

## Factors Associated with Unreported Medical Errors from the Perspective of Nurses: A Case Study

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ARTICLE INFO	ABSTRACT
<p><b>Article type:</b> Original Article</p> <hr/> <p><b>Article History:</b> <b>Received:</b> 08 Aug 2023 <b>Accepted:</b> 09 Mar 2024</p> <hr/> <p><b>Keywords:</b> Error reporting, Hospital, Patient's safety, Medical errors</p>	<p><b>Introduction:</b> Medical errors are problematic in the health system and can seriously affect patients' safety. The cause is not reporting, giving appropriate feedback, and taking action about them. This study aimed to investigate the factors associated with the lack of medical error reporting from the perspective of nurses at Shahid Motahari Hospital, in Tehran, Iran.</p> <p><b>Materials and Methods:</b> This cross-sectional descriptive study was conducted in 2019 with the participation of 131 nurses working in different wards at Shahid Motahari Hospital in Tehran, Iran. The data were obtained using a questionnaire, whose validity was examined by ten nursing and health service management experts. Also, its reliability was confirmed (Cronbach's alpha = 0.83). Data were analyzed using descriptive and inferential statistics in SPSS-19.</p> <p><b>Results:</b> The participants in the study had a mean age of 35 years; 77.9% were women and 22.1% were men. From the perspective, the main factors behind medical errors not being reported by nurses were the fear of reprimand by managers (legal factor), heavy workload (organizational culture factor), being charged (supervisory regulation factor), and recognizing error reporting as extra work (financial factor).</p> <p><b>Conclusion:</b> Accurate human resource management planning to reduce nurses' workload can be essential in promoting error reporting by creating an integrated system and organizing the process of error reporting and feedback.</p>
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## **Introduction**

The occurrence of mistakes and errors in human actions is inevitable, and the role of human factors in this regard is fully accepted (1). Medical errors are one of the most important challenges facing health systems in different countries. Therefore, they attempt to minimize these errors and their damage (2). Previous studies show that 3-17% of hospitalized patients face injuries and complications due to an unintended event or medical error. Health system managers can reduce 30-70% of these events by the usual methods (3). According to the World Health Organization report in the Eastern Mediterranean region, the range of injuries from hospital errors is between 2 and 18%, and annually, over 4.4 million events occur in health centers (4). In England, these events are estimated to damage about 850,000 people annually and cause 1 to 2 billion pounds of financial loss in the UK healthcare system. About one out of 10 people admitted to hospitals had a traumatic case, about half of which could have been prevented. In addition, about a third of these events harmed the patient (5).

In Iran, there are no statistics about the incidence of medical errors. However, the Ministry of Health and Medical Education has announced that every year, billions of tomans are paid for the maintenance and care of patients in hospitals due to medical errors, and enhancing complaints of people from physicians and nurses support this assertion (6). Among the wide range of medical errors, nursing errors are among the most complex management issues regarding errors in medical settings because of the relationship between nurses and patients (7). Nursing errors occur mainly due to environmental factors, inexperienced nurses, new diagnostic or therapeutic methods, patient-related factors (placing the patient at both ends of the age range), multiple care and emergency care conditions, inappropriate communication with the patient, registration of incorrect information, illegibility of physician's instructions, poor nurses' pharmacological knowledge, physical and mental fatigue, night shifts, and inefficiency of care and support systems (8-11). Nurses, as a source or cause of medical errors, partners, or observers of

the error, can play a great role in reporting errors in the health system (12).

Nursing error reporting is also considered one of the indicators of patient safety and can decrease its serious outcomes at practical and ethical levels. In addition, using the details gained from error reporting can be useful to manage existing errors and prevent future mistakes (13).

According to studies, factors such as fear of consequences of reporting (14,15), lack of managers' support for reporting, fear of financial matters (16), fear of the stigma of lacking ability, the impact of the error on the annual assessment score, Worried about news releases and legal act (17), failure to get positive feedback from nursing officials, and officials' focus on the person at fault without considering other possible factors involved in the occurrence of errors are the most important factors affecting failure of reporting of medical errors by nurses (18,19).

