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RESEARCH ARTICLE

# Barriers to Sentinel Events Reporting in Tertiary Hospital at Dammam, Saudi Arabia

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## Abstract:

The objective of this study was to find out the barriers of sentinel events reporting at tertiary hospital and then formulate recommendations to ameliorate based the findings of this study. The study was carried out in 2015 and conducted as two parts; the first part is a retrospective data, review of Occurrence Variance Reports forms according to the reporter. The second part was through self-administered questionnaires, which was randomly distributed to the hospital staff. A total of 120 completed questionnaires out of 135 were received. In this study we found that the commonest reasons that prevent the hospital staff from reporting the sentinel events are poor communication of policy and procedure of sentinel events reporting, lack of motivation among the staff to report sentinel events in 28 % and 26 % respectively. Staff fear of punitive actions from the hospital administration was rated as the first and second priority reason in preventing employee reporting sentinel events in about half of the cases. No feedback from reporting sentinel events was the reason for under reporting in about one fifth. Sentinel events definition was not clear and sentinel cases reporting form was not available in 14 % and 15 % respectively. This study highlights the common factors that may contribute to under-reporting of sentinel events in tertiary hospital. The findings may be useful in formulating beneficial strategies to improve reporting which will have great value on quality of care and patient safety.

**Keywords:** OVR, Occurrence, Near miss, Sentinel Events, Under-reporting, Barriers

## Introduction

Human error is the major contributory factor in about 80% of accidents occurring in hazardous work enviroments [1, 2]. The human failures are complex by nature, this has been recognized by many large organizations, for which the advance was made in the distinction between active and latent failures [3].The distinction between active failures which are made by the people at the sharp end of the system and latent failures which are made by the people remote from the workplace. This distinction lead to adoption of less punitive approach to error management and the errors can be made by the people remote from the workplace have a significant role in accident causation in comparison to the people at the sharp end of the system. Latent failures are usually the ones that are present within the system and can lead to unsafe acts from the people at the sharp end that is the active failures. The latent failures are critical and difficult to identify while the active failures sequels are immediate and evident [4].For healthcare organizations and in order to achieve the success in care provided, organizations should learn from their mistakes and their previous failures. Learning from the past is best accomplished if the event reporting is reliable. Underreporting is not uncommon worldwide problem as the underreporting of adverse event in United States reaches to 50-96% annually [5-8]. Studies have shown that the fact that many healthcare organization emphases on blame in investigating medical error and the fear of legal consequences have led to aggravate the problem of underreporting in medical fields [9]. A sentinel event defined as an unexpected occurrence, or the risk thereof. Serious injury specifically includes loss of limb or function or can results in death. Sentinel event is called so because it signals the need for immediate investigation and response [9].

The objective of this study was to find out the barriers of sentinel events reporting at tertiary hospital and then formulate recommendations to ameliorate based the findings of this study.

## Methods

Study was conducted as two parts; the first part is a retrospective data review of Occurrence Variance Reports forms according to the reporter (OVRs). Our OVR form contain patient information, occurrence Details (by the person witnessed / the occurrence involved), person(s) involved, affected employee information, occurrence brief description, classification of occurrence, immediate intervention taken, name of person taken the intervention, reporter Information, and witness/s Information.

OVR's data was collected from physicians, nurses, others health care providers such as: (specialists, technicians, etc.), patients and their families and all DMC customers.

The second part was through self-administered questionnaires conducted in DMC, participants in the study, carried out in 2015. As a questionnaire was carried out to identify the barriers that prevent the DMC staff, from reporting sentinel events. A questionnaire was designed in English translated to Arabic

since the Arabic is the first language of most of DMC employees. Potential participants were initially contacted via hospital risk management department staff. The purpose of the study was explained and those who were interested volunteered to complete the questionnaire. This yielded a total of 120 completed questionnaires out of 135 that were distributed. We selected the participants for our study randomly among all hospital staff; nurses from different departments; (in-patients & out-patients), physicians from different specialties, specialist and technicians were also randomly selected. The distributed questionnaire constitutes of 10 main reasons for under-reporting of sentinel events as documented in the published literatures. The participant is then asked to rank these 10 reasons according to importance from 1 to 10, where number one is the most important and most frequent reason and number 10 as the least important and least frequent reason (Appendix 1).

Data after being checked for accuracy were fed on a personal computer and the statistical tests used included frequencies and proportions.

