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# The effects of training hospital visitors on patient satisfaction: a quasi-experimental study

**Ali Akbari[1], Ali Ravari*[2], Fatemeh Hoseini[2]**

*1. Nursing, Haspital of Hazrat Ali, Rafsanjan University of Medical Sciences, Rafsanjan, Iran*

**2. Geriatric Care Research Center, Rafsanjan University of Medical Sciences, Rafsanjan, Iran*

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**ABSTRACT**

**Aims:** Hospitalization in coronary care unit is stressful for patients. Family members and visitors' lack of knowledge related to their manner of behaving with their patients increases patients' stress and dissatisfies them with visitation. This study was conducted to examine the effects of training hospital visitors on satisfaction of patients hospitalized in coronary care units.

**Methods**: This quasi-experimental study was conducted on 124 patients hospitalized in Rafsanjan coronary care unit, Rafsanjan, Iran. In the experimental group, visitors were trained in areas such as emotion and feeling management, patients' underlying problems, equipments and devices used in coronary care units, effective visitor-patient communication, and patients' rights during visitation. A researcher-made scale was used for assessing patients' satisfaction with visitation both before and after the study. Study data were analyzed by using the $SPSS_{18}$.

**Results**: After the study, the level of patients' overall satisfaction with visitation in the experimental group increased significantly ($p<0.0001$). Moreover, compared with the control group, the levels of patients' satisfaction with nursing care, visitation, and visitors' comments and emotional reactions were significantly higher in the experimental group ($p<0.05$).

**Conclusions**: Study findings highlighted the importance of paying careful attention to visitation and visitors. Providing planned trainings to visitors can enhance patients' satisfaction and facilitate their recovery.

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## 1. Introduction

Cardiovascular disease (CVD) is the first leading cause of death throughout the world [1]. About 500000–700000 deaths happen due to coronary artery disease in the United States each year [2]. In other words, one in every each five deaths is due to coronary artery disease [1]. CVD is also a major health challenge in Middle Eastern countries like Iran [3]. Ghaffari (cited in Rahimian et al., 2013) reported that CVD kills 300 Iranians each day—i.e. 110000 deaths each year [4].

Patients with CVDs such as unstable angina, myocardial infarction, and life-threatening dysrhythmias are usually hospitalized in coronary care units (CCU).

Sudden hospitalization in CCU is perceived by families as a catastrophic event. Moreover, it is associated with fear over loss, anxiety, and emotional distress and faces families with serious crisis [5]. Psychological problems, fear,

* Correspondence Author: Ali Ravari
Elderly Care Research Center. Rafsanjan University of Medical Sciences. Rafsanjan, Iran. Tel:+98-3434255900
Email: dr.ravari@rums.ac.ir

and anxiety affect all members of affected families so greatly that they feel it necessary to adopt measures for facilitating their patients' recovery. Family members' aspiration for facilitating their patient's recovery is manifested in their behaviors during hospital visitation [6].

Reasons behind such a crisis and distress are family members' lack of knowledge related to the prognosis of their patients' underlying problems, the alien environment of CCU, sophisticated equipments used for patient management and monitoring, and the hospitalization of severely-ill patients in CCU. Accordingly, family members strive to obtain knowledge about the diagnosis and the prognosis of their patients' problems. Moreover, they like to be supported during the course of this crisis [7].

Healthcare providers' irresponsiveness to patients and families' educational needs, inattention to their privacy and beliefs, and poor communication with them may lead to anxiety, misconceptions, and anger for them [8,9]. Moreover, physicians and nurses' use of medical jargons adds to patients and families' anger and confusion [10]. Accordingly, families and visitors refer to hospital for visitation while feeling great fear, anxiety, anger, and irritability. In such a situation, any ambiguity in the process of treatment may fuel families and visitors' violence against healthcare professionals, particularly nurses.

Anger and violence are more common in critical care units and may flare even days after hospitalization [11]. On the other hand, families and visitors may crowd into CCU, produce irritating noises, increase nurses' workload, disturb patients' rest, and bring patients and nurses dissatisfaction because they are unfamiliar with the courses of diseases and treatments, the routines and the regulations of hospital wards, and the needs of patients [12].

