



ISSN: 2230-9926

Available online at <http://www.journalijdr.com>

IJDR

International Journal of Development Research
Vol. 14, Issue, 06, pp. 65831-65835, June, 2024
<https://doi.org/10.37118/ijdr.28357.06.2024>



RESEARCH ARTICLE

OPEN ACCESS

KNOWLEDGE, ATTITUDE AND BARRIERS TO REPORTING NEAR MISS INCIDENTS IN A TERTIARY CARE HOSPITAL – A DESCRIPTIVE STUDY

*¹Dipanjali Roy and ²Pallabi Dutta

¹Assistant Manager- Quality Department, Apollo Hospitals Guwahati, Assam

²Sr. Manager – Quality Department, Apollo Hospitals Guwahati, Assam

ARTICLE INFO

Article History:

Received 11th March, 2024

Received in revised form

26th April, 2024

Accepted 21st May, 2024

Published online 28th June, 2024

Key Words:

Knowledge, Attitude, Barriers, Near miss events, Reporting, Healthcare Workers.

ABSTRACT

Background: There is a 1 in 300 chance of a patient being harmed during health care. (10 Facts on Patient Safety, 2019). Fundamentally, near misses occur more frequently, 7-100 times more than actual adverse event (Aspden P, 2004). But, it was found that near misses are infrequently documented and sometimes go unnoticed in daily clinical practice (Lee, 2021). Little attention has been given to near-miss reporting specifically despite their value in organizational learning (Helge Klapper, 2019). Therefore, understanding the knowledge, attitude and barriers to reporting near misses is essential for better patient safety related outcomes. **Aim:** To assess the knowledge, attitude and understand the barriers to reporting of near miss events among healthcare workers in a selected tertiary care hospital to enhance existing measures to increase near miss reporting to build a safe environment for patients and employees. **Methods:** The descriptive study was conducted among 400 healthcare workers of a tertiary care hospital who have been selected using non-probability purposive sampling technique. Data were collected using a demographic proforma, knowledge questionnaire, and 5-point Likert scales to assess the attitude and barriers of reporting near miss events. Analysis of the data was done using SPSS 16.0 with descriptive statistics. **Results:** The results of the study showed that out of 400 total participants, 183(45.8%) had good knowledge. Majority of the participants 203 (50.8%) had unfavourable attitude towards reporting near miss events and the major barriers identified to reporting near miss events by the participants were lack of awareness that near misses should be reported (62.5%), belief that reporting near miss events is not worthy (81%), lack of incentives and rewards upon reporting near miss events (92.3%) and difficulty in reporting near miss incidents in English language (60%). **Conclusion:** Near miss events are often remains under-reported. Therefore, knowledge on near miss reporting needs to be enhanced and the identified barriers needs to be addressed for the participants to have more favourable attitude towards reporting near miss events.

*Corresponding author: Dipanjali Roy

Copyright©2024, Dipanjali Roy and Pallabi Dutta. This is an open access article distributed under the Creative Commons Attribution License, which permits unrestricted use, distribution, and reproduction in any medium, provided the original work is properly cited.

Citation: Dipanjali Roy and Pallabi Dutta, 2024. "Knowledge, attitude and barriers to reporting near miss incidents in a tertiary care hospital – A Descriptive Study". International Journal of Development Research, 14, (06), 65831-65835.

INTRODUCTION

Quality and patient safety is a growing concern in healthcare worldwide, with medical institutions progressively putting policies in place to enhance it. Despite decades of focus, patient safety remains a primary health care concern due to the high rate of errors (Makary MA, 2016). There has been a concern that patient safety is increasingly being threatened over the last decade (The Joint Commission, 2017). One of the more specific concerns in this field is near miss reporting. According to the Office of Inspector General, only 1% of incidents are reported by health professionals. The reasons lay in the potential costs for the health organization when the actual accident happens because of the overlooking of near misses. Worldwide 43 million injuries were recorded and 23 million years healthy lives lost (Dr.Reddy, 2017). The report "To Err is Human" published in the year 2000 highlighted this issue by revealing that 44,000–98,000 deaths were estimated to occur every year in USA due to medical errors. The number was later corrected to a higher 400,000 in 2009 (Kohn, Corrigan, & Donladson, 2000). In the UK, analysis carried out by The National Health Service (NHS) show that nearly

