

## Empowerment of Nurses: A Key to Stroke Patients' Satisfaction

### Abstract

**Background:** Stroke is a major cause of disability around the world. Different studies have shown the inadequate knowledge and skills of nurses to educate and manage stroke patients. Therefore, stroke patients are facing many challenges in their lifetime. In this study, we investigated the effects of nursing empowerment on stroke patients' satisfaction. **Materials and Methods:** This cross-sectional study is the fifth stage (evaluation phase) of action research study that was conducted on 29 stroke patients from Alzahra hospital, Isfahan, Iran, during 2013-2014. Workshops, pamphlets, and booklets were used for nursing empowerment. The stroke patients have been trained by empowered nurses. The data gathering tool that was the researcher-made survey questionnaire included the characteristics of patients, participants' satisfaction with self-care training and nurses' performances. T-test was used for the analysis of the obtained data. **Results:** Twenty-seven (93.10%) cases mentioned that "they would try to follow all the received trainings". Twenty-three (73.10%) cases were satisfied with self-care training. Majority of patients, 25 (85%) participants were satisfied with the training performances by the empowered nurses and 24 (82.80%) cases were highly satisfied with the nurses' training method. **Conclusions:** Most patients were satisfied with the self-care training held by the nurses. Based on the obtained data by questionnaires, the nurses' performance and their training methods were directly associated with a high satisfaction level in stroke patients. Therefore, improving the skills and knowledge of nurses could be a potential approach for increasing the satisfaction levels among stroke patients.

**Keywords:** Iran, nursing care, self care, stroke

### Introduction

Patient satisfaction is one of the important and commonly used indicators for measuring healthcare quality. Patient satisfaction affects clinical outcomes, patient retention, and medical malpractice claims. Moreover, it can directly affect the quality and efficiency of the patient-centered delivery system.<sup>[1]</sup> Patient satisfaction requires complete knowledge and responsibility of medical staff about all biological, psychological, and social needs of their patients.<sup>[2]</sup> The patient satisfaction level is affected by different factors.<sup>[3]</sup> Results of some recent studies suggest that a knowledgeable and skilled nursing care could lead to great enhancements in patient-nurse mutual relationships.<sup>[4]</sup> According to some studies, there are different problems on the way of clinical nurse training roles and the patients are not completely satisfied with the received training services by clinical nurses.<sup>[5]</sup> Evidence suggest that despite the

importance of patient training programs and hospital accreditation requirements, healthcare providers (e.g., nurses) are paying no sufficient attention to their training role in this regard.

Moreover, patients' training can be neglected by lacking a clear job description and weak structure, support, and supervision.<sup>[5,6]</sup> Among Medicare patients discharged from the hospital after the stroke, 45% return directly home, 24% are discharged to inpatient rehabilitation facilities, and 31% are discharged to skilled nursing facilities. Of stroke patients returning directly home, 32% use home healthcare services.<sup>[7,8]</sup> To adapt and recover, they experience disruption and uncertainty, and after discharge, they are not ready to manage their daily affairs.<sup>[9]</sup>

National stroke guidelines recommend interventions that address functional improvement and self-care strategies even though a recently updated Cochrane review notes the gap in evidence regarding these

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#### Access this article online

Website: [www.ijnmrjournal.net](http://www.ijnmrjournal.net)

DOI: 10.4103/ijnmr.IJNMR\_121\_17

#### Quick Response Code:



**How to cite this article:** Alijanpour S, Aslani Z, Alimohammadi N, Taleghani F. Empowerment of nurses: A key to stroke patients' satisfactions. Iranian J Nursing Midwifery Res 2020;25:237-41.

**Submitted:** 30-Jul-2017. **Revised:** 02-Aug-2017.

**Accepted:** 09-Mar-2020. **Published:** 18-Apr-2020.

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interventions.<sup>[10]</sup> Strengthening the nurses' knowledge base is the responsibility of both the nurses and the organizations. Providing in-service training and giving periodical theoretical and practical tests can be helpful. Some studies also argued that facilitating the means of continuous education is crucial to gain power in nursing.<sup>[11]</sup> This study aimed to investigate the evaluation of empowering nurses in self-care education on stroke patients' satisfaction.