## Results

Risk management department (RM) in Dammam Medical Complex was established as separate well-established department by all hospital staff in June 2014. From June 2014 to April 2015, RM department received total of 921 OVRs. 53.7% of the OVRs were completed by the nursing hospital staff, doctors were source of reporting of OVRs in 29.3%, and about 17% of the OVRs received were from other healthcare workers (Figure 1).

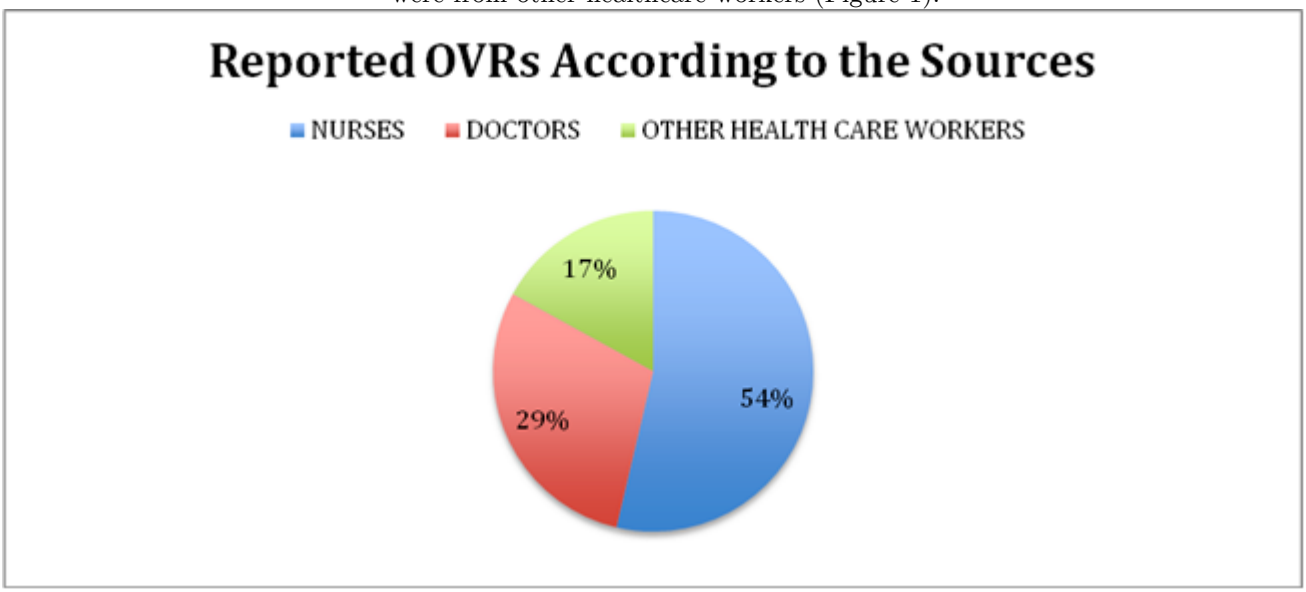


**Figure 1:** The distribution of Occurrence Variance Reports (OVRs) according to the profession of the reporter.

The commonest reasons that prevent the DMC staff from reporting the sentinel events, as demonstrated in Table 1 includes that the policy and procedure of sentinel events reporting was not communicated adequately to the staff and this was the reason in 28% of the cases, followed by the lack of motivation among staff to report sentinel events in 26%. Staff fear of punitive

actions from the hospital administration was rated as the first and second priority reason in preventing employee reporting sentinel events in about half of the cases (Figure 3). The fact that there is no feedback from reporting sentinel events was the reason for under reporting in about one fifth of the surveyed DMC employees. Of the least important barriers for under-reporting was the fact that the sentinel events definition was not clear, that was the reason in 14 % of the cases while the sentinel cases reporting form was not available in about 15 % of the cases (Figure 3).