800,000 incidents and near misses are reported every year, with more than 1868 resulting in death (Elkhider & Savage, 2020). In India, deaths due to adverse drug reaction (ADRs) are estimated to be around 400,000 annually in 720,000 adverse events per annum (Aggarwal, 2020). A total of about 5.2 million injuries occurs every year due to medical errors (Sinha, 2013). World Health Organization (WHO) defines near miss as "an error that has the potential to cause an adverse event (patient harm) but fails to do so because of chance or because it is intercepted". Near misses occur more frequently as compared to serious accidents, and each major accident is usually preceded by several near misses (L. Wright, 2004). Reporting such incidents can provide a variety of information about successful error management practices as well as weaknesses. Learning from near misses can improve safety within organizational productivity without experiencing an actual incident (Lukic D, 2012). But it is evidenced that little attention has been given to near-miss reporting despite their importance in organizational learning. Kizito, 2016 conducted a study to assess the level of knowledge and attitude towards medical incident reporting, found that 84.1% healthcare professionals knew about medical incident reporting and out of 84.1%, only 10.8% had excellent

knowledge and majority (64.9%) had average knowledge. In terms of attitude, 97.7% showed positive attitude and 2.3% negative attitude towards medical incident reporting. The barrier factors identified for non-reporting of incidents were not knowing the procedure of reporting (66.7%), weak practice or culture of reporting (41.7%) and lack of time to report incidents (25%). (Kizito, 2016). A study conducted by Lama, S and Khanal, D in 2021 to assess the knowledge and barriers of incident reporting among nurses in a teaching hospital showed that 73.1% had poor knowledge on incident reporting and major barrier factors found were high staff turnover (64.4%), lack of protocol (50%), fear of blame (59.1%), fear of penalty (57.7%), fear of administrative sanction (61.5%) and difficult to filling form (28.8%), etc. (Lama & Khanal, 2021). In another study conducted by Elkhider & Savage in 2020 to identify the barriers of near miss reporting among 159 healthcare workers in a government hospital in Saudi Arabia it was found that the major factors responsible for not reporting near misses were getting colleague in trouble, fear of professional consequences, loss of personal and departmental reputation, unaware of procedure, lack of feedback, not worthy of reporting and some others (Elkhider & Savage, 2020). Another study conducted by Sharma & Annojpit to assess the knowledge, attitude and barriers regarding incident reporting among 60 staff nurses working in a Tertiary care hospital, Ludhiana, Punjab showed that 58.3% of staff nurses had average knowledge and 80% had a positive attitude towards reporting of incidents and common barriers were fear of legal action (78.3%) and lack of time (72%) (Sharma & Annojpit, 2020). Near miss events occur 7-100 times more frequently than adverse events but their reporting is less common. Analysing the near-miss data extensively for the health care domain provides essential information on weaknesses in the health care system and on recovery processes (Aspden P, 2004). The World Health Organization (WHO) has urged health institutions to improve by regularly tracking near-misses, however, measures to address this concern remain limited, and are emerging in health institutions only gradually. The goal is to raise awareness of healthcare risks and to encourage the analysis of near-misses; therefore, corrective steps are necessary to prevent possible adverse events from causing harm. (Memin, 2022). This study is conducted with the objective is to understand healthcare workers' knowledge, attitude and barriers regarding near-miss events reporting because one year near miss events reporting statistics showed that only 7 near misses were reported in last one year (Oct 21-Oct 22).

METHODOLOGY

The study adopted descriptive design. The setting chosen for the present study is a 219 bedded tertiary care multi-speciality hospital of Assam. The organization has an approximately 1300 employees from multiple disciplines and a sample of 400 were selected using non-probability purposive sampling technique. Inclusion criteria were the health care workers who were available at the time of data collection, who were willing to participate in the study and those who are able to read and understand English, Hindi & Assamese. Doctors were excluded from the study.

Data Collection Tools: Researcher developed demographic proforma, structured knowledge questionnaire and 5-point Likert scales to measure the attitude and barriers to reporting near miss incidents were used for data collection. The demographic proforma consisted of 5 items i.e., age (in years), gender, department, educational qualification and work experience in current organisation. The structured knowledge questionnaire consisted of 10 multiple choice questions with one correct answer for each. Each correct answer carries one mark and zero for the wrong answer. The knowledge score was classified arbitrarily as "Good", "Average" and "Poor" with scores ranging from 8-10, 5-7 and 0-4 respectively. The 5-point Likert scale to measure attitude consisted of 10 statements with 5 positive statements and 5 negative statements. The Likert scale is scored from 1-5 where, for each positive statement 1= Strongly Disagree, 2= Disagree, 3= Neutral, 4= Agree, 5 = Strongly Agree and reverse scoring has been done for each negative statement. Similarly, the scoring has been done for the 5-point Likert scale to measure the

barriers to reporting near miss. Reliability of the tools were found to be 0.83 (knowledge questionnaire), 0.89 (Likert Scale on Attitude) checklist) and 0.79 (Likert Scale for barriers) using split half method and Cronbach's Alpha reliability tests respectively. The tools were pre-tested among 5 health care workers from the departments of Nursing, Paramedics, Administrative and Support Staff. Pilot study was done among 10 staff from Nursing, Paramedics, Admin & Support staff and the study was found to be feasible.

