Acta Scientific MEDICAL SCIENCES (ISSN: 2582-0931)

Volume 8 Issue 4 April 2024

Research Article

Attitudes and Barriers to Incident Reporting Among Health Care Workers in Wazarat PHC in Riyadh, Saudi Arabia

Bandar Alhumaidi Alharbi[1]*, Anas abdullah Alsalman[2], Dakhel Fahad Almubarak[1], Shorug Khalid AlWayili[1], Bodoor Ghanem Alanazi[3], Mostafa Kofi[1] and Medhat Mohamed[1]

[1]Family Medicine Department, Prince Sultan Military Medical City, Riyadh, Saudi Arabia

[2]Family Medicine Department, King Fahd Specialist Hospital, Buraydah, Saudi Arabia

[3]College of Pharmacy, Prince Sattam Bin Abdulaziz University, Alkharj, Saudi Arabia

***Corresponding Author:** Bandar Alhumaidi Alharbi, Family Medicine Department, Prince Sultan Military Medical City, Riyadh, Saudi Arabia.

DOI: 10.31080/ASMS.2024.08.1786

Received: February 26, 2024

Published: March 15, 2024

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Abstract

Objectives: The issue of malpractice at the end of health care by providers is not new, but, in reality, how many incidents are reported is a big question. This study aimed to assess the utility and use of the current incident reporting system by primary health care physicians working in Riyadh, Saudi Arabia.

Methods: A cross-sectional, self-administered survey was conducted between October 2022 and December 2022. The research team designed the questionnaire using relevant literature and experience relevant to the existing health care system in Saudi Arabia. Questionnaire validated by two experts in the subject, pilot testing and Cronbach's alpha tests. Health care workers' attitudes of doctors, pharmacists, nurses, and administrators toward the incident reporting system were examined.

Results: Our study showed that the majority of health care practitioners have positive attitudes toward the incident reporting system in Wazarrat PHC; a higher proportion of awareness was found among physicians and technicians, while a lower proportion was found between nurses and pharmacists. Saudis reported more incidents than non-Saudis per the last 12 months (P = 0.027). However, both have a similar awareness of the incident reporting system. Fear of the negative consequences of reporting was the main barrier limiting reporting.

Conclusions: Overall, the attitudes of most health care practitioners tended to lean toward positive. The nursing staff had less knowledge of the existing incident system than physicians. However, medical errors and incidents were underreported, mainly because of fear of the repercussions of incident reporting. Thus, health care workers should be encouraged to report with a blame-free teamwork environment as well as be trained and educated on using the incident reporting system in PHC settings.

Keywords: Patient Safety; Incident Report; PHC; Knowledge

Introduction

Patient safety incidents are defined as any event that results in unnecessary harm to a patient [1]. Patient safety incidents are common, and approximately 24-85% of these incidents are avoidable [2]. Hence, reporting systems are an important element of health care facilities [3]. Hospitals must be equipped with all relevant infrastructure and technical support to maintain a reporting system that includes all relevant details regarding patient safety incidents. These systems are important for taking necessary action toward improving health quality, patient safety, and management of complaints [4,5]. Patient safety is a fundamental requirement in health care delivery and is defined as the prevention and avoidance of adverse events or patient injuries that occur during health care delivery [6]. Errors can occur in disease diagnosis, prescription, management, communication, procedures, and environmental error [7]. The importance of research on patient safety in health care has recently become known [8]. Furthermore, most patient contacts occur in primary health care [9]. Therefore, the focus on patient safety in primary health care has increased further [10]. In addition, these errors in primary health care settings are completely different from those found in hospital settings, which has led to a greater focus on errors occurring in primary health care [11]. There is less information about the causes, nature, and consequences of these incidents in primary health care. In addition, the World Health Organization (WHO) has noted the importance of increasing the need to study and address patient safety in primary care settings [12]. Consequently, in 2012, the WHO started a group to study issues related to patient safety in primary health care [12]. These errors have been found to have a serious impact on patient safety and must be addressed in every organization to improve health care quality [13].

