

Trust in the Health System: The Case of Cardiology Patients in Turkey (*)

Günnur ERTONG ATTAR (**)

Abstract: This paper studies trust in the health system via survey data collected for a sample of 231 cardiology patients residing in three public hospitals in the Mersin province, Turkey. The paper uses a diversity of statistical methods for inference and testing. These include factor analysis, clustering techniques, and Markov transition probability matrices. Four central results of the paper are the following: First, demographic and socioeconomic factors, i.e., age, sex, marital status, education, and economic status, are not related with trust in the health system. Second, patients exhibiting higher levels of general interpersonal trust and higher levels of satisfaction from healthcare services have higher levels of trust in the health system. Third, interpersonal trust in nurses and physicians is strongly and positively related with impersonal trust in hospitals and the Ministry of Health. Finally, trust and distrust in the health system exhibit remarkable persistence from past to present in both interpersonally and impersonally. These results contribute to our understanding of trust building and erosion in the health system in the context of a developing country that has experienced a systemic transformation in the recent decade.

Keywords: trust, health, cardiology patients, patient-physician trust, Mersin, Turkey

Sağlık Sistemine Duyulan Güven: Türkiye'deki Kardiyoloji Hastaları Örneği

Öz: Bu çalışma Mersin ilinde yer alan üç devlet hastanesinden hizmet alan 231 kardiyoloji hastasına uygulanan anket verisi üzerine kuruludur. Makale, çıkarım ve test için çeşitli istatistiksel yöntemleri kullanmaktadır. Bunlar faktör analizi, kümeleme teknikleri ve Markov geçiş olasılık matrislerini içerir. Makalenin dört ana sonucu şu şekildedir: İlk olarak, yaş, cinsiyet, medeni durum, eğitim ve ekonomik durum gibi demografik ve sosyo-ekonomik faktörler, sağlık sistemine duyulan güven ile ilişkili değildir. İkincisi, daha yüksek düzeyde genel kişilerarası güven ve sağlık hizmetlerinden daha yüksek düzeyde memnuniyet duyan hastalar, sağlık sistemine daha yüksek güven düzeylerine sahiptir. Üçüncüsü, hemşireler ve hekimlere duyulan kişilerarası güven, hastanelere ve Sağlık Bakanlığına duyulan kişisel olmayan güven ile güçlü ve pozitif bir ilişki içerisindedir. Son olarak, sağlık sistemine duyulan güven ve güvensizlik hem kişilerarası hem de kişisel olmayan bir şekilde geçmişten günümüze kayda değer bir süreklilik gösterir. Bu sonuçlar, geçtiğimiz on yılda sistemli bir dönüşüm yaşayan, gelişmekte olan bir ülke bağlamında sağlık sistemine güven oluşturma ve

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**) Dr. Öğr. Üyesi, Mersin Üniversitesi, Fen-Edebiyat Fakültesi, Sosyoloji Bölümü (e-posta: gunnurertong@mersin.edu.tr)

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Anahtar Kelimeler: güven, sağlık, kardiyoloji hastaları, hasta-hekim güven ilişkisi, Mersin, Türkiye

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I. Introduction

Trust in social systems is one of the main subject matters in sociology (Luhmann, 1979; Barber, 1983; Giddens, 1990; Misztal, 1996; Sztompka, 1999). Trust functions as a key factor that helps alleviate the adverse effects of increasing uncertainties and associated risks. Trust, in Misztal's (1996, p.97) words, is "a necessary condition for routine social life to be possible." To characterize the social relevance of trust in modern societies in a summary view of the existing literature, Sztompka (1999, p. 11-14) lists several factors such as human agency, interdependence, specialization, complexity, anonymity, and unfamiliarity.

