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Research Article

Patients and Public Involvement in Patient Safety and Treatment Process in Hospitals Affiliated to Kashan University of Medical Sciences, Iran, 2013

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Background: In the recent decades, healthcare providers had a perspective of benevolent paternalism. Nowadays, the patients' role has changed and they have a significant obligation to participate in their caring decisions.

Objectives: The current study aimed to investigate the involvement of patients and public in the patient safety and treatment process in hospitals affiliated to Kashan University of Medical Sciences, Kashan, Iran, 2013.

Patients and Methods: A cross-sectional study was conducted in the hospitals affiliated to Kashan University of Medical Sciences in 2013. Subjects included all of the 18 chief managers, 10% of nurses in each hospital, and 375 patients. Data collection instruments included a questionnaire and a checklist designed according to the research objectives. Data analysis was performed using the SPSS ver. 13. Descriptive statistics, percentage and frequencies, were calculated for all variables and analyzed by Chi-square test.

Results: In the treatment process, 81 patients (21.61%), 50 nurses (80.6%) and 15 chief managers (83.3%) had awareness about Patient Bill of Rights. In patient Safety, 19.73% of the patients stated that hospitals received their feedbacks. Management activities were weak in evaluation. All of the six hospitals (100%) had a defined process to perform satisfaction surveys' quality improvement and patient authentication policy.

Conclusions: Patient and public participation in Kashan hospitals are not adhered well. As the patient has an important role in improving the quality of services, more use of mass media especially local newspapers, hospital websites, and training programs are suggested to inform both the patients and public on their rights and roles in improving the healthcare services.

Keywords: Consumer Participation; Patient; Patient-Centered Care; Decision Making

1. Background

Public and patient participation were defined by various terms such as public and patient collaboration, public and patient involvement, public and patient empowerment, and so on. It means involving patients in making decisions regarding their health problems to increase the patients' safety (1). In the recent decades, healthcare providers had a perspective of benevolent paternalism. This perspective did not embrace recognition of the personal autonomy of the severely sick patients. Therefore, healthcare providers had the main role in decisions made regarding the patients' healthcare and patients had a passive role in this regard. However, nowadays the patients' role has changed and they have a legal obligation in their caring decisions (1, 2). On the other hand, healthcare providers are responsible to improve patient safety, make faster and better decisions, and provide high quality treatments. The World Health Organization (WHO) in its agenda "World Alliance for Patient Safety" states that patients and their families could play an active role to en-

hance the quality of healthcare services and increase the efficiency of the healthcare system (3). To achieve these goals it is suggested that patients be members in the hospital quality assurance and safety committees (1).

A number of factors such as human factors, technical equipment, and environmental conditions affect the incidence of medical errors (4-6). Given the wide range of medical errors and the associated costs in advanced healthcare systems, different approaches are established to deal with medical errors and improve the patients' safety (7). Patient satisfaction surveys, assessment of patients' needs and unmet needs are parts of patient and public participation in healthcare decision making. Such activities are traditionally performed in paper format (8-10). In these procedures, consumers identify the existing gaps in the healthcare system and summarize their perceptions of healthcare services. Anyway, survey on causes of medical errors indicated that patients could help to decrease many of these errors. In a study, patients and family members were trained on

safe care, and then, the incidence of medication errors decreased, significantly (11). Another study reported that 91% of patients thought that they could prevent medical errors occurring in hospitals and healthcare centers, and 98% thought that hospitals should educate patients in this regard (12). To implement this task, an international network of patients and consumers is being established to promote patient participation in safety initiatives (1). Several authoritative guides are published to involve patients in planning and development of healthcare services. However, engaging patients is not an easy mission, and no consensus exists on the most effective methods under different circumstances (13-16). One of the comprehensive approaches to patient safety is the patients' pivotal role in safety and patients friendly hospitals. This method helps healthcare organizations to achieve the standards of clinical governance, risk management, and quality improvement (17). One of the main steps is involving patients and public in safety issues, communicating with them, teaching and sharing safety lessons, and implementing the solutions to prevent damages (18, 19).

