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**Effect of transactional analysis education to nurses on patient's satisfaction**

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**Abstract**

*Background:* Patient satisfaction is an important indicator of quality of care and health facilities. It is a predictor of patient willingness to follow treatment regimen. The major predictor of patient satisfaction with hospital care is patient satisfaction with nursing.

*Aim:* The main purpose of this study was to determine efficacy of transactional analysis training on inpatient's satisfaction of nurses.

*Materials and Methods:* At first, hospitalized real patients and standardized patients completed satisfaction questionnaire about nurses. The mean of scores for all nurses was calculated. Nurses were divided to two groups: 1-nurses with scores higher than mean

2-nurses with scores lower than mean. Then in each group nurses were divided to two subgroup randomly: case and control group. Participants in the intervention group received a brief training about Transactional Analysis (TA). Inpatients real patients and standardized patients' satisfaction was followed up after one week, one month and three month.

*Results:* Application of the education intervention program provided a desirable effect by improving inpatients' satisfaction. There was a significant difference between case and control groups' scores, one week after TA education. Although one or three months after TA education, the mean of scores were higher in case group than control group, these differences were not significant.

*Conclusion:* Although brief education intervention program improved inpatients' satisfaction in short term, this positive effect was not continued after one and three months later. It is likely for earning long term positive effect of TA training on inpatients' satisfaction; this educational program must be more extended or repeated in reasonable intervals.

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**Keyword:** Transactional analysis (TA); Patient's satisfaction; Standardized patient; nurse

## **Introduction**

Patient satisfaction has known as a subjective, dynamic perception of the extent to which expected health care is received (1). Patient satisfaction is an important indicator of quality of care and health facilities (2). It is a predictor of patient willingness to follow treatment regimen (3).

The major predictor of patient satisfaction with hospital care is patient satisfaction with nursing care (4, 5). Nurse caring has been defined as an interactive, intersubjective process occurring during moments of shared vulnerability between nurse and patient, with nurse caring directed toward the welfare of the patient (6).

Patient perception of nurse caring has been associated with positive patient outcomes, better postoperative functional status and less symptom distress (7, 8). Satisfaction with nursing care predicts overall satisfaction with the hospital experience (9). Affective support, health information, decisional control and professional-technical competencies have known as important elements of patient-nurse interaction. It has been demonstrated that enhancing the quality of these nursing elements of care, enhances patient satisfaction with nursing care (10). Communicative skills are

considered to be fundamental to effective nursing practice (11). Dr. Eric Bern, the founder of the “transactional analysis” theory, offered the hypothesis that “We are all three characters in one shape (12).

Transaction analysis is a scientific unit which analyzes people’ behavior in three categories of “child”, “Parent”, “Adult”. The purpose behind the TA is to discover which aspect of character is the factor of a response or a behavior (13). Words and expressions such as transactional analysis (TA) are not complex psychological terms and they are understandable to every body.

The method of TA is an effective communicative technique that has been applied successfully in various areas. Use of “transactional analysis” can help the nurses to increase their communicative skills to improve Patient satisfaction. Acknowledging the effectiveness of the TA on the improvement of the relationships, this research has been an attempt to evaluate the effect of the TA education to nurses on patients’ satisfaction.

## **Materials and Methods**

This study has been a double blind, experimental design with participants assigned to either an intervention or a control group. The participants were the