Trust has a central function in the health system¹ as recognized by early works of Peabody (1927) and Parsons (1951a). This central function originates from the facts that (i) the provision of healthcare is inevitably subject to uncertainty and unpredictability, and (ii) the erosion of trust likely leads to the breakdown of cooperation in the production of health (Mechanic, 1996; Gilson, 2003; Calnan & Rowe, 2004, 2006, 2008; Rowe & Calnan, 2006). As summarized by Ozawa & Sripad (2013, p. 10), trust is related with several health care objectives such as "access, health-related behavior uptake, continuity and quality of care, and [...] self-reported health status." As Ozawa & Sripad's (2013) systematic review discusses in detail, several studies on the effects of interpersonal trust in health professionals and of impersonal trust in the health system have been published in recent decades. These empirically supported effects include, but are not limited with, better access to and higher satisfaction from healthcare services, the continuity of care and a higher quality of interaction, and lower transaction costs in the health system.

This paper studies trust in the health system through the experiences of a sample of cardiology patients residing in Turkey. The case of cardiology patients is of interest from a trust-centered perspective simply because (i) the building/erosion of trust is a long-term issue and (ii) cardiologic diseases are chronic and, hence, long-lived. Besides, as patients' trust in physicians is expected to be affected by the character and severity of illness, the focus is directed on a single group of cardiology patients (Plomp & Ballast, 2010).

Three facts motivate the focus on Turkey: First, the level of general interpersonal trust is remarkably low in Turkey. According to the World Values Survey's 2010-2014 wave, only 11.6 % of 1,605 respondents from Turkey in 2011 have accepted that "Most people can be trusted." This ranks Turkey as the 44th among 59 countries in descending

¹ Ertong (2011) presents a discussion of health system and trust in the context of Luhmann's autopoietic system conceptualization.

order. Second, the Health Transformation Program (HTP) in Turkey has brought radical changes into Turkish health system after 2003. These changes, including a policy that makes the number of patients examined the key determinant of the performance-related payment to the physician, have most likely increased uncertainty and unpredictability in the health system. Third, the satisfaction from healthcare services in Turkey has steadily been increasing since early 2000s most possibly because of increasing access to general healthcare services. According to the most recent issue of Life Satisfaction Statistics by TurkStat (2016), 75.4 % of respondents indicate that they are either satisfied or very satisfied from general healthcare services. Consequently, the case of Turkey is of particular interest because trust in the health system is expected to be positively associated with higher satisfaction from healthcare services and negatively associated with the low level of society-wide trust. Besides, a vast majority of empirical studies predominantly focus on developed (or high-income) countries (Ozawa & Sripad, 2013, p. 13), and not much is known regarding how trust functions in the health system of a developing country such as Turkey.

This paper mostly focuses on the level of interpersonal trust between the patient and the physician as one of the main measures of trust in the health system. This is not an uncommon strategy in the related literature as noted by Ozawa & Sripad (2013, p. 11). On the other hand, the data collection allows for the observations on trust in nurses, trust in the hospital, and trust in the Ministry of Health. The paper aims at explaining the dynamics of physician-patient relationship and issues surrounding trust between physicians and patients.

II. Background

A. Sociological Perspectives on Trust

The classical sociologies of Spencer, Tönnies, Durkheim, Simmel and Weber directly or indirectly associate trust with the notions of social order and integrated society (Misztal, 1996). The mechanisms proposed as essential are diverse and related with concepts such as cooperation, competition, solidarity, and reciprocity. There exist, however, common elements including the emphasis on uncertainties originating from the social division of labor and the tension between moral and egoistic individualism (Misztal, 1996, p. 60-61). Parsons (1949, 1951b) also focuses on social order and associates trust with solidarity and reciprocity. Key to his understanding, as noted by Misztal (1996, p. 68), is the notion that individuals believe that other individuals will behave in a non-selfish manner given the presence of a collective orientation.