2. Objectives

The current study aimed to investigate the involvement of patients and public in patient safety and treatment process in hospitals affiliated to Kashan University of Medical Sciences, Kashan, Iran, 2013.

3. Patients and Methods

A cross-sectional study was conducted in the hospitals affiliated to Kashan University of Medical Sciences in 2013. The study was performed on patients and nurses in two state hospitals (i.e. Shahid Beheshti and Sayyed Al Shohada hospitals), two specialized ones (i.e. Naghavi Specialized Surgery Hospital, and Matini Eye, Ear, Nose and Throat Hospital), and Rajaei Maternity Hospital. Pa-

tients of Kargarnezhad Psychiatric Hospital were not included in the study because they were not able to answer the study questionnaire. Participants included all of the 18 chief managers (chief executive officers, matrons and head nurses of the hospitals), 10% of nurses in each hospital ($n = 62$), and 375 patients. The number of patients was calculated given a type one error of 0.05, $d = 0.05$, and $P = 0.5$. In each hospital, proportional random allocation was the method to select patients and nurses.

Patients were selected using random numbers table; the required numbers of patients were randomly selected from a list of hospitalized patients obtained from the admission unit in each hospital. If patients were satisfied to participate in the study, they were interviewed; otherwise another patient was randomly substituted. This process was continued until the sample size completed. The inclusion criteria for the patients were being in the age range of 15- 70 years old, and not being hospitalized in the emergency, intensive care or coronary care units. For the nurses, having a minimum of 5 years working experience in nursing and holding at least an associate degree in nursing were considered the inclusion criteria.

In the current research, patients and public involvement was defined as their participation in the patient safety and treatment process (20) (Figure 1).

Data collection instruments included a questionnaire and a checklist. They were developed based on the patient safety standards for patient and public involvement (20) and related articles (2, 21-26). The questionnaire had two sections; the first section included demographic questions; for patients (age, gender and level of education), and for nurses and chief managers (age, gender and working experiences). The second section was composed of 18 yes/no questions in two subgroups (treatment process and patient safety). To approve chief manager replies, a checklist with nine yes/no questions (existence of documentation / absence of documentation) was used.

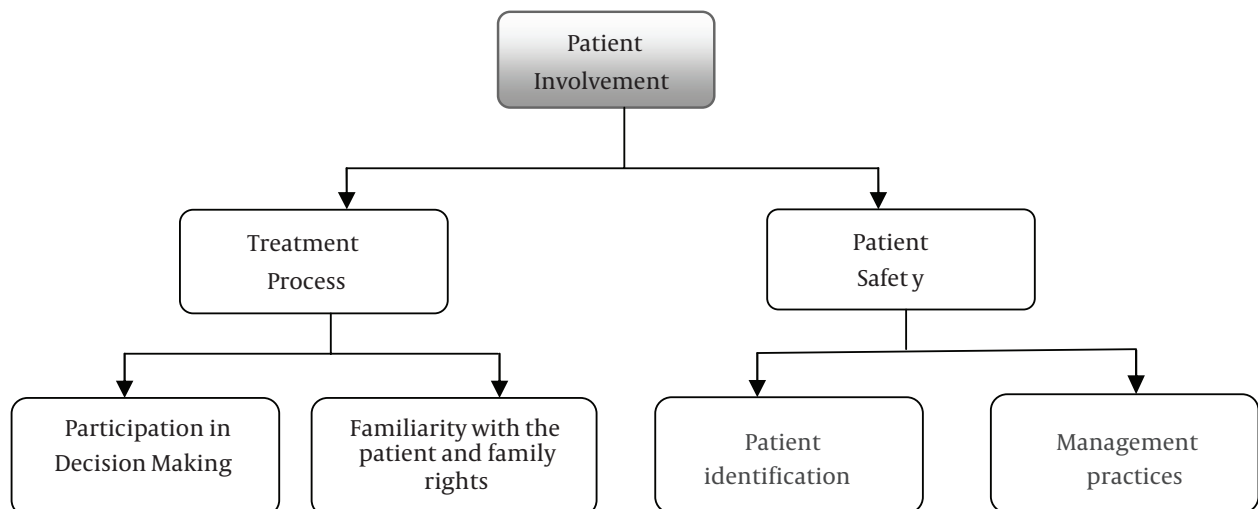


Figure 1. Definition of Patient and Public Involvement

Face and content validity of the questionnaire were confirmed by four specialists in nursing, healthcare management, and health information management. Reliability of the questionnaire was checked by Cronbach's alpha method (Cronbach's alpha = 0.75). Data were collected through researcher interviews with participants and observations of the related documentations such as existence of declaration of patient safety, journal publication, and minutes of meetings of workgroups. Since data were collected through interviews, there were no missing data.