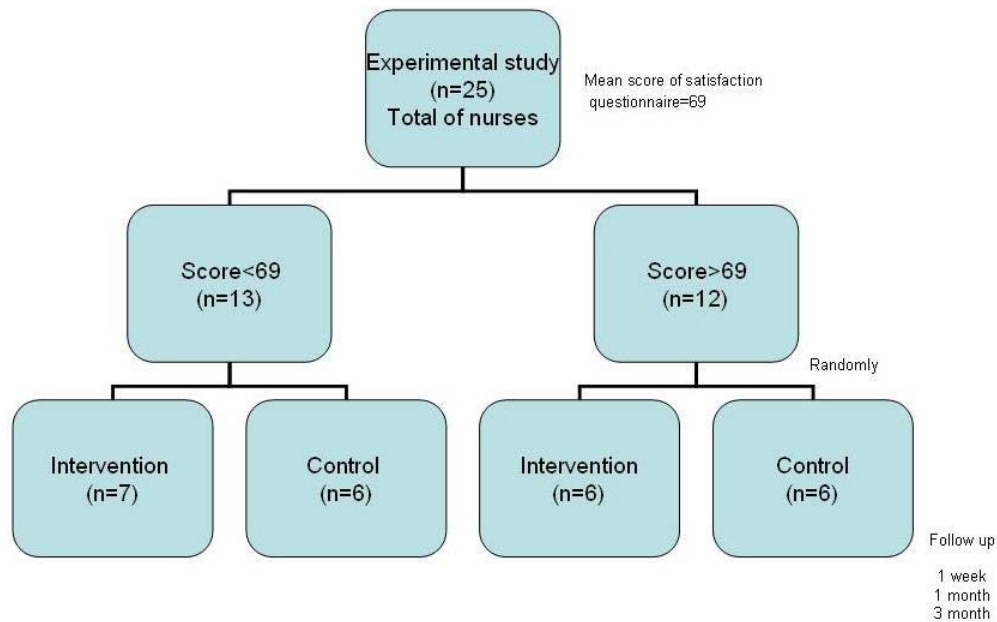
nurses who worked in the morning shift of a general hospital in Iran. The demographic data collected from the questionnaire included gender, age, years of work experience, marital status, education, and position.

The patients, who filled out the satisfaction questionnaire for each nurse, had good medical conditions to take part in the research, so the patients in CCU and ICU and emergency ward were excluded. The patients had been hospitalized for at least 24 hours. Since the period of the patients' hospitalization was limited, other than real patients, nine of the nonmedical students were selected as standardized patients and in fact as fixed evaluator who filled out the satisfaction questionnaire for each nurse in nine different wards of hospital.

Before each hospitalization, there was a session with related specialist in the wards, in order to help standardized patients to be ready to play their role successfully without causing any suspicion among the hospital crew and the nurses. During their hospitalization, except for the related specialist, no other crew members of the hospital were informed of the standardized patients' role.

The satisfaction questionnaire contained 18 questions about the patient satisfaction from nurses' communicative skills. The instrument use a 5-point likert scale, with 1 (strongly disagree) and 5 (strongly agree). Higher scores indicated higher satisfaction. The face and content validity of the questionnaire was confirmed by professors of psychiatry and adviser nurses of Mazandaran Medical University. In order to confirm the interrater reliability, a pilot study was performed in another general hospital (the Cronbachs' alpha: 0.8).

At the first step, before the workshop, the mean score of the questionnaire related satisfaction of the real patients and the standardized patients was calculated. The mean score was 69 and based on this, the nurses were divided into two blocks: 1- the ones who had score of more than 69, 2- the ones who had less than 69. Then in each block, two groups of control and intervention were placed randomly. The intervention group included 13 nurses and control group contained 12 nurses. (Figure-1). The intervention group received a brief training of transactional analysis; the control group didn't receive any psychological intervention.



**Figure1.** Flowchart of the selection and data collection procedure

The brief training of transactional analysis was done by the psychiatrists and psychologist in one day workshop. In this workshop, definition of three aspects of character such as “child”, “parent”, and “adult” and their affect on behavior were discussed. The practical examples regarding the relationship between nurse and patients were used in order to make nurses to understand about educational package (14, 15). After that, the nurses worked with different scenarios in forms of role playing and discussed about the analysis of the declared behaviors.

One week, one month and three months after training, the real and standardized patients’

satisfaction were evaluated again. It is necessary to explain that most of the real patients who filled out the questionnaire were the new patients and were not hospitalized before the nurses’ training but all the standardized patients were the same before and after training. In any case neither the real patients nor the standardized patients were not aware of whether the nurses were trained or not, the nurses were not aware that their behaviors would be evaluated either.

