

## Responsibility-Evading Performance: The Experiences of Healthcare Staff about Triage in Emergency Departments: A Qualitative Study

### Abstract

**Background:** Correct triage is one of the most important issues in delivering proper healthcare in the emergency department. Despite the availability of various triage guidelines, triage is not still appropriately implemented. Therefore, this study was conducted to investigate the role of different underlying factors in triaging emergency patients through a qualitative approach. **Materials and Methods:** This study was conducted by conventional content analysis. For this purpose, 30 interviews were conducted with 25 participants. The participants included triage nurses, emergency general physicians, emergency medicine specialists, and expert managers at different position rankings in hospitals and educational and administrative centers in Yazd, selected by purposeful sampling. Data were collected through in-depth and unstructured interviews from April 2017 to January 2018, and then analyzed by inductive content analysis. **Results:** Four categories of profit triage, exhibit triage, enigmatic, and tentative performance triage were drawn from the data, collectively comprising the main theme of responsibility-evading performance. **Conclusions:** The dominant approach to the triage in the emergency departments in a central city of Iran is responsibility evasion; however, the triage is performed tentatively, especially in critical cases. To achieve a better implementation of triage, consideration of the underlying factors and prevention of their involvement in triage decision-making is necessary.

**Keywords:** Emergency medical services, healthcare, qualitative research, triage

### Introduction

Triage refers to the categorization or prioritization of patients to allocate limited resources in the most appropriate manner to do the most useful work for a largest number of ill or wounded people.<sup>[1]</sup> The triage was first used to identify priorities in resource allocation and medical care delivery in wars, disasters, and mass casualties. Later, this concept was also used in emergency departments to which patients were referred without specific planning or scheduling.<sup>[2]</sup> This has caused the emergency department officials to seek out an appropriate solution to accelerate the differentiation of the injured and ill patients with the patients who have nonurgent complaints. Therefore, the utilization of the triage system in the emergency department to prioritize the patients was proposed as a suitable solution for this problem.<sup>[3]</sup>

Fast and correct triage is the key to successful functioning in the emergency

department. If the triage level is assigned to the patient based on misunderstanding or without taking his or her variables or triage criteria into account, a triage error will occur.<sup>[4]</sup> Overtriage occurs when the patient is assigned with a higher acuity level than he or she meets, which could deprive other patients of the sources, which they are in comparatively more need of. In contrast, the undertriage refers to the assignment of lower acuity level to the patient than he or she meets, which may lead to a delayed delivery of care that he or she needs.<sup>[5]</sup> The triage decisions of the triage officer directly influence patient health and survival, as well as the staff's workload in the emergency department.<sup>[6]</sup> Triage nurse decides on the time of beginning treatment, which influences patients' mortality and morbidity. The course of patient treatment in an emergency department is influenced by triage decision-making, for example, a patient who is assigned with a lower acuity level to receive less urgent care by an emergency physician.<sup>[7]</sup>

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A proper triage system that places patients on an appropriate level of triage is critical to increase the safety and better management of the emergency patient's and proper use of resources.<sup>[8]</sup> Different guidelines for triage have so far been presented in different countries. In Iran, there are various triage guidelines in different institutions, but over the past decade, the Emergency Severity Index (ESI) instruction has been announced to the hospitals by the Ministry of Health. The ESI has five levels, and the triage nurse classifies the patients based on two criteria of disease severity and required facilities. It is important to note that resource prediction is only used for less acute patients, at decision points A and B on the ESI algorithm.<sup>[9]</sup> Despite all these guidelines and also the passing of several years since the initiation of the triage system in the emergency departments across Iran, triage performance is not still adequately efficient.<sup>[10,11]</sup> This is likely to be due to the fact that triage decision-making is multifaceted and requires a broad perspective. In addition, the triage is dependent on several internal and contextual factors.<sup>[12]</sup> Studies have emphasized that patient triage is influenced by the context of the emergency department, and many contextual factors play roles in triage decision-making and associated patient outcomes.<sup>[13-15]</sup> The dynamic environment of the emergency department and the substantial congestion inside it contribute to creating an environment with highly interconnected communications. Field dependence and the complexity of the triage have led to limited quantitative studies in understanding of the triage. Therefore, to understand the management of triage and its status in Iran, qualitative research seems necessary, and so Reay *et al.* and Mirhaghi pointed out the need for qualitative studies to figure out various dimensions and complexities of the triage.<sup>[16,17]</sup> Therefore, the aim of this study was to determine the experience of the healthcare team in emergency ward about triage based on qualitative research.