Ethical Consideration: Permission was obtained from the Head of the Organisation following which IEC clearance (NECRBHR, DHR No EC/NEW/INST/2023/AS/O292) was obtained and the study was conducted from Oct 22- Dec 22. Informed consent was obtained from each participant after explaining the participant information sheet before data collection.

Data Collection Procedure: The researcher approached the health care workers of all departments during their duty hours (2 times a day to cover morning and evening staff) and explained the participant information sheet following which consents were taken and the tools were administered to the participants after explaining the tools. Each participant was given 45 mins to complete the data collection tools.

Statistical analysis: Data were analysed using SPSS version 16.0. Frequency and percentage of each study variable was calculated.

RESULTS

The results of the study can be explained under the following main headings as follows:

Demographics: The data obtained from the demographic proforma showed that out of 400 total participants, 248 (62%) of them were between the age group of 25-35 years (Minimum age was 22, maximum age 54 and mean age was 33±7). Majority of the participants 243(60.8%) were females and 133 (33.2) were from Nursing Department. Most of the participants 151(37.8) were graduates. The years of work experience of majority of the participants 178(44.5%) were ranging from 1-5 years (minimum experience 1 month and maximum 26 years). (Table 1)

Description of knowledge level of the participants: Based on the scores in the knowledge questionnaire, knowledge has been categorized into good (8-10), average (5-7) and poor (0-4). Table 2 shows that out of 400 participants, 183 participants (45.8) had good knowledge, 98 (24.5%) had average knowledge and 119 (29.8%) had poor knowledge on near miss events. The mean knowledge score is 5.64 ± 3.79. Maximum and minimum knowledge scores are 10 and 0 respectively.

Description of attitude of the participants: Based on the 5-point attitude scale, attitude has been categorised into favourable (≥80% or score ≥40) and unfavourable (<80% or score ≤40). Majority of the participants 203 (50.8%) had unfavourable attitude towards reporting near miss events (Table 3).

Description of barriers to reporting near miss events: Table 4 shows the perceived barriers to reporting near miss events by the participants but the barriers reported by majority of the participants with regard to reporting near miss events were lack of awareness that near misses should be reported (62.5%), belief that reporting near miss events is not worthy (81%), lack of incentives and rewards upon reporting near miss events (92.3%), difficulty in reporting near miss incidents in English language (60%) and heavy workload which didn't seem to influence them to report near miss events (76%).

DISCUSSION

The findings of the study revealed that out of 400, 183 (45.8%) of the participants had good knowledge which is in contrast to the studies

Table 1. Frequency and percentage of demographic variables

| Participant characteristics | Categories | Frequency | Percentage |
|---|-----------------|-----------|------------|
| Age (in years) | <25 | 25 | 6.3 |
| | 25-35 | 248 | 62.0 |
| | 36-45 | 103 | 25.8 |
| | 46-55 | 14 | 6.0 |
| Gender | Male | 157 | 39.2 |
| | Female | 243 | 60.8 |
| Department | Nursing | 133 | 33.2 |
| | Paramedics | 78 | 19.5 |
| | Housekeeping | 78 | 19.5 |
| | Admin & Support | 111 | 27.8 |
| Educational Qualification | HSLC | 48 | 12.0 |
| | HS | 74 | 18.5 |
| | Diploma | 104 | 26.0 |
| | Graduate | 151 | 37.8 |
| Work Experience in Current Organization | Post Graduate | 23 | 5.8 |
| | <1 year | 26 | 6.5 |
| | 1-5 years | 178 | 44.5 |
| | 6-10 years | 75 | 18.8 |
| | 11-15 years | 59 | 14.8 |
| | 16-20 years | 28 | 7.0 |
| | 21-25 years | 32 | 8.0 |
| 26-30 years | 02 | 0.5 | |