3.1. Ethical Considerations

The study protocol was approved by the Institutional Review Board and the Research Ethics Committee of Kashan University of Medical Sciences. Permissions were also obtained from the hospital data authorities. Moreover, all subjects signed a written consent form before participation in the study. The research team was sensitive to preserve the participants' rights according to the Helsinki Ethical Declaration.

3.2. Statistical Analysis

After data collection, descriptive statistics (percentage and frequencies) were calculated and the relationship between participants (patients, nurses, chief managers) and the distribution of the "yes response" in Patient Involvement Questionnaire was assessed using Chi-square test. Besides, due to overall evaluation of the status of patients' involvement, the responses were categorized according to the percentage of "yes response" in each item

into five subgroups, named: very good (100 - 80%), good (80 - 60%), moderate (60 - 40%), weak (40 - 20%) and very weak (20 - 0%).

4. Results

From a total of 375 patients, 172 (45.9%) were female; 149 (39.73%) were in the age range of 20 - 40 years; and 204 (54.1%) did not hold a high school diploma. Moreover, from a total of 62 nurses participating in the study, 9 (14.52%) were male; 36 (58.1%) were in the age range of 20 - 40 years; and 47 (75.8%) had a working experience less than 10 years.

From a total of 18 chief managers, 15 (83.3%) were female, 12 (66.7%) were in the age range of 40 - 60 years, and 12 (66.7%) held bachelor degree (Table 1).

In the treatment process subgroup, 81 patients (21.61%), 50 nurses (80.6%) and 15 chief managers (83.3%) were aware of patient bill of rights, which was the lowest proportion of "yes response" in the three participating groups. In the patient safety subgroup, 100% of the chief managers had replied yes to the item, reporting incidents through a special phone line, the yes answer to this item was 1.3% in patients and 8.1% in nurses. From a total of 62 nurses, 46 (74.2%) reported that patients were aware of their rights and 53 (85.4%) reported that patients participated in the treatment.

Results showed that in the treatment process, patients were in the weak category regarding awareness about patient bill of rights and visibility of patient bill of rights. Moreover management practices, in patient safety subgroup, had been evaluated as weak (Table 2).

Table 1. Demographic Status of Participants in Patient and Public Involvement ^a

Demographic Status	Participants (n = 455)		
	Patients (n = 375)	Nurses (n = 62)	Chief Managers (n = 18)
Gender			
Male	172 (45.9)	9 (14.52)	3 (16.7)
Female	203 (54.1)	53 (85.48)	15 (83.3)
Age, y			
0 - 40	163 (43.46)	36 (58.1)	6 (33.3)
40 - 60	151 (40.27)	26 (41.9)	12 (66.7)
60 - 80	61 (16.27)	0 (0)	0 (0)
Mean ± SD	45.4 ± 8.1	36.3 ± 3.8	41.1 ± 5.2
Level of education			
Under diploma	204 (54.4)	0 (0)	0 (0)
Diploma	107 (28.5)	0 (0)	0 (0)
Associate degree	30 (8)	3 (4.8)	0 (0)
Bachelor	28 (7.4)	52 (83.9)	12 (66.7)
Master of science and higher	6 (1.6)	7 (11.3)	6 (33.3)
Working experiences			
Working experience < 10	-	47 (75.8)	8 (44.4)
Working experience > 10	-	15 (24.2)	10 (55.6)

^a Data are presented as No. (%).

According to the results, six hospitals (100%) had analytical and improving programs based on satisfaction surveys and existence of patient authentication policy (Table

3). five of six hospitals (83.3%) were providing specific and general information through website and the other one had face to face education for patients.

