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A Validity and Reliability Study of the Multidimensional Trust in Health-Care Systems Scale in a Turkish Patient Population

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Abstract The importance of trust within health care is widely acknowledged. Measuring patients' trust in health care systems may contribute to plans for the financing, delivery, and outcomes of health services. Although many scales are available to measure patient trust, less attention has been paid to the multidimensional nature of trust in health care systems. The purpose of this methodological study was to adapt the Multidimensional Trust in Health-Care Systems Scale into Turkish and to evaluate its psychometric properties for a Turkish patient population. The scale was adapted into Turkish through a translation and back-translation process. The content validity of the scale was assessed using expert approval. The psychometric properties of the scale were investigated by collecting data from 232 hospitalised patients in Ankara during theperiod of 1 January–30 December 2010. An exploratory factor analysis identified that the eigenvalues for the three factors of the scale were 7.30, 2.61, and 1.21; these three factors explained 65 % of the variance. A confirmatory factor analysis indicated a sufficient model fit for the construct validity of the scale. Cronbach's α for the total scale was 0.87, as well as 0.91, 0.82, and 0.61 for the three subscales; the Spearman-Brown split half reliability coefficient was 0.67. Despite the low internal consistency of the subscale 3, evidence from this study supports the validity and reliability of the Multidimensional Trust in Health-Care Systems Scale. This instrument can be used to measure multiple aspects of trust in the health care system; however, as trust is a contextual phenomenon, further work is needed to test the psychometric properties of this scale both in Turkish and different cultures.

Keywords Trust · Delivery of health care · Nurses · Patients · Health care system · Socialcapital

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1 Introduction

Trust is considered to be one of the main indicators of social capital, which is a concept defined by Putnam as 'the features of the social organization such as networks, norms and social trust that facilitate coordination and cooperation for mutual benefit' (1995, p. 67).

Social capital ultimately rests upon human relationships, and trust is the basis of all human relationships. Ahern and Hendryx (2003) suggest that social capital plays a role in how health care is perceived by citizens and how health care is delivered by providers. Gilson (2003) argues that trust underpins the cooperation within health systems that is necessary for health production and that a trust-based health care system can make an important contribution to building value in society.

Studies researching social capital and health outcomes show a strong association between high levels of trust and positive general health outcomes (Lee and Lin 2009; Giordano and Lindström 2011). Trust has been identified as a significant predictor of self-rated health (Franzini 2008; Lee and Lin 2009) as well as physical and mental health-related quality of life (Pre'au et al. 2004). It has been demonstrated that higher levels of trust in health-care professionals and institutions among patients is associated with increased willingness to seek medical treatment, increased utilisation of preventive health services, and greater adherence to treatment recommendations (Thom et al. 2004; Musa et al. 2009), whereas mistrust is associated with less satisfaction with care; an underutilisation of health services (LaVeist et al. 2009); and a reluctance to participate in colorectal (Greiner et al. 2005), prostate (Boyles et al. 2003; Forrester-Anderson 2005) and breast cancer screening (Katapodi et al. 2010).

Evidence suggests a positive association between trust and health outcomes; however, trusting is risky. It involves vulnerability and the risk of being betrayed. This aspect is manifested in the definition of trust. According to Mayer et al. (1995), trust is 'the willingness of a party to be vulnerable to the actions of another party based on the expectation that the other will perform a particular action important to the trustor, irrespective of the ability to monitor or control that other party' (p. 712). The vulnerability that accompanies trust is especially relevant in health care because of the imbalances of knowledge and power between health care professionals and patients. Patients can be considered especially vulnerable because they experience illness and because they are not always in a position to either make judgments about protective actions or know when they are being exploited (Sellman 2005, p. 8). Despite the asymmetric power relationship between patients and health-care providers, individuals seeking care rely on health-care professionals with the expectation that they will act in the interest of their well-being rather than harm (Carter 2009). Thus, trust is an essential feature of the professional relationship between health-care providers and patients, and being trustworthy is a moral obligation of a health care provider.

