



# Assessment of Social Trust in Relatives of Discharged Patients With Personal Consent and Other Relatives of Patients

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## Abstract

Lack of social trust in the physician–patient relationship will disrupt health. Since social trust has not been sufficiently studied in patients' companions, this study investigates and compares social trust and its dimensions in companions of patients discharged against medical advice with total patients' companions in the emergency room. In this cross-sectional descriptive-comparative study, 385 patients' companions were enrolled. This study was done by a questionnaire with five subscales: honesty, frankness, cooperative tendency, confidence, and trust. Data were analyzed using descriptive statistics and analytical statistics methods. In this study, there was no significant difference between the mean score of social trust between companions of patients discharged against medical advice ( $61.11 \pm 9.01$ ) and patients discharged after treatment ( $62.27 \pm 6.97$ ). There was a significant relationship between the mean score of the 2 groups only in the frankness domain ( $P$ -value = .001). The level of social trust in the patients' companions was moderate in both groups. Companions of discharged patients after completing the treatment process are more explicit than the companions of patients discharged against medical advice.

## Keywords

social trust, patient expectations, clinician–patient relationship, emergency medicine

## Introduction

**Background:** Trust is one of the most important aspects of human relations and it is the cornerstone for cooperation between members of society. It promotes confidence in participation in various economic, political, social, and cultural contexts and increases people's willingness to work with different groups of society (1). Generally, in the field of psychology, life begins with the trust which provides a condition for its affection, growth, and solidarity. In psychology, trust is the belief in someone who acts on what is expected of him/her. The famous psychologist Eric Erikson considers trust as the fundamental basis of any personal relationship and considers the formation and growth of trust as one of the key factors in the formation and adaptation of a healthy personality (2). Erickson also believes that the formation or lack of formation of trust is the first crisis of human growth. In his view, in the contrast between trust and mistrust, the next human world is made (3).

**Importance:** Social trust is defined as the level of self-confidence, confidence on the medical system and the

physicians. In other words, it relies on how much a person is honest with himself and his ego and superego, besides trusting the health care system and the doctor when deciding. As one of the most important structures of social capital and one of the most important aspects of human and social relationships is a very important factor for the continuation of

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social life in the dangerous modern world, lack of trust causes work delays and higher costs, disrupts relationships and interactions, and creates problems in social participation, social order, social health, and overall development. Although irregularly high trust is harmful, loss of trust in society has more detrimental effects. Considering the importance of the concept of trust in society and comprehensive development, this concept has also been taken into account in development planning, as it is referred to in the Iran Development Plan, which comprises 6-year plans regarding the development of a resilient economy, progress in science and technology, and the promotion of cultural excellence (4).

Trust between physician and patient can be analyzed in 3 ways. One is the patient's view and the patient's trust in the physician. Second, a trusted physician provides for the patient, and the third is the trust in the physician-patient relationship. In other words, one is the trust supervising the patient and the other is the trust supervising the physician and the third is the trust of supervising the relationship between physician and patient (5).

**Goals of the investigation:** Many studies have focused on trust in physician-patient relationship by focusing on the factors related to the physicians such as physician behaviors and performance (6-9). Although some studies have studied the patient characteristics, the findings showed mostly inconsistent results, since they were limited to demographic characteristics (7, 10-13). For instance, the previous studies have controversial results regarding whether demographic characteristics such as age and gender of patients and their participants influence their social trust on physicians, while some of these studies showed no difference and the others showed significant differences regarding demographic characteristics. For this reason, there is only an incomplete and restricted understanding of trust in physician-patient relationship, since it is based on the communication of both parties. Furthermore, trust is an intellectual state of the brain based on sensitivity and highly depends on the subjects' social characteristics, such as trustee's believes an estimation of risk (14, 15). In light of the above, and since social trust has not been studied in patients' companions, the present study examined and compared social trust and its dimensions to the companions of patients discharged against medical advice and all patients' companions in the emergency room of a teaching hospital.