Since errors in nursing care endanger patients' safety and health, efforts should be made to prevent and decrease them. It not only keeps the lives of many patients but also relieves patients of the enormous cost of treating the consequences of these errors. Taking action to decrease errors by healthcare providers requires information on the nature of the errors, which can be gained by reporting members of the treatment team. The current study investigated the main effective factors regarding the underreported medical errors by nurses in Motahhari Hospital. This study differs from previous studies because Motahhari Hospital is a special hospital for treating burn patients. Therefore, the special and stressful nature of the mentioned hospital may affect a lack of medical error reporting by health providers, especially nurses. Also, the difference between nurses' failure to report medical errors based on demographic characteristics has been investigated, which has yet to be considered in previous studies by researchers in private hospitals.

The results of our study can be used to establish and facilitate the medical error reporting system in this hospital and similar hospitals. It leads to maintaining and promoting patient safety, cost management, and improving the quality of health services.

### **Objectives**

This study aimed to identify the factors affecting nurses' failure to report medical errors at Motahhari Hospital.

Research questions

1. What legal factors are related to the nurses' failure to report medical errors at Shahid Motahhari Hospital?
2. What organizational culture factors are related to the nurses' failure to report medical errors at Shahid Motahhari Hospital?
3. What supervisory factors are related to nurses' failure to report medical errors at Shahid Motahhari Hospital?
4. What financial factors affect tors relate to nurses'
5. nurses' failure to report medical errors at Shahid Motahhari Hospital?
6. What are the differences among nurses in terms of age, gender, level of education, and work unit regarding legal, organizational culture, supervisory regulations, and financial factors behind the lack of medical error reporting?

### **Literature review**

MohammadNejad et al. argued that drug administration is an important phase of the patient care process, and reporting errors is needed to ensure safety. The most common medication errors among nurses are infusion rate and wrong drug dosage. The most important reasons behind medication errors are a shortage of nursing staff (47.6%) and a lack of pharmacological information (30.9%). The most common reasons for refusing to report medication errors were fear of its negative effect on financial advantages, inappropriate or negative attitude of managers toward reporting errors, and insignificance of reporting from nurses' perspectives (20). A qualitative study by Pazokian et al. revealed that the individual approach, including personal and psychological characteristics of nurses (1), patient medical history, and physicians' orders errors; and the cultural and organizational approach (2), including workplace conditions, learning process, risk management strategies, pharmaceutical knowledge of nurses, unavoidable nursing errors, and medication error complications are effective factors in medication errors (21). In their descriptive study, Bayazidi et al.

found that the rate of reporting medication errors among nurses was far less than the medication errors they had made. Nurses perceived that the most important barriers to reporting medication errors were blaming individuals instead of the system, the consequences of reporting errors, and fear of reprimand and punishment (22).

Another study also investigated effective factors in nurses' lack of reporting medication errors and concluded that errors and managers were among the important factors for failure to report professional errors. The most important factors in professional errors were related to the severity and emergency of errors and managers' focus on wrongdoers instead of noticing systematic factors behind errors. In medical teams, fear of legal prosecution by patients or their relatives and in patients, unawareness of errors were reported as the most effective factors (23). In a similar study, Jember et al. showed that sex, marital status, and medication error experience were significantly related to medication error reporting (24). Reviewing these and other similar studies shows that results for lack of reporting medication errors by nurses were investigated more frequently (25-27). These studies, conducted by qualitative and quantitative methods, reveal the significance of medical error reporting. A lack of reporting of these errors can increase morbidity and mortality. Instead of focusing merely on medication errors, the present study has considered all medical errors and used a descriptive approach to collect and analyze the data from a special hospital. Hence, it is different from the previous studies. In addition, investigating the relevance between nurses' demographic characteristics and factors behind the non-reporting of medical errors is a different aspect of this study than the past research.

