

# Current Health Service Experience as a Predictor of Patient Satisfaction: Evidence from Turkey

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**Abstract:** This study scrutinizes effects of current health service experience on patient satisfaction. The investigation included 337 participants, who were actively receiving health services from the largest public hospitals' clinics in Turkey. An examination of the experience's and satisfaction's statistical structures is made; therefore, exploratory factor and reliability analyses were applied. A structural equation modeling was used consecutively to determine the experience's effects on satisfaction integratively. Instrument combinations were used for both ends distinctively for a peripheral approach. The tripartite experience is fully effective on satisfaction, which encompasses five elements. The experience has the strongest connection with satisfaction via Hospital Context's Physical Aspects (HCPA) ( $R^2 = 0.88$ ) and Attitude Of Doctor (AOD) ( $R^2 = 0.70$ ). The weakest connection involves satisfaction from Attitudes Of Administrative Personnel (AOAP) ( $R^2 = 0.24$ ). Two experience factors, initial contact (IC) and Awareness (AW), pose the greatest positive effects on HCPA (IC-HCPA,  $\gamma: 1.97$ , S.E.: 0.0058,  $t: 338.79$ ; AW-HCPA,  $\gamma: 0.96$ , S.E.: 0.0054,  $t: 179.07$ ) and AOD (IC-AOD,  $\gamma: 2.15$ , S.E.: 0.0057,  $t: 378.32$ ; AW-AOD,  $\gamma: 1.08$ , S.E.: 0.0064,  $t: 167.92$ ). Most of the effects is positive at factor level generally, with two exceptions: the effect of IC on AOAP ( $\gamma: -0.32$ , S.E.: 0.0049,  $t: -65.73$ ) and that of AW on AOAP ( $\gamma: -0.26$ , S.E.: 0.0073,  $t: -35.88$ ). Current health service experience is fully and supportively effective on patient satisfaction broadly, but the nature of this effect varies in terms of intensity and direction at factor level.

**Keywords:** Patient Satisfaction, Health Service, Hospital, Turkey

## Introduction

The scope of the health sector is vast, but as the primary emphasis is on patients, the issue of their satisfaction is vital. Hospital members, as expected, are key players in building patient satisfaction through their interactions with patients during health services. The foremost members are doctors, because they are the first agents of encounter for a professional medical solution (Kee *et al.*, 2018).

With a normative approach for patient-doctor relationships (Gordon and Edwards, 1997), it is concluded that doctors should approach patients in a trust-building, warm, delicate and encouraging manner; try to use empathy while understanding patients; use a simple phraseology to express the situation and possible

outcomes; avoid being dominant during dialogues and provide clear treatment options to patients. Some components of this normative approach are further evidenced in the literature. Stewart *et al.* (1999) proved that a patient's mention of the doctor's manners and expressions is an actual determinant of patient satisfaction. Williams (1994) showed that patients are usually unaware of treatment options and quality and hence, their satisfaction assessments are not true. This situation necessitates doctors to provide possible cure options in plain language and inform patients consistently. According to (Roter *et al.*, 1997), doctors are very effective in encouraging patient satisfaction as long as they avoid using medical jargon heavily and show empathy.

In addition to doctors, patients also spend time with nurses. This fact places emphasis on nurses'

communication and empathy skills, behaviors and self-awareness toward patients as these could reduce patients' worries (Kangas *et al.*, 1999; Findik *et al.*, 2010). Patient satisfaction is also dependent upon nurses' care for their own duties; satisfaction rises when nurses pay strict attention to patient surveillance, show the utmost effort to help patients in their treatment processes, prepare patients for treatment processes regard fully and get patients ready and aware for their care after discharge (Vahey *et al.*, 2004).

The emphasis on doctors and nurses is a natural outcome; nevertheless, it should be remembered that there are other hospital staff who directly interact with patients when necessary. These include laboratory personnel, patient record and help desk clerks and food and cleaning services employees. Absolute outcomes are that their interactions with patients require empathy and good communication skills (Kırmızı, 2010), the speed of dealing with patient problems is essential (Boulding *et al.*, 2011) and they should be deeply committed to the teamwork of doctors and nurses to encourage patient satisfaction (Meterko *et al.*, 2004).