Visitation provides nurses with great opportunity for providing educations to patients and families [13]. One of the responsibilities of critical care nurses is providing support to patients and families. In most cases, nurses are the only healthcare professionals who provide patients and families with necessary information [12, 14]. They can involve patients and families in the process of medical decision making, help them make wise decisions about treatment options, and thereby, bring satisfaction to them [15].

Rahmani et al. (2013) investigated the effects of planned visitation. Patients in the experimental group received frequent planned visitation from one to three preferred family members while patients in the control group were visited freely by their family member on a daily basis. Rahmani et al. (2013) reported that planned visitation positively affected patients' physiologic parameters as well as nurses' satisfaction [4]. According to Bertucci et al. (2010), need-based visitation is not stressful and brings comfort to patients and their families [13].

Chien et al. (2006) also reported that patients and families clearly need information. They found that need-based educations alleviate visitors' anxiety and enhance their satisfaction with healthcare [7]. Bertucci et al. (2010) also found a significant relationship between the number of visitors and the length of patients' hospital stay. They reported that informed visitors can actively participate in the process of medical decision making and shorten their patients' hospital stay [13].

In the Islamic context of our country, Iran, patient care and visitation are so important and valued that family members display deep commitment to visiting patients and consider it as a religious duty. However, despite the potential effectiveness of planned and informed visitation, currently there is no planned hospital visitation policy in our country and hence, hospital wards are overcrowded during visitation hours. Most physicians, nurses, hospital managers, and even patients are dissatisfied with such crowdedness of wards during visitation hours and consider visitors as barriers to quality care provision [15]. Rahmani et al. (2013) noted that visitation planning and management in Iran have been taken for granted

[4]. Moreover, only few studies, mainly descriptive, have been conducted so far in Iran on visitation management. The aim of this study was to examine the effects of training hospital visitors on satisfaction of patients hospitalized in CCU.

## 2. Methods

This quasi-experimental study was conducted in 2011 to examine the effects of training visitors on satisfaction of patients hospitalized in CCU. Study setting was the only CCU of Rafsanjan city, which was located in Ali Ebn-e AbiTaleb teaching hospital. This hospital is affiliated to Rafsanjan University of Medical Sciences, Rafsanjan, Iran. Patients from Rafsanjan, Zarand, and Sirjan, Iran, refer to this CCU for receiving coronary care. In total, there are twelve active beds in this unit which are separated from each other by using wooden partitions. The bed occupation rate in this unit is 90%–100%. The inclusion criteria were definite diagnosis of acute myocardial infarction based on clinical and diagnostic findings, having no known psychological disorder, being completely conscious and alert, and being desired for participating in the study. Patients were divided into the experimental and the control groups. Primarily, we studied all patients and families in the control group to prevent their contamination with trainings provided to subjects in the experimental group. Then, subjects in the experimental group were trained and studied during three months.

The study instrument consisted of a researcher-made demographic questionnaire and a researcher-made Satisfaction Assessment Scale (SAS). The 32-item SAS was developed through conducting a literature review and holding interviews with patients, nurses, and patients' family members. The items of the SAS were responded by using a five-point Likert scale ranging from 'Completely dissatisfied' (scored 1) to 'Completely satisfied' (scored 5). The 33 items of the SAS fell into four main domains including satisfaction with nursing care provided during visitation hours (five items), satisfaction with visitors' emotional reactions (six items), satisfaction with visitors' comments (eight items), and satisfaction with visitors' respect for patients' rights (thirteen items). The validity of the SAS was evaluated by conducting qualitative content validity assessment. Accordingly, ten cardiologists, critical care nurses, and nursing faculties were provided with the scale and were asked to evaluate its content validity. The scale was amended according to their comments. Then, we applied the scale to twenty patients and the Cronbach's alpha was calculated which was equal to 0.94.