## Materials and Methods

A qualitative design with use of a content analysis approach was used in this study. Content analysis is the process of identifying, interpreting, and conceptualizing the inner meanings of qualitative data.<sup>[18]</sup> The purpose of this method is to compress, and then broadly describe a phenomenon to draw its descriptive categories or concepts.<sup>[18]</sup> This method was used in the research method because of the previous information and history about the research concept.

The data were collected by conducting 30 interviews with 25 people from January 2017 to April 2018. The participants were selected by purposive sampling among the people who had rich triage-related experiences. Inclusion criteria were having any experience on triage (at least 2 years of experience), having a bachelor's degree or higher education level, volunteering to participate in the study, and having

the ability to express experiences. Exclusion criteria were reluctance to cooperate with the researchers. From 25 participants, 7 were female and 18 were male that included 15 triage nurses, 1 clinical supervisor, 1 nursing service manager, 2 general practitioners, 2 emergency medicine specialists, and 4 directors and experts at different healthcare ranks. The majority of the participants were the staff of the educational hospitals, affiliated to Yazd University of Medical Sciences in Yazd (a central city of Iran) and several other cities in Iran.

All 30 interviews were conducted by the first author through a semi-structured interview in the relevant hospitals during the course of the work in accordance with the participant's requirements. At the beginning of the interview, certain questions were asked to become familiar with the interviewee, gain his or her confidence, create a safe and relaxed atmosphere, and gain as much information as possible about his or her personality. Then, open-ended questions like "Tell us about your experiences as an accountable person or through performing patient triage in the emergency department" were asked, and after the interviewees expressed their challenges and problems when facing the process of triage, probing questions were asked to encourage the participants to explain the details of interest, increase the depth of the interviews, and understand the studied phenomenon in more depth. The interviews lasted 30–60 minutes.

Data were analyzed by Graneheim and Lundman's method.<sup>[18]</sup> Immediately after the completion of the interviews, all the audio files were transcribed verbatim and typed word-for-word from an audio digital recorder. The transcripts were repeatedly read to achieve a general sense and perception. Next, the transcripts were divided into categories of sentences or paragraphs that were then converted to meaning units. Next, the meaning units were compiled, summarized, and encoded. In the fourth step of data analysis, the codes were assigned to subcategories and categories according to the similarities and differences, and then sorted out.

Finally, in the fifth step, the compilation of the themes was performed to draw the latent content of the text.<sup>[18]</sup> Initial analysis and coding of the data, drawn from each interview, were conducted before the next interview. As soon as no new theme was found, indicating saturation of the data, sampling was discontinued. The process of data analysis was repeated after each interview, and codes and categories were modified if necessary.

The credibility of the data was established with two PhDs of nursing as a peer check. The data were coded and categorized independently by the authors, and then the emerging themes were compared. When the authors disagreed, clarifications and discussions continued until a consensus was achieved. A summary of the interviews was returned to the participants as a member check, to confirm

that the researcher represented their ideas. Moreover, trustworthiness of research was established through prolonged engagement with data, constant comparison analysis, and maximum variation of sampling.

**Ethical considerations**

The Ethics Committee, affiliated with the Yazd University of Medical Sciences, approved the study protocol (IR.SSU.SPH.REC.1395.127). To observe the research ethics principles, before the beginning of the study, the consent of the relevant authorities was obtained. The participants provided written consents to participate in the study and have their voices recorded. The purpose of the study was explained to the participants. They were also informed that the participation in the study would be voluntary, and that they could withdraw from the study unconditionally and whenever they wished.

