

# Mechanisms to Attract Nurses' Engagement in Patient Education from Nursing Managers Point of View of in Ahwaz Educational Hospitals, Iran, in 2016

Parvaneh Ghorbani<sup>1</sup>, Mohammad Adineh<sup>2\*</sup>, Oldooz Behnia<sup>1</sup>, Lida Mombeini<sup>1</sup>, Bayan Saberipour<sup>3</sup>

<sup>1</sup>University's Treatment Deputy, Ahvaz Jundishapur University of Medical Sciences, Ahvaz, Iran

<sup>2</sup>Nursing Care Research Center in Chronic Diseases, Department of Nursing and Midwifery, Ahvaz Jundishapur University of Medical Sciences, Ahvaz, Iran

<sup>3</sup>Student Research Committee, Ahvaz Jundishapur University of Medical Sciences, Ahvaz, Iran

## ABSTRACT

**Background:** Nursing managers at different levels play an important role in attracting and facilitating the engagement of nurses in patient education.

**Aim:** The study was designed and conducted to determine the mechanisms for attracting nurses' engagement in patient education from the viewpoint of nursing managers in Ahwaz educational hospitals, Iran, in 2016.

**Methods:** It was a descriptive cross-sectional study evaluating 91 nursing managers of Ahvaz Jundishapur University of Medical Sciences. A two-part questionnaire, including 40 items, was used to examine the demographic characteristics and mechanisms for attracting nurses' engagement from the viewpoint of nursing managers to patient education. Data were analyzed using descriptive statistics such as frequency distribution, mean, standard deviation and Pearson correlation coefficient.

**Results:** The results suggested that the highest mean score of the components of nurses' engagement in patient education from nursing manager's point of view was regarding the position of managerial abilities ( $51.26 \pm 11.02$ ).

The most important factor related to the position of managerial abilities to attract more nurses' engagement in patient education, from the viewpoint of head nurses, included introducing standard forms of education to the patient provided by health Ministry ( $3.88 \pm 0.97$ ), while it was being aware of the actual and potential capabilities of nurses ( $3.91 \pm 0.79$ ).

**Conclusion:** According to the results, in order to improve the quality of patient education, barriers with higher frequency from the perspective of nursing managers should be modified and adequate budget and equipment should be provided educational needs for the nurses.

**Key words:** Patient education, Participatory mechanism, Nurses, Nursing managers

**HOW TO CITE THIS ARTICLE:** Parvaneh Ghorbani, Mohammad Adineh\*, Oldooz Behnia, Lida Mombeini, Bayan Saberipour, Mechanisms to attract nurses' engagement in patient education from nursing managers point of view of in Ahwaz educational hospitals, Iran, in 2016, J Res Med Dent Sci, 2019, 7(1): 163-169

**Corresponding author:** Mohammad Adineh  
**e-mail** ✉: mohadineh@gmail.com  
**Received:** 03/01/2019  
**Accepted:** 08/02/2019

## INTRODUCTION

The training was first recognized by Florence Nightingale as a nurse's task. In 1973, she suggested to include education as one of the patients' rights in the Patient Rights List [1,2]. In addition, nurses are legally responsible for providing accurate and timely information to patients, and this is not only a professional part of the work of nurses but one of their ethical responsibilities and is recognized as the primary duty of all healthcare professionals [3]. A large number of authors believe that it

is best to educate the patient because nurses spend a lot of time with patients and form a close relationship with them [4,5].

Lack of patient education can cost a lot to the government, and also causes many problems for healthcare providers and the patient. In United States about 69-100 million dollar is spent annually on treatment for problems caused due to lack of patient education [6]. Studies claimed that nurses usually believe that patients are reluctant to learn, which make them not lead to educational activity [7].

As nurses are the pioneer of patient care and they are in contact with patients more than any member of treatment teams and they recognize patients' needs more tangibly, it is believed that nurses are at the forefront of educating

patients so that patient education course was developed and taught to nurses. In addition, in most valid nursing resources, patient education is described as nursing professional care [8-11]. Therefore, it could be said that education is a cross-cutting process in which learning takes place and, therefore, is one of the basic human needs. Patients are no exception to this and need to be educated and receive clear and adequate information [12-17].