Table 2. Frequency of Yes Response of Participants in Patient Involvement ^a

Items	Participants			P Value
	Patients (n = 375)	Nurses (n = 62)	Chief Managers (n = 18)	
Treatment Process				
Familiarity with the patient and family rights				
Awareness about patient bill of rights	81 (21.6) ^b	46 (74.2%) ^c	15 (83.3) ^c	< 0.001
Visibility of patient bill of rights	106 (28.26) ^b	51 (82.3) ^c	17 (94.4) ^c	< 0.001
Participation in decision making				
Information regarding the diagnosis and treatment	328 (87.5) ^c	59 (95.1) ^c	16 (88.8) ^c	0.21
Participation in treatment				
Training the patient on self-care after discharge	189 (50.4) ^d	53 (85.4) ^c	16 (88.8) ^c	< 0.001
Training the family on self-care after discharge	344 (91.73) ^c	57 (91.9) ^c	15 (83.3) ^c	0.46
Receive educational materials	342 (91.2) ^c	57 (91.9) ^c	17 (94.4) ^c	0.88
Drug information required	250 (66.7) ^e	60 (96.7) ^c	15 (83.3) ^c	< 0.001
	304 (81.06) ^c	61 (98.3) ^c	17 (94.4) ^c	0.001
Patient Safety				
Management practices				
Getting feedback from patient	74 (19.73) ^b	15 (24.2) ^b	17 (94.4) ^c	< 0.001
Studies satisfaction	31 (8.26) ^b	8 (12.9) ^b	17 (94.4) ^c	< 0.001
Attend to patients' complaints	35 (9.33) ^b	6 (9.7) ^b	17 (94.4) ^c	< 0.001
Staff reporting system	10 (2.66) ^b	15 (24.2) ^b	16 (88.8) ^c	< 0.001
Special phone line reporting system	6 (1.6) ^b	5 (8.1) ^b	17 (94.4) ^c	< 0.001
Using the suggestion box	25 (6.66) ^b	57 (91.9) ^c	17 (94.4) ^c	< 0.001
Managerial inspections	5 (1.3) ^b	48 (77.4) ^e	18 (100) ^c	< 0.001
Patient identification				
The authentication Methods	282 (75.2) ^e	48 (77.4) ^e	Not applicable	0.71
Identification of patients with allergies	190 (50.7) ^d	33 (53.2) ^d	Not applicable	0.7
A system to identify patients	Not applicable	48 (77.4) ^e	Not applicable	-

^a Data are presented as No. (%).

^b Weak.

^c Very good.

^d Moderate.

^e Good.

Table 3. Frequency Distribution of Availability of Documents in Hospitals ^a

Availability of Documents	Checking the Yes Response
Informing declaration of patient safety	4 (66.6)
Journal publication	4 (66.6)
Minutes of workgroups meetings	5 (83.3)
Minutes of the meeting on presentation in general public in events	1 (16.7)
Manager visits, online and phone complaints, receiving feedbacks from staffs, suggestion boxes	4 (66.6)
Results analyzing and improving actions based on satisfaction surveys	6 (100)
Minutes of workgroups meetings	4 (66.6)
Patient authentication policy	6 (100)
Instructions for identifying patients	3 (50)

^a Data are presented as No. (%).

All of the hospitals (n = 6) had policy in receiving patients feedback as formal complaints, receiving feedback by their staff, or through suggestion boxes; however, only three (50%) hospitals experienced receiving patients feedback through phone line.