Table 2. Frequency and percentage distribution of participants' knowledge level of near miss incidents

| Knowledge Level | Frequency | Percentage | Maximum Score | Minimum Score | Standard Deviation |
|-----------------|-----------|------------|---------------|---------------|--------------------|
| Good (8-10) | 183 | 45.8 | 10 | 0 | 5.64 ± 3.79 |
| Average (5-7) | 98 | 24.5 | | | |
| Poor (0-4) | 119 | 29.8 | | | |

Table 3. Frequency and percentage distribution of the attitude of participants towards reporting near misses

| Attitude Maximum possible score 50 | Attitude | |
|------------------------------------|-----------|----------------|
| | Frequency | Percentage (%) |
| Favourable (≥80%) | 197 | 49.8 |
| Unfavourable (<80%) | 203 | 50.8 |

Table 4. Item-wise frequency and percentage of barriers to reporting near miss

| Strongl Statements | Strongly Agree | | Agree | | Neutral | | Disagree | | Strongly Disagree | |
|--|----------------|----|-------|----|---------|----|----------|----|-------------------|----|
| | f | % | f | % | f | % | f | % | f | % |
| I have not heard of near miss. | 58 | 15 | 37 | 9 | 23 | 6 | 78 | 20 | 204 | 51 |
| I am not aware that near misses should be reported. | 202 | 51 | 48 | 12 | 12 | 3 | 41 | 10 | 97 | 21 |
| I am not aware of the procedure of reporting near miss events | 1 | 0 | 10 | 3 | 34 | 9 | 79 | 20 | 276 | 69 |
| I feel that someone else (not me) should report near miss. | 5 | 1 | 16 | 4 | 22 | 6 | 133 | 33 | 224 | 56 |
| I don't feel worthy of reporting near miss. | 243 | 61 | 81 | 20 | 27 | 7 | 28 | 7 | 21 | 5 |
| I was encouraged and given incentive for reporting near miss. | 18 | 5 | 8 | 2 | 5 | 1 | 91 | 23 | 278 | 70 |
| The Organisation's Incident Reporting System (AIRS) should also be available inHindi / Assamese. | 245 | 61 | 85 | 21 | 42 | 11 | 16 | 4 | 12 | 3 |
| I feel like I might lose personal reputation if I report near miss | 2 | 1 | 14 | 4 | 12 | 3 | 129 | 32 | 243 | 61 |
| I fear that reporting a near miss might affect our department's reputation | 3 | 1 | 18 | 5 | 7 | 2 | 86 | 22 | 286 | 72 |
| I fear that I might lose my job or get punishment for reporting a near miss | 4 | 1 | 9 | 2 | 19 | 5 | 132 | 33 | 236 | 59 |
| I am afraid of getting my colleague in trouble by reporting the near miss | 23 | 6 | 11 | 3 | 9 | 2 | 148 | 37 | 209 | 52 |
| The huge amount of workload does not seem to influence me to report near miss. | 189 | 47 | 114 | 29 | 36 | 9 | 27 | 7 | 34 | 9 |

conducted by Lama & Khanal, 2021 and Elkhider & Savage, 2020 where 73.1% and 65% of the participants had poor knowledge of incident and near miss reporting respectively. However, similar findings were found in the studies conducted by Kizito, 2016, and Evans, et al., 2006 where 64.9% and 98.3% of the participants had good knowledge of incident reporting. The present study revealed that 50.8 % of the participants have unfavorable attitude towards reporting near miss incidents and 49.8% had favorable attitude towards reporting near miss events which is in contrast to the study conducted by Kizito, 2016 where 97.7% had strong positive attitude towards

medical incident reporting. The study conducted by Sharma & Anoojit, 2020 revealed that out of 60 participants, 80% had positive attitude towards reporting incidents which is in contrast to this study where 50.8% has unfavourable attitude. One of the major barriers reported by majority of the participants with regard to reporting near miss events were lack of awareness that near misses should be reported (62.5%). Similar finding was reported in the study conducted by Singal, et al., 2018 where 58.1% of the respondents did not think near misses were reportable. Another barrier to reporting near miss incidents revealed from the present study is that 76% of the