## Materials and Methods

This cross-sectional study is the fifth stage (evaluation phase) of an action research study entitled "Nurses' Empowerment in Self-Care Education to Stroke Patients", which was a dissertation for master's degree, conducted during 2013-2014.<sup>[12]</sup> In addition, the objective of the fifth stage is to evaluate the effect of education by empowered nurses, on the patient's satisfaction. Inclusion criteria included the diagnosis of a stroke by a neurologist, the ability to do self-care, minimum reading and writing literacy, experiencing the first stroke, the age range of 40-70 years, no history of admission due to mental disorders or taking mental drugs, and willingness to participate in the study. Also, the exclusion criteria include not participating at one of the self-care educational sessions or being transferred to another ward during the study period.

This study was conducted within 3 months, using the census method. Moreover, beta and alpha were considered 0.8 and 0.05, respectively, and the sample size included 29 patients. In addition, cases with stroke, who referred to the internal neurology department of Al-Zahra hospital, Isfahan, have been selected using the sampling method, and they were educated by empowered nurses, then completed the questionnaire at the time of discharge. The data were collected using a researcher-made designed, to evaluate the satisfaction of stroke patients on nursing education.

The questionnaire consisted of two parts. First, patients' demographic data including age, sex, marital status, education level, occupation status, and type of stroke. Second, two researcher-made questionnaire were used for determining the satisfaction of patient's on "self-care" education and "educational performance". Satisfaction questionnaire for self-care education included 10 questions. Furthermore, scores less than 33 were considered dissatisfied, 33-66 relatively satisfied, and higher than 66 were considered completely satisfied. The satisfaction questioner for nurses' educational performance included 14 questions with 4-point Likert scale, (1) totally disagree, (2) somewhat disagree, (3) somewhat agree, and (4) totally agree. Also, those scores were pointed 0-3, respectively. To validate the questionnaire, views of the 10 faculty members of the Faculty of Nursing and Midwifery were collected and validated through content validity, and its reliability was confirmed by Cronbach's alpha coefficient (0.79) in Section A (0.82) and Part B (0.82). The accepted coefficient for reliability was equal or higher than 0.70.

The data were analyzed using descriptive statistics (mean and standard deviation), Chi-square, and T-test, and data were inserted in Statistical Package for the Social Sciences (SPSS) software, version 17 (Inc., Chicago, IL, USA), to determine whether there is a significant difference between the expected frequencies and the observed frequencies in one or more categories.

## Ethical considerations

This study was approved by the Ethics Committee of Isfahan University of Medical Sciences, under the ethical code of No 392562. Also, the ethical principles in this research were informed consent, anonymity, confidentiality, and participants' rights to withdraw from the study. Moreover, before the interviews, the objectives of the study, data confidentiality, and interview recording were explained to the participants.

## Results

The results showed that most patients (55%) were male, 58.60% of them were 61-70 years old, and most of them were married (86%). In terms of education, most of them were illiterate (58.60%). The distribution of patients' occupations was 44.80% housewives, 20.70% laborer, 20.70% retired, and the rest were either self-employed or unemployed. The majority of patients (82.80%) had an ischemic stroke and 17% had hemorrhagic stroke. Most of the patients (44.80%) were suffering from hemiplegia on the right side, and 93% were satisfied with care [Table 1].

Exercises and physical activities education had the most satisfactory (79.30%), and the highest dissatisfaction (27.60%) was reported for disease complications. Also, data indicated that the mean score of the participants' satisfaction was from education related to self-care (73.10%). In other words, the participants were satisfied with the provided education [Table 2].

The majority of patients (93.10%) cited that they would try to follow all the educations they received from nurses. Most of the patients, namely 25 (85%) participants, were satisfied with the nurses' educational performance, and 24 (82.80%) cases, were highly satisfied with the nurses' educational method.

However, most of the dissatisfaction with the nurses' education, was related to introducing available scientific information resources (books, websites, and journals), such that 27.60% of patients were received nothing related to information resources. Also, the findings showed that the mean score of the participants' satisfaction with nurse's educational performance was 85%, which means totally satisfied [Table 3].