5. Discussion

In the recent decades, patient and public involvement in decision making process and patient safety is widely accepted as a means to quality improvement. It is believed that patients can be an integral part of the care team, working in partnership with professionals (27). All these depend on the availability of information and providing them to patients. The current study results showed that 328 patients (87.5%), 59 nurses (95.1%) and 16 chief managers (88.8%) expressed that information relating to the diagnosis and treatment were provided to the patients. 189 patients (50.4%), 53 nurses (85.4%) and 16 chief managers (88.8%) declared that patients participated in treatments. There was a significant difference in views of the three studied groups. Researchers surveyed on 491 patients admitted to hospitals and reported that 23% of them thought that patients should follow instructions given by their caregivers; 21% thought that patients should be informed about their treatments (28). In another study nurses declared that engaging patients in the treatment was very difficult (29). In Spain, 764 patients and 327 physicians were studied regarding patient involvement in decision making and safety. The majority of the patients preferred not to have an active role. Only 20% of physicians thought they could support patients to be more involved in making decisions and patient safety (30). It seems that different populations in different settings have various perspectives. Since the satisfaction in the current study was higher compared to some other countries, the obtained results showed that the governmental activity in the country led to greater patient participation in the treatment process; further research is needed.

Only 19.73% of the patients stated that they received feedbacks. Totally, 9.33% and 8.26% of the feedbacks were through patient complaints or patient satisfaction surveys, respectively; while 6.66% of the received feedbacks were through suggestion boxes. All of these showed weak feedback. A study in Japan and another study in seven countries: Australia, Canada, New Zealand, the United Kingdom, the United States, Germany and the Netherlands also showed that only 11 - 17% of the patients reported medical errors or threatening events (31, 32). Evidence show that having access to healthcare facilities will lead to patient satisfaction; however, patients are not interested in understanding the causes of errors or to provide feedback to the hospital authorities (33). Healthcare organizations have increasingly tried to providing feedbacks from patients. In England, using benchmarks could increase patients' feedbacks up to 91% (12, 34). Moreover, several other countries using patients' feedbacks have

not only used it in improving the healthcare workers knowledge but also in developing patients safety protocols (35-39). Due to the importance of the patients' feedbacks, in the Netherland a Complaint Registering System was established to ease the process of feedback and its processing (40).

Considering the critical role of getting patients feedback in staff training, improving the care quality and patient safety and also reducing patients anxiety, various methods such as paper forms, web-based and phone reporting methods are used in different countries (41-43). A hospital in Sudan uses a card with title of "tell us!" and gives it to patients; therefore, they can explain and write what happened to them (44). Effective use of such systems might help to improve not only patient safety but also care quality. Several other methods may also be suggested such as conducting patient and public satisfaction surveys, establishing safety committees, risk management, reviewing and analyzing errors, preparing monthly reports of unwanted events, establishing effective complaint surveying systems, giving complaint forms to all patients and their families, using direct phone line for reporting incidents, designing electronic conversation rooms and notice boards are suggested.

In the present study, all hospitals had pervasive programs for patients' safety and five had a website. In its regional report, WHO encouraged all hospitals to use policies, procedures and protocols to involve people in improving patients' safety (19, 45). Several studies on patient safety and clinical governance reported that most of the people expected managers to consider the public views on issues related to patient safety (46-50). Some studies also reported the positive attitudes and readiness of healthcare managers and healthcare staff to execute plans for keeping patients safety and also on considering public views in this regard (50, 51).

In conclusion, patients and public involvement in Kashan hospitals are not respected well. As the patient has an important and primary role in improving the quality of services, more use of mass media especially local newspapers, hospital websites and training programs are suggested to inform both the patients and public on their rights and roles in improving the healthcare services. It is also recommended that Kashan hospitals apply some methods to enable patients share their experiences and problems with authorities. Holding regular meetings with civil groups, NGOs and local pioneers to promote their awareness may help to establish a safety culture. Then the effects of such activities may be studied.

The main strength of the study was using three data sources, which helped to understand different aspects of the issue. Moreover, data collection in different settings and at different times was other strength of the study. The study was also exploratory in nature. However, it did not assess the views of the general public. The study was conducted on a small sample because it was conducted in six hospitals. Therefore a countrywide study is suggested.

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Authors' Contributions

All authors contributed to the initial design of the research. Fatemeh Atoof, Fatemeh Abootalebi and Fatemeh Rangraz Jeddi participated in data collection. Data analysis and drafting the manuscript performed by Mohammad Reza Eshraghian, Mahmood Mahmoodi, Fatemeh Rangraz Jeddi, Fatemeh Atoof and Kazem Mohammad. All authors approved the final manuscript.

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