Researches, on the other hand, have argued that nursing managers, using effective management skills and leadership, can influence the empowerment of their staff, thus facilitating the achievement of the organization's goals [18]. As the result, it is already known that nursing managers should grow aware of the barriers to adequate training by nurses through analysing the conditions and then make appropriate decisions [19]. Therefore, with regard to the need for patient education, hospital officials, especially nursing managers, can play a major role in attracting nurses' contributions since they are directly responsible for controlling the performance of nurses working in various wards and nurses consider themselves accountable to them [19,20]. In our country, education for the patient as a part of primary healthcare act has a flaw, for some reasons and is not a priority due to reasons such as lack of attention paid by the leading health care management of Iran to high expenses of hospitalization to patients, lack of awareness and belief in the cost-effectiveness of patient education to reduce the incidence of hospitalization, and lack of motivation to search for appropriate strategies to decrease expenses through behavioral education programs.

The provision of this service as a part of patient care system in hospitals requires identifying organizational and systemic related variables, management perspective, organizational management, resources, deterrents and facilitators [21-25].

In their study, Mansourghanaei *et al.* reported that the main deterrent to patient education is the lack of knowledge and skills from the trainer to understand the patient's learning requirements [26]. Also, Heshmatifar *et al.* suggested that patient's education was insignificant in patient points of view, and ward managers were required to take necessary steps to increase the level of knowledge of nurses about the importance of teaching to the patient [27].

Therefore, considering the necessity of patient education and the role of nursing managers and nurses in this area as well as the limited number of studies conducted in this field in Iran, this study aimed to investigate the mechanisms for attracting nurses' engagement in patient education from the perspective of nursing managers in Ahwaz, Iran in 2016.

## MATERIALS AND METHODS

In this cross-sectional descriptive-analytic study, 91 nursing managers working in Ahwaz educational-

therapeutic hospitals were surveyed through census method in 2016.

The inclusion criteria in this study for nursing managers included; being employed in Ahwaz teaching and therapeutic hospitals as metron, supervisor or head nurse.

Exit criteria included lack of consent for participation in the study by nursing managers and incomplete questionnaires. In this research, obtaining a license from deputy of research in Ahwaz Jundishapur University of Medical Sciences and explaining the purpose of the research to the samples, questionnaires were completed by interviewing nursing managers, hospital manger and master nurses attending in hospitals under study.

A two-part questionnaire was used to collect the required data. The first part included demographic information with 8 questions. The second part included 40 questions related to determining the mechanisms for attracting nurses' engagement in patient education from nursing manager's point of view.

Question 1 to 14 checked the importance of managerial capabilities in patient education, 15 to 23 checked the role of participatory management, 24 to 32 tested motivation status in attracting nurses' engagement in patient education and questions 33 to 40 were related to the importance of barriers to patient education.

The questionnaire was developed through studying the literature and examining the related experience of nursing staff. A 5-item Likert scale (from 0=strongly disagree to 4=strongly disagree) was used to choose answers in the questionnaires. To confirm the validity of the questionnaire, 15 faculty members took the questionnaire, and their comments were applied to the questionnaire (CVI=0/83 & CVR=0/76). Also, to determine the reliability, 25 nurses were asked to answer the questionnaire; retest was hold after 14 days with the same 25 nurses. Reliability of the questionnaire was confirmed using test-retest process ( $\alpha=0.86$ ).

Descriptive statistics methods including frequency distribution tables, charts, skewedness indexes and proper distribution were used to analyze and describe the variables under study. Normality of quantitative data was checked using Kolmogorov-Smirnov test. Chi-square test was conducted to determine the relationship between two qualitative variables.

Independent t test and one-way analysis of variance or their non-parametric equivalents were used to compare quantitative values between two or more groups, respectively. Statistical difference was defined as  $p<0.05$ . Data analysis was performed using SPSS 19 software.

