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

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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 ± 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 ± 0.97), while it was being aware of the actual and potential capabilities of nurses (3.91 ± 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


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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 makes 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 (x=0.86).

Descriptive statistics methods including frequency distribution tables, charts, skewness 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 ± 5.56 and the average working experience was 19.4 ± 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

<table>
<thead>
<tr>
<th>Variables</th>
<th>F (%)</th>
<th>Managerial capabilities</th>
<th>Participatory skills</th>
<th>Motivation</th>
<th>Barriers</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sex</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Male</td>
<td>6 (6.6)</td>
<td>p=0.649; t=0.456</td>
<td>p=0.450; t=0.760</td>
<td>p=0.896; t=0.131</td>
<td>p=0.964; t=0.046</td>
</tr>
<tr>
<td>Female</td>
<td>85 (93.4)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Marital status</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Single</td>
<td>18 (19.9)</td>
<td>p= 0.162; t=0.456</td>
<td>p=0.062; t=1.8</td>
<td>p=0.010**; t=−2.62</td>
<td>p=0.018**; t=−2.4</td>
</tr>
<tr>
<td>Married</td>
<td>73 (80.2)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Managerial level</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Ward head</td>
<td>68 (74.7)</td>
<td>p=0.207; t=1.30</td>
<td>p=0.216; t=1.27</td>
<td>**p=0.041; t=−2.17</td>
<td>p=0.026**; t=−2.39</td>
</tr>
<tr>
<td>Supervisor</td>
<td>23 (25.3)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Experience on patients education</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Yes</td>
<td>78 (85.7)</td>
<td>p=0.969; t=0.0339</td>
<td>p=0.081; t=1.76</td>
<td>p=0.033**; t=−2.16</td>
<td>p=0.041**; t=2.07</td>
</tr>
<tr>
<td>No</td>
<td>13 (14.3)</td>
<td></td>
<td></td>
<td></td>
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</tr>
</tbody>
</table>

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

<table>
<thead>
<tr>
<th>Variables and index</th>
<th>Correlation coefficient</th>
<th>Meaningfulness level</th>
</tr>
</thead>
<tbody>
<tr>
<td>Age experience</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Managerial abilities</td>
<td>0.116</td>
<td>0.273</td>
</tr>
<tr>
<td>Engagement skills</td>
<td>0.152</td>
<td>0.151</td>
</tr>
<tr>
<td>Motivation</td>
<td>0.028</td>
<td>0.79</td>
</tr>
<tr>
<td>Barriers</td>
<td>0.064</td>
<td>0.547</td>
</tr>
<tr>
<td>Managerial abilities</td>
<td>0.056</td>
<td>0.596</td>
</tr>
<tr>
<td>Engagement skills</td>
<td>0.014</td>
<td>0.894</td>
</tr>
<tr>
<td>Motivation</td>
<td>0.044</td>
<td>0.681</td>
</tr>
<tr>
<td>Barriers</td>
<td>0.006</td>
<td>0.953</td>
</tr>
</tbody>
</table>

### 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

<table>
<thead>
<tr>
<th>S.No.</th>
<th>Items</th>
<th>Head nurse</th>
<th>Supervisor</th>
<th>p-value</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Appreciate the skills of nurses in the workplace and their dealing with work problems</td>
<td>3.55 ± 1.01</td>
<td>3.52 ± 1.08</td>
<td>p=0.882</td>
</tr>
<tr>
<td>2</td>
<td>Proper use of the nursing staff’s beliefs, knowledge and experience</td>
<td>3.57 ± 1.01</td>
<td>3.60 ± 0.72</td>
<td>p=0.878</td>
</tr>
<tr>
<td>3</td>
<td>Matching the goals of nurses with the goals of hospital</td>
<td>3.60 ± 0.96</td>
<td>3.78 ± 0.73</td>
<td>p=0.417</td>
</tr>
<tr>
<td>4</td>
<td>Strengthening organizational accountability and accountability</td>
<td>3.69 ± 0.99</td>
<td>3.82 ± 0.83</td>
<td>p=0.561</td>
</tr>
<tr>
<td>5</td>
<td>Improve the quality of nursing services</td>
<td>3.76 ± 0.96</td>
<td>3.82 ± 0.88</td>
<td>p=0.788</td>
</tr>
<tr>
<td>6</td>
<td>Avoid resistance to new changes in educational system</td>
<td>3.41 ± 0.98</td>
<td>3.60 ± 0.72</td>
<td>p=0.379</td>
</tr>
<tr>
<td>7</td>
<td>Increasing the abilities of nursing staff</td>
<td>3.76 ± 0.94</td>
<td>3.86 ± 0.86</td>
<td>p=0.641</td>
</tr>
<tr>
<td>8</td>
<td>Increasing the dynamics and flexibility of nursing services</td>
<td>3.67 ± 0.89</td>
<td>3.60 ± 0.78</td>
<td>p=0.746</td>
</tr>
</tbody>
</table>
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 (3.92 ± 0.93), 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 ± 0.86), and informing nursing staff on legal and professional issues regarding avoiding education to patients from the viewpoint of supervisors (3.90 ± 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.

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

REFERENCES