Nurses are the health-care professionals who have the closest contact with patients, and trust is vital to the nurse-patient relationships. The importance of trust in the nurse-patient relationship has been widely addressed in the nursing literature (Washington 1990; Pask 1995; Hupcey et al. 2001; Langley and Klopper 2005; Sacks and Nelson 2007; Eriksson and Nilsson 2008). However, the relationship between health-care providers and patients is embedded within the health-care system, and patients' trust is influenced by many factors. Egede and Ellis (2008) suggested that there are three main objects of trust in the health care setting: (1) health care providers (e.g., physicians, nurses), (2) health care institutions (hospitals and clinics), and (3) health care payers (managed care plans, private insurers, government insurance). According to these authors, trust in health care systems comprises

trust in these three objects; however, trust in one object may influence the level of trust in other objects and trust in the overall health care system.

Because trust is so important to both professional relationships and health outcomes, it should be empirically measured and tested. Measuring trust may offer insights into patients' perceptions of the quality of their relationships with health-care professionals and may contribute to improving the quality and continuity of patient care. Thom et al. (2004) note the importance of measuring trust: 'If we do not measure trust, we can ignore it, fail to cultivate it, and ultimately lose it' (p. 124).

There are numerous instruments for measuring trust in interpersonal and organisational relationships (Rotter 1967; Larzelere and Huston 1980; Cummings and Bromily 1996), some of which are specific to health care, including those that measure patients' trust in physicians (Anderson and Dedrick 1990; Kao et al. 1998), primary care providers (Safran et al. 1998), the medical profession (Hall et al. 2002), and nurses (Radwin and Cabral 2010). However, studies aimed specifically at measuring trust in health-care providers, health-care institutions, and health-care payers are limited. A review of the national literature found that there are scales to measure trust in dyadic relationships (Cetinkaya et al. 2008), trust between physicians and dermatological patients (Yılmaz and Akkaya 2009), and trust in organisations (Yucel 2006); however, no instrument exists for measuring patients' trust in the health-care system and health-care providers. The Multidimensional Trust in Health-Care Systems Scale can be used as an instrument to measure multiple objects of trust in the health care system concurrently. This study is among the first to evaluate the psychometric properties of the Multidimensional Trust in Health-Care Systems Scale in a different cultural context and at hospitalized patient population. We offer evidence about the psychometric properties of this scale, and provide direction for additional studies on how the scale will perform in other patient populations with different cultural background.

2 Methods

2.1 Study Settings and Participants

The study was conducted in Ankara, the capital city of Turkey. According to the Turkish Statistical Institute, the total population of the city is 4,771,716, and it had the third highest in migration rate (10.4 ‰) in the period from 2009 to 2010 TurkStat. (2010). In Ankara, various large and easily accessible public and private health care institutions are recognized for their quality services.

The sample for this study was selected using the multistage random sampling method. In the first stage, we obtained a list of all hospitals in Ankara. According to the 2010 data of the Turkish Ministry of Health, Ankara has 72 hospitals. These include 34 Ministry of Health hospitals, 28 private hospitals, 9 university hospitals, and 1 hospital run by the local administration. Of the nine university hospitals, six are affiliated with three state universities. In 2010, the total capacity of all hospitals was 16,826 beds (The Ministry of Health of Turkey Health Statistics Yearbook 2010; Ministry of Health 2011).

In the second stage, we classified the hospitals into three categories: (1) public hospitals, including the one hospital run by the local administration, (2) university hospitals, and (3) private hospitals. From these categories, general hospitals were chosen purposively, as they are not specialized in the treatment of particular illnesses or patients of a particular age. This resulted in the elimination of 13 public hospitals that specialized in paediatrics,

women's health and gynaecology, lung diseases and tuberculosis, eye diseases, emergency and traumatology, and oncology. In addition, one university hospital that specialized in paediatrics, another that specialized in oncology, and six private hospitals that specialized in eye diseases, physiotherapy, heart diseases, in vitro fertilization, and leukaemia were excluded.

In the third stage, 51 hospitals (22 private, 22 public, and 7 university hospitals) were ranked according to bed capacity within their respective categories. As the bed capacity indicates the maximum number of patients that can be treated, hospitals with over 500 beds were deemed appropriate for our study. Three university hospitals that were established by foundations, 15 public hospitals in districts, and all private hospitals had bed capacities below 500. Therefore, to ensure representativeness, one hospital from among the private hospitals was selected using a simple random sampling method without considering the bed capacity criteria. Thereafter, one public hospital and one state university hospital with bed capacities of over 500 was selected using the simple random sampling procedure. With regard to the public hospitals category, we identified one Ministry of Health hospital with a bed capacity of 1,109. However, the administration of this hospital did not respond to our written request for permission to carry out the study. We waited for a period, but did not get any official response, and for reasons of time and cost, we had to give up our attempts to replace this hospital with another public hospital. Therefore, this study was conducted at one randomly selected state university hospital and one private hospital in Ankara.