## RESULTS

The results of the study showed that the mean age of the participants in the study was  $43.80 \pm 5.56$  and the average working experience was  $19.4 \pm 35.98$ , 85

(93.4%) managers were female and 73 (80.2%) were married (Table 1).

**Table 1: Demographic information and its relationship with nurses' engagement strategies in patient education from nursing managers point of views in Ahwaz educational hospitals in 2015**

Variables	F (%)	Managerial capabilities	Participatory skills	Motivation	Barriers
Gender	Male 6 (6.6)	p=0.649; t=0.456	p=0.450; t=0.760	p=0.896; t=0.131	p=0.964; t=0.046
	Female 85 (93.4)				
Marital status	Single 18 (19.8)	p= 0.162; t=0.456	p=0.062; t=-1.8	p=0.010**; t=-2.62	p=0.018**; t=-2.4
	Married 73 (80.2)				
Managerial level	Ward head 68 (74.7)	p=0.207; t=-1.30	p=0.216; t=-1.27	**p=0.041; t=-2.17	p=0.026**; t=-2.39
	Supervisor 23 (25.3)				
Experience on patients education	Yes 78 (85.7)	p=0.969; t=0.0339	p=0.081; t=1.76	p=0.033**; t=2.16	p=0.041**; t=2.07
	No 13 (14.3)				

\*\*p<0.05

The mean score of the mechanisms for attracting nurses' engagement in patient education from nursing managers' point of view were managerial abilities (51.11 ± 26.02), motivation (33.7 ± 10.93), barriers (29.6 ± 1.63) and participatory skills (31.7 ± 74.81). The independent t-test results between nursing managers level, gender, experience on patient education and their marital status were not significantly correlated with the components of

nurses' involvement components in patient education (p>0.05) (Table 2).

Also, the results of Pearson correlation coefficient showed no significant relationship between age and work experience of nursing managers with scores of components of nurses' engagement mechanisms (p>0.05) (Table 3).

**Table 2: Correlation between age and experience on nurses' involvement in patient education**

Variables and index	Correlation coefficient	Meaningfulness level
Age	Managerial abilities	0.116
	Engagement skills	0.152
	Motivation	-0.028
	Barriers	0.064
experience	Managerial abilities	0.056
	Engagement skills	0.014
	Motivation	-0.044
	Barriers	0.006

**Table 3: The mean and standard deviation of the score calculated from the viewpoint of head nurses and supervisors about the factors related to the mechanisms for attracting nurses' engagement in patient education**

S.No.	Items	Head nurse	supervisor	p-value
1	Appreciate the skills of nurses in the workplace and their dealing with work problems	3.55 ± 1.01	3.52 ± 1.08	p=0.882
2	Proper use of the nursing staff's beliefs, knowledge and experience	3.57 ± 1.01	3.60 ± 0.72	p=0.878
3	Matching the goals of nurses with the goals of hospital	3.60 ± 0.96	3.78 ± 0.73	p=0.417
4	Strengthening organizational accountability and accountability	3.69 ± 0.99	3.82 ± 0.83	p=0.561
5	Improve the quality of nursing services	3.76 ± 0.96	3.82 ± 0.88	p=0.788
6	Avoid resistance to new changes in educational system	3.41 ± 0.98	3.60 ± 0.72	p=0.379
7	Increasing the abilities of nursing staff	3.76 ± 0.94	3.86 ± 0.86	p=0.641
8	Increasing the dynamics and flexibility of nursing services	3.67 ± 0.89	3.60 ± 0.78	p=0.746