participants reported that heavy workload didn't seem to influence them to report near miss events which has similar findings with the studies conducted by Lama & Khanal, 2021, Banakhar, Tambosi, Asiri, Banjar, & Essa, 2017 and Evans, et al., 2006 where 40.4%, 53.6% and 48.1% of the respondents respectively reported work complexity as the major barrier. It was found in the present study that only 3% of the participants agreed that they fear they might lose their job or get punishment for reporting near miss events and 3% reported lack of awareness of the procedure of reporting near miss events. Similar finding was reported in the study conducted by (Hwang, Lee, & Park, 2012) where only 2.1 % of the respondent perceived fear of blame as barrier and 6.3% reported lack of knowledge and skill related to incident reporting. Belief that reporting near miss events is not worthy which was reported as a barrier by 81% of the participants of the present study resembles the study findings of Evans, et al., 2006 where 49% of the respondents reported that there was no point in reporting near miss incidents. Thus, the results of the present study indicates that despite majority of the participants having good knowledge on near miss events and its reporting, the attitude towards reporting the near miss events is unfavorable of majority of the participants. Measures to overcome the reported barriers needs to be strengthened.

Study Implications: Studying knowledge, attitudes, and barriers to reporting near miss incidents can have several practical and managerial implications. Some of the potential implications are as follows:

1. **Identifying Knowledge Gaps:** Understanding what employees know about near miss incidents can highlight areas where additional training or education is needed. If there are misconceptions or lack of awareness about what constitutes a near miss, targeted educational programs can be developed to address these gaps.
2. **Addressing Attitudes Towards Reporting:** Assessing employees' attitudes towards reporting near misses can help identify potential barriers to reporting, such as fear of reprisal or concerns about the time-consuming nature of reporting processes. Managers can then work to create a culture that values near miss reporting, emphasizing its importance in preventing future accidents and fostering a blame-free environment.
3. **Improving Reporting Systems:** Insights gained from the study can inform the design and implementation of near miss reporting systems. This might involve simplifying reporting procedures, providing multiple reporting channels, or introducing incentives for reporting. By making it easier and more rewarding for employees to report near misses, organizations can increase the likelihood of capturing valuable safety-related data.
4. **Enhancing Risk Management Strategies:** Near miss reporting data can be a valuable resource for identifying potential hazards and improving risk management strategies. By analysing trends in reported near misses, organizations can proactively address underlying issues before they escalate into serious incidents, thereby reducing the likelihood of accidents and improving overall safety performance.
5. **Promoting Organizational Learning:** Encouraging near miss reporting fosters a culture of continuous learning and improvement within an organization. Managers can use reported near misses as opportunities for discussion and reflection, facilitating knowledge sharing and promoting a proactive approach to safety.
6. **Compliance and Regulatory Requirements:** Understanding the barriers to reporting near misses can help organizations ensure compliance with regulatory requirements. By addressing these barriers, organizations can demonstrate their commitment to safety and minimize the risk of penalties or legal consequences associated with underreporting.
7. **Resource Allocation:** Insights from the study can inform decisions about resource allocation for safety initiatives. By identifying common barriers to reporting, organizations can

allocate resources to address these challenges effectively, whether through additional training, technological solutions, or changes in organizational policies and procedures.

Overall, studying knowledge, attitudes, and barriers to reporting near miss incidents can lead to actionable insights that enable organizations to improve safety performance, enhance risk management practices, and foster a culture of continuous learning and improvement.

Study Limitations: The limitations in this study are as follows:

1. The study was conducted in one setting only hence it limits the generalization of findings.
2. Doctors were not included in the study increasing the probability of under-reporting of clinical near miss events.
3. The sampling technique adopted for the study is non-probability purposive sampling technique which limits the generalizability of the results.

Study Recommendations

The study recommends the following:

1. Studies can be done exclusively and more extensively among the doctors.
2. Comparative studies using probability sampling techniques can be conducted in multiple settings. Interventions to increase
3. The knowledge, change the attitude and overcome the barriers to reporting near miss incidents to be planned and implemented.

CONCLUSION

Near misses were hardly reported, so to increase the reporting, this study was conducted with the objective to assess the baseline knowledge and attitude and identify the barriers to reporting near miss incidents by health care workers so that interventions can be planned and implemented accordingly. The results showed that despite majority of the staff having good knowledge, the attitude of majority of them were unfavorable. Based on this finding, culture development programs, trainings, reassurance of blame free culture, etc. can be initiated. Major barriers to reporting the near misses have been identified and measures to overcome the identified barriers shall be incorporated.

Acknowledgement: We thank the entire team of Apollo Hospitals Guwahati for enabling us to carry out this study successfully. Our sincere thanks to Ms. Priya Baruah who had helped us extensively in collecting the data while doing her MHA internship in the Department of Quality, Apollo Hospitals Guwahati.