The university hospital comprises three hospitals, namely the adult, paediatric, and oncology hospitals. For the purpose of this study, we included only the adult hospital with a bed capacity of 850. The hospital is reputed as being a referral centre and the only accredited state university hospital in Ankara. At the hospital, about 600,000 outpatients, 26,000 inpatients, and 20,000 operated patients are provided healthcare each year.

The private hospital has a bed capacity of 170. As one of the first private hospitals in Turkey, the hospital provides services to 11,000 inpatients, 76,000 outpatients, and 5,700 operated patients each year. The private hospital is also an accredited one. The major difference between the two hospitals is that the private hospital is business oriented whereas the university hospital is government funded and aims toward social good. The fourth stage included the sampling of study participants. Literature provides many recommendations regarding sample size in measuring the psychometric properties of instruments. The recommendations are focused either on the minimum necessary sample size, *N*, or the minimum ratio to the number of variables being analysed. For example, Winter et al. (2009) suggest that when data are well conditioned, a sample size below 50 can yield good results. According to Sapnas and Zeller (2002) a sample size of 50–100 can be sufficient to evaluate the psychometric properties of social constructs. Hutcheson and Sofroniou (1999) suggest a size between 150 and 300. Comrey and Lee (1992) recommend a rough rating scale for adequate sample sizes in factor analysis: 100 = *poor,* 200 = *fair,* 300 = *good,* 500 = *very good,* 1,000 or more = *excellent.* Other researchers recommend the number of cases per variable (N/p), and the recommendations range from 4:1 (Fabrigar et al. 1999) to 10:1 (Costello and Osborne 2005). MacCallum et al. (1999) suggest that common rules of thumb regarding sample size in factor analysis are not valid or useful. We decided to rely on the Tabachnick and Fidell's (2001) recommendation in which they suggest a sample size of 300 for factor analysis. Because we were unable to identify the number of patients hospitalized at the two institutions during the period of this study, sampling was determined by proportionate stratification based on the inpatient bed capacity of the two hospitals. Accordingly, we recruited 249 patients from the university hospital and 51 patients from the private hospital. Included in this study were literate adult patients (age 18–65 years), who were

hospitalized between October 1 and December 30, 2010, and who voluntarily participated in the study. The following patients were excluded: paediatric patients, who were unable to give informed consent; patients in critical care units (e.g., emergency departments and intensive care units); patients who were dependant on mechanical ventilators; and/or patients who were mentally confused. Twenty-three responses were excluded largely because they were incomplete. Thirteen participants were excluded because their medical conditions prevented their full participation, and 32 patients refused to participate. Finally, we obtained valid data from 232 participants (77 % response rate).

2.2 Ethical Considerations

The study protocol was officially approved, and ethical clearance was obtained from the Ethical Committee of Hacettepe University. The directors of the medical staff of the two hospitals provided written permission for this study.

To adapt the Multidimensional Trust in Health-Care Systems Scale into Turkish and to test its validity and reliability, we contacted the authors who developed the scale through e-mail and received written permission from Leonard E. Egede.

The participants were informed about the aim of the study and were told that their participation must be voluntary and that they could withdraw from the study. Those individuals who agreed to participate signed the informed consent form.

2.3 Instruments

Data were collected both with a self-administered questionnaire that was developed to record the demographic characteristics of participants and with the Multidimensional Trust in Health-Care Systems Scale (MTHCSS).