**Table 1:** The results of the survey of the sentinel events reporting barriers.

| **Under-reporting Causes** | **Priority of Causes of Under Reporting as Percentage (%)** | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | **1st** | **2nd** | **3rd** | **4th** | **5th** | **6th** | **7th** | **8th** | **9th** | **10th** |
| 1.Sentinel Event policy & procedure are not communicated | 28.57 | 7.14 | 11.90 | 19.05 | 2.38 | 7.14 | 2.38 | 0 | 11.90 | 9.52 |
| 2.Fear of punitive sequel | 24.44 | 24.44 | 13.33 | 4.44 | 8.89 | 6.67 | 4.44 | 4.44 | 2.22 | 6.67 |
| 3.Lack of motivations | 26 | 12 | 6 | 14 | 12 | 6 | 6 | 8 | 6 | 4 |
| 4.Unknown definition & types of Sentinel Events | 11.90 | 14.29 | 14.29 | 4.76 | 11.90 | 7.14 | 11.90 | 2.38 | 7.14 | 14.29 |
| 5.Lack of feedback after reporting | 19.60 | 17.65 | 17.65 | 11.76 | 5.88 | 9.80 | 1.96 | 5.88 | 3.92 | 5.88 |
| 6. Lack of awareness in how to fill the Sentinel Event form | 0 | 10 | 10 | 2.50 | 10 | 7.50 | 20 | 20 | 10 | 10 |
| 7. Sentinel Event report form is not available or not within your reach | 4.88 | 2.44 | 7.32 | 7.32 | 2.44 | 7.32 | 14.63 | 31.70 | 7.32 | 14.63 |
| 8. No effective communication among healthcare providers | 9.09 | 4.54 | 15.90 | 22.73 | 9.09% | 13.64 | 9.09 | 9.09 | 2.27 | 4.54 |
| 9. Lack of electronic system for reporting Sentinel Events | 7.14 | 16.67 | 16.67 | 11.90 | 7.14% | 11.90 | 0 | 0 | 19.05 | 9.52 |
| 10. Lack of Hospital measures taken after Root Cause Analysis of the Sentinel Event | 14.0 | 18.0 | 26.0 | 0.0 | 14.0 | 4.0 | 8.0 | 2.0 | 8.0 | 6.0 |

**N.B.** There are some participants had selected more than one barrier to the same rank and moreover others who left some of the barriers unranked as they though it has no role in preventing reporting of sentinel events. Thereof, the total number might be less than or exceeding the 100 %.