## Methods

**Participants:** In this cross-sectional descriptive-comparative study, all patients or companions who were over 18 years old

**Table 1.** Demographic Characteristics of Participants.

		Discharge against medical advice	Discharge after treatment	P-value
Gender	Male	121 (63.00%)	75 (38.9%)	<.001
	Female	71 (37.00%)	118 (61.1%)	
Age		39.95 ± 12.37	40.02 ± 13.78	.96

had stable hemodynamic status, patients with Glasgow-coma scale 15 (completely conscious), could answer questions, and referred to the Emergency Department of a teaching hospital from October 2018 to June 2019 and left against medical advice, entered the study. The sampling method was the census. Patients or companions were also excluded from the study due to unwillingness to participate in the study, transfer to another ward and findings of unstable hemodynamic status.

**Ethical Statement:** Procedures followed in this study were in accordance with the ethical standards of the responsible committee on human experimentation and IRB approval was received from a local Ethics Committee. Informed patient consent was acquired from patients and their companions for inclusion in the study.

**Study Design:** This study was conducted to determine the level of social trust with the companions of patients discharged against medical advice and all companions of patients referred to the emergency department of a teaching hospital. In this study, the included patient companions completed the questionnaire by describing the purpose of this study and its method and getting their consent to participate in the study. The method of data collection was the self-report questionnaire completed by the companion of the patients. The instrument of this study is Saffarinia and Sharif's Social Validity Questionnaire ( $\alpha = 0.095$ ) which has 5 indicators of honesty, frankness, cooperative tendencies, confidence, and trust (16). The questionnaire has been compared and reviewed by several psychologists in conceptualization and use of equivalent words and appropriate wording and consists of 25 items. Scoring items on a 5-point Likert scale are from strongly agree to strongly disagree. The minimum score obtained from this questionnaire is 25 and the maximum score is 125 (The questionnaire including its items is available in Supplemental file).

**Data analysis:** Data were analyzed using descriptive statistical methods (including tables, graphs, and calculation of statistical indices of mean and standard deviation) and analytical statistics (linear regression, independent *t*-test) and using SPSS 20 software.

## Results

**Characteristics of Study Subjects:** In this study, 385 individuals were studied. About 192 (49.9%) of patients were discharged against medical advice and 193 (50.1%) of them were discharged from the medical center after the treatment. The mean age of the patients was 39.98 (13.08) years. About 196 (50.9%) of the patients were male and 189 (49.1%) were female. Table 1 shows the demographic characteristics of the study participants in the 2 groups with consent and discharge after treatment.

### Comparison of Trust-Based Behavior Score in 2 Groups of Patients' Companions

The mean score of trust-based behavior in the companions of patients discharged against medical advice was  $12.82 \pm 2.48$

and in the companions of patients discharged after the treatment steps were  $13.08 \pm 2.52$ . Based on the independent *t*-test, there was no significant difference in the trust-based behavior average score ( $P$ -value = 0.29). According to the linear regression model, age, gender, and type of discharge had no significant effect on trust-based behavior. Table 2 shows the results of the linear regression. The regression results showed that the score of trust-based behavior increased by 0.027 units by one unit of patients' companion age and was higher in women than men. Also, the mean score of confidence-based behavior among companions of patients discharged after treatment was 0.257 points higher.

### **Comparison of Cooperative Tendency Score in 2 Groups of Patients' Companions**

The mean score of cooperative tendencies in the companions of patients discharged against medical advice was  $11.43 \pm 2.7$  and in the companions of patients discharged after the treatment stages were  $11.2 \pm 2.52$  ( $P$ -value = 0.38). According to the linear regression model, gender and type of discharge had no significant effect on cooperative tendencies. But with the increase of one unit in the age of the patients, the mean score of cooperative tendencies was significantly higher by 0.029 units ( $P$ -value = .005). Table 2 shows the results of the linear regression. The regression results showed that the mean score of cooperative tendencies in women was 0.19 points higher than men and the mean score of cooperative tendencies in companions of discharged patients after treatment was 0.28 points lower.

### **Comparison of Frankness Score in 2 Groups of Patients' Companions**

The mean score of frankness in the companions of patients discharged against medical advice was  $9.16 \pm 2.82$  and in the companions of discharged patients after treatment was  $10.3 \pm 2.99$ . Based on the independent *t*-test, there was no significant difference ( $P$ -value < .001). According to the linear regression model, age and gender had no significant effect on frankness. But the mean score of frankness was significantly higher by 1.26 points in the companions of patients discharged after treatment than in patients discharged against medical advice ( $P$ -value < .001). Table 2 shows the results of the linear regression. The regression results showed that the mean score of frankness in females was lower than males by 0.017 units.