9	Improving informing process and information flow in the hospitals	3.75 ± 0.93	3.78 ± 0.90	p=0.885
10	Knowledge of the actual and potential capability of nurses	3.64 ± 0.95	3.91 ± 0.79	p=0.234
11	Formulate and notify the patient's educational guidance for all treatment teams	3.82 ± 0.92	3.69 ± 0.93	p=0.570
12	To provide standard forms of patient education by health ministry	3.88 ± 0.97	3.65 ± 0.89	p=0.318
13	Timely and fair payment of rewards	2.97 ± 1.41	3.56 ± 1.07	p=0.069
14	Organize and oversight by managers on the provision of patient education activities	3.65 ± 0/92	3.90 ± 0.66	p=0.233
15	Establishing coordination in relationship and coordination of educators in different shifts and continue teaching	3.63 ± 1	3.69 ± 0.97	p=0.793
16	Promoting participatory culture and collective collaboration in solving problems and improving working relationships and organizational issues	3.60 ± 0.99	3.69 ± 0.70	p=0.681
17	Using nurses' constructive and effective suggestions on patient education	3.52 ± 1	3.78 ± 0.78	p=0.280
18	Participation of nursing staff in decision making and planning for patient education	3.50 ± 0.92	3.60 ± 0.89	p=0.624
19	make reforms with the participation of nurses to improve education	3.23 ± 1.23	3.52 ± 1.20	p=0.336
20	Participation of physicians in formulation of the program and patient education process	3.29 ± 1.05	3.60 ± 0.78	p=0.192
21	Development of patient education program at metron presence, supervisors and head nurses	3.45 ± 0.99	3.69 ± 0.97	p=0.319
22	Permanent presence of wards education connectors in training sessions for supervisors	3.20 ± 1.25	3.60 ± 1.03	p=0.168
23	Hold meetings for supervisors of different hospitals to have a unit procedure for patient education.	3.52 ± 1.09	3.73 ± 0.86	p=0.408
24	Promote the culture of voluntary cooperation among nursing staff	3.55 ± 1.12	3.73 ± 1	p=0.498
25	Improving the mentality and motivation of nurses	3.55 ± 1.04	3.95 ± 0.72	p=0.102
26	Assessing patient and family satisfaction with provided education and providing feedback to nurses by the hospital.	1.09 ± 54.3	3.90 ± 0.81	p=0.155
27	Increase the level of creativity and innovation	3.67 ± 1.01	3.90 ± 0.81	p=0.331
28	Develop a guideline on compliance with policies and patient education methods	3.92 ± 0.90	3.86 ± 0.83	p=0.773
29	Encourage and educate staff by expressing the benefits and benefits of patient education	3.72 ± 1.03	3.90 ± 0.75	p=0.480
30	Encourage and educate staff by expressing the benefits and benefits of patient education	3.23 ± 1.21	3.72 ± 1.03	p=0.90
31	Plan for patients and their families to trust treatment teams as an informed person	3.79 ± 1.01	3.72 ± 0.88	p=0.783
32	Considering special points for patient education during annual evaluation	3.51 ± 1.05	3.68 ± 1.08	p=0.524
33	Hold seminars on strategies for removing barriers to education and learning	3.54 ± 1.08	3.81 ± 0.79	p=0.278
34	Establish appropriate conditions for nursing services and remove barriers in nursing partnerships	3.63 ± 1.02	3.86 ± 0.77	p=0.332
35	Conduct training sessions and contacts with the patient to resolve barriers to relationship with patient	3.54 ± 1.04	3.77 ± 0.92	p=0.361
36	Provide patient education standards on need assessment at admission, during hospitalization, at discharge	3.01 ± 1.3	3.63 ± 1	p=0.049
37	To inform the nursing staff of legal and professional issues regarding the lack of training to the patient	3.67 ± 1.17	3.90 ± 0.75	p=0.387
38	Creating facilities and room for patient education (video, Internet, room...)	3.86 ± 0.86	4 ± 0.53	p=0.00
39	Respect the rights of patients and share them in decision making to reduce resistance to education	3.83 ± 0.87	3.81 ± 0.79	p=0.924
40	Creating facilities for the presence of relatives during training in order to facilitate learning and active background information	3.64 ± 1.07	3.77 ± 0.86	p=0.620