In monitoring patient safety, several barriers have been documented to reporting incident among GPs, such as unreliable or limited data on serious incidents, difficulty in managing the time of workload, and a lack of examples of events that are related to primary care settings [14]. Recently, there has been huge investment in patient safety actions in the Saudi Arabian health care system [15].

Previous studies in Saudi Arabia have shown that the major indicators for measuring and monitoring patient safety in hospitals are systems for reporting medical errors, awareness of the importance of patient safety, high-quality instructions, and communication [16-20]. The current health care system is becoming more complex as health care providers are required to work in fast-moving and heavy workload environments, which puts the patient at a greater risk of medical errors and harm to the patient [21]. Health care providers working in primary health care centers are considered frontline with patients; they must be trained and educated with important information regarding patient safety to decrease adverse events [22].

This study was conducted to assess health care workers' attitudes toward and barriers to incident reports in primary health care settings.

Methods

Sampling methods

A nonprobability convenience sampling technique was used. This study was conducted between October 2022 and December 2022. All health care workers, including doctors, pharmacists, nurses, and administrators in Wazarat PHC between October 2022 and December 2022, comprised approximately 194 health care workers.

Data were collected using a self-administered questionnaire developed by the research team based on relevant literature and the experience of the research team. Questionnaire validated by two experts in the subject, pilot testing and Cronbach's alpha tests. The study instruments consisted of two parts, one for the use and awareness of the incident reporting system, and the other of assess the barriers to incident reporting.

Statistical analysis

The data were entered first in an Excel sheet and then transferred to SPSS for analysis. The demographics of the participants and their use and awareness of the incident reporting system were analyzed based on frequency and percentage. The chi-square test was used to determine statistically significant differences between doctors' and nurses' use of and awareness of the incident reporting system and the reasons for not reporting incidents.

Results

Profile of participants

The total number of health care workers was 194, and their ages ranged from 19 to 63 years, with a mean age of 31 ± 6 years.

The majority of the participants were females (106; 54.6%) and 88 (45.4%) were males. Almost half of the participants were physicians (102; 52.6%) then nurses (51; 26.3%). The majority of participants were Saudi (163; 84%) versus 31 (16%) non-Saudi. Work experience for participants ranged from 1 to 3 years, accounting for 44%, which represents mostly resident physicians (Table 1).

Characteristics	Categories	Frequency	Percent
Age	Less than 30	101	52%
	between 30–60	92	47.5%
	Above 60	1	0.5%
Gender	Male	88	45.4%
	Female	106	54.6%
Nationality	Saudi	163	84%
	Non-Saudi	31	16%
Job title	Physician	102	52.6%
	Pharmacist	13	6.7%
	Nurse	51	26.3%
	Technician	8	4.1%
	Administrator	20	10.3%
Work experience by years	≤5 years	113	58.4%
	5–10 years	57	29.4%
	≥10 years	53	27.2%

Table 1: Descriptive summary of the participants sociodemographic profile (N = 194).

Health care workers use and awareness of the incident reporting system

Most health care workers at Wazarat PHC (130; 67%) were aware of the incident reporting system in the hospital, but 61 (31.4%) participants did not know about the incident reporting system, and three (1.5%) participants stated that there was no incident reporting system in the hospital. The majority of participants had never completed an incident report (147; 75.8%), and 40 (20.6%) participants had completed an incident report during the previous year. Unfortunately, more than half of the participants (119; 61.3%) did not know where or how to access the incident reporting system. More than half of the participants (115; 59.3%) had never read the incident reporting policy in the workplace. Additionally, 129 participants (66.5%) had never been trained to use the system. A large number (149; 76.8%) were unaware of the Standard Operating Procedure (SOP). A total of 73 (37.6%) participants experienced an incident that needed to be reported in the workplace. Only 62 (32%) participants had seen a colleague complete the incident reporting form. More than 90% of participants did not know the reward for reporting incidents. In contrast, more than half of the health workers knew that incident reporting was a measure of quality (110; 56.7%) (Table 2).