### **Comparison of Honesty Score Between 2 Groups of Patients' Companions**

The mean score of honesty in the companions of the patients discharged against medical advice was  $10.97 \pm 3.93$  and in the companions of the patients discharged after the therapeutic procedures were  $10.39 \pm 2.21$ . There was no significant difference between the mean honesty score ( $P$ -value = .29). According to the linear regression model, age, gender, and

type of discharge had no significant effect on honesty. Table 2 presents the results of the linear regression. The regression results showed that the score of honesty increased by 0.002 units with the one unit increase of age in the patients' companions and was higher by 0.25 units in the females than the males. Also, the mean honesty of the companions of patients discharged after treatment was 0.642 units less.

### **Comparison of Confidence Score in 2 Groups of Patients' Companions**

The mean score of confidence in the companions of the patients discharged against medical advice was  $16.73 \pm 3.93$  and in the companions of patients discharged after treatment was  $17.3 \pm 3.59$ . There was no significant difference in the mean confidence score based on *t*-independent test ( $P$ -value = .29). Based on the linear regression model, age, gender, and type of discharge had no significant effect on confidence. Table 2 presents the results of the linear regression. The regression results showed that the confidence score increased by 0.010 units by one unit of age and in women was 0.77 units lower than men. Also, the mean confidence in the companions of patients discharged after treatment was 0.75 units higher.

### **Comparison of the Total Score of Social Trust in 2 Groups of Patients' Companions**

The mean score of social trust in the companions of the patients discharged against medical advice was  $61.11 \pm 9.01$  and in the companions of the patients discharged after the treatment stages were  $62.27 \pm 6.97$ . There was no significant difference between the 2 groups in social trust based on an independent *t*-test ( $P$ -value .16). Based on the linear regression model, age, gender, and type of discharge had no significant effect on social trust. Table 2 presents the results of the linear regression. The regression results showed that with one unit of the age of patients' companions the social trust score increased by 0.048 units and in women was 0.81 units lower than men. Also, the mean of social trust in companions of patients discharged after treatment was 1.35 higher.

In this study, 385 patients, 196 males (50.9%) and 189 females (49.1%) were studied. The mean age of participants was 39.98 (13.08) years. In this study, 192 patients were discharged from the hospital against medical advice and 193 patients were discharged after completing the treatment. The results of the study showed that the mean score of trust-based behavior, cooperative tendencies, honesty, and confidence was not significantly different between the 2 groups of patients. There was a significant relationship between the groups only in the frankness; there was a significant difference between the mean score of the 2 groups.

In this study, regarding the special culture and taboos of the society, it may be probable that some participants may have not shared their real thoughts and opinions, which can be considered as a bias.

**Table 2.** Regression Coefficients of Effect of age, Gender, and Type of Discharge on Score of Trust-Based Behavior.

			Regression coefficient	Standard deviation error	t-value	P-value
Trust-based behaviors	Age		0.027	0.010	2.800	.005
	Gender	Male	Reference			
		Female	0.026	0.263	0.097	.922
Cooperative tendencies	Discharge	DAMA	Reference			
		After treatment	0.257	0.261	0.985	.325
	Age		0.029	0.010	2.817	.005
Mean frankness score	Gender	Male	Reference			
		Female	-0.523	0.307	-1.705	.089
	Discharge	DAMA	Reference			
Mean honesty score	Discharge	After treatment	1.261	0.305	4.140	.000
		Age		0.002	0.013	0.021
	Gender	Male	Reference			
Female		0.257	0.338	0.761	.447	
Mean confidence score	Discharge	DAMA	Reference			
		After treatment	-0.642	0.336	-1.914	.056
	Age		0.010	0.015	0.661	.509
Total score of social trust	Gender	Male	Reference			
		Female	-0.776	0.397	-1.956	.051
	Discharge	DAMA	Reference			
Total score of social trust	Discharge	After treatment	0.758	0.394	1.925	.055
		Age		0.048	0.032	1.532
	Gender	Male	Reference			
Female		-0.818	0.851	-0.961	.337	
Total score of social trust	Discharge	DAMA	Reference			
		After treatment	1.355	0.845	1.603	.110

## Discussion

In the relationship between physician and patient, trust is a major social capital. Trust between physician and patient is an effective factor in the patient's recovery and physician satisfaction (17). Despite the fact that one of the pillars of ethics in medicine is to build trust between the physician and the patient, we are witnessing a decrease in this type of trust. Therefore, the purpose of this study was to investigate the level of trust of patient companions in patient management in the emergency department.