There also exists, as Sztompka (1999) remarks, a line of theoretical research on trust starting with Luhmann (1979, 1988, 1995) and continuing with Barber (1983), Eisenstadt and Roniger (1984), Coleman (1990), Giddens (1990), Fukuyama (1995), and Seligman (1997). Located within the “culturalist” turn in sociological theory by Sztompka (1999, 11), these contributions extend the analysis of trust necessarily since it is a narrow viewpoint to identify trust only with social order (Misztal, 1996, p. 63). In fact, these later contributions analyze different functions and aspects of trust such as the reduction of complexity and risk (in a social systems perspective of Luhmann or in an individual

vs. system perspective of Giddens) and the formation of cooperation (from the perspective of rational choice theories).

This paper builds upon a new functionalist approach in hypothesizing trust in healthcare settings. The point of departure is simply how trust functions in the health system. This quest necessitates an identification of different types of trust and their associations and functions in the health system.

Gilson (2003), building upon very large bodies of diverse literatures, offers a useful synthesis. According to this, two types of trust, i.e., interpersonal and impersonal, can be located over a spectrum of underlying trust building mechanisms. At one end of this spectrum lies the calculus-based form of trust such that trust is based on the calculation that others will act in your interests. The identification-based form of trust is located at the opposite end of the spectrum, indicating that the belief that others will act in your interests originate instinctively. In between these two extremes, there exist the knowledge-based forms of trust where the mechanism behind trust building is neither completely calculus-based nor completely identification-based.

Interpersonal trust is cognitive when people think that cooperation is mutually beneficial and that vulnerability due to trust will not be abused due to this mutuality. This is the calculation. But interpersonal trust is affective when the bases of trust are emotional ties, shared values, and altruism. This is the identification.

Similar reasoning applies to the case of impersonal trust. Whereas institutions are among the bases of any form of impersonal trust, information and reputation are essential for calculus-based trust in strangers, and shared values and identities are definitive characteristics of identification-based trust in social systems.

B. Trust and Healthcare

A parsimonious way to provide a background on trust and healthcare is to summarize the most influential descriptive and empirical studies according to the functions of trust listed by Gilson (2003).

One of these functions is the enabling role of trust in economic development. Dating back to Adam Smith and John Stuart Mill, economists and scholars from other disciplines have long recognized this function of trust (e.g., Arrow, 1972; Putnam, 1993; Fukuyama, 1995). Many studies, such as those of La Porta et al. (1997), Knack & Keefer (1997), and Zak and Knack (2001), document robust and positive relationships between trust and economic development. In healthcare, increasing levels of interpersonal and impersonal trust are associated with higher levels of healthiness, health production, and treatment effectiveness (Hall et al., 2002; Russell, 2005; Luzio 2006; Beard 2008; Wang et al., 2009). A healthier workforce, in turn, is more conducive to economic development through higher levels of human capital.

Gilson (2003) also emphasizes the legitimizing roles of trust for governance institutions and for public systems. Trust contributes to the viability of the political regime in general and the health system in particular (Rowe & Calnan 2006; Taylor-

Gooby, 2006). Besides, Gilson (2003) includes the reduced need to monitor and lower transaction costs in social contracting as one of the main functions of trust. Health systems may be taken as complex social systems “in which large numbers of transactions are made on a daily basis between people who do not know each other.” (Gilson, 2006, p. 361). Trust is thus essential in such an organizational setting either from the perspective of the agency theory based on full rationality or from that of the transaction cost economics based on bounded rationality (Beccerra & Gupta, 1999; Connell & Mannion, 2006). More specifically, as health systems are subject to substantial uncertainties, overcoming information inefficiencies require not classical but relational contracts of which trust is a key element (Raman & Björkman, 2009; Bloom et al., 2011). Boosting employee morale and motivation in the workplace and increasing the organizational performance are also among the functions of trust.

Trust is strongly and positively associated with the satisfaction from healthcare services (Thom & Campbell, 1997; Safran et al., 1998; Pearson & Raeke, 2001; Thom & Kravitz, 2002). Besides, trust in the representatives of the health system affects the healthcare experience as emphasized by Ozawa and Sripad's (2013) review. Since the entire populace in a society interact with the (representatives of the) health system, interpersonal and impersonal trust are positively related with increased organizational performance.