The MTHCSS was developed by Egede and Ellis in 2008. Scale development occurred in 2 phases. In phase 1, a pilot instrument with 70 items was generated from a review of the trust literature, focus groups, and expert opinion. The 70 items were pilot tested in a sample of 256 students. An exploratory factor analysis was used to derive an orthogonal set of correlated factors. Next, a 17-item scale (MTHCSS) was developed with 10 items measuring trust in health care providers, 4 items measuring trust in health care payers, and 3 items measuring trust in health care institutions. In phase 2, the final scale was administered to 301 primary care patients at an academic medical centre in the south-eastern United States to assess the reliability and validity of the scale. The MTHCSS items are scored on a 5-point Likert scale with scores ranging from 5 (strongly agree) to 1 (strongly disagree). Item 4 and item 15 are reverse scored. A summary score consisting of the sum of the individual items is created such that higher total and subscale scores represent greater trust in healthcare systems. The 17-item MTHCSS had a mean score of 63.0 (SD 8.8), the provider subscale had a mean of 40.0 (SD 6.2), the health-care payers subscale had a mean of 12.8 (SD 3.0), and the institutions subscale had a mean of 10.3 (SD 2.1). Cronbach's α was 0.89 for the MTHCSS and 0.92, 0.74, and 0.64 for the three subscales (Egede and Ellis 2008).

2.4 Turkish Adaptation and Content Validity of the Multidimensional Trust in Health Care Systems Scale (MTHCSS)

In the present study, the MTHCSS was separately translated from English to Turkish by three experts, including one English teacher, a professional English translator, and the first

author of the present study. After the translation, the authors prepared the first Turkish version of the MTHCSS by comparing and assessing the three translations. Next, the first Turkish version of the MTHCSS and the original English version were submitted to four experts, including representatives from the fields of nursing, medicine, and psychology as well as Turkish language and literature. These experts checked the first Turkish version of the MTHCSS to assess its content validity and compatibility with Turkish language. The first Turkish version of the instrument was revised by the researchers based on the critiques and suggestions of the experts. Several items on subscale 2, which refers to trust in health-care payers, were modified. In 2006, the Turkish Parliament accepted a new law redefining the Social Security and General Health Insurance systems, which resulted in a transition from a system of multiple insurance schemes to a single-payer system. The newly introduced National Health Insurance system offers universal public health insurance coverage for most residents of Turkey. Although private health insurance is still preferred by some individuals, for most of the participants, 'health-care payers' may refer to the public health insurance system. Thus, terminological modifications to subscale 2 were required to avoid misunderstanding.

To test the comprehensibility of the items in the scale, the Turkish version was administered to 10 patients who were admitted to outpatient clinics of the university hospital. There was no need for further revision, and the content of the Turkish version of the MTHCSS was proven valid by the approval of both the experts and the authors. The Turkish version was retranslated into English to determine whether it corresponded with the original content. The translation and back-translation corresponded to the original version.

2.5 Data Collection

To assess the construct validity and reliability, the final Turkish version of the MTHCSS was administered to 232 hospitalised adult patients during the period of 1 January–30 December 2010.

2.6 Statistical Analysis

The Statistical Package for the Social Sciences for Windows, version 15.0 (SPSS-15) and the LISREL 8.7 software were used for data entry with appropriate coding and statistical analysis. To assess the construct validity of the instrument, we used an exploratory factor analysis (principal component analysis with Varimax Rotation) and a confirmatory factor analysis.

Cronbach's α were calculated for each subscale and the total scale as a measure of internal consistency and reliability. In addition, the scale was tested with a split half reliability test using the Spearman–Brown coefficient. The mean scores and standard deviations of the MTHCSS and its subscales were calculated. One-way analysis of variance (ANOVA) and independent samples t tests were used to compare and analyse the differences between groups. For all tests, the statistical significance was set at $p < .05$.

3 Results

The demographic characteristics of the sample are reported in Table 1. Briefly, the majority of the participants were more than 41 years old, 50 % were female, and more than half had an elementary school education (see Table 1). Approximately 99 % had their

Table 1 Participant characteristics (n = 232)

	N	%
Age groups (years)		
<20	18	7.8
21–30	27	11.6
31–40	25	10.8
41–50	42	18.1
51–60	55	23.7
>61	65	28.0
Gender		
Female	116	50.0
Male	116	50.0
Educational level		
Elementary	123	53.0
High school	68	29.3
University	41	17.7
Perceived income		
Not enough	31	13.4
Moderate	141	60.8
Enough	60	25.9

health insurance covered by Social Security; 61 % of the participants perceived their income as 'moderate' and 26 % as 'enough.'