The routine visitation hour in the study setting was between 15:00 and 16:00. Thirty minutes before the visitation hour, we attended the study setting and identified eligible participants. An informed consent was obtained from each participant. Then, we provided them with explanations about the aim and the method of the study and asked them to complete the study instrument. At the end of the visitation hour, we divided the eligible visitors into small groups consisting of seven to ten visitors and provided them with face-to-face trainings about visitation. Visitors were selected from patients' close relatives. The four main areas of trainings were,

- Ways for managing emotions and feelings as well as strategies for avoiding conveying emotions and feelings to patients during visitation;
- Patients' underlying problems, the course of their diseases, medical treatments, and follow-up care;
- Equipments and devices used in CCU as well as critical care provided in this units;
- Effective visitor-patient communication as well as patients' rights during visitation.

Immediately before being discharged from CCU, we asked patients to re-complete the study instrument. Patients in the control group were treated similarly. However, no training was provided to their visitors. Data analysis was performed by using the SPSS18. As the

distributions of all study variables were normal, we used parametric statistical tests such as the independent-samples t and the Chi-square tests for data analysis.

Table 1: Comparing the study groups regarding demographic ccharacteristics

| Variable | | Experimental group | Control group | Statistical values |
|---|---|---|---|---|
| Gender | Female | 26 (51%) | 25 (49%) | $\chi^2$=1.18, df=1, p=0.28 |
| | Male | 30 (41.4%) | 43 (58.9%) | |
| Education | Primary | 32 (56.1%) | 25 (43.9%) | $\chi^2$=0.07, df=2, p=0.96 |
| | Secondary | 21 (53.8%) | 18 (46.2%) | |
| | Diploma and higher education | 15 (53.6%) | 13 (46.4%) | |
| Admission | Emergency | 42 (46.2%) | 49 (53.8) | $\chi^2$=0.14, df=1, p=0.71 |
| | Referred from physicians' office | 14 (42.4%) | 19 (57.6%) | |
| Previous hospitalization | Yes | 31 (50.8%) | 30 (49.2%) | $\chi^2$=0.78, df=1, p=0.38 |
| | No | 37 (58.7%) | 26 (41.3) | |

## 3. Results

The numbers of participants in the experimental and the control group were equal to 56 (45.2%) and 68 (54.8%), respectively—124 participants in total. The means of participants' ages in the experimental and the control groups were 59.93±13.23 and 60.36±13.09, respectively. Most of the study participants were men. Moreover, the majority of the participants had primary or secondary education. The results of the independent-samples t and the Chi-square tests revealed that there were no significant differences between the study groups regarding participants' age, gender, education, type of admission, and previous history of CCU hospitalization (p>0.05; Table 1).

The mean of hospital stay in the experimental and the control groups were 4.48±0.73 and 4.45±0.70 days, respectively. The independent-samples t-test showed that this difference was not statistically significant (p=0.85). Before the study, the means of total satisfaction scores of patients in the experimental and the control groups were 109.48±11.08 and 110.01±14.66, respectively. The independent-samples t-test showed that the difference between the two groups regarding the pretest values of patients' overall satisfaction with visitation was not statistically significant (p=0.81; Table 2). However, the results of the same test revealed that after the study, the overall satisfaction mean score of patients in the experimental group was significantly higher than that of patients in the control group (p<0.0001; Table 2).

The independent-samples t-test indicated that before the study, the study groups did not differ significantly in terms of the mean scores of the SAS domains (p=0.05). However, after the study, the scores of the SAS domains in the experimental group were significantly higher than the control group (p<0.05; Table 3).

## 4. Discussion

This study examined the effects of training visitors on satisfaction of patients hospitalized in CCU. Primarily, the groups were matched in terms of participants' age, gender, education, type of admission, and previous history of CCU hospitalization. Vukmir (2006) noted that demographic characteristics such as age, gender, and educational status can affect patients' satisfaction with hospital visitation [16]. Chien et al. (2006) also matched their groups regarding age, gender, and education [7].