**Results**

Four obtained categories were profit triage, exhibitiv triage, enigmatic, and tentative triage performance. The categories led to the development of the main theme of “responsibility-evading performance” [Table 1], experienced by the health caregivers during performing triage at the emergency ward. Table 2 shows the inductive process of reaching category of this study.

**Table 1: The formation of subcategories, categories and main theme**

Main theme	Category	Subcategories
Responsibility-evading performance	Profit triage	Material benefit-based triage
		Relationship-based triage
	Exhibitiv triage	Nurse exhibitiv triage
		admission exhibitiv triage
	Enigmatic	Conservative triage
		Style-based triage
		Incomplete implementation of the guidelines
		Insufficient unified protocol
	Tentative performance	Effective triage by experienced nurse
		Conscience-oriented triage

**Category 1: Profit triage**

One of the issues, talked of by our participants, was profit-seeking triage that consisted of two subcategories, namely, material benefit-based triage and relationship-based triage.

*Material benefit-base triage,*

Material benefit-based triage refers to assigning the patient with a triage acuity level according to material considerations. A participant said: “A series of issues are material related. When out of the five patients refer to your emergency department and you detect two of them as level 5, rather than detecting four of them as such a level, from material perspective, it is very different to the emergency physician” (Nurse, 1).

“Bluntly speaking, I, an emergency medicine specialist, favour overtriage to be done because I know the patient would be assigned as critical, and extra work would be added to my services” (Emergency medicine, 19).

*Relationship-based triage*

Relationship-based triage is another subcategory of the profit-seeking triage category, which means that various considerations such as respecting emergency general physicians as protagonists influence triage decision-making. In fact, according to the experiences of participants, because emergency general physicians have been working hard for the emergency department in the past years, and now, with the presence of emergency medicine specialists, their role has diminished substantially, the managers want to compensate them in some way, and unfortunately, one of these ways is playing with the triage instructions. This means that to appreciate the emergency general physicians, they have been allowed to visit all patients from levels 1 to 5. However, according to the ESI triage that runs in Iranian hospitals, only levels 4 to 5 should be visited by the emergency general physicians. A nurse stated: “Due to the difficult work that the general physicians have previously done, they (managers) somehow want to do them a favour because previously all difficult work was assumed to general physicians” (Nurse, 6).

**Category 2: Exhibitiv triage**

According to the experiences of participants, in some cases, for various reasons, the triage sheets are superficially

**Table 2: A sample of the trend of condensation-abstraction process in this study**

Main category/theme	Subcategories	Open code	Meaning units
Profit triage	Material benefit-based triage	Triage based on the physician’s financial benefits	I, an emergency medicine specialist, favour over triage to be done because x k would be added to my services (p10)
	Relationship-based triage	Triage based on physician considerations	Due to the difficult works that general physicians have previously done, they (managers) somehow want to do them favour (p4)

completed, while no triage has been actually performed. Regarding exhibit triage, which may be committed both by the nurses and the admission staff, one participant stated: “Sometimes when the admission staff files [the patient], they fill out the triage sheet directly and no one says anything. And sometimes, after all work of the patient is done, we (nurses), to ensure the appearance of the work, need to go to fill out the triage sheet even if the patient is discharged” (Nurse, 12).

### Category 3: Enigmatic

The enigmatic performance was another main category drawn from our data. Enigmatic occurs when triage performer feels confused in assigning the patient’s triage acuity level.

On one hand, because they feel they are dependent on decision-making, and if they take independent decision, they would not have any support, so they act conservatively. On the other hand, there has been no adequate unified protocol, and the styles of emergency physicians and emergency medicine specialists, and even the triage nurses regarding patient triage, are different. Since there is no supervision on the full implementation of the guidelines and the guidelines are implemented ineffectively, the nurses are confused how they should really perform the triage. This category included four subcategories:

*Conservative triage:* Conservative triage occurs when the triage performer feels that he or she is not adequately independent to make a triage decision, and if his or her decision-making leads to a problem for the patient, he or she will have no legal support; Therefore, he or she acts conservatively and usually either assigns the patient a triage acuity level according to the others’ desire, or assigns the patient a higher acuity level than he or she warrants, to prevent the potential legal consequences. “If we want to act in accordance with what has been said (in guideline), a conflict will occur, the physician will object. Some guys look to see which doctor is on call, and accordingly assign the patient with a level” (Nurse, 13).