Data were processed through the statistical package for the social sciences (SPSS) for windows, version 16. Chi-squares and t-test were performed to compare demographic

data and scores of patients 'satisfaction in two groups.

Ethical consideration: The study was approved by the ethics committee of the Mazandaran Medical University. We informed patients that participation in the program was voluntary and responses would remain anonymous.

**Results**

The demographics of the participants in both the intervention and control group were compared. There were not significant

differences between the two groups in terms of age, sex, years of experience in nursing, educational level and other variables (table 1).

The block in which, the nurses had the score less than 69 (average), these results were achieved: in control group there was no difference between the score before and one week after TA training, while in the intervention group, the patients' satisfaction had increased tremendously one week after the TA training. ( $P < 0.05$   $t = 2.54$   $df = 5$ )

**Table 1.** Demographic Characteristics of the sample

Variables	Intervention (n = 13)		Control group (n = 12)		P Value
	n	%	n	%	
Marital status					.16
Single	1	7.7	1	8.3	
Married	12	92.3	10	83.3	
Widow	0	0	1	8.3	
Education					.32
Bachelor	12	92.3	12	100	
Master	1	7.7	0	0	
Sex					.32
Male	1	7.7	1	8.3	
Female	12	92.3	11	91.7	
Position					
Manager	5	38.4	4	33.3	
Staff	8	61.6	8	66.6	
Nurse					.36
Experience (years)					
< 5 years	1	7.7	1	8.3	
5-10 years	4	30.7	3	25	
10-15 years	5	38.4	6	5	
15-20 years	3	23	2	16.6	

In the block in which the scores of the nurses were over the average, it was observed that in scores comparison between before the TA training and one week after that, no difference was seen either in control group or in the intervention group.

Real patients and standardized patients evaluated the nurses one and three months after TA training by filling out the questionnaires.

In both of the two blocks, no significant difference was seen between the scores before TA training and one and three months after that, regarding both intervention and control groups.

In general, these results were achieved when the nurses' scores were compared between the two intervention and control groups as follows: there was no significant difference between the scores of the nurses in both groups before the TA training but the scores of the nurses significantly increased after one week after TA training ( $P < 0.05$   $t = 2.07$ ) in intervention group although this

significant difference was not seen 1 and 3 months after TA training. (Table 2)

The scores resulting from the standardized patients' evaluation were analyzed separately and were compared to the scores resulting from the real patients. The scores given to the intervention group by the real patients and the standardized patients had been improved one week after the TA training (Table3) while no such improvement had been seen among the control group. The analysis of the data showed despite the fact that the average of the scores between the real patients and standardized patients were increased one and three months after the TA training within the intervention group but those changes do not statistical significance. In control group no statistically significant change was seen either between the real patients and the standardized patients before the TA training and 1 week and 1 and 3 months after that.

**Table 2.** The Comparison between the Scores between Control and Intervention Group Before and After TA Training.

Stage	Control group	Case group	T	P value
	X ± SD	X ± SD		
Before TA training	68/54 ± 7/27	69/07 ± 6/95	0/18	0/85
1 week after TA training	67/12 ± 6/48	72/26 ± 5/89	2/07	0/04
1 month after TA training	67/91 ± 6/5	70/96 ± 6/39	1/18	0/25
3 month after TA training	67/33 ± 7	68/92 ± 7	0/56	0/57

**Table 3.** The Scores Given To the Intervention Group by the Real Patients and the Standardized Patients One Week after the Ta Training

Stage	Before TA training	After TA training	t	P value	DF
	X ± SD	X ± SD			
real patients	71.76 ± 6.08	74.69 ± 7.47	2.26	.043	12
standardized patients	66.38 ± 13.29	72/24 ± 10.9	2.10	.039	12

### Discussion

Health care delivery is becoming increasingly competitive (16). Patients, once regarded as recipients of health care, are now recognized as health care consumers (17, 18).