Moreover, the literature reports a general approach to consider hospital members together rather than uncoupling doctors, nurses and others. Accordingly, the main frame is built on trust and privacy. The patient's need for oriented or even customized care brings forth the issue of trust. To build and maintain trust, all active members should convince patients that they are deeply cared for (Entwistle and Quick, 2006), the hospital context is safe (Rhodes *et al.*, 2016) and enough and reasonable information is provided (Tang and Newcomb, 1998). Trust enriches both patient satisfaction and harmony in the treatment process (Isik and Tulunoglu, 2007). An amusing finding about privacy is that it is usually considered otherwise – in the form of privacy violations. Therefore, patient perceptions about their privacy violations are reported to end with conflicts, dissatisfaction and deviations from performing the requirements of the treatment process (Silvestro, 2005).

A final fact to consider is the hospital context in terms of operation conduct and physical features. Extensively detailed paperwork and bureaucratic operations taking too long could easily deteriorate patient satisfaction. These negative side-effects of bureaucracy result in time losses and therefore, satisfaction declines (Fitzpatrick, 1991). In dealing with time spent in hospitals, the literature has

discovered that this is divided into three parts: time losses due to waiting to start the health service (Worthington, 1987) or surgery (Weiss, 1990), losses that stem from the time frame between getting an appointment and the appointment's start time (Harper and Gamlin, 2003) and time spent to prepare and process necessary incoming and outgoing patient records (O'Leary *et al.*, 2006; Khanna *et al.*, 2016).

Physical features refer to the hospital's accessibility, hygiene, convenience and adequacy of equipment. There is enough proof that the overall physical factors (Butler *et al.*, 1996) and distinctive factors, such as accessibility (availability of a specific health service) (Turner and Pol, 1995; Ho *et al.*, 1998) and convenience (the existence of appropriate therapeutic measures) (Tucker, 2002), have an effect on patient satisfaction.

Considering all these, this study has the purpose of finding out how patient satisfaction is affected by patients' experience with their current health service.

## Materials and Methods

It is expected that an effect will be unearthed, much like the findings in the literature; therefore, the following closed-form research model is proposed in Fig. 1. The model is yet to be expanded with details after the statistical structures are scrutinized.

The largest general public hospitals in Turkey were considered for many reasons. Hospitals are the dominant health institutions in Turkey (Okursoy, 2010) and this reality necessitates a selection among different hospital types. The selection was made among general hospitals, as the interest is on pinpointing overall patient satisfaction instead of satisfaction with special hospitals or specific treatments. The last step was to choose between public or private hospitals. It was assumed that public hospitals would provide a clearer picture of patient satisfaction and experience, owing to their full potentiality in patient care without a close consideration of the costs and revenues. The application of these reasons resulted in five hospitals; therefore, patients who were actively receiving health services from these hospitals' clinics were within the scope. The accessible hospital records indicated a total of 29,661 patients and the sample size was calculated to be 380 with a 5% margin of error and 95% confidence level (Raosoft, 2004). However, there were only 337 patients who agreed to participate in the research.



Fig. 1: Closed-form research model

Data were collected via questionnaires, which comprised two parts. The first part dealt with the current health service experience, whereas the second part scrutinized patient satisfaction. To arrive at a general scope regarding patient satisfaction, many items and instruments were combined. These mostly included Turkish context-specific ones developed by (Akbas, 2014; Tüfekçi and Asıgbulmuş 2016; Atilla, 2012; Ipek, 2010; Karaalp, 2014; Kuzhan, 2009) along with the EUROPEP (Grol and Wensing, 2000) scale. Health service experience does not have any specific instrument; therefore, the related research (Worthington, 1987; Fitzpatrick, 1991; Turner and Pol, 1995; Butler *et al.*, 1996; Roter *et al.*, 1997; Ho *et al.*, 1998; Tang and Newcomb, 1998; Kangas *et al.*, 1999; Tucker, 2002; Harper and Gamlin, 2003; Meterko *et al.*, 2004; Vahey *et al.*, 2004; Silvestro, 2005; Entwistle and Quick, 2006; Isik and Tulunoglu, 2007; Findik *et al.*, 2010; Kırmızı, 2010; Boulding *et al.*, 2011; Rhodes *et al.*, 2016) was scanned to extract necessary criteria.

## Results

### Statistical Structure of Patient Satisfaction

The use of multiple instruments necessitated a test of their combinations to figure out how patient satisfaction is shaped; therefore, an exploratory factor analysis was performed using a principal components analysis, varimax rotation and suppression of factor loads less than |0.5|. The results in Table 1 indicate a five-factor patient satisfaction structure with an overall 65.9% of variance explained. Table 1 also shows that all factors, as well as all items, have good reliability levels.

The results in Table 1 show that patient satisfaction abides by the majority of the literature; it is composed of the hospital's physical and psycho-social aspects, as well as the attitudes of hospital members, including doctors, nurses, other health personnel and administrative personnel.