The results of the present study reported that the most important factor related to the position of managerial abilities to attract more nurses' engagement in patient education, from the viewpoint of head nurses, included introducing standard forms of education to the patient provided by health Ministry (3.88 ± 0.97), while it was being aware of the actual and potential capabilities of nurses (3.91 ± 0.79). Considering the position of participatory management, the most important factor from the perspective of head nurses was the coordination in relationship and coordination of trainers in different

shifts (3.63 ± 1) and using nurses' constructive and effective suggestions for patient education (3.78 ± 0.78), from the viewpoint of supervisors. Regarding motivation, the most important factor from the viewpoint of head nurses was forming motivation to follow the policy and teaching methods to the patient (3.92 ± 0.90), and nurse's mentality and motivation (3.95 ± 0.72) from the viewpoint of supervisors. Finally, about the importance of barriers to patients' education, the most important factor from the perspective of head nurses was the creation of facilities and classes for patient education

(video-internet-lag) ( $3.68 \pm 0.86$ ), and informing nursing staff on legal and professional issues regarding avoiding education to patients from the viewpoint of supervisors ( $3.90 \pm 0.75$ ). The results of independent t-test showed no significant difference between the mean score of nursing supervisors and nursing supervisors regarding the items related to managerial, participatory, motivation and elimination barriers.

## DISCUSSION AND CONCLUSION

Patient education has been considered as a primary moral responsibility of nurses. Considering the findings from the present study, strategies to attract nurses' participation to patient education from nursing manager point of view was significantly important in all aspects including improving management, participation, motivation and removing barriers, among which improving nursing management may play the most essential role in attracting nurses' participation in patients education. Results from the present study was in accordance to findings of Sultani *et al.* [19]. Since nursing managers has the highest managerial level in relation to nurses and patient, if a nursing manager is highly qualified, she may improve all imperfections in other fields such as participation, motivation and removing barriers as all the fields are hierarchically interrelated.

The results of this study reported no significant relationship between variables such as age, gender, marital status, and history of attending patient education courses and, the most important, being a nursing manager, with their views on the components of engaging nurses in patient education. These findings were in line with the results by Mansourghanaei *et al.* [26], so it could be understood that most nursing managers and even nurses in different organizational levels showed unity in their views about the problems and obstacles to patient education. Such unity of view could be used to improve patient education because slight disagreement among people in a community may facilitate the community to gain a common goal.

The results of this study suggested that inappropriateness of nurse-patient ratio was most important barriers to patient education. Also in in study of Sultan *et al.* [19] reported nurse-patient ratio as one of the most important environmental factors preventing nurse to patient education among all preventive factors, including environmental factors, patient related factors and nursing related factors from nursing managers' point of view. Aziznejad *et al.* [2], Haddad [17], Marcum *et al.* [13] and Sultani *et al.* [19], also introduced nurse-patient ratio as the most essential environmental factors preventing patient education. According to the results obtained in this study about the importance of the position of managerial abilities, participatory management of nursing managers and the limitations to recruiting, it could be suggested that nursing managers may follow strategies such as using actual and potential abilities of nurses and taking advantage of their constructive and effective suggestions on patient

education, developing teachers' coordination in different shifts, etc. to take effective steps to address this defect.

Considering the importance of motivation to attract nurses' participation to patient education in the present study, the most important component in head nurses' viewpoints was to create motivation to follow policies and methods of patient education; however, from the viewpoint of supervisors, it was to improve the mentality and motivation of nurses. According to the viewpoints of nursing managers, lack of proper supervision and encouragement by managers was as one of the most influential factors preventing patient education. This finding was consistent with the results from Mardanian *et al.* [20] and Mardani [28].

Noticing the importance of barriers to education, the most important factors from the perspective of head nurses was to create facilities and room for patient education (video, Internet, room, etc.) and from the viewpoint of supervisors the most essential factors included informing nursing staff about legal and professional issues regarding avoiding patient education. Aziznejad *et al.* also referred to the lack of specific evaluation for patient education as a barrier to, however it was a less significance factor to nurses and nursing managers [2]. Regarding the mentioned cases and according to the study of Ashghali-Farahani *et al.*, lack of a specific evaluation for conducting patient education, lack of facilities and authorities not paying attention to patient education were known as the most important barriers to patient education [29]. Therefore, eliminating organizational barriers, investigating the abilities of nurses to play an educational role and providing appropriate feedback from the authorities would be effective to implementation of patient education.