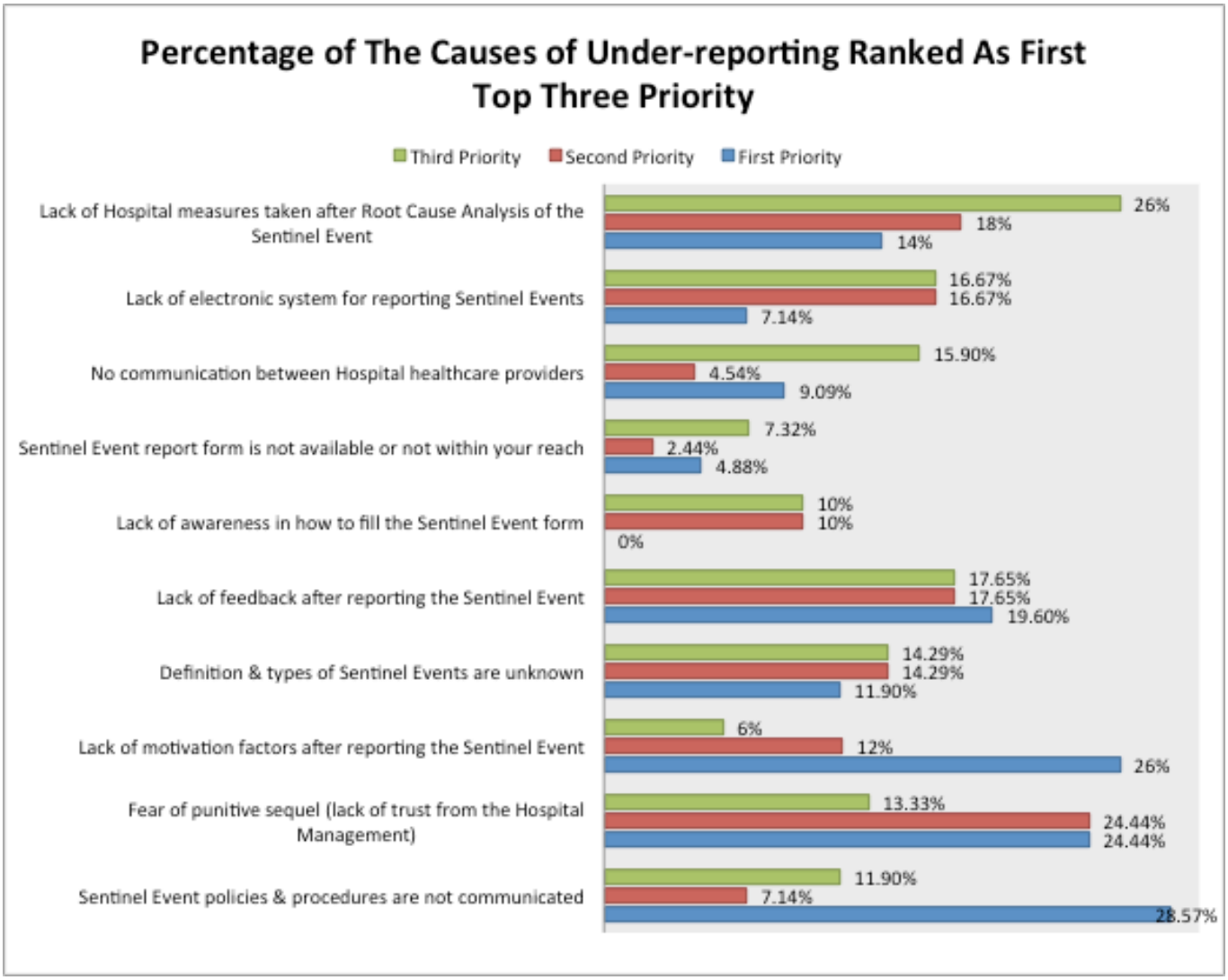


**Figure 3**: Percentage of the Barriers for Under-reporting of Sentinel Events According to Our Survey

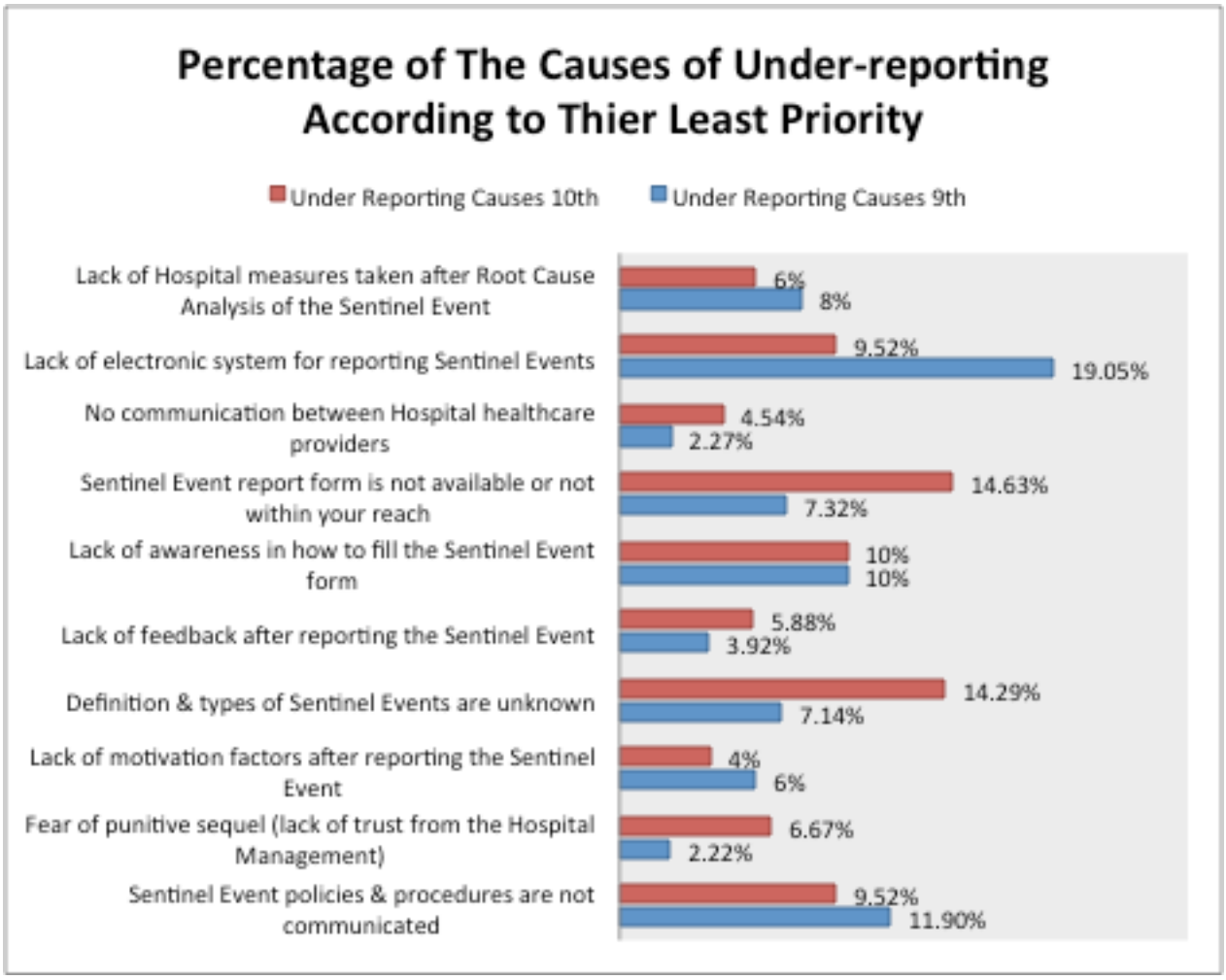


**Figure 4**: Sentinel Events Under-Reporting Causes and Their Percentage of Them Being Rank as Least Two Priority.

## Discussion

Patient safety incidents are defined as any unintended event caused by the health care that either did or could have led to patient harm. The safety related incidents have been shown to cause harm among hospital in-patients in 3% to 17% of the cases [10-12]. Although it was reported in literatures that if the healthcare industry wants to learn from its mistakes, miss or near miss events, it will need to take incident reporting as seriously as the health budget [13]. The healthcare professionals are usually reluctant to report behavior that has negative consequences for the patients. Moreover, Doctors are more unwilling than nurses or other healthcare workers to report adverse incidents to a senior staff member as it was clearly demonstrated in our study. The reluctance of all healthcare professionals informally to report a colleague a superior member of staff may simply represent a lack of just culture [14]. In 2002, a study was conducted in three metropolitan public hospitals in Adelaide, South Australia. The study objectives were to examine staff attitudes towards incidents reporting and to identify measures that can facilitate incident reporting. This study was carried out in qualitative method, through semi-structured questionnaires administered

to five focus groups (consultants, registrars, resident medical officers, senior nurses, and junior nurses) with total participants of 14 medical and 19 nursing staffs. Study has found that there are significant cultural differences between doctors and nurses, as nurses reported the incidents more habituallyowing to the fact that they have more directive cultures with clear established protocols unlike doctors where their culture are less transparent. In the same study common barriers to reporting incidents included time constraints, unsatisfactory processes, deficiencies in knowledge, cultural norms, inadequate feedback, beliefs about risk, and a perceived lack of value in the process [15]. The reporting barriersthat was encountered in our study with different ranked priority as the deficiency in clear