Items	Responses	Frequency	Percent
Health care workers use and awareness of the incident reporting system			
1. Is there an incident reporting system in your hospital?	Yes	130	67%
	No	3	1.5%
	I don't know	61	31.4%
2. Have you ever filled out an incident reporting form?	Yes	47	24.2%
	No	147	75.8%
3. Have you ever filled out an incident reporting form during the past year?	Yes	40	20.6%
	No	154	79.4%
4. Do you know where or how to access the incident reporting form?	Yes	75	38.7%
	No	119	61.3%

5. Have you read the Incident Reporting Policy in your workplace?	Yes	79	40.7%
	No	115	59.3%
6. Have you ever got any feedback on what action that was taken?	Yes	50	25.8%
	No	144	74.2%
7. Have you been trained on using the incident reporting system?	Yes	65	33.5%
	No	129	66.5%
8. Do you know about Standard Operating Procedure (SOP)?	Yes	45	23.2%
	No	149	76.8%
9. Have you seen an incident which requires reporting in the workplace?	Yes	73	37.6%
	No	121	62.4%
10. Have you seen a colleague fill out an incident reporting form?	Yes	62	32%
	No	132	68%
11. Do you know there is a reward for incident reporting?	Yes	18	9.3%
	No	176	90.7%
12. Do you know incident reporting is a measure for quality?	Yes	110	56.7%
	No	84	43.3%
Self-perceived barriers to reporting		Frequency	Percent
13. The PSMMC form is too complicated and requires too much detail.	Agree	30	15.5%
	Disagree	46	23.7%
	I don't know	118	60.8%
14. The incident form takes too long to fill out and I just don't have the time.	Agree	47	24.2%
	Disagree	147	75.8%
15. When the clinic is busy, I forget to make a report.	Agree	69	35.6%
	Disagree	125	64.4%
16. I don't know whose responsibility it is to make a report.	Agree	59	30.4%
	Disagree	135	69.6%
17. Incident reporting is unlikely to lead to system changes.	Yes	79	16.5%
	No	162	83.5%
18. I don't feel confident the form is kept anonymous.	Yes	47	24.2%
	No	147	75.8%
19. Even if I don't give my details, I'm sure that they'll track me down.	Yes	71	36.6%
	No	123	63.4%
20. I am worried about disciplinary action.	Yes	72	37.1%
	No	122	62.9%
21. Possible negative effect on the relationship with employees.	Yes	81	41.8%
	No	113	58.2%
22. Management usually does not take an action.	Yes	69	35.6%
	No	125	64.4%
23. Confidentiality is not guaranteed.	Yes	78	40.2%
	No	116	59.8%

Table 2: Descriptive summary of the items on awareness and barriers toward the reporting system (N = 194).

Self-perceived barriers to reporting incidents

A small number of participants agreed (30; 15.5%) that the incident reporting form is too complicated and requires too many details and 46 (23.7%) disagreed, while 118 (60.8%) did not know about the form. Time was not a barrier to filling out the incident report for 147 participants (75.8%). Additionally, forgetfulness to fill in a report or doubts about actions that would be taken by the management were not significant for 125 (64.4%) participants. Most participants disagreed that they did not know who had responsibility for making a report (135; 69.6%). By contrast, 162 (83.5%) agreed that incident reporting was likely to lead to system changes in PHC settings. Almost half of the participants (47; 24.2%) did not feel confident that the form would remain anonymous. Only 71 (36.6%) participants agreed that, even if they did not give their details, they would be tracked down. Concerns regarding disciplinary action were noted by 72 participants (37.1%). The possible negative effects on the relationship with employees and fear that confidentiality would not be guaranteed accounted for 81 (41.8%) and 78 (40.2%), respectively (Table 2).