## Discussion

The research findings indicated that the highest level of patients' satisfaction was with exercises and physical activities, related to self-care education (79.30%), skincare

**Table 1: Demographic characteristics of stroke patients**

Variable	Category	n (%)
Age	40-50	3 (10.40)
	51-60	9 (31)
	61-70	17 (58.60)
	Total	29 (100)
Sex	Female	13 (44.80)
	Male	16 (55.20)
	Total	29 (100)
Marital Status	Married	25 (86.20)
	Widowed	4 (13.80)
	Total	29 (100)
Education Level	Illiterate	17 (58.60)
	Sub-diploma	10 (34.50)
	Diploma	2 (6.90)
	Total	29 (100)
Occupation Status	Housewives	13 (44.80)
	Employee	2 (6.90)
	Laborer	6 (20.70)
	Retired	6 (20.70)
	self-employed	2 (6.90)
	Total	29 (100)
Type of stroke	Ischemic stroke	24 (82.80)
	Hemorrhagic stroke	5 (17.20)
	Total	29 (100)
Paralysis	Right hand	2 (6.90)
	Right foot	1 (3.40)
	Left hand	1 (3.40)
	Left foot	1 (3.40)
	Right hand and foot	13 (44.90)
	Left hand and foot	11 (38)
	Total	29 (100)
Having care	Yes	27 (93.10)
	No	2 (6.90)
	Total	29 (100)

and preventing bed sores (75.90%), and eating habits and diet (69%). The results indicated that the nurses' empowerment in self-care education to stroke patients, has been set in motion. The success of the changing process is emphasized by nursing practice improvement, knowledge-based practice, nurses' attitude change, and motivation promotion. Facilitators and barriers of patients' education are acknowledged by the participants as a factor affecting the continuation of change.<sup>[12]</sup> In a study conducted by Mohalli *et al.*, it was indicated that the highest level of education admission was related to insurance rules. It was also illustrated that most patients' educations during the hospitalization were about diet, and moderate satisfaction of patients was related to nurses. Also, there was a significant relationship between nurses' educational performance and patients' satisfaction from nurses' education.<sup>[13]</sup> This contradiction can confirm the effect of nurses' empowerment intervention in the current study, regarding joint mobility training, rehabilitation, and walking for stroke patients.

The potential barriers included lack of standardized policy-driven discharge planning, and lack of communication and coordination between different health service providers and patients, in both acute and sub-acute care provisions, which were identified as the main systemic issues. It was suggested to improve the quality of hospital discharge, including a multidisciplinary approach with clearly determined rules among healthcare professionals. It was also suggested to enhance the communication skills of health professionals and the awareness of patient's psychosocial needs.<sup>[14]</sup> Therefore, it is necessary for nurses to pay attention to this, explain complications of the disease to both patients and their caregivers at the beginning and then, provide self-care education for those complications. Along with the result of this study, the findings of a study conducted by Nuhi *et al.* showed that the patients' highest dissatisfaction was with the education regarding their medical condition and their main educational expectation, information on the medication duration, how to take their medicine, and precautions related medications. Only 34.30% of patients were satisfied with the educational information provided about diet,<sup>[15]</sup> which is in contrast with the current study, showing that more than half of the participants were completely satisfied and only 10.30% were unsatisfied.

According to the results of the study, patients were completely satisfied with the educational performance of the empowered nurses. Therefore, it is confirmed that empowering nurses' communication skills and providing education to patients is effective. In a study by Hasimi *et al.*, it was concluded that enhancing communication skills, as well as highlighting the importance of educating patients, and involving nurses in patients' education, can increase the rate of patients' satisfaction.<sup>[16]</sup> However, the findings show that the recording and implementation process of patients' educational programs can be facilitated using patients' education recording forms.<sup>[5]</sup> In a study by Heshmati *et al.*, it was demonstrated that there could be a relationship between implementing a clinical supervision system and improved awareness and self-care of patients, which confirmed the relationship between patients' education recording and perception.<sup>[6]</sup>

The results of the current study also show that more than half of the patients experience incontinence and need help with urination or bag change. Although to enhance voluntary control over urination, bladder retaining training as well as training for urinary catheter care and condom bag, were also included in the education program prepared for the patients, the high percentage of incontinence can be due to the inaccurate performance of bladder retaining training. For instance, one of the patient's caregivers said that they did not do the bladder retaining training because of urine leakage after clamping the catheter. The results showed that more than half of the research subjects (60%) were capable of keeping themselves clean, which can be