communicated policy and procedures, fear of punitive sequels after reporting, and lack of motivation in 28.6%, 24.4%, and 26% respectively. The definition of sentinel incidents and clarity and availability of the reporting form were the least ranked barriers for reporting representing about 14 % for each separately. The limitation of our study is that it did not take into consideration the years for experience for every staff participated in this study, and the common reporting barriers in doctors, nurses, and other healthcare workers separately.

## Conclusion

Patient safety reporting is a key element of management within healthcare facilities. Several factors may contribute to under-reporting of incidents, commonest of which are lack of clear knowledge on what to report, how/where to report and presence of blame culture. Working on strategies to improve reporting on patient safety related incidents is ultimate goal for healthcare institutes that considered quality as core of their services.

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**Appendix1:** The Distributed Survey Form

**DAMMAM MEDICAL COMPLEX**
**BARRIERS FOR SENTINEL EVENTS REPORTING**

**Department:.....** **Position:.....**

In the survey below, there is ten reasons that prevent you as a hospital staff from reporting sentinel event that you might encounter,

- Please; put the causes in order of importance with ,
- # 1 being the most important reason
- # 10 is the least important reason

| REASONS THAT PREVENT YOU FROM REPORTING SENTINEL EVENTS | YOUR ORDER OF IMPORTANCE |
|---|---|
| Sentinel Event policies & procedures are not communicated | |
| Fear of punitive sequel (lack of trust from the Hospital Management) | |
| Lack of motivation factors after reporting the Sentinel Event | |
| Definition & types of Sentinel Events are unknown | |
| Lack of feedback after reporting the Sentinel Event | |
| Lack of awareness in how to fill the Sentinel Event form | |
| Sentinel Event report form is not available or not within your reach | |
| No communication between Hospital healthcare providers | |
| Lack of electronic system for reporting Sentinel Events | |
| Lack of Hospital measures taken after Root Cause Analysis of the Sentinel Event | |

**Thank you for your time in effort in completing this survey which will help us in crossing the barrier and increase the reporting of sentinel events**