### **Materials and Methods**

The present descriptive cross-sectional study was designed and done in 2019. The data collection tool was a two-part questionnaire, and its reliability and validity were examined by Movahednia et al. (28). In their study, the validity of this questionnaire was approved by ten nursing and health service management experts, and its reliability was confirmed (Cronbach's alpha =

0.83). The first section of the questionnaire includes demographic information (4 questions: Age, gender, level of education, and working unit), and the second section is related to the factors affecting failure to report medical errors (23 items) (Appendix 1). The questionnaire examines factors behind non-reporting in four categories as follows:

1. Legal factors (items 1 to 3) include fear of reprimand from legal authorities, distrust, and inappropriate information about the individual's error to others, i.e., magnification or minimization of the error by others.
2. Organizational culture (items 4 to 14) includes extreme dependence of one person on her or his profession, bureaucratic structure, a public invitation to being silent, fear of causing trouble for colleagues, fear of being reprimanded by a direct supervisor, heavy workload, inefficient error reporting system, lack of a standard system, definitions, procedures and specific tools for reporting, non-payment or rewarding for reporting, lack of training for common medical errors in any process, lack of knowledge about what must be reported, the poor performance of the organization in giving feedback on past reports or corrective actions. Supervisory regulations (items 15 to 20) include the person being charged, increasing liability insurance tariffs for individuals, obtaining a license for an activity, and deeming an error report trivial and useless. Financial factors (items 21 to 23) include loss of reputation or job, loss of the organization's reputation, creating extra work for the individual, the possibility of contract cancellation, and the cost-ineffectiveness of reporting. This study was conducted among all nurses (131 nurses)

of conducted among all nurses (131 nurses) of Shahid Motahari Hospital in Tehran, which specializes in burns, and without sampling, the entire population was examined. After receiving permission from the hospital manager to conduct the research, the researchers went to the hospital's nursing office and obtained permission from the office manager to distribute the questionnaire among the nurses. Then, the questionnaires were shared among the nurses working in the hospital, and they were given one week to complete and return them to the researchers. They scored each question between 1 and 5 (1 strongly disagree to 5 strongly agree). If they did not return the completed questionnaire after one week, the head nurse of the relevant ward reminded the nurses to complete the questionnaires. Finally, this process was done within two months and returned to the researchers. This study was confirmed by the Ethics Committee for Biomedical Research at Iran University of Medical Sciences (IR.IUMS. REC. 1399.756). The present study met Ethical considerations such as completing an informed consent form, ensuring confidentiality of information, explaining research objectives, and voluntary participation. The data was analyzed using SPSS software edition 19 based on descriptive and inferential statistics (t-test). P-values less than 0.05 were considered significant.

**Results**

The mean age of nurses was about 35, and their minimum and maximum ages were 23 and 47, respectively. Table 1 shows that most participants were women with bachelor's degrees employed in the ICU.

**Table 1.** Demographic statistics of the working nurses in Shahid Motahari Hospital

Variable	Item	Number	Percentage
Gender	female	102	77.9
	male	29	22.1
level of education	BA	111	84.7
	MA	20	15.3
	Child	11	8.4
	Women	15	11.4
	Men1	11	8.4
Part	Men2	16	12.2
	ICU	29	22.1
	Surgery room	23	17.5
	Emergency	17	13
	Clinic	9	6.9

In response to research questions of one to four, Table 2 shows that the most important reason for the lack of reporting errors in the legal dimension was the fear of reprimand by managers (5.3%). The main factors in organizational culture, supervisory regulations, and financial dimensions were heavy workload (21.4%), being charged (6.9%), and recognizing error reporting as extra work (11.5%), respectively. Other

essential factors that should be considered are lack of trust in the existing error reporting system (3.8%), no rewards or fees for reporting (16.8%), the argument about the increase in liability insurance tariff in case of error report (3.8%), considering error reporting as useless and insignificant (3.8%), and knowing error reporting as an activity that is not cost-effective (7.6%). Based on Table 3, these factors had the highest mean.