Conflict of Interests: The Authors declare that there is no conflict of interest.

REFERENCES

- (2019). 10 Facts on Patient Safety . World Health Organization.
- Aggarwal, K. K. (2020). Getting health care through modern medicine is not without risk. India: Indian Medical Association. Retrieved from <https://www.ima-india.org/ima/left-sidebar.php?pid=210>; <https://www.ima-india.org/ima/left-sidebar.php?pid=210>
- Aspden P, C. J. (2004). Institute of Medicine (US) Committee on Data Standards for Patient Safety. Washigton: National Academies Press (US).
- Banakhar, M. A., Tambosi, I. A., Asiri, S. A.-A., Banjar, Y. B., & Essa, Y. A. (2017). Barriers of Reporting Errors among Nurses in a Tertiary Hospital. *International Journal of Nursing & Clinical Practice*, 4, 245. doi:<https://doi.org/10.15344/2394-4978/2017/245>

- Dr.Reddy, N. G. (2017). Prevention of errors in health care- patient (Medical customer) safety. *Journal of Basic and Clinical Research*, 4(2), 19-23.
- Elkhider, S., & Savage, B. M. (2020). Missing chances to learn: a case study of barriers to near-miss reporting in a hospital. *Business Process Management Journal*, 26(3), 721- 735.
- Evans, S. M., Berry, J. G., Smith, B. J., Esterman, A., Selim, P., Shaughnessy, J. O., & DeWit, M. (2006). Attitudes and barriers to incident reporting: a collaborative hospital study. *BMJ Quality & Safety*, 15(1), 39-43. doi:http://dx.doi.org/10.1136/qshc.2004.012559
- Helge Klapper, J. M. (2019). Organizational Learning from Near Misses. Academy of Management Annual Meeting Proceedings.
- Hwang, J.-I., Lee, S.-I., & Park, H.-A. (2012). Barriers to the Operation of Patient Safety Incident Reporting Systems in Korean General Hospitals. *Healthcare Informatics Research*, 279-286.
- K., O. (2016). Knowledge, attitude and practice of medical incident reporting among healthcare professionals of Midigo health centre IV. ResearchGate.
- Kizito, O. (2016). Knowledge, Attitude and Practice of Medical Incident Reporting Among Healthcare Professionals: A Study of Midigo Health Centre IV. *Texila International Journal of Medicine*, 4(2), 1-20.
- Kohn, L. T., Corrigan, J. M., & Donladson, M. S. (2000). *To Err Is Human: Building a Safer Health System*. Washigton, D.C.: National Academy Press. Retrieved from <http://www.nap.edu/catalog/9728.html>
- L. Wright, T. S. (2004). Accidents versus near miss causation : a critical review of the literature , an empirical test in the UK railway domain , and their implications for other sections , ESReDA Seminar on Safety Investigation of Accidents , Petten. *Journal of Hazardous Materials*.
- Lama, S., & Khanal, D. (2021). Knowledge and Barriers of incident reporting among nurses in teaching hospital, Bharatpur. *Journal of Chitwan Medical College*, 11(37), 115-118.
- Lee, J. (2021). Understanding nurses experiences with near-miss error reporting omissions in large hospitals. *Nursing Open*.
- Lukic D, L. A. (2012). A framework for learning from incidents in the workplace. Google Scholar.
- Makary MA, D. M. (2016). Medical error - the third leading cause of death in the U.S. PubMed.gov.
- Memin, S. I. (2022). A retrospective analysis of near-miss incidents at a tertiary care teaching hospital in Riyadh, KSA. *Journal of Taibah University Medical Sciences*, 17(2), 235-240. doi:https://doi.org/10.1016/j.jtumed.2021.11.014
- Sharma, K., & Annojpit , K. (2020). A Study to Assess the Knowledge, Attitude and Perceived Barriers on Incident Reporting among Staff Nurses Working in a Tertiary Care Hospital, Ludhiana, Punjab. *International Journal of Nursing Education*, 12(1), 142-145. doi:10.5958/0974-9357.2020.00031.8
- Singal, M., Zafar, A., Tbakhi, B., Jadhav, N., Alweis, R., & Bhavsar, H. (2018). Assessment of knowledge and attitudes towards safety events reporting among residents in a community health system. *Journal of community hospital internal medicine perspectives*, 8(5), 253-259. doi:10.1080/20009666.2018.1527670
- Sinha, K. (2013). India records 5.2 million medical injuries a year. India: The Times of India.
