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Perception Gap of Patient's Safety between Doctors and Midwives Working in Hospitals of the Social Security Organization in Tehran

Running Title: Patient's Safety

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ABSTRACT

Introduction: Safety is a global concept that encompasses competency, security of care, proper response of caregivers, patients and their relative's satisfaction. Morever, patient safety is considered as a key goal to promote health care. This study is aimed to investigate the perception gap of patient's safety in physicians and midwives working in hospitals of the Social Security Organization in Tehran. **Materials/Methods**: The participants included in the study were physicians and midwives working at three hospitals in Tehran, and due to the accessibility given to the individuals in the statistical population, the census method was used. The primary tool used in this study for collecting information were questionnaires. These included the Patient's Safety Perception Questionnaire and the Questionnaire of Factors Affecting Patient's Safety Perception and the results were used to measure the research variables. **Results**: A total of 132 people (70 males and 62 females) participated in the study. Among them 17 people had a bachelor's degree, 35 people had a master's degree, and 28 had a doctorate. The age range of subjects was mostly between 30 and 50. There was a significant relationship between perception of patient's safety, continuous organizational training, teamwork within units, hospital management support, expectations and performance of the ward heads ($P < 0.001$). The lowest and the highest mean scores were related to the perception of patients' safety (3.2475 ± 0.62702) and teamwork within units (3.5417 ± 0.713216) respectively. **Conclusion**: The results show that continuous organizational training, teamwork within units, support of the hospital management, and the performance of heads of the wards increased the patient's perception of safety.

INTRODUCTION

Hospitals are among the most important components of the health care system. Therefore primary goal of them is to provide high quality care for patients. The concept of quality of care is a multidimensional concept, and patient safety is one of its most important dimensions (1). Patient's safety means avoiding any injury to the patient while providing health care (2). World Health Organization (WHO) estimated that each year tens of millions of people die or become disabled as a consequence of clinical mistakes and risky treatment processes.Due to the fact that scores of mistakes are already occurring around the world in the field of care and treatment of patients, improving patient safety is the primary target considered by health organizations at the beginning of the 21st century. Considering that the patient safety is main concern for all people involved in patient care and it is the foremost issue inherent in professional duty, safety assessment and detecting the extensible points can be very helpful (2, 3). Patient safety is an essential component of quality in health care, and is one of the main agenda for all health care systems seeking to ensure and improve the quality of care. Various studies in different countries have shown that 2.9-16.6% of patients in acute care hospitals experience at least one adverse event (4). Almost 50% of adverse events are presumed to be preventable. It is believed that in order to improve the quality and safety of health care, hospitals should create a patient safety culture among their staff (5). In addition to designing structural interventions, American Medical Association declared that if a safety culture prevails in a hospital, so that the side effects can be reported with no

reproach. So, there exists a chance to learn from mistakes and get better to prevent human and systemic mistakes and errors in the future, it would promote patients safety. Therefore, if hospitals decide to improve patient safety, it is crucial to have a better understanding of patient safety culture (6). Patient safety culture represents the priority level in terms of staff in the ward and their workplace organization. While considering the prevalence of medical errors, awareness about patient safety culture in the health sector is important to adapt the advances made in care quality. Improving patient safety is not just a clinical issue, but also an organizational one (7).

According to a report by the US National Academy of Medicine, ensuring patient safety is the first critical step in improving the quality of health care. At all organizational levels, health care workers make decisions on a daily basis that address the issues related to patient safety. In recent years, it has been internationally accepted that the health care is not as safe as it should be, and that patient safety results need to be improved (2-4). Thus it has become a primary goal in world to reduce the occurrence and impact of preventable human mistakes, and their side effects in the field of health care (8).

Considering the importance on patient safety issues while studying undermining safety factors at scientific and international forums, as well as the interaction of midwives and doctors being one of the key factors affecting safety, very limited number of studies were conducted in this field in Iran. This study investigates the perception gap in patient safety between physicians and midwives of the hospitals of Social Security Organization in Tehran.

MATERIALS AND METHODS

Study design and arrangement

This cross-sectional study was conducted on physicians and midwives working in hospitals of Social Security Organization in Tehran (Ayatollah Kashani, Fayyazbakhsh, and Hedayat) after receiving the code of ethics and informed consent of the participants.