A very brief summary view on trust and healthcare can best be provided with two quotes from Rowe and Calnan (2006, p. 4). The need for interpersonal trust in the health system originates from

[...] the vulnerability associated with being ill, the information asymmetries arising from the specialist nature of medical knowledge, and the uncertainty and element of risk regarding the competence and intentions of the practitioner on whom the patient is dependent.

On the other hand, the need for impersonal trust is not trivial since

[...] trust in particular hospitals, insurers and health care systems may affect patient support for and use of services and thus their economic and political viability.

III. Methods

A. Data and Sample

Quantitative data are obtained via survey forms that provide information on patients' status within the health system as well as their trust in the health system. The construction of the survey form follows Calnan and Sanford (2004), Thom et al. (2002, p. 478), Trachtenberg et al. (2005, p. 346), Hall et al. (2002), Freburger et al. (2003), and Rose et al. (2004). The form includes questions on demographic variables, health status, socioeconomic status, the health service related with the treatment received, and the information sources concerning this health service. Questions on trust can be grouped into general trust, trust in politicians, trust in physicians, and trust in the health system. The response style for these questions is a five-point Likert scale.

Table 1: Sample characteristics

Total No. of Respondents	231	Purpose	%
		<i>Diagnosis</i>	29
		<i>Treatment</i>	71
Hospitals	%		
<i>Mersin State</i>	34.6	Treatment Type	%
<i>Mersin Toros State</i>	9.8	<i>Impatient</i>	29
<i>Tarsus State</i>	55.6	<i>Outpatient</i>	71

Some characteristics of the sample are summarized in Table 1. The data collection has been completed in three state hospitals located in a southern city of Turkey, Mersin. The total number of cardiology patients filling out the survey form is $N=231$, but effective sample size differs for each question and is therefore typically less than this maximum for different types of analysis.

IV. Analysis

The starting point of the analysis is the documentation of some descriptive statistics followed by a summary of the results from the factor analysis on trust questions.

Whether trust in the health system is associated with demographic and socioeconomic variables is explored via parametric and nonparametric correlation coefficients. It is also explored whether trust in the health system is associated with other determinants such as the level of satisfaction from health services and the level of general interpersonal trust of patients. In both cases, the responses for different questions on trust and the common factors from the factor analysis are considered. A t test is performed to check whether groups of respondents with different levels of satisfaction and general trust have differing levels of trust in the health system. Similarly, whether these groups have equal variances is inquired with an F test.

The quantitative analysis is also complemented with an investigation of how trust in the health system has changed from the past to the present. At the first stage of this analysis, k -means clustering technique is applied under the restriction that there exist two clusters of trust. Labeling these as those of Trust and Distrust clusters, the first stage basically records, both for the past and the present, into which cluster a respondent is assigned. Then, at the second stage, whether respondents' cluster assignments change from the past to the present is analyzed. Specifically, the transition probability that a respondent assigned into Distrust cluster in the past is in Trust cluster in the present, and the corresponding probability of transitioning from Trust to Distrust are estimated. These two probabilities are used to construct the so-called Markov transition matrix as in Table 2. Here, the rows should sum to unity because being assigned into Trust and Distrust clusters are mutually exclusive events conditional on the past assignment.

Table 2: A Markov transition matrix

		Present	
		Cluster 1	Cluster 2
Past	Cluster 1	p	$1 - p$
	Cluster 2	$1 - q$	q

Another key section of the quantitative analysis also builds upon correlations but investigates the association between interpersonal trust in nurses and physicians and impersonal trust in the hospital and the Ministry of Health.