Findings of the questionnaires obtained from the viewpoints of patients' companions referring to the Emergency Department of a teaching hospital indicate that there was no statistically significant difference in social trust between the companions of the patients discharged against medical advice and the companions of patients discharged after completing the treatment process and the confidence level was moderate in both groups. Also, none of the demographic variables (age, sex, type of discharge) had a significant effect on the trust of the companions.

In investigating the factors for trust in the patient-physician relationship, it is important to consider the patients' tendencies that make them less likely to trust physicians. In this

study, the dimensions of social trust in the subscales of cooperative tendencies, trust-based behavior, trust, honesty, and openness among male and female patients' companions were measured. According to the research findings, there was no significant difference in the subscales of cooperative tendencies, trust-based behavior, trust and honesty, and only one of the subscales, namely frankness, was significantly different. This means that the frankness score in the companions of patients discharged after completing the treatment was higher than the companions of the patients discharged against medical advice, while the frankness score of the males was higher than the females. The trust and confidence-based behaviors subscale, although not statistically significant, was higher in the discharged group after completing the treatment process than the discharged against medical advice group.

Statistical analysis of some studies has shown that there is a significant relationship between gender and the level of social trust, meaning that the level of social trust among men is higher than women. First, women were less likely to trust physicians. These results are in contrast with their previous studies where gender did not make any significant difference in trust in the patient-physician relationship (7, 10). However, investigations on the generalized aspect of trust suggested that women were less likely to trust because

in comparison to the males, they are more likely to be victimized, and therefore fear to take risks (18, 19). Based on this finding, it can be said that gender has a social burden in addition to its physiological aspect. It is debatable that despite the position of women in society, the self-confidence of this group can easily be influenced by the opinion of others (20, 21).

In our study, according to the questionnaire mean scores based on the sum of the subscales determining social trust, social trust among companions of the patients discharged against medical advice ( $61.11 \pm 9.01$ ) and the other patients' companions ( $62.27 \pm 6.97$ ) is average.

This study has some limitations. For instance, the negative health factors in previous studies are strongly correlated with low trust levels in physicians (20). Therefore, it may be worthy to conduct similar studies for investigating the role of other negative habits on this relationship that have not been studied in the present study. These factors can be divided into subjective and objective measures. Smoking is a well-known objective factor of health deterioration (22). Stress, which is also a recognized factor for bad health, can be considered as a subjective measure since it can be graded into different degrees (23). The negative correlation between negative health traits and trust in the patient-physician relationship can be probably due to having negative experiences in health care in bad health conditions and therefore are not satisfied with it (24, 25).

This study investigated social trust and its dimensions of the companions of patients discharged against medical advice, and all patients' companions in the emergency room of Tabriz Imam Reza Hospital. We found that the level of social trust of the patients' companions in the 2 groups were similarly moderate. Also, there was no significant relationship between demographic variables and social trust. Among the social trust subscales, only there was the difference in the frankness subscales between the 2 groups, so the companions of patients discharged after completing the treatment process are more explicit than the companions of patients discharged against medical advice and it would be a good idea to study the underlying reasoning for this phenomenon in future studies. Also, although not statistically significant, men's social trust is higher than women's, and each person's social trust increases with age.

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### Author Contributions

HRMB constructed an idea or hypothesis for research and manuscript. ZhKh planned methodology to reach the conclusion. HRMB organized and supervised the course of the project or the article and taking the responsibility. FH took responsibility in execution of the experiments, patient follow-up, data management and reporting. SShV took responsibility in logical interpretation

and presentation of the results. SR took responsibility in doing the literature review. SR took the responsibility in the construction of the whole or body of the manuscript. RY reviewed the article before submission not only for spelling and grammar but also for its intellectual content.

### Ethical Statement

Procedures followed in this study were in accordance with the ethical standards of the responsible committee on human experimentation and IRB approval was received from Tabriz University of Medical Sciences Ethics Committee (IR.TBZMED.REC.1398.263). Informed patient consent was acquired from patients and their companions for inclusion in the study.

### Declaration of Conflicting Interests

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### Supplemental Material

Supplemental material for this article is available online.

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