3.1 Construct Validity and Reliability of the Turkish Version

The results of the exploratory factor analysis are reported in Table 2. The eigenvalues for the three components of the scale were 7.30, 2.61, and 1.21; together, these three components explained 65 % of the variance. The factor loading of the fourth item was very low (0.17), and the sixteenth item was identified in another factor. The loadings for the other rotated items ranged from 0.72 to 0.87 (see Table 2).

The results of the confirmatory factor analysis indicate that although the Chi square test result was significant ($\chi^2/df = 251/116 = 2.17$), the value was less than 5. In addition, goodness of fit statistics were identified above 0.90. (The Normed Fit Index (NFI) = 0.95; the Non-Normed Fit Index (NNFI) = 0.97; the Comparative Fit Index (CFI) = 0.97; the Incremental Fit Index (IFI) = 0.97; the root-mean-square error of approximation (RMSEA) = 0.071; and the standardised RMR = 0.053, which is lower than 0.08.) The confirmatory factor analysis results indicated a sufficient model fit for the construct validity of the scale (see Fig. 1).

Cronbach's α for the total scale was 0.87 and was 0.91, 0.82, and 0.61 for the three subscales (see Table 2); the Spearman-Brown split half reliability coefficient was 0.67, which indicated a moderate internal consistency of the scale.

3.2 Mean MTHCSS Scores by Sample Characteristics

The mean MTHCSS score for the sample was 64.7 (SD 10.7). The mean score for the Trust in Health-Care Providers Subscale was 40.6 (SD 7.4). However, the mean score for the

Table 2 Component loadings of the principal component analysis

	Scale items	M (SD)	Factor loadings		
			Subscale 1	Subscale 2	Subscale 3
Subscale 1: trust in health care providers					
Item 1	My health care provider is usually considerate of my needs and puts them first	4.3 (0.9)	0.87		
Item 2	I have so much trust in my health care provider that I always try to follow his/her advice	4.3 (0.8)	0.82		
Item 3	I trust my health care provider so much that whatever he/she tells me, it must be true	4.0 (1.0)	0.72		
Item 4	Sometimes, I do not trust my health care provider's opinion, and therefore, I feel I need a second opinion	2.6 (1.3)	0.17		
Item 5	I can trust my health care provider's judgments concerning my medical care	4.2 (1.0)	0.82		
Item 6	My health care provider will do whatever it takes to give me the medical care that I need	4.2 (1.0)	0.87		
Item 7	Because my health care provider is an expert, he is able to treat medical problems like mine	4.3 (0.9)	0.84		
Item 8	I can trust my health care provider's decisions on which medical treatments are best for me	4.2 (0.9)	0.88		
Item 9	My health care provider offers me the highest quality in medical care	4.1 (1.1)	0.82		
Item 10	All things considered, I completely trust my health care provider	4.3 (0.9)	0.81		
Subscale 2: trust in health care payers					
Item 11	Health care payers are good at what they do	3.3 (1.2)		0.79	
Item 12	When needed, health care payers will pay for you to see any specialist	3.3 (1.3)		0.80	
Item 13	When questioned about what treatments are covered, health care payers are honest with their answers	3.2 (1.0)		0.83	

Table 2 continued

	Scale items	M (SD)	Factor loadings		
			Subscale 1	Subscale 2	Subscale 3
Item 14	Health care payers will pay for everything they are supposed to, including treatment that is expensive	3.3 (1.2)		0.75	
Subscale 3: trust in health care institutions					
Item 15	Health care institutions only care about keeping medical costs down and not what is needed for my health	3.2 (1.3)			0.79
Item 16	Health care institutions provide the highest quality in medical care	3.9 (1.1)	0.59		0.48
Item 17	When treating my medical problems, health care institutions put my medical needs above all other considerations, including costs	3.8 (1.2)			0.69
Cronbach's α			0.91	0.82	0.61
Eigenvalues			7.30	2.61	1.21
Explained % of variance			39.1	17.1	9.2