V. Findings

Table 3 presents some descriptive statistics on demographic and socioeconomic variables. The sex ratio of the sample being close to $\frac{1}{2}$, the mean years of schooling around 7 years, and more than half of the respondents having low or low intermediate income indicate that the sample does more or less successfully represent the Turkish population of cardiology patients. That the mean age is around 54 simply reflects the age-specificity of cardiologic diseases.

Table 3: Descriptive statistics

Total No. of Respondents	231	Education	years
		<i>Mean</i>	6.89
Age	years	<i>Standard Deviation</i>	4.41
<i>Mean</i>	53.97	<i>Minimum</i>	0
<i>Standard Deviation</i>	14.21	<i>Maximum</i>	15
<i>Minimum</i>	17	<i>No. of Respondents</i>	175
<i>Maximum</i>	88	Perceived Economic Status	%
<i>No. of Respondents</i>	206	<i>Low Income</i>	40.00
Sex	%	<i>Low Intermediate Income</i>	52.20
<i>Female</i>	50.70	<i>High Intermediate Income</i>	6.80
<i>Male</i>	49.30	<i>High Income</i>	1.00

A. The Factor Analysis

The factor analysis is applied to 17 questions from the survey form. Each of these questions is characterized by a statement on trust-related issues, and the analysis

indicates the existence of three trust factors. Statements associated with each of these factors are shown in Table 4.

Table 4: Statements and the trust factors

Trust Factor #1

All people have a grim side that may emerge given an opportunity.

One who trusts others in an unlimited manner may get into trouble.

Most people do not wholeheartedly want to sacrifice themselves to help others.

I think my physician is not doing whatever that is necessary for my treatment.

My physician explains what I should do if my complaints continue or proliferate.

Medicine is sometimes not sufficient.

If my physician does not order an examination, I suspect his/her professional capability.

If my physician does not prescribe medication, I suspect his/her professional capability.

Trust Factor #2

I do not hesitate to leave my life in the hands of physicians.

Physicians do whatever that is necessary for treatment.

Trust Factor #3

Physicians are always honest to me regarding any issue.

I completely trust physicians.

My education affects the quality of the health service I am receiving.

If I have a complaint regarding the health system, this would be taken into account.

My medical records cannot be accessed by those who have no relevance.

People die every day because of malpractices in the health system.

If there is malpractice regarding my treatment, they would try to hide this from me.

For future reference, it is worth noting that the trust factors attain numerical values ranging from 1 to 5, and a higher value of each of the trust factors indicates a higher level of trust in the physician by the respondent.

B. The Irrelevance of Socioeconomic and Demographic Factors

One of the most striking findings is that socioeconomic factors such as education and income and demographic factors such as age, sex, and marital status are not correlated with trust. This is true both for the separate questions on general and healthcare-related

trust and for the three trust variables obtained via the factor analysis. Table 5 presents the statistical results.

Table 5: Trust factors and socioeconomic-demographic variables

	Age	Sex	Marital Status	Education	Economic Status
"I completely trust in physicians."	0.009	0.039	0.056	-0.048	0.057
	(0.900)	(0.582)	(0.431)	(0.555)	(0.415)
Trust Factor #1	0.004	-0.048	-0.008	-0.049	-0.105
	(0.961)	(0.514)	(0.912)	(0.559)	(0.149)
Trust Factor #2	0.062	0.064	0.048	-0.015	0.115
	(0.369)	(0.349)	(0.488)	(0.852)	(0.092)
Trust Factor #3	0.050	0.035	0.028	-0.095	0.068
	(0.468)	(0.619)	(0.693)	(0.236)	(0.323)

Note: This table reports correlation coefficients and associated *p* values in parenthesis.

C. Two Explanatory Factors: Satisfaction from Health Services and General Trust

How does one understand trust in physicians given that socioeconomic and demographic factors are not associated with it? It turns out that the level of general interpersonal trust and the level of satisfaction from health services are strongly and positively associated with trust in physicians.