Measuring the data

Questionnaires regarding the patient safety perception and the factors affecting it were used. In this study, the approval of professors and experts was used to assess the validity of the questionnaire. For this purpose, questionnaires were provided to them, and they were asked for their opinions on each question and the questionnaire was revised with some minor modifications. Cronbach's alpha method was used to determine the reliability of the questionnaire in this study (Cronbach's alpha =0.88 for perception of patient safety and Cronbach's alpha =0.76 for factors affecting perception of patient safety). In this study, descriptive and inferential statistics were used to examine the research hypotheses in the population.

Statistical methods

Both descriptive statistics and inferential statistics methods were used to analyze the data obtained from the samples. The central tendency parameters (mean, median and mode) and dispersion parameters (standard deviation, variance, and variation range) were used for descriptive analysis of research variables. To analyze the data, confirmatory factor analysis and structural equations modeling methods were used, which were analyzed by Amos software.

RESULTS

A total of 70 males and 62 females out of 132 participated in the study. 17 people had a bachelor's degree, 35 of them had a master's degree and 28 of them had a doctorate (21.3% of them had a bachelor's degree, 43.8% of them had a master's degree, and 35% had a doctorate). Most of the sample aged between 30 and 50 years (Table 1).

Table 1: The frequency and percentage of subjects.

Variable	Frequency	Frequency percentage
Gender		
Male	70	53
Female	62	47
Education		
bachelors' degree	71	53.79
Masters' degree	31	23.48
Doctorate	30	22.73
Age (years)		
31-40	44	33.333
41-50	59	44.70
>50	29	21.97

The lowest and highest mean scores were found for patient safety perception (3.2475 ±0.62702) and teamwork within units (3.5417 ± 0.713216) (Table 2).

Table 2: Average of the studied variables.

Variable	Average	Standard deviation
Perception of patient safety	3.2475	0.62702
Continuous organizational training	3.4042	0.94235
Teamwork within units	3.5417	0.713216
Expected performance	3.2583	0.92165
Hospital management support	3.3250	1.09977

There was a significant relationship between perception of patient safety and continuous organizational training, teamwork within units, support for hospital management, expec-

tations and performance of the ward managers (P <0.001), such that continuous organizational training, teamwork within units, support of the hospital management, expectations, and performance of the heads of the wards increased the perception of patient safety (Table 3).

Table 3. Study of significance of the effect of variables on perception of patient safety

Variable	**Estimate**	**S.E.**	**C.R.**	**P-Value**
Continuous organizational training	0.696	0158	4.411	P<0.001
Teamwork within units	0.856	0146	5.88	
Hospital management support	0.842	023	3.67	
Expectations and performance of the heads of the wards	0.716	014	5.11	

DISCUSSION

Over the past decade, many interventions have been employed to reduce medical errors and to improve patient safety. One of the major barriers has been the organizational culture prevailing in health care environments and most vital components of the safety culture is the physicians' attitudes towards medical errors and mistakes. Due to that appropriate training has been suggested as a way to improve the situation. Training has been emphasized many times in the patient safety literature. Some studies have emphasized training at all system levels, and some have emphasized the inclusion of formal training in students' educational programs.

The desire to make changes in medical education is not limited to the medicine. , Governments and society also demand modification in medical education due occurrence of adverse events in the field of medicine. Responding to the legal demands of society will be non-inclusive and ineffective without a proper educational environment and appropriate training on quality and safety. The Helsinki Declaration recognizes and supports the role of training in improving patient safety. The World Health Organization has also developed and compiled a complete patient safety training curriculum in recent years. The issue of patient safety has received much attention in recent years in Iran, including the pilot project of patient safety in some educational- medical centers across the country, and the emphasis on patient safety in the accreditation of health care institutions (Nabiloo Bahram et. al, 2013).

Teamwork within the units increases the perception of patient safety, which is in agreement with the results of the studies by Mostafaei et al. (2018) (9), Zare Moayedi and Hesam (2018), Rezaei et al. (2015) (10) and Liu et al. (2017) (11).

Despite the importance of teamwork in health care system, physicians (including, nurses, paramedics, etc.) and health care professionals typically operate as a set of separate professions and units. In fact, the members of these teams are rarely trained together. In addition, they come from different disciplines with different training programs, and are less likely to work as a team. One of the reasons for poor teamwork can be attributed to the lack of understanding of other professions. On the other hand, teamwork has been shown to be very important for patient safety, especially "when team members are well aware of their responsibilities", because they commit fewer mistakes. In fact, it can be said that the nature of patient care is based on teamwork, and there is a growing need to improve the communication among health care team members. On the other hand, inter-professional collaborations have been proposed as one of the effective principles of training. Many researchers have emphasized the importance of teamwork and inter-professional collaborations of health team members. As a result, an educational strategy is essential to improve team performance among health care personnel. Therefore, any training method or approach that can achieve the same goal is of great importance. It seems that a strategy that can be a suitable solution for this purpose is inter-professional training.