Rotation method includes Varimax with Kaiser normalisation

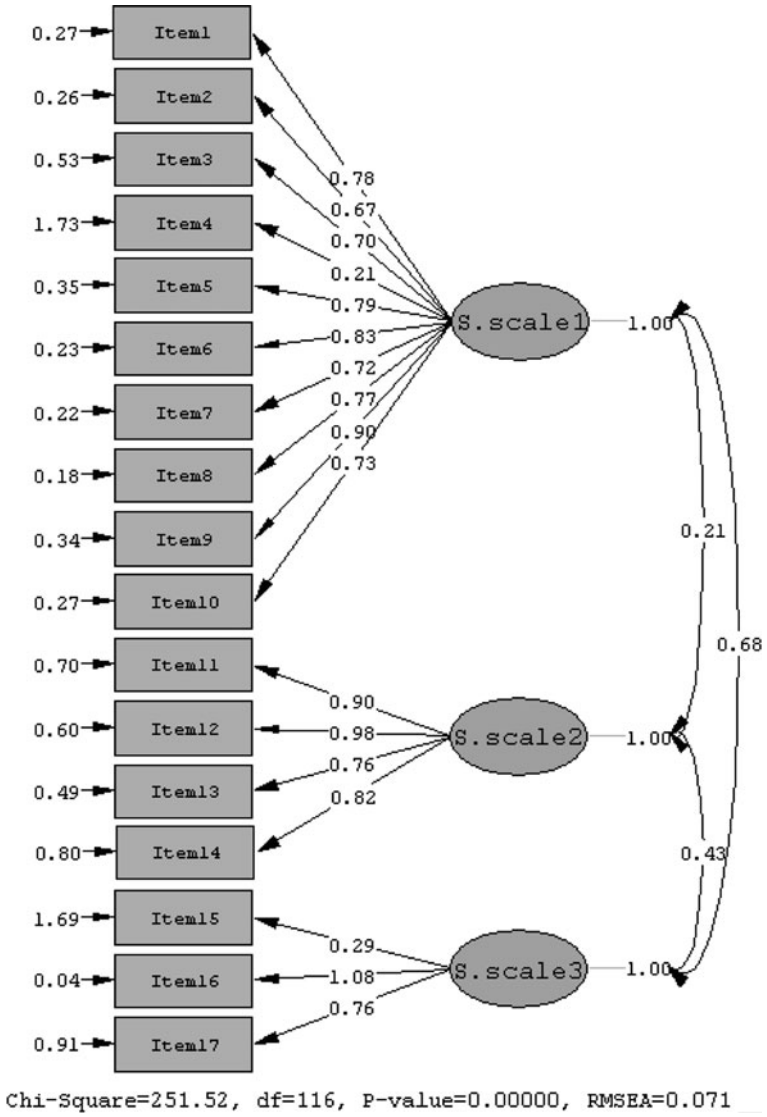

Fig. 1 Path diagram for the multidimensional trust in health care systems scale

Trust in Health-Care Payers Subscale was 13.2 (SD 3.8), and the mean score for the Trust in Health-Care Institutions Subscale was 10.9 (SD 2.7). The mean scores did not vary by gender or age groups. However, the mean scores did vary by education level and perceived income. In general, statistically significant differences by education level were observed for the total trust scores and the mean scores obtained from the Trust in Health-Care Providers Subscale and the Trust in Health-Care Institutions Subscale, whereas the mean scores of the Trust in Health-Care Payers Subscale did not differ by education level. The mean trust scores of the participants who had an elementary school-level education were significantly higher than the scores of the participants with higher levels of education

Table 3 Participants' trust scores according to educational level and perceived income

Variables	Trust in health care providers M (SD)	Trust in health care payers M (SD)	Trust in health care institutions M (SD)	Total score M (SD)
Educational level				
Elementary (n = 123)	42.1 (7.0)[a]	13.8 (3.6)[a]	11.1 (2.8)	67.0 (10.5)[a]
High school (n = 68)	38.5 (8.4)[a]	12.6 (3.9)	10.6 (2.7)	61.7 (10.9)[a]
University (n = 41)	39.8 (6.1)	12.2 (4.0)[a]	10.6 (2.8)	62.6 (9.5)
F	5.82	3.83	0.92	6.66
p	.003	.023	.400	.002
Perceived income				
Not enough (n = 31)	44.1 (6.0)[a]	14.1 (2.9)	10.7 (2.1)	68.9 (8.9)
Moderate (n = 141)	39.9 (8.1)[a]	13.2 (3.8)	10.9 (3.0)	63.9 (11.6)
Enough (n = 60)	40.6 (5.8)	12.7 (4.1)	11.0 (2.4)	64.3 (8.7)
F	4.24	1.25	0.12	2.82
p	.016	.289	.890	.062

[a] Statistically significant difference ($p < .05$)

($p < .05$). In addition, the mean scores of the participants who perceived their income as 'not enough' were higher than the scores of the participants who perceived their income as 'enough' or 'moderate' (see Table 3).