Table 6 and Table 7 summarize the results obtained from various statistical analyses. Simple parametric and nonparametric correlations are reported in the former. These correlations exhibit statistical significance at the 0.01 or 0.05 significance levels. It is worth noting that the lack of statistical association between general trust and satisfaction from health services weakly implies that the relations of these two factors with trust are not governed by a third (omitted) variable.

Table 7 summarizes the results of hypothesis tests that inquire whether different subsamples of respondents grouped via general trust and satisfaction from health services have equal means and equal variances. The *t* tests reject the null hypothesis of equal means in both cases. The *F* tests on the other hand fail to reject the null hypothesis of equal variances at the 0.05 level of significance. These results thus indicate that, with more or less equal variances across groupings in both cases, those with general interpersonal trust and those satisfied from health services exhibit, on average, a higher degree of trust in the physicians.

Table 6: Two explanatory factors: correlation coefficients

	Lack of satisfaction		
	<i>Pearson</i>	<i>Spearman</i>	<i>Kendall</i>
"I completely trust in physicians."	-0.393	-0.384	-0.353
N=205	(0.000)	(0.000)	(0.000)
Trust Factor #1	-0.123	-0.164	-0.133
N=187	(0.092)	(0.025)	(0.026)
Trust Factor #2	-0.406	-0.415	-0.360
N=212	(0.000)	(0.000)	(0.000)
Trust Factor #3	-0.439	-0.418	-0.370
N=208	(0.000)	(0.000)	(0.000)
	"I generally trust people."		
	<i>Pearson</i>	<i>Spearman</i>	<i>Kendall</i>
"I completely trust in physicians."	0.231	0.230	0.202
N=180	(0.002)	(0.002)	(0.002)
Trust Factor #1	-0.367	-0.325	-0.261
N=179	(0.000)	(0.000)	(0.000)
Trust Factor #2	0.213	0.217	0.184
N=180	(0.004)	(0.003)	(0.003)
Trust Factor #3	0.238	0.242	0.203
N=181	(0.001)	(0.001)	(0.001)

Note: This table reports correlation coefficients and associated *p* values in parenthesis.

Table 7: Two explanatory factors: tests for equal means and variances

	Grouping Variable: Satisfaction from Health Services			
	<i>Null Hypothesis</i>	<i>DoF</i>	<i>Test Stat.</i>	<i>p-value</i>
<i>t</i> test	Groups have equal means.	178	-6.059	(0.000)
<i>F</i> test	Groups have equal variances.	178	0.001	(0.974)
	Grouping Variable: General Trust			
	<i>Null Hypothesis</i>	<i>DoF</i>	<i>Test Stat.</i>	<i>p-value</i>
<i>t</i> test	Groups have equal means.	203	2.369	(0.019)
<i>F</i> test	Groups have equal variances.	203	3.269	(0.072)

Note: This table reports the results of *t* and *F* tests, and *DoF* denotes the degrees of freedom.

D. Interpersonal and Impersonal Trust in the Health System

The survey form is designed to provide quantitative data on trust relationships of patients not only with physicians but also with nurses, the hospital, and the Ministry of Health.

Table 8 presents the correlation coefficients among some indicators of interpersonal and impersonal trust in the health system. All of these correlations are positive and exhibit statistical significance at the 0.01 significance level.

Table 8: Interpersonal and Impersonal Trust

	Trust in the hospital		
	<i>Pearson</i>	<i>Spearman</i>	<i>Kendall</i>
Trust in physicians	0.617	0.604	0.529
N=165	(0.000)	(0.000)	(0.000)
Trust in nurses	0.518	0.531	0.438
N=163	(0.000)	(0.000)	(0.000)
	Trust in the Ministry of Health		
	<i>Pearson</i>	<i>Spearman</i>	<i>Kendall</i>
Trust in physicians	0.273	0.277	0.240
N=161	(0.000)	(0.000)	(0.000)
Trust in nurses	0.220	0.251	0.199
N=160	(0.005)	(0.001)	(0.001)

Note: This table reports correlation coefficients and associated *p* values in parenthesis.