In addition, Sultani *et al.* [19], noted patient's lack of belief in the education provided as the least important barrier to patient education in nursing managers point of view, while nursing staff suggested their lack of interest as the least important barrier to education. Aziznejad *et al.* [2] showed that nurses' lack of knowledge on patient education methods was the least important barrier to patient education from the viewpoint of nurses and nurse managers. Borhani [6] highlighted the short duration of hospitalization as the least influential barrier to patient education from the viewpoint of nurses and nurse managers, though Mardani [28] suggested taking the appropriate feedback during education process at the least important factor to patient education in nurses' viewpoints. These results, along with the results of this study, indicated the positive attitude of patients and the interest of nurses and nursing managers to patient education. As the result, eliminating barriers such as disproportionate number of nurses to patients, shortage of time, nurses multitasking, and the allocation of adequate funding for education, as well as enhancement of nursing managers' capabilities regarding participatory management and motivation to remove these barriers can help to improve the quality of patient education and the services provided.



**IMPLICATIONS FOR PRACTICE**

According to the results, in order to improve the quality of patient education, barriers with higher frequency from the perspective of nursing managers should be modified and adequate budget and equipment should be provided educational needs for the nurses.

**ACKNOWLEDGMENTS**

This research project has been financially supported by Ahvaz Jundishapur University of Medical Sciences [Grant no. U-95029, and in Ahvaz ethics code R.AJUMS.REC. 1395.172]. The researchers need to know from the university's research deputy, and sincerely appreciate all nursing managers and staff attending hospitals affiliated to the Jundishapur University of Medical Sciences in Ahwaz who collaborated on this project.

**CONFLICT OF INTEREST**

The authors declare that there is no conflict of interest regarding the publication of this manuscript.

**REFERENCES**

1. Nabavi HF, Memarian R, Vanaki Z. Clinical supervision system: A method for improving educational performance of nursing personnel. *IJME* 2008; 7:257-66.
2. Aziznejad P, Zabihi A, Hosseini SJ, et al. Nurses and nurse managers opinions about the patient's training barriers. *J Babol Univ Med Sci* 2012; 12:40-60.
3. Nohi E, Poraboli B. Patient discharge and satisfaction of educational needs of practice nurses in Kerman. *HMJ* 2009; 13:206-12.
4. Aarabi A, Cheraghi MA, Ghiyasvandian S. Modification of nursing education for upgrading nurses' participation: A thematic analysis. *Glob J Health Sci* 2015; 7:161.
5. Tahery NR, Razavi ZM, Kaiali M, et al. Importance of patient education according Abadan nursing students'opinions. *Mod Care J* 2011; 8:100-6.
6. Borhani F. Nurses and nurse-managers'opinions about the importance of patients'training barriersJ *Qazvin Univ Med Sci* 2002; 84-90.
7. Potter VT, Wiseman CE, Dunn SM, et al. Patient barriers to optimal cancer pain control. *PsychoOncology. J Psychol Social Behav Dimen Cancer* 2003; 12:153-60.
8. Brittle N, Brown M, Mant J, et al. Short-term effects on mobility, activities of daily living and health-related quality of life of a conductive education programme for adults with multiple sclerosis, Parkinson's disease and stroke. *Clin Rehabil* 2008; 22:329-37.
9. Klein-Fedyshin M, Burda ML, Epstein BA, et al. Collaborating to enhance patient education and recovery. *J Med Libr Assoc* 2005; 93:440.