**Table 2.** Frequency and frequency percentage of examined factors in different dimensions

Dimension	Factors	Frequency (%)				
		Strongly disagree	Disagree	No idea	Agree	Strongly agree
Legal	I'm afraid to be reprimanded.	20 (15.3)	42 (32.1)	25 (19.1)	37 (28.2)	7 (5.3)
	I do not trust the effect of this system in reducing errors.	16 (12.2)	39 (29.8)	36 (27.5)	35 (26.7)	5 (3.8)
	I'm afraid that others will find out about my mistake.	26 (19.8)	57 (43.5)	22 (16.8)	24 (18.3)	2 (1.5)
Organizational culture	I am heavily dependent on my profession.	14 (10.7)	28 (21.4)	34 (26)	46 (35.1)	9 (6.9)
	Error registration rules are cumbersome and time-consuming.	12 (9.2)	49 (37.4)	23 (17.6)	35 (26.7)	12 (9.2)
	We somehow invite each other to silence.	17 (13)	50 (38.2)	32 (24.4)	23 (17.6)	9 (6.9)
	I'm afraid that my colleagues will get in trouble.	24 (18.3)	50 (38.2)	23 (17.6)	31 (23.7)	3 (2.3)
	I'm afraid that my direct supervisor will be reprimanded.	24 (18.3)	54 (41.2)	22 (16.8)	30 (22.9)	1 (0.8)
	The workload is heavy.	2 (1.5)	25 (19.1)	18 (13.7)	58 (44.3)	28 (21.4)
	The error reporting system is inefficient (lack of standard system, definition of specific reporting procedures and tools)	4 (3.1)	55 (42)	25 (19.1)	41 (31.3)	6 (4.6)
	There are no rewards or fees for reporting.	7 (5.3)	25 (19.1)	36 (27.5)	41 (31.3)	22 (16.8)
	No training is given on common medical errors in any process.	6 (4.6)	47 (35.9)	22 (16.8)	54 (41.2)	2 (1.5)
	We are unaware of what needs to be reported.	11 (8.4)	72 (55)	17 (13)	30 (22.9)	1 (0.8)
Supervisory regulations	The hospital weakly provides feedback on previously reported cases or takes corrective action.	6 (4.6)	48 (36.6)	29 (22.1)	43 (32.8)	5 (3.8)
	I will be charged.	12 (9.2)	46 (35.1)	21 (16)	43 (32.8)	9 (6.9)
	My liability insurance rate goes up.	13 (9.9)	56 (42.7)	36 (27.5)	21 (16)	5 (3.8)
	My work permit is suspended.	27 (20.6)	56 (42.7)	34 (26)	14 (10.7)	-
	I consider error reporting to be useless and insignificant.	20 (15.3)	60 (45.8)	26 (19.8)	20 (15.3)	5 (3.8)
	I lose my job and my reputation.	27 (20.6)	55 (42)	30 (22.9)	18 (13.7)	1 (0.8)
Financial	The hospital's reputation is lost.	32 (24.4)	61 (46.6)	26 (19.8)	11 (8.4)	1 (0.8)
	Reporting creates extra work.	6 (4.6)	51 (38.9)	22 (16.8)	37 (28.2)	15 (11.5)
	My contract may be canceled.	26 (19.8)	56 (42.7)	31 (23.7)	15 (11.5)	3 (2.3)
	Reporting is not cost-effective.	27 (20.6)	51 (38.9)	18 (13.7)	25 (19.1)	10 (7.6)

