)	19 (19.79)	37 (38.54)
I know what kinds of medical errors should be reported to my institution	64 (66.66)	32 (33.33)	0 (0)
I would be more likely to report errors to my institution if I knew I would receive feedback afterwards	89 (92.70)	5 (5.20)	2 (2.08)
Disclosing errors to my institution isn't worth my time because my actions can't change the system of care	42 (43.75)	12 (12.50)	42 (43.75)
It is hard to be certain about true causes of adverse events in the practice of clinical medicine	59 (61.45)	14 (14.58)	23 (23.95)
I feel comfortable to ask for help or support from my colleagues or peers concerning errors caused by me	84 (87.50)	6 (6.25)	6 (6.25)
I am concerned that disclosing a medical error to a patient would damage the patient's confidence in my abilities	63 (65.62)	10 (10.41)	23 (23.95)
In general, when thinking about disclosing medical mistakes, I am concerned about professional discipline	81 (84.37)	9 (9.37)	6 (6.25)
The work overload and stressful routine are also a major cause of decreased error reporting	85 (88.54)	4 (4.16)	7 (7.29)
Medical staff feels like their mistakes are held against them when an event is reported with a fear of lawsuits	80 (83.33)	11 (11.45)	5 (5.20)
Chairman and directors provide adequate support when problems arise and encourage to find positive solutions	39 (40.62)	15 (15.62)	42 (43.75)
I think there is under reporting of errors in our institute	79 (82.29)	11 (11.45)	6 (6.25)

Table-2: Basic knowledge related to medical error reporting.

	Yes n (%)	No n (%)
Do you have the knowledge of medical error	81 (84.4)	15 (15.6)
Do you know the difference between minor and major error	63 (65.6)	33 (34.4)
Have you or anyone working with you ever made a mistake that prolonged treatment or caused discomfort	71 (74)	25 (26)
Did you report his/her mistake to the institution	16 (16.7)	80 (83.3)
Have you or anyone working with you ever made a mistake that caused disability or death	48 (50)	48 (50)
Did you report his/her mistake to the institution	6 (6.3)	90 (93.7

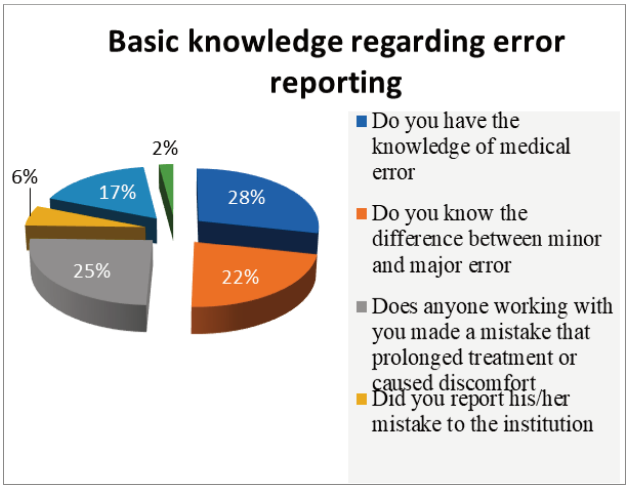

Figure-3: Basic knowledge regarding error reporting.

their colleagues or family, while 11 participants (11.45%) believed that the reporting mechanism in place at the university was effective. Conversely, 79 surgeons (82.29%) believed that medical errors were underreported in the institute. However, a very large proportion of those surveyed [89 (92.70%)] agreed to be more willing and to report more errors if there were a feedback system in place. Among the possible causes given for low reporting of medical error, long working hours was attributed as the major reason by 85 participants (88.54%) (Figure 2). The remaining information related to residents' attitudes and practice towards error reporting is given in Table 1.

Discussion

As with most of the studies conducted so far, there is a dire need to analyse medical errors committed by surgeons versus actual reporting. When it came to knowledge about what actions constituted medical error, only seventeen respondents (17.7%) in our study claimed that they knew how to report a medical error as compared to a study carried out by Kaldijan.[8]

In contrast, a higher proportion of surgical residents in our study [89 (92.7%)] were willing to report their errors more frequently, if they received positive feedback on how to curtail their errors along with more support from healthcare authorities.[5] Surgeons in our study also felt more comfortable in discussing their errors with their colleagues [84 (87.5%)] as compared to a study carried out in Saudi hospitals on reporting errors Yet, only 39 participants (40.6%) in our study had faith in the Department's Chairman to provide positive solutions. This indicates a lack of trust among Pakistani surgeons in their supervisors.[9]

Also noteworthy among the respondents [80 (83.3%)] in this survey was the fear that potential mistakes could be used against a surgeon in his/her career. This belief was less prevalent in a study carried out in Hamadan City, Iran.[10] In our study, the most common factor attributed to infrequent reporting of medical error was prolonged working hours [85 (88.5%)], which not only significantly contributed to committing an error but also led to a failure in error disclosure. Extended work duration and stressful routine in both on and off-duty periods due to consecutive hours of driving, marital issues, sleep-deprivation and financial constraints affected the respondents.[3]

Just as important a barrier was the belief that reporting medical errors would lead to lawsuits as well as prove to be an impediment to professional success [80 (83.3%)]. This fear is relatively well founded and is also associated with increased negative media coverage.[11,12]

Although the study was based on the condition of anonymity, it was feared to fall prey to the social desirability bias which leads respondents [63 (65.6%)] to answer questions in a way that was more socially acceptable for them. Secondly, the number of females in our studies was low [28 (29.2%)], which is both due to an aversion of surgical specialities by women in Pakistan as well as the nature of the non-probability sampling technique. Moreover, the input of consultants in our study was low [5 (5.2%)], which can be rectified in the future.

Conclusion

The under-reporting of medical errors results in poor quality health services and decreased reliance of the patients on health service providers. Most surgeons had a positive view towards the process but believed that the error reporting system is non-existent at present in our setup. Though many barriers to error reporting were highlighted in this study, endorsement of error prevention

activities for the practising surgeons and residents must be addressed to improve the safety of the hospitalised patients.

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Conflict of Interest: None.

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