**Table 2: Distribution and frequency percentage of participants' satisfaction with self-care training**

Variable	I needed training and once I met the need			I did not need the training n (%)	Total n (%)
	Completely satisfied	Relatively satisfied	Not satisfied		
	n (%)	n (%)	n (%)		
Familiarity with the diagnosis, cause, symptoms, and course of the disease, methods of diagnosis and treatment	13 (44.80)	9 (31)	6 (20.70)	1 (3.50)	29 (100)
Disease complication	9 (31)	11 (37.95)	8 (27.65)	1 (3.40)	29 (100)
How to eat and what diet	20 (69)	7 (24.10)	2 (6.90)	0 (0)	29 (100)
Exercises and physical activity	23 (79.35)	5 (17.25)	0 (0)	1 (3.40)	29 (100)
Control urination and urinary catheter care	16 (55.20)	7 (24.10)	4 (13.80)	2 (6.90)	29 (100)
Notes bowel control and care in case of constipation and diarrhea	15 (51.75)	6 (20.75)	5 (17.20)	3 (10.30)	29 (100)
Activities of daily living (bathing, brushing, dressing, using the toilet or tub)	11 (37.95)	9 (31.50)	5 (17.20)	4 (13.80)	29 (100)
Skin care and prevention of bedsores	22 (75.90)	2 (6.90)	2 (6.90)	3 (10.30)	29 (100)
Respiratory care (use of home oxygen, way of suctioning at home)	5 (17.22)	5 (17.22)	1 (3.41)	18 (62.15)	29 (100)
Name, time, drug use, precautions and medical care	16 (55.20)	6 (20.70)	3 (10.30)	4 (13.80)	29 (100)

**Table 3: Distribution and frequency percentage of participants' satisfaction with nurses' training performance**

Variable	Completely agree	Relatively agree	Relatively disagree	Completely disagree	Total n (%)
	n (%)	n (%)	n (%)	n (%)	
	I was able to communicate with nurses easily and talk to them about my problems when I arrived at the ward.	24 (82.80)	4 (13.80)	1 (3.40)	
During hospitalization I was well trained by nurses.	23 (79.35)	5 (17.23)	1 (3.42)	0 (0)	29 (100)
When I was assigned to the ward, nurses provided me with necessary trainings about the doctor, head-nurse, visit, how to contact the ward office, health codes and introduced me the health education office	10 (34.50)	12 (41.40)	6 (20.70)	1 (3.40)	29 (100)
The nurses replied to my question in a simple and understandable way.	23 (79.30)	6 (20.70)	0 (0)	0 (0)	29 (100)
The nurses allocated enough time to teach me.	10 (34.50)	13 (44.80)	6 (20.70)	0 (0)	29 (100)
Training were provided on the right time and place.	11 (37.90)	12 (41.40)	4 (13.80)	2 (6.90)	29 (100)
Self-care education provided by nurses was very helpful.	22 (75.90)	6 (20.70)	1 (3.40)	0 (0)	29 (100)
I received trainings pamphlets related to self-care that I needed.	23 (79.30)	4 (13.80)	2 (6.90)	0 (0)	29 (100)
Some available scientific resources related to my disease (books, websites, magazines) were introduced to me.	10 (34.50)	5 (17.20)	6 (20.70)	8 (27.60)	29 (100)
At the time of discharge I received training related to diet, activity, medicine, and care.	22 (75.95)	5 (17.25)	1 (3.40)	1 (3.40)	29 (100)
The provided self-care training was helpful for me.	24 (82.80)	4 (13.80)	0 (0)	1 (3.40)	29 (100)
Practical educations provided by the nurses was understandable and useful for me	24 (82.80)	5 (17.20)	0 (0)	0 (0)	29 (100)
I try to follow all the trainings I received from the nurses	27 (93.10)	2 (6.90)	0 (0)	0 (0)	29 (100)
In general, I am satisfied with the training which received from the nurses about how to take care of myself.	23 (79.35)	5 (17.25)	1 (3.40)	0 (0)	29 (100)

due to proper education to patients and their families. The limitations of this research were illiteracy in some patients and their companions, and diversity of educational needs of stroke patients, due to multiple complications.

## Conclusion

Most patients were satisfied with self-care education, provided by nurses. From stroke patients' viewpoints, there was a relationship between nurses' performance and method and high satisfaction. Therefore, to increase patients' satisfaction, it is suggested to improve education by empowering nurses.

## Acknowledgements

Researchers greatly appreciate from vice-chancellor of research of Isfahan University of Medical Sciences for approving this research (No: 392562). They also acknowledge all patients and nurses of Isfahan Alzahra hospital for their cooperation, which made this research possible.

## Financial support and sponsorship

Isfahan University of Medical Sciences

## Conflicts of interest

Nothing to declare.

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