**Table 3.** Descriptive statistics of the examined factors in different dimensions

Dimension	Factors	Mean	Standard deviation	Variation coefficient
Legal	I'm afraid to be reprimanded.	2.76	1.176	0.43
	I do not trust the effect of this system in reducing errors.	2.80	1.084	0.39
	I'm afraid that others will find out about my mistake.	2.38	1.049	0.44
Organizational culture	I have a strong dependency on my profession.	3.06	1.128	0.37
	Error registration rules are cumbersome and time-consuming.	2.89	1.172	0.40
	We somehow invite each other to silence.	2.67	1.119	0.42
	I'm afraid that my colleagues will get in trouble.	2.53	1.111	0.44
	I'm afraid that my direct supervisor will be reprimanded.	2.47	1.062	0.43
	The workload is heavy.	3.65	1.066	0.29
	The error reporting system is inefficient (lack of standard system, definition of specific reporting procedures and tools)	2.92	1.020	0.35
	There are no rewards or fees for reporting.	3.35	1.129	0.34
	No training is given on common medical errors in any process.	2.99	1.011	0.34
	We are unaware of what needs to be reported.	2.53	0.963	0.38
Supervisory regulations	The hospital weakly provides feedback on previously reported cases or takes corrective action.	2.95	1.018	0.34
	I will be charged.	2.93	1.152	0.39
	My liability insurance rate will go up.	2.61	0.997	0.38
	My work permit will be suspended.	2.27	0.910	0.40
	I consider error reporting to be useless and insignificant.	2.47	1.047	0.42
	I will lose my job and my reputation.	2.32	0.979	0.42
Financial	The hospital's reputation will be lost.	2.15	0.912	0.42
	Reporting will create extra work.	3.03	1.150	0.38
	My contract may be canceled.	2.34	0.997	0.43
	Reporting is not cost-effective.	2.54	1.230	0.48

According to the findings, organizational culture, with a mean of 2.91, is the most effective factor in preventing medical errors from being reported from the nurses'

perspective, followed by legal and financial factors. Supervisory regulations also had the least impact, with an average of 2.46 (Table 4).

**Table 4.** Descriptive statistics of dimensions for the failure to report errors

Dimensions	Mean	Standard deviation	Variation coefficient
Legal	2.65	0.869	0.33
Organizational culture	2.91	0.530	0.18
Supervisory regulations	2.46	0.6320	0.26
Financial	2.64	0.584	0.24

In response to the fifth research question, Table 5 shows no statistically significant difference between nurses in terms of gender, age, and level of education regarding legal, organizational culture, supervisory regulations, and financial factors. According to the results, there was a statistically significant difference ( $P \leq 0.05$ ) among the nurses working in different wards of the studied hospital regarding supervisory regulation of unreported medical errors ( $P \leq 0.05$ ), so the highest mean value was

assigned to the clinic ward, and the lowest mean value was assigned to the Men1 ward. Although no statistically significant difference was observed in the wards regarding legal and organizational culture factors, it was very close to the significance level.

Child and clinic wards had the highest mean regarding legal and organizational culture factors for non-reporting errors. There was no significant difference between the wards' financial factors ( $P \geq 0.05$ ).

**Table 5.** Comparison of the cause's mean of lack of medical error reporting among nurses by gender, age, level of education, and working ward

Studied population	Variable	Mean ± standard deviation				
		Legal	Organizational culture	Supervisory regulations	Financial	
Nurses in Shahid Motahari Hospital	Gender	Male	2.74±0.99	2.96±0.61	2.36±0.76	2.74±0.63
		Female	2.62±0.84	2.90±0.51	2.48±0.59	2.61±0.57
		t	-0.608 <sup>ns</sup>	-0.524 <sup>ns</sup>	0.968 <sup>ns</sup>	-1.040 <sup>ns</sup>
		Significance level	0.545	0.601	0.335	0.300
	Age	Pearson coefficient	0.021 <sup>ns</sup>	-0.002 <sup>ns</sup>	-0.058 <sup>ns</sup>	-0.110 <sup>ns</sup>
		Significance level	0.8150	0.985	0.509	0.213
	Educational level	Bachelor degree	2.64±0.88	2.92±0.54	2.46±0.63	2.64±0.59
		Master degree	2.70±0.82	2.82±0.47	2.41±0.64	2.58±0.57
		t	-0.300 <sup>ns</sup>	0.768 <sup>ns</sup>	0.308 <sup>ns</sup>	0.711 <sup>ns</sup>
	Working ward	Significance level	0.7650	0.444	0.7590	0.663
		Child	2.89±0.86	3.30±0.19	2.47±0.52	2.88±0.73
		Women	2.35±0.75	2.74±0.58	2.25±0.49	2.35±0.48
		Men1	1.88±0.99	2.55±0.40	1.76±0.73	2.64±0.55
		Men2	2.71±0.90	2.98±0.88	2.35±0.83	2.54±0.69
		ICU	2.82±0.71	2.98±0.38	2.60±0.41	2.63±0.50
		Surgery room	2.65±0.93	2.90±0.42	2.50±0.57	2.68±0.68
		Emergency	2.80±0.97	2.82±0.48	2.70±0.65	2.67±0.35
		Clinic	2.85±0.58	3.23±0.55	2.80±0.59	2.81±0.71
		F	2.00 <sup>ns</sup>	2.080 <sup>ns</sup>	3.569 <sup>**</sup>	0.971 <sup>ns</sup>
	Significance level	0.060	0.051	0.002	0.455	