Inter-professional training is one of the new approaches in educating health system learners, and also, it is one of the educational approaches on which various texts have emphasized that can enhance inter-professional collaborations and improve the quality of patient care. In inter-professional training, employees of two or more professions learn from each other and understand each other, so that they improve the quality of service and patient care by increasing collaboration. This definition makes it clear that firstly education is defined by training events. Secondly, active learning requires learning from each other, with each other and about each other. Thirdly, the main goal of this type of training is to increase collaborations and improve patient care. Based on available documentations, the first inter-professional training programs dates back to the 1960s in Canada. Dunn introduces the use of this approach in training programs at a Canadian psychiatric hospital with the attendance of a psychiatrist, a psychologist, a nursing supervisor, and all of the hospital staff. In 1973, the World Health Organization issued a report on the weaknesses of medical students' readiness to work in a health team, and by proposing the need for further integration of the roles of health care professionals, emphasized the role of training them through a holistic approach (Jafaei Dolouei et.al, 2015). Support of hospital management for patient safety increases the perception of patient safety, which is in agreement with the results of the research by Zare Moayedi and Hesam (2018) and Rezaei et al. (2015).

The role of organizational leadership in patient safety is absolutely key and fundamental, and the commitment to it must be evident, and in practice, it must be shown in a tangible way that patient safety is one of the priorities of the organization.

Employees should be able to express their potential concerns about the risks and unsafe nature of the services they provide.

Policies are usually written such that they reflect that the organization's senior management is of adequate faith and commitment toward safety issues. On the other hand, the personnel see policies just as some beautiful sentences that are not true. In fact, many studies have revealed a significant difference between management's perceptions of commitment to safety issues (about 90% of senior managers) on the one hand, and staff endorsement of management commitment (about 30% of staff) on the other. Although most managers believe that they present the due care to safety issues, the reaction of staff to the same issue can reflect the reality. Now, if the managers pay attention to the opinions of the staff, have regular and purposeful visits to the workshops, communicate directly with them, and control and resolve the site safety problems, then the staff may also confirm that the management has put his/her words into action. Some managers believe that management's commitment is limited to provision of protective equipment, the installation of safety slogans and signs, and rewards. It is the responsibility of safety professionals to give advice to senior managers on safety culture promotion programs, and this is the first step in gaining their support.

The first step in attaining management support is appropriate communication. Communication includes reporting to management or face-to-face meetings. Reports should be clear, accurate, concise and helpful. In fact, the report should be such that it does not require a meeting for its review, and receives management agreement to implement it. If it is not possible then in that case one has to hold a meeting with the management to convince them, so that the desired result is achieved. Setting the report aside and not following it shows the insignificance of the subject and the weaknesses in the safety culture.

The performance of the heads of the wards increased the perception of patient safety, which is in line with the results of the Zare Moayedi and Hesam research (2018).

Performance monitoring, as seen at all management levels, is essential for work progress. Management must insist that safety surveillance should be the first issue to be discussed in the reports presented by each operational unit, whether it is the annual report of the company or a weekly report of a single unit of the same company. The safety monitoring system aims to determine, how much each person or a unit of the company is within the specified target and the standards. It also looks at the fact that how much he/she/it deviates from the company's standard. The safety monitoring system considers the company strengths and weaknesses, and it offers solutions and suggestions to strengthen it as much as possible. For this purpose, review meetings are held monthly with the participation of HSE committee members to asses safety performances. Safety indicators are monitored in different time periods on a daily, monthly, and annually basis. Meetings are held with Higher Committee in the presence of the CEO on a monthly basis to review the performance in the safety field.

CONCLUSION

According to the results of this study, continuous organizational training, teamwork within units, support of the hospital management, and performance of the heads of the wards increase the perception of patient safety. Likewise, planning for continuous staff training to increase their awareness, to improve their performance, and participation in the program. The individual behaviour is of a great impact on team members, and coordinating the teams to conduct teamwork can improve patient safety.

AUTHORS' CONTRIBUTIONS

Ahthors contributed equally to this research.

CONFLICT OF INTEREST

The authors declare that they have no conflicts interest.

ETHICAL STANDARDS

The necessary ethical approval was obtained from the ethics committee of the hospital community.

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