4 Discussion

In the present study, we adapted the Multidimensional Trust in Health-Care Systems Scale into Turkish and investigated the psychometric properties in a Turkish population of hospitalised patients. A confirmatory factor analysis demonstrated a sufficient model fit for the construct validity of the scale. Although the Cronbach's α for subscale 3 (trust in health care institutions) was 0.61, which indicates unacceptable internal consistency, the Cronbach's α for the total scale was 0.87, and the Cronbach's α for the other subscales also exceeded the acceptable level of 0.70. However, the Spearman–Brown split half coefficient for the scale was 0.67. Based on these results, it could be concluded that the MTHCSS has good construct validity, but moderate internal consistency. Our findings are consistent with the results of Egede and Ellis (2008), who developed the MTHCSS and found the Cronbach's α for the scale to be 0.89 as well as 0.92, 0.74, and 0.64 for the three subscales. However, this study differs from that of Egede and Ellis (2008), as their study was conducted in a sample of patients attending a primary care clinic, whereas our sample included hospitalised patients. In addition, as our primary aim was adapting and testing the validity and reliability of the instrument, we did not investigate the correlation between the MTHCSS and patient-centred care, locus of control, medication non-adherence, social support, and patient satisfaction.

In this study, the trust scores of the participants who had lower education levels and who perceived their income as low were higher than the scores of the other groups. A possible explanation for this finding might be related to recent developments in the Turkish health care system, which now offers universal public health insurance coverage for most people,

especially for poorer residents. It is likely that patients with lower incomes have optimistic expectations for the future, which may influence their trust in the health care system. Moreover, non-financial matters, such as the quality of care delivered by the institutions included in our study settings, may play a role. Both the university hospital and the private hospital where patients were recruited are located in the Turkish capital of Ankara, and both have a capacity of more than 500 beds and are reputed to provide quality services. Consistent with our finding, Bonds et al. (2004) found that patients from lower socio-economic groups had relatively high levels of trust compared with patients from higher socioeconomic groups. Alesina and La Ferrara (2002) reported a positive and significant relationship between trust levels and education, while other studies found a negative correlation between education level and trust (Brink-Muinen Van den and Rijken 2006; Labonne et al. 2007). Despite the association between trust scores and the perception of low income and education level, statistical associations cannot demonstrate causal relationships. However, our result implies that health care professionals need to be aware of the inherent vulnerability of poor and less educated people who rely on health care providers and the importance of professional competency and moral responsibility. In the meantime, health care professionals should pay more attention to those who have lower trust levels.

4.1 Limitations of the Study

A major limitation of this study is that the sample for this study was drawn from a university hospital and a private hospital; however, a remarkable proportion of the health care service is undertaken by hospitals affiliated with the Ministry of Health. Therefore, the findings cannot be generalized to the patient population in Turkey. Second, the generalisability of our results is limited by the exclusion of patients who were hospitalised at paediatric clinics and those in critical or intensive care units and the emergency department as well as younger patients. In addition, the psychometric results of this study are limited in that we have no direct measurements of test–retest reliability. Finally, trust is a highly context-dependent phenomenon. Therefore, further work is needed to investigate the psychometric properties of the MTHCSS across a larger sample in Turkey and in different cultures with diverse populations. Despite these limitations, this is the first study that demonstrated the validity and acceptable reliability of the MTHCSS in a Turkish patient population.

5 Conclusion

Measurements of patient trust in the health care system and health care professionals could be used as an indicator of the effectiveness of health care provider-patient relationships, and because patient trust has a future orientation, it could be useful for improving the quality of health care services. Evidence from this study indicates that this instrument can be used to measure multiple aspects of trust in the health care system; however, the limitations of this study must be recognised, and as trust is a contextual phenomenon, further work is needed to test the psychometric properties of this scale both in Turkey and in different cultures.

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Conflict of interest None.

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