\*Significance level=0.05, ns: no significance difference

**Discussion**

This study was conducted to find the factors affecting nurses' failure to report medical errors. Different studies have shown results similar to or different from this study regarding the factors affecting the non-

reporting of medical errors. The findings of the present study showed that the main factors behind the lack of medical error reporting from the perspective of nurses were the fear of reprimand by managers (legal factor), heavy workload

(organizational culture factor), being charged (supervisory regulation factor), and recognizing error reporting as extra work (financial factor). Other essential factors that should be considered are lack of trust in the existing error reporting system (legal factor), no rewards or fees for reporting (organizational culture factor), the argument about the increase in liability insurance tariff in case of error report (supervisory regulation factor), considering error reporting as useless and insignificant (supervisory regulation factor), and knowing error reporting as an activity that is not cost-effective (financial factor).

Among the 23 items examined in four components of legal, organizational culture, supervisory regulations, and financial factors, the most important factor from the perspective of the nursing staff was the heavy workload, which is consistent with the results of the study of Movahednia et al (28).

Another study also pointed out the high-responsibility workload as the main factor in error reporting (29). In line with the present project, the study conducted by Fathi et al. suggests that nurses do not report errors because of the heavy workload (30). Therefore, hospital managers must hire more nurses to minimize their workload.

In the field of legal factors, the results revealed that fear of reprimand and fear of informing others about the error are the most and the least important factors in not reporting the error. This finding was in agreement with the studies of Rezaei and Anousheh (31,32). Cullen's study mentioned fear of punishment and the futility of reporting as important factors (33). However, contrary to the findings of our study, Salavati et al. pointed out that the fear of focusing on the wrongdoer without examining the systemic factors was the most important factor influencing the failure to report the error (34). This difference can be due to the difference in the attitude of senior managers in dealing with people who report errors. Therefore, creating a comprehensive medical error reporting system with clear rules is necessary to familiarize nurses with their duties. Hospital managers can also set up a reward system for individuals, and as a result, in addition to punishing those who do not report medical errors, motivate those who

report the medical errors accurately and transparently. Moreover, it is necessary to explain the significance of reporting errors to nurses through training courses and encourage them to pay attention to the positive impact of error reporting on patients' safety and healthcare services instead of fear of reprimand. In organizational culture factors, heavy workload and lack of rewards or fees for reporting errors for nurses have been significant reasons for not reporting errors. In addition, nurses' lack of knowledge about what needed to be reported and the fear of being reprimanded by the direct supervisor were the least important causes, respectively. Similar to this study, the study by Movahednia et al. showed that heavy workloads and non-payment of rewards for reporting are the most important factors from the perspective of supervisors and head nurses. However, the nurses considered not receiving feedback from the results of previous reports as a more important factor (28), which is consistent with Evans and Kouhestani's study (35,36). Lack of knowledge, management methods, and learning from the errors are also seen as influential factors in the study by Radschi et al (37). In supervisory regulations, the most important factor is being charged, a subset of the types of fears regarding error reporting consequences mentioned above. Furthermore, an increased liability insurance tariff and the consideration of error reporting as a useless and insignificant activity were mentioned as the other main factors, which differs from the Movahednia et al. study (28).