We developed our training program through reviewing the existing literature and

Table 2: Comparing the study groups regarding overall satisfaction with visitation before and after the study

| Patient satisfaction | Experimental group | | Control group | | Statistical values |
|---|---|---|---|---|---|
| | Mean | Sd | Mean | Sd | |
| Before intervention | 109.48 | 11.08 | 110.01 | 14.66 | T=0.23, df=121.17, p=0.81 |
| After intervention | 137.82 | 20.15 | 113.32 | 18.44 | T=-7.06, df=122, p<0.0001 |

interviewing patients, visitors, and nurses. Study findings revealed that after the study, patients' overall satisfaction with visitation in the experimental group was significantly higher than the control group. Van-Horn and Tesh (2000) also noted that family members disturb patients during visitation due to having limited knowledge related to patients' needs. Accordingly, they highlighted the importance of training family members regarding patients and families' needs [5]. Chien et al. (2006) also noted that families can be involved in the process of care provided that they receive training based on their patients' needs [7].

We also found that the study intervention significantly improved satisfaction with nursing care provided during visitation hours, satisfaction with visitors' comments and emotional reactions, and satisfaction with visitors' respect for patients' rights. According to Hahn et al. (2013), visitation can be comforting provided that visitors cause no stress or anxiety to patients [6]. We found that training visitors enhanced patients' satisfaction with visitors' emotional reactions during visitation. Moreover, trainings improved patients' understanding of nurses' behaviors during visitation. Nurses usually consider great numbers of visitors as well as visitors' repetitive questions as barriers to their sound clinical practice and patients' comfort. Critical care nurses' heavy workload prevents them from devoting time to patients' family members [16]. Biancofiore et al. (2010) reported that nurses have negative attitudes towards visitation because visitation disturbs their practice and they need to spend time on providing information to visitors while receiving inadequate visitation-related support [17]. Consequently, considering a 'visitation nurse' for fulfilling visitors' educational needs can minimize nurse-visitor struggles [18] and enhance nurses and patients' satisfaction.

Our findings also revealed that after the study, visitors' questions from their patients decreased significantly. Trainings fulfilled visitors' educational needs and ensured them that their patients were receiving necessary treatments and care. Accordingly, patients' discomfort and dissatisfaction with visitors' comments decreased significantly. Barry et al. [2000] also noted that patients are deeply worried about the accurate diagnosis of their problem, the adverse effects of treatments, and the incongruence between their expectations and treatment outcomes [19]. According to Bertucci et al. (2010), visitors' lack of knowledge requires them to seek information from patients or express disturbing opinions [13].

We also found that trainings enhanced patients' satisfaction with visitors' respect for their rights. Loud voices and noises as well as visitors' congestion in hospital wards are stressful to patients [20]. During unplanned and uncontrolled visitations, great numbers of visitors surround patients, disturb their personal privacy, and cause them discomfort [4]. In our study setting, there were no adequate facilities (such as chairs) for visitors and hence, they opted to sit or lie on patients' beds during visitation. Our trainings reduced visitation-related noises, decreased the frequency of visitors' sitting on patients' beds, and enhanced patients' satisfaction with visitation.

Table 3: Comparing the study groups regarding the domains of satisfaction with visitation after the study

| Domains of satisfaction | Experimental group | | Control group | | Statistical values |
|---|---|---|---|---|---|
| | Mean | Sd | Mean | Sd | |
| Satisfaction with nursing care provided during visitation hours | 22.01 | 3.49 | 19.81 | 3.31 | T=-3.54, df=118, p=0.001 |
| Satisfaction with visitors' emotional reactions | 24.19 | 4.69 | 17.76 | 4.88 | T=-7.42, df=112, p=0.0001 |
| Satisfaction with visitors' comments | 33.76 | 6.39 | 27.27 | 6.04 | T=-5.79, df=112, p=0.0001 |
| Satisfaction with visitors' respect for patients' rights | 53.58 | 7.84 | 45.95 | 7.89 | T=-5.37, df=112, p=0.0001 |

## 5. Conclusions

The findings of this study suggest that training visitors significantly enhances patients' satisfaction with nursing care provided during visitation hours, satisfaction with visitors' comments and emotional reactions, and satisfaction with visitors' respect for their rights. Accordingly, training programs can be implemented for visitors in order to improve patients' satisfaction and facilitate their recovery.

We strived to minimize the limitations of the study. Nonetheless, this study had several limiotations such as the attendance of untrained visitors at patients' bedisede, changes in hospital policies and imporvements in the affiliated personnel's level of knowledge during the study, and lack of a standardized scale for assessing patients' satisfaction with visitation.

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