“One who performs triage thinks why I engage myself. It is none of my business that this triage level is incorrect because he/she also sees he/she won’t have any support, he/she inevitably doesn’t engage himself/herself so much. So, the triage is just a name, but is not really done” (Nursing service manager, 14).

### Style-based triage

Regarding style-based triage, a participant said: “The conditions of the triage are such that all perform triage according to themselves, for example, one of the guys advise many of the patients to go home, but other guys, on the contrary, routinely refer the majority of patients to the emergency department” (Nurse, 17).

### Incomplete implementation of the guidelines

As stated above, the triage can be so context-specific. A participant stated: “You see, when the emergency physician comes to say guy, I should visit all the patients, it means the triage nurse is not practically effective and I cannot level up according to the instructions” (Nurse, 12).

“The fact is that none of our hospitals do triage according to the principles and the guidelines” (Nurse, 20).

### Insufficient unified protocol

Insufficient unified protocol refers to the condition in which if the triage performer manages to overcome certain challenges such as lack of independence and exhibit triage, he or she still faces certain problems in assigning the patient with a correct triage acuity level as the viewpoints of different people regarding the patient’s clinical condition are various due to the lack of full implementation of the guidelines, and they may assign the same clinical conditions different triage acuity levels. Regarding insufficient unified protocol, one of the participants said, “We have an emergency medicine specialist in our emergency departments and [also] a general physician about whom, there is a disagreement. One the doctor says [this is] level 3 and the other one says this is level 4” (Manager, 24).

### Category 4: Tentative performance

In our data, we also noted that the triage may be performed tentatively, namely, tentative performance. This category consisted of two subcategories, that is, staff’s conscience orientation and the experience of experienced staff.

### Conscience-oriented triage

Regarding conscience-oriented triage, a participant said, “If it were not due to my own conscience, I would do nothing at all with the triage, because there is a lot of nuances in the triage, and that’s why the staff tend to escape from the triage, because no nerves remain for the person” (Nurse, P15).

### Effective triage by an experienced nurse

In this study, some participants said that according to their experience, a nurse should have a work experience of over 5 or 6 years to perform triage. “In the triage, the most important thing is the experience; good public relations, very good information, and someone who detects that what is going to happen to this patient at a glance Like a person who works [in] emergency [room], for example for 6 years” (Clinical supervisor, P16).

“According to my experiences, if the nurse is experienced for example, over 5 years, the likelihood of a mistake will be too low” (Expert, P25).

## Discussion

The results of the study reflect four categories of profit triage, exhibit triage, enigmatic, and tentative

performance. The categories led to the development of the main theme of “responsibility-evading performance.” The main theme states the dominant approach in performing triage in the emergency rooms of the studied settings was reported to be maintaining the appearance of the triage process rather than performing it correctly. However, according to various guidelines for triage in the emergency department and the proclamation of one of these guidelines to the emergency departments of hospitals, patient triage should be based on the patient acuity level. Nevertheless, obviously, many other factors, in addition to the patient acuity level, play role in assigning the triage acuity level. This is due to the underlying factors arising from the realities of the emergency department including various relationships among the different staff, patients, and even managers of the department.<sup>[19]</sup>

The setting of the emergency department has an enriched context, with many meanings, institutionalized in the relationships among the staff.<sup>[20]</sup> Many communications are predefined and unfamiliar to the novices. There are many verbal and nonverbal messages that have different meanings in different situations, and so a referred person with a particular complaint can be assigned with different triage acuity levels under different conditions and/or by different triage performers. Gerdtz *et al.* reported environmental factors could significantly change the triage acuity level assigned to an identical patient.<sup>[7]</sup> A study by Goransson *et al.* showed that nurses used different patterns for triage decision-making, and decisions on the acuity levels were very complex and field-dependent.<sup>[21]</sup>

The field dependence of the triage suggests that the reliance on guidelines can be challenging, because the use of guidelines can be undermined by the interference of environmental factors.<sup>[22]</sup> Studies have shown that triage criteria in different countries have different reliability levels,<sup>[23-25]</sup> because certain factors play substantial roles in the emergency department.