The least important reasons the nurses did not report errors were job loss, loss of personal and organizational reputation, and their work suspension. However, Samsiah et al. mentioned that if employees were familiar with the reporting system, they would consider the time of error reporting and how to use it, then report voluntarily (38).

Therefore, health managers must explain to nurses the importance of error reporting in keeping and promoting individual and organizational status. In financial factors, creating extra work is the most important reason for not reporting errors, which can be related to the heavy workload and the fact that the error reporting system is cumbersome. As part of the natural flow of

nurses' work, the culture of accepting and reporting errors needs to be stronger. Movahedinia et al. pointed out that increasing the workload for the reporter and losing the reputation and job are the most important factors (28). Radsechi et al. also mentioned factors such as lack of time, inadequate training, and lack of access to computers as the main (37). Wondmieneh et al. pointed out that the main factors were lack of sufficient training, unavailability of a protocol for medication administration, short work experience, interruption during medication administration, and night duty shifts. These findings differ from the results of the present study (39). Therefore, nurses must receive work safety, financial rewards, and a positive organizational culture regarding hospital medical error reporting. In addition, it is necessary to find out how much the nurses are committed to the fact that nursing is a valuable profession and has an increasing impact on patient safety. Therefore, this topic needs to be explored in future research. Finally, our study showed no statistically significant difference between nurses in terms of gender, age, and level of education regarding legal, organizational culture, supervisory regulations, and financial factors. However, there was a statistically significant difference among the nurses working in different wards of the studied hospital regarding supervisory regulation of unreported errors. Hence, the nurses working in the clinic were more likely not to report medical errors because of the heavy workload and higher attendance of patients at this unit. Child and clinic wards had the highest mean regarding legal and organizational culture factors for non-reporting errors. However, there was no significant difference between the wards in financial factors ( $P \geq 0.05$ ). Tabatabaee (19) and Mirzaee (40) concluded that age, gender, work history, working department, shift work, employment type of nurses, and marital status were found to be significantly effective in reporting medication errors, which is somewhat similar to the results of the present study. In the future, further investigation is needed to determine why the type of ward affects the reporting of medical errors by nurses and what legal, organizational culture, and supervisory

regulations factors lead to the non-reporting of medical errors by nurses. According to the findings, organizational culture was the most effective factor in nurses' failure to report errors, while supervisory regulations had the least impact. Barkhordari and Mirjalili concluded that developing an ethical leadership approach in nursing managers reduces the error rate and increases error reporting. Programs designed to promote such an approach in nursing managers at all levels can help reduce the level of error rate and maintain patient safety (41). Therefore, it is essential that health managers consider improving the organizational culture in hospitals, explain the importance of medical errors' for nurses, and explain to them that nursing is a valuable profession that can increase patients' safety and improve healthcare services.

The most important limitation of this study was the nurses' lack of timely response due to workload. For this reason, if they did not return the questionnaire, they were reminded to complete and return it to the researchers.

### **Conclusion**

The present study investigated the most important factors affecting the failure to report errors from the nurses' point of view in Shahid Motahari Hospital, Tehran, Iran. The results showed that heavy workload was the main reason for not reporting errors, which can be the basis for other factors. Therefore, while solving this problem requires reforms in the country's macro policies, at the intra-organizational level, careful attention and planning in human resource management are also needed. It also seems that developing a well-organized error reporting system with clear definitions, objectives, and importance of error reporting, as well as the scientific and integrated use of results and feedback of error reporting supported by senior managers, can play an important role in promoting error reporting by nurses. To promote error reporting by nurses in this hospital while organizing the error reporting and feedback process, the components of human resource management must be considered, focusing on nursing as an influential profession in improving patients' safety and healthcare services.



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