Association of health care workers' attitude and self-perceived barriers of the incident reporting system

A total of 66 (75%) malesand 64 (60.4%) females were aware of the incident reporting system. However, more than half of the females (40; 37.7%) were unaware of the incident reporting system in the hospital, compared to 21 (23.9%) of the males. Admins (n = 17; 85%), technicians (n = 6; 75%), and physicians (n = 72; 70.6%) had the greatest awareness of the incident reporting system in the hospital, while nurses (n = 28; 54.9%) and pharmacists (n = 7; 53.8%) had the least awareness. Nurses were the same as physicians in reporting their own medical errors for a duration of 12 months (odds ratio = 1.2; 95% confidence interval = 1.3-6.0). Regarding nationality, Saudi (110; 67.5%) and non-Saudi (20; 64.5%) individuals had similar awareness of the incident reporting system. On the other hand, a high percentage of non-Saudi (11; 35.5%) were unaware of the incident reporting system. Saudis reported more incidents than non-Saudis over the last 12 months (P = 0.027). An exponential relationship was noted between work experience by years and awareness toward the incident reporting system in the hospital, as awareness increased with the aging process.

Twenty-three (26.1%) of the male participants agreed that the hospital form of incident reporting was too complicated and required too much detail, compared with seven (6.6%) of the females. Administrators (4; 20%) and nurses (10; 19.6%) had the highest percentage of agreement. In addition, more than half of the specialties had never seen or used the system form (Table 3).

Items		The PSMMC form is too complicated and requires too much detail?				Is there an incident reporting system in your hospital?			
Variables	**Categories**	**Yes**	**No**	**don't know**	**P-value**	**Yes**	**No**	**don't know**	**P-value**
Gender	Male	23 (26.1%)	19 (21.6%)	46 (52.3%)	<0.001	66 (75%)	1 (1.1%)	21 (23.9%)	0.098
	Female	7 (6.6%)	27 (25.5%)	72 (67.9%)		64 (60.4%)	2 (1.9%)	40 (37.7%)	
Job title	Physician	15 (14.7%)	22 (21.6%)	65 (63.7%)	0.761	72 (70.6%)	1 (1%)	29 (28.4%)	0.047
	Pharmacist	0 (0%)	4 (30.8%)	9 (69.2%)		7 (53.8%)	0 (0%)	6 (46.2%)	
	Nurse	10 (19.6%)	13 (25.5%)	28 (54.9%)		28 (54.9%)	1 (2%)	22 (43.1%)	
	Technician	1 (12.5%)	3 (37.5%)	4 (50%)		6 (75%)	1 (12.5%)	1 (12.5%)	
	Admin	4 (20%)	4 (20%)	12 (60%)		17 (85%)	0 (0%)	3 (15%)	
Nationality	Saudi	26 (16%)	33 (20.2%)	104 (63.8%)	*0.033	110 (67.5%)	2 (1.2%)	51 (31.3%)	0.699
	Non-Saudi	4 (12.9%)	13 (41.9%)	14 (45.2%)		20 (64.5%)	1 (3.2%)	10 (32.3%)	
Work experience	<5 years	11 (11.4%)	16 (16.6%)	69 (71.9%)	0.002	61 (63.5%)	3 (3.1%)	32 (33.3%)	0.431
	5–10 years	10 (17.5%)	12 (21%)	35 (61.4%)		35 (61.4%)	0 (0%)	22 (38.6%)	
	≥10 years	9 (21.9%)	18 (43.9%)	14 (34.1%)		34 (82.9%)	0 (0%)	7 (17%)	

Table 3: Awareness and barriers to reporting system by profile (N = 194).

Discussion

This study focuses on assessing the use and awareness toward incident reporting systems in hospitals as well as the self-perceived barriers to reporting among health care practitioners. Incident reporting has a great effect on improving patient safety in PHC and changing health care workers' awareness and attitudes. The three most common barriers among health care workers in our study were possible negative effects on the relationship with employees (81; 41.8%), unguaranteed confidentiality (78; 40.2%), and fear of disciplinary action (72; 37.1%).