These factors can create different contexts in the emergency department. In this study, these factors were found to influence the triage so greatly that the dominant triage strategy in the emergency department was drawn to be a responsibility-evading performance. One of the main manifestations of such types of performance is the profit-seeking triage, which refers to assigning the patient with a triage acuity level under the influence of material considerations, emphasized by most of our participants. Many participants have reported that if the material benefits of the triage are eliminated, many triage-related problems are resolved. The material benefits in some cases cause the nurses to compulsorily assign the patient with an inappropriate acuity level as he or she actually meets, or assign the patient with a lower or higher acuity level depending on the physician who is on call.

However, some studies have shown disagreement between the physicians and the nurses regarding patient triage acuity level. The study by Quan *et al.* indicated that the agreement between the physicians and the nurses regarding assignment of the acuity level of the patient was moderate.<sup>[26]</sup> Bergeron *et al.* reported this agreement to be average,<sup>[27]</sup> but did not point out material considerations as a fundamental cause of the inconsistencies. Meanwhile in our study, the effect of material benefits on the assignment of the triage acuity level was reported to be substantial, and so some participants regarded the elimination of material considerations as a key in resolving the triage-related problems. Only the research thesis of Mirhaghi, which was conducted in Iran, is completely consistent with our results. Mirhaghi reported that nurses on each work shift sought to know which physician is on call, because the physicians were reported to exhibit different degrees of cooperation and tolerance toward their decisions. In fact, they took the physician’s feedback into account in their triage decision-making.<sup>[19]</sup> Mirhaghi also reported that the main causes of the inconsistency could include academic background, conflict of interests, and financial considerations.

The other category that was drawn from the current research data was exhibit triage referring to the conditions in which the triage nurses fill out the triage sheet while no patient triage has been actually performed or even the patient has been discharged from the hospital; only because the patient document should officially and legally be filed to prevent any problem, for example, regarding insurance reimbursement or accreditation.

The worst condition occurs when the triage sheet is not filled out even by the nurses but the admission personnel who are not expert on the patient assessment only to complete the patient file. Perhaps one of the reasons why this process exists and there is no attempt to eliminate it is that there is no evaluation of the triage decision-making and no evaluation of the over- or undertriage.

The other category, mentioned by our participants, was enigmatic performance. Enigmatic performance in this study refers to the condition when the triage nurse is uncertain about which acuity level the patient should be assigned with. One of the reasons for such an enigmatic performance and uncertainty is the conservative triage, which occurs when the nurse knowingly assigns the patient with a higher or lower triage acuity level than he or she meets for various environmental reasons. As stated in the results, the nurses feel they have no legal support under certain conditions, and if they commit the smallest mistake in assigning acuity level, or if they do not act as the physician asks, they may later face some difficulties, and therefore, they tend to act conservatively. In some cases, they have to assign the patient with an acuity level according to the physician’s

wish, or a higher acuity level to prevent a comparatively more serious problem. The nurse's assigning the patient a higher triage acuity level, which was reported by some of our participants, is consistent with the qualitative study of Chung, conducted in Hong Kong. Chung argued that nurses are uncertain about assigning appropriate acuity levels to the patients, especially the borderline patients. This may occur due to the lack of adequate information about the patients.<sup>[28]</sup>