10. Lupón J, González B, Mas D, et al. Patients' self-care improvement with nurse education intervention in Spain assessed by the European heart failure self-care behaviour scale. *Eur J Cardiovasc Nurs* 2008; 7:16-20.
11. Mousavi MS, Lotfi MS, Rezaei-Shahsavarloo Z, et al. Nursing staff views about the barriers to patient education and provided strategies to improve it in hospitals affiliated to Kashan University of Medical Sciences, 1391. *J Urmia Nurs Midwifery Fac* 2014; 129:842-9.
12. Siggeirsdottir K, Olafsson Ö, Jonsson Jr H, et al. Short hospital stay augmented with education and home-based rehabilitation improves function and quality of life after hip replacement: Randomized study of 50 patients with 6 months of follow-up. *Acta Orthop* 2005; 76:555-62.
13. Marcum J, Ridenour M, Shaff G, et al. A study of professional nurses' perceptions of patient education. *J Contin Educ Nurs* 2002; 33:112-8.
14. Farsaei S, Sabzghabae AM, Zargarzadeh AH, et al. Effect of pharmacist-led patient education on glycemic control of type 2 diabetics: A randomized controlled trial. *J Res Med Sci* 2011; 16:43.
15. Ślusarska B, Zarzycka D, Wysokiński M, et al. Patient education in nursing-Polish literature condition. *Patient Educ Couns* 2004; 53:31-40.
16. Fagermoen MS, Hamilton G. Patient information at discharge-A study of a combined approach. *Patient Educ Couns* 2006; 63:169-76.
17. Haddad M. Viewpoints of employed nurses in hospitals of Birjand city regarding existing barriers in patient education. *Mod Care J* 2011; 8:152-8.
18. Far FM, Khafri S, MostafaZadehBora M, et al. The importance of patient education: The attitude of nurses in the hospitals of Babol. *Med Educ Babol Dev Center* 2015; 3:59-65.
19. Sultani A, Hadavi M, Heydari S, et al. Barriers to patient education based on the viewpoints of nurses and nurse managers in hospitals of Rafsanjan university of medical sciences, 2008. *Rafsanjan Univ Med Sci* 2013; 12:309-18.
20. Mardanian DL, Salahshorian A, Mohammad AJ, et al. Nurses'perception of patient teaching, enhancing and inhibiting factors. *Iran J Nurs* 2004; 17:18-27.
21. Vafae-Najar A, Ebrahimipour H, Shidfar MR, et al. Patient education services and the organizational factors affecting them at teaching hospitals affiliated with Mashhad University of Medical Sciences (MUMS), 2008. *J Mens Health* 2012; 9:230-7.
22. Toloei M, Faghihzadeh S, Asl SA. The nurses' motivating factors in relation to patient training. *J Hayat* 2006; 12:43-51.
23. Kärner A, Nilsson S, Jaarsma T, et al. The effect of problem-based learning in patient education

- after an event of coronary heart disease–A randomised study in primary health care: Design and methodology of the COR-PRIM study. *BMC Fam Pract* 2012; 13:110.
24. Cook L, Castrogiovanni A, David D, et al. Patient education documentation: Is it being done?. *Medsurg Nurs* 2008; 17:306-11.
  25. Vaartio-Rajalin H, Huuonen T, Iire L, et al. Patient education process in oncologic context: What, why, and by whom?. *Nurs Res* 2015; 64:381-90.
  26. Mansourghanaei R, Majidi S, Tabari R. Nurses viewpoints about facilitator and inhibitor factors of patients education. *Res Med Educ* 2011; 3:27-33.
  27. Heshmatifar N, Sadeghi H, Jometondoki H, et al. Assessment of patient education performance in three time points (admission, hospitalization, discharge) from patients and nurses' outlook in hospitals of Sabzevar. *Q JSUMS* 2014; 20:635-42.
  28. Mardani Hamuleh M. Patient education barriers in the view of nurses. *The National Congress of Nursing and Midwifery. MONTH. Social Security Organ, Tehran: Iran* 2005.
  29. Ashghali-Farahani M, Mohammadi E, Ahmadi F, et al. Obstacles of patient education in CCU and post CCU: A grounded theory study. *Iran J Nurs* 2009; 22:55-73.