E. Trust in the Health System: Past vs. Present

Regarding the changes in the level of trust from the past to the present, the overall picture indicates a very moderate increase in patients' average trust in physicians, nurses, the hospital, and the Ministry of Health. For physicians, it is an increase of 1.11 at the scale between 1 (complete distrust) and 10 (complete trust). The same figure reads 0.70 for nurses, 0.87 for the hospital, and 0.25 for the Ministry of Health.

Table 9 reports the Markov transition probability matrices from the two-stage analysis that inquires whether and to what extent the patients' trust in the health system exhibits persistence in time. Overall, the Markov matrices indicate that trust relationships exhibit persistence in both Trust-Trust and Distrust-Distrust directions. More specifically, there exists remarkable persistence for the transition from past trust to present trust in physicians; the probability of this transition event is 0.849. On the other hand, the persistence is stronger from past distrust to present distrust when it comes to

trust in nurses, in the hospital, and in the Ministry of Health. The associated probabilities are respectively equal to 0.933, 0.935, and 0.881.

Table 9: Markov transition probability matrices

Physicians			N=164		Hospital			N=130	
			Present					Present	
			Trust	Distrust				Trust	Distrust
Past	Trust	0.849	0.151	Past	Trust	0.528	0.472		
	Distrust	0.414	0.586		Distrust	0.065	0.935		
Nurses			N=137		Ministry of Health			N=129	
			Present					Present	
			Trust	Distrust				Trust	Distrust
Past	Trust	0.645	0.355	Past	Trust	0.710	0.290		
	Distrust	0.067	0.933		Distrust	0.119	0.881		

VI. Summary and Conclusion

Technological progress, especially the advancements in communication technologies, increases the choice alternatives in every dimension of life. As these alternatives expand, individuals have to face a larger level of complexity, and this simply also increases the need for trust (Luhmann, 1979, p. 16). Under these circumstances, individuals question the validity of information given by health professionals and the reliability of the system's medical practices. The common strategy developed against these uncertainties and unknowns arising from asymmetric information among individuals within the health system is trust, and trust in physicians is the most important component of trust in the health system.

This study contributes to the literature by studying trust in the health system in the context of a developing country that has recently experienced a systemic transformation. Such a transformation has possibly led to increasing levels of uncertainty. Besides, Turkey's case is highly interesting as the country records low levels of general interpersonal trust and increased levels of satisfaction from healthcare services.

The main results of the paper are as follow: First, demographic and socioeconomic factors are not related with trust in the health system. Second, patients exhibiting higher levels of general interpersonal trust and higher levels of satisfaction from healthcare services have higher levels of trust in the health system. Third, impersonal and interpersonal trust in the health system are strongly and positively related. Finally, trust in the health system is highly persistent from past to present.

The irrelevance of demographic and socioeconomic factors is in line with the existing literature as patient characteristics are not related with trust in physicians in a strong,

consistent, and significant way (Hall et al., 2001, p. 627). The strong positive relationships between trust and satisfaction and between interpersonal and impersonal trust are two other expected results as discussed in Section II.B above. Finally, the persistence of trust from past to present is consistent both with theory (Luhmann, 1979) and with empirics (Caterinicchio, 1979).

One limitation of the paper is its geographical scope: Since the results reported here are obtained for the patients residing around Mersin region in the southern part of Turkey, they may not be applicable to other regions with different demographic and socioeconomic characteristics. The analysis of this paper should ideally be extended with (i) comparisons of rural vs. urban areas and of public vs. private hospitals, and with (ii) different ethnic groups and different organizations such as family medicine units. Trust studies in the field of health should also focus on other chronic illnesses and different health experiences. Besides, since patient experience matters, qualitative studies should complement these results by identifying idiosyncratic determinants of trust in the health system and exploring the role of emotions both as causes and as outcomes of trust building/erosion.

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