Chung argued that nurses have found that the higher the patient's expectation for a doctor's visit, the more likely his or her conditions to worsen; therefore, the nurse is always afraid of patients' conditions worsening or even death, which may lead to legal consequences for the triage performer, and therefore, the nurse's fear is intensified. To manage such an uncertainty, in long term, nurses reported that they would assign the patients with a higher triage acuity level than actual level because they found that using this strategy leads to both the patient's and their own safety. Although conservatism, drawn from our data, is consistent with the study of Chung, in Hong Kong, and Andersson *et al.*, in Sweden, in those two studies, the only cause of the conservatism was reported to be the fear due to exacerbation of the patient's condition.<sup>[28,29]</sup> Meanwhile in our study, in addition to this fear, other contextual factors, such as the appearance and personality of the emergency physician and the emergency medicine specialist, financial factors, and the relationship-based considerations were reported to contribute to making conservative triage decisions. According to our participants' experiences, the roles of the marginal factors are even greater than the fear of the patient's condition exacerbation. This issue, however, remains as a paradox as the participants also stated that apart from the influence of the above factors, the triage is also somehow style-based (the triage performer in some cases assigns the patient with a triage acuity level based on his or her own style, or the emergency physician's or the emergency medicine specialist's style). In fact, he or she does not tend to follow the triage guideline. In contrast to the outpatients or patients who are critically ill and are quickly assigned with a correct acuity level, various decisions may be made by different people for most borderline patients. Mirhaghi argues that although it is expected that the triage decision about prioritization of the patients may be made based on the triage itself at the first glance, the place to which the triage performer is going to refer the patient will inevitably impose its rules and requirements on the triage performed.<sup>[19]</sup>

In fact, there is no unified protocol for the implementation of the triage. Although triage is regarded as a key activity of the emergency department staff, they believe that there is no consistent and unified protocol for patient's triage. Patients and hospital managers, on one hand, and facilities, physicians, and nurses of the emergency room, on the other

hand, may force the triage performer to make a certain triage decision according to their individual styles.

Patients and hospital managers consider delivery of healthcare services to a wide variety of clients to be valuable, while the emergency physicians and emergency nurses consider delivery of services to only emergency patients to be valuable. Although both groups regard appropriate triage of clients as a valuable act, they hold different viewpoints regarding the nature of the correct triage. These conflicts of interests may lead to inconsistencies in patient triage as well. Thus, one patient with the same acuity level who has been referred to the emergency department in two shifts may be admitted to the emergency room in one shift but may not be admitted in another.

The presence of various factors in the patient's triage can lead to style-based triage decision-making, and therefore, triage nurses may exhibit different capabilities in preserving the values of the emergency department. The patients and their companions can also affect the triage decision of the nurses by interfering with their work and creating a debate, assuming that their patient is an emergency case and seeks out admission to the emergency room. The nonconstructive approaches, adopted by the patients and their companions, can also lead to making style-based triage decisions because the reactions of different triage nurses to such circumstances may be different.

However, the triage, as mentioned in our results, is being performed yet in a tentative manner, which is due to both the presence of experienced staff and the staff's conscience orientation. The work experience of the triage nurses has been addressed in several studies.

Roudbari and Mirhaghi found that the triage decisions of people with triage-related experience of over 2 years were more reliable,<sup>[30]</sup> although Goransson *et al.*<sup>[21]</sup> reported that the experience had no significant effect but knowledge was comparatively more effective. In this study, although the effective role of knowledge was mentioned by most participants, continuous training to maintain the knowledge was also highlighted; however, the role of experience was still reported to be more prominent than knowledge. In this study, most of the participants also considered work experience of at least 5 years to assist in performing triage efficiently.

These studies, in fact, show that the triage nurses should have specific characteristics in terms of experience and knowledge. It has also been reported that various interpersonal or cognitive skills and thinking strategies lead to making different triage decisions. Therefore, triage nurses should have certain characteristics other than experience and knowledge. One of these characteristics, obtained in our study, was conscientiousness. In this study, despite all reported different nuances, which might

lead to the inefficiency of triage performance process, conscientious triage, carried out by some personnel, who despite many difficulties make every attempt to perform the triage correctly, was a promising observation. In fact, this dimension of conscience orientation makes us more hopeful about appropriate triage decision-making.

The limitation in this study included the fact that the findings may not be able to be generalized to emergency departments outside study environment. The researchers suggest that in future further studies be conducted on the patients referring to emergency departments.

## Conclusion

The dominant approach to the triage in the emergency departments in this study is responsibility evasion; however, the triage is performed tentatively, especially in critical cases. To achieve a better implementation of triage, consideration of the underlying factors and the prevention of their involvement in triage decision-making is necessary.

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## Conflicts of interest

Nothing to declare.

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