### Statistical Structure of Current Health Service Experience

The current health service experience includes nine items that were extracted after investigating the related studies; therefore, an exploratory factor analysis was conducted, using the same settings as those used for patient satisfaction. The related results, along with the reliability analyses outcomes, are displayed in Table 2. The total variance explained is 69.016%.

According to Table 2, patients stated that their current experience has three factors: speed and convenience of the initial contact with the hospital, nurses and doctors; overall speed of the health service and their consciousness regarding their choices and confidence in their treatment.

### Effects on Patient Satisfaction

The ultimate aim mentioned is to find out whether and how patient satisfaction is affected by the patient's current health service experience. Due to the nature of the data, structural equation modeling was performed. Fig. 2 exhibits the research model in an open form – with the emerged statistical structures taken into consideration. For a cursory glance, Fig. 2 also includes the t-values, indicating that all relationships are statistically significant at 5%.

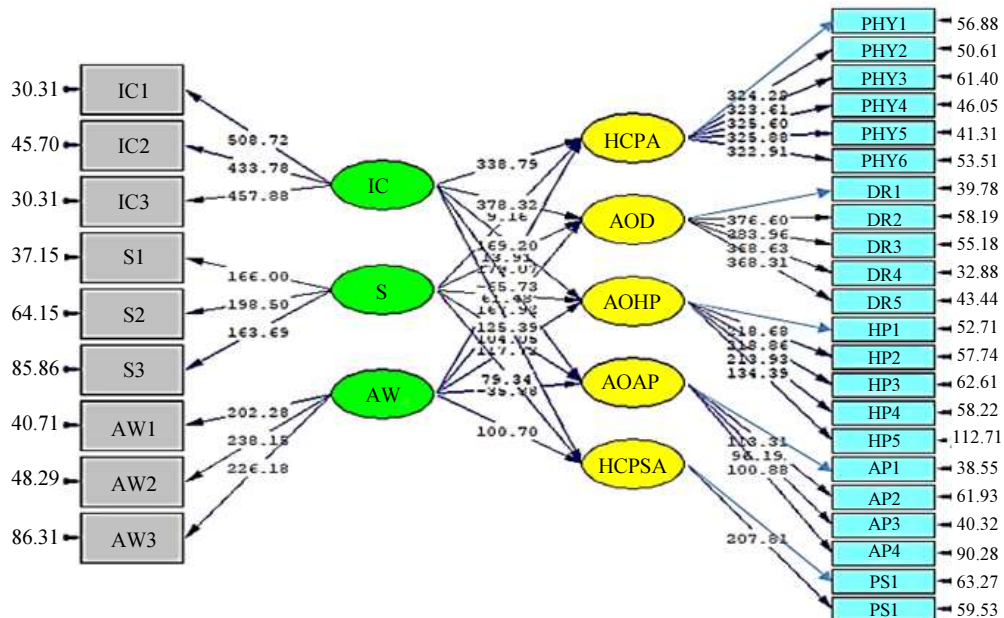


Fig. 2: Detailed research model with t-values (See Tables 1 and 2 for abbreviations)

**Table 1:** Results of exploratory factor and reliability analyses of patient satisfaction

**KMO Value: 0.897 (Bartlett's test value is statistically significant)**

	Hospital Context: Physical Aspects (HCPA)	Attitude of Doctor (AOD)	Attitude of Health Personnel (AOHP)	Attitude of Administrative Personnel (AOAP)	Hospital Context: Psycho-Social Aspects (HCPSA)
<b>Variance Explained (%)</b>	19.021	16.857	12.348	10.734	6.940
<b>Cronbach's Alpha Value</b>	0.906	0.917	0.765	0.734	0.639
<b>Overall Cronbach's Alpha Value</b>			0.878		
Service departments and polyclinics of the hospital were clean. (PHY4)	0.850				
It was easy to access departments in the hospital building. (PHY2)	0.798				
Toilets in the hospital were clean. (PHY5)	0.769				
Guidance plates in the hospital were readable and understandable. (PHY1)	0.719				
Car parking facilities were adequate. (PHY3)	0.698				
There was enough heating and lighting in the departments I was in. (PHY6)	0.697				
My doctor spared enough time and informed me well. (DR3)		0.866			
My doctor gave me the chance to ask many questions regarding my disorder. (DR4)		0.835			
My doctor called me for an initial medical examination on time. (DR1)		0.829			
My doctor gave me recommendations about what to do after treatment. (DR2)		0.690			
My doctor used a very understandable style of speaking. (DR5)		0.669			
Health technicians were courteous and caring enough. (HP4)			0.773		
Health clerks were courteous and caring enough. (HP3)			0.763		
Nurses and other health staff were affirmative in terms of their personal care, clothing and approach. (HP1)			0.680		
Nurses were courteous and caring enough. (HP2)			0.651		
I could clearly understand nurses' and other health staffs' speech. (HP5)			0.589		
Administrative personnel were sensitive and caring toward my problems in general. (AP1)				0.809	
Security guards were caring and guided me well. (AP4)				0.796	
Information clerks were caring and guided me well. (AP3)				0.750	
Administrative personnel were in harmony. (AP2)				0.586	
Privacy was considered while I was being examined. (PS1)					0.793
I felt safe in this hospital. (PS2)					0.765