In our study, the attitudes of most health care practitioners tended to be toward positive. A higher proportion was found among administrators, technicians, and physicians who knew about the incident reporting system (85%, 75%, and 70%, respectively). A lower proportion of knowledge was found among nurses and pharmacists (54.9% and 53.8%, respectively). Our findings differ significantly from those of other developed countries. In a study in London, nurses had a higher proportion than physicians (70% of nurses versus 58% of physicians) [23]. However, 147 (75.8%) had never filled in an incident report, which is similar to the findings found in other PHCs. In Sweden, 69% of the hospital clinical laboratories reported that they had never filed an incident report on venous blood sampling [24].

Nurses and non-Saudis were less likely to report an incident in our study, which could be attributed to their fear of being sued and losing a lot of money [25]. Another reason for underreporting is fear of blame or punishment by supervisors or management. There was no strong association in our study found between nurses and physicians in reporting incidents over a one year period (OR = 1.2), while in another study conducted in the US, nurses were significantly more likely to report incident than physicians (odds ratio = 2.8) [26].

In our study, the perceived barriers to reporting, specifically the possible negative effect on the reporter, which accounted for 41.8% of the total participants, was the main barrier to underreporting. Similar barriers have also been reported in other studies. For example, in a telephone questionnaire in Belgium, 39% of managers and GPs were afraid that the report would be used against them [27]. Another study among nurses in community hospitals in California found that fear of repercussions scored high for most barriers [28]. The fear of negative consequences of reporting "fear of the repercussions of incident reporting" among health care workers, either from their co-workers or supervisors, such as being blamed or stigmatized, was the main barrier to reporting incidents in multiple studies [25].

While our study showed that fear of repercussion was the main drawback of reporting, several other studies have shown that lack of time among participants is one of the main barriers to reporting [29-31]. Locally, similar findings found in a study in Saudi Arabia among physicians concealed that the reason for not reporting was fear of punishment and that physicians did not know whose responsibility it was to report [32].

The first participant's perspective was not representative of all PHCs because of the rotation of junior physicians and nurses in different centers of the same hospital. Second, the most common types of incidents reported should be addressed in future studies to improve patient safety. Third, the current study was performed at one PHC center; other PHC centers with the same incident reporting system should be included in future studies.

Conclusions

Health care workers showed positive awareness of the incident reporting system. Fear of repercussion was the major barrier contributing to underreporting, even with hospital encouragement for incident reporting. We recommend further research to explore strategies that would help improve incident reporting and enhance blame-free workplaces. Furthermore, sufficient training on incident reporting and patient safety among health care practitioners should be considered within the organization's agenda.

Acknowledgment

We extend our thanks to Dr. Ghada and the family medicine department for facilitating the distribution of questionnaires among health care staff, as well as to the IRB committee for their permission to conduct the research.

Conflict of Interest

All authors declare no conflict of interest for this publication.

Data Availability

All data for this paper are available from the corresponding author upon reasonable request.

Ethics Approval and Consent to Participate

All subjects gave their informed consent for inclusion before they participated in the study. The study was conducted in accordance with the Declaration of Helsinki, and the protocol was approved by the Ethics Committee of prince sultan military medical city.

Informed Consent

All participants were informed about the research work and its nature, purpose and seeking their consent for participation.

Consent for Publication

Written informed consent was obtained from a legally authorized representative(s) for anonymized patient information to be published in this article.

Availability of Data and Materials

The authors confirm that the data supporting the findings of this study are available within the article or its supplementary materials.

Competing Interests

The authors declare that they have no known competing financial interests or personal relationships that could have appeared to influence the work reported in this paper.

Funding

The authors received no financial support for the research, authorship or publication of this article.

Authors' Contributions

Bandar, Anas and Dakhel: wrote the main manuscript text.

Shorug and Bodoor: prepared tables 1-3

Mostafa and Medhat: acquisition and analysis.

All authors reviewed the manuscript.

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