There was some evidence of a strong relationship between patients' satisfaction and patient-perceived nurse caring (1). Researches explore interventions that enhance the affective support and profession-technical competencies of nurses, thereby increasing patients' satisfaction with nursing care.

Some researches regarding patients' satisfaction have been done in Iran (19). In these researches, patients' satisfaction with different departments of hospitals including admission, reception, ward facilities etc were evaluated.

Something outstanding and quite different in our study was the point that patients' satisfaction with nurses' communicative skills were specifically evaluated, and on the other hand in addition to the real patients, the standardized patients were also used as

fixed evaluators in order to consider the nurses' communicative skills before and after the TA Work shop. We found that the real patients and standardized patients' satisfaction scores had increased significantly one week after the transactional analysis training and as a result, the trained standardized patients were able to understand the patients' needs and evaluate the quality of the nurses' communications as well as the real patients.

Considering the communicative importance between a nurse and a patient and its role and influence on patients, in this research we examined the method of "Transactional Analysis training" as a method to improve the nurses' communicative skills. Numerous studies have been done about the influence TA method in different areas. a research, compared the transactional analysis training to behavior therapy and concluded that both of them caused a great deal of adolescents' educational improvement owning a conflicted relationship with family and substance abuse but it took less time in group being trained by TA method (20).

Byers taught patients the TA pattern and discovered that patients' stress decreased tremendously in critical situations and in sequence of a patient and critical conditions, the recovery is gained faster (21).

In Iran little research has been done about TA. A study have considered a high school teachers' communicative patterns based on transactional analysis and by using the related questionnaire and came to the conclusion that the teachers in relation to their co-workers use the Adult and Parent communicative patterns more than the average and the child pattern is used less than the average (22).

Another different issue in this study was considering the effect and influence of TA training on patients' satisfaction that was done for the first time in a governmental and general hospital in Iran. As predicted, the real patients and standardized patients' satisfaction with the two controls and intervention group had no difference before the workshop. One week after the TA training between the intervention and control group, the patients and standardized patients' satisfaction score was significantly different ( $P = 0.04$   $t = 2.07$ ). Considering the previous studies (13) this result implies that the TA training had positive effect

concerning the relation between patient and nurse.

Considering the intervention group, and the nurses who gained the scores less than the average (before the TA training) there was a significant difference between scores, before the TA training and one week after that. It can be implied that the one session training of transactional analysis had the most significant influence on the nurses with weaker communicative skills and by teaching them the simple rules of TA, they could improve their communicative skills. The nurses scores were also considered one and three months after the TA training and there was no significant difference between the two intervention and control groups.

TA education to nurses had a significant effect on the patients' satisfaction. The results of this study suggest nurses need to continue to find ways to improve their communicative skills and nursing administrators should motivate nurses to participate in workshops that improve communicative skills.

This study indicates that TA education to nurses could improve patients' satisfaction but in short time. Considering these results, it seems that the TA training influence on patients' satisfaction has gradually decreased. Although there wasn't any



reference about the number of session training about TA trainings (12), since TA is regarded as a psychotherapy technique, these effective psychotherapy sessions must be repeated for nurses. It seems that in order to gain the continuity of TA training influence on patients` satisfaction, these workshop must be prolonged and repeated after definite periods.

Even though education, small sample size and short period of studies limit the capability of the outcome generalization, this study can be regarded as a pilot study. It is recommended that, in order to evaluate the effectiveness of transactional analysis training for nurses on patients` satisfaction, more people must be used as sample. The number of training sessions held should be increased not only at the governmental but also in private hospitals. Moreover, the patients and standardized patients opinions at various age groups must be used to evaluate the nurses` communicative skills.

Future research to support these findings, as well as a clearer link between nurses` communicative skills and patients` satisfaction, may provide further evidence of the importance of transactional analysis to nurses.

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