**Table 2:** Results of exploratory factor and reliability analyses of current health service experience

**KMO Value: 0.699 (Bartlett's test value is statistically significant).**

	Initial Contact (IC)	Speed (S)	Awareness (AW)
<b>Variance Explained (%)</b>	24.611	22.776	21.629
<b>Cronbach's Alpha Value</b>	0.825	0.762	0.711
<b>Overall Cronbach's Alpha Value</b>		0.708	
My initial contact with the hospital was quick and easy. (IC1)	0.909		
I could easily contact nurses in the beginning. (IC2)	0.820		
I could easily contact the doctor in the beginning. (IC3)	0.785		
The time frame between the appointment and the initial medical examination was short. (S2)		0.870	
I did not wait long during my treatment process. (S1)		0.866	
Paperwork was quickly finished. (S3)		0.730	
I deliberately chose this hospital. (AW1)			0.821
I deliberately chose this (these) clinic(s). (AW3)			0.767
I am confident that I am being taken care of well. (AW2)			0.751

**Table 3:** Fit indices of the research model

Fit index	Value	Proposed Limits	Result
Root Mean Square Error of Approximation (RMSEA)	0.081	Good fit: RMSEA<0.05 Acceptable fit: 0.05≤RMSEA≤0.1	Acceptable fit
Goodness of Fit Index (GFI)	0.96	Good fit: 0.95≤GFI≤1.00 Acceptable fit: 0.9<GFI<0.95	Good fit
Adjusted Goodness of Fit Index (AGFI)	0.96	Good fit: 0.95≤AGFI≤1.00 Acceptable fit: 0.9<AGFI<0.95	Good fit
Comparative Fit Index (CFI)	1.00	0.90≤CFI	Good fit
Standardized Root Mean Square Residual (SRMR)	0.071	SRMR<0.05	Unacceptable fit

**Table 4:** Measurement equations for the dependent variables

Hospital Context: Physical Aspects (HCPA)			
PHY1 = 1.00*HCPA, Errorvar. = 4.69, R <sup>2</sup> = 0.54 (0.082) 56.88		PHY4 = 1.16*HCPA, Errorvar. = 3.76, R <sup>2</sup> = 0.66 (0.0036) 325.60	(0.082) 46.05
PHY2 = 1.03*HCPA, Errorvar. = 4.09, R <sup>2</sup> = 0.59 (0.0032) 324.28	(0.081) 50.61	PHY5 = 1.24*HCPA, Errorvar. = 3.41, R <sup>2</sup> = 0.71 (0.0038) 325.88	(0.082) 41.31
PHY3 = 1.06*HCPA, Errorvar. = 4.97, R <sup>2</sup> = 0.55 (0.0033) 323.61	(0.081) 61.40	PHY6 = 1.14*HCPA, Errorvar. = 4.37, R <sup>2</sup> = 0.62 (0.0035) 322.91	(0.082) 53.51
Attitude of Doctor (AOD)			
DR1 = 1.00*AOD, Errorvar. = 3.38, R <sup>2</sup> = 0.71 (0.085) 39.78		DR4 = 1.06*AOD, Errorvar. = 2.76, R <sup>2</sup> = 0.77 (0.0029) 368.63	(0.084) 32.88
DR2 = 0.96*AOD, Errorvar. = 4.80, R <sup>2</sup> = 0.61 (0.0025) 376.60	(0.083) 58.19	DR5 = 1.00*AOD, Errorvar. = 3.58, R <sup>2</sup> = 0.70 (0.0027) 368.31	(0.083) 43.44
DR3 = 1.00*AOD, Errorvar. = 4.58, R <sup>2</sup> = 0.64 (0.0026) 383.96	(0.083) 55.18		
Attitude of Health Personnel (AOHP)			
HP1 = 1.00*AOHP, Errorvar. = 4.56, R <sup>2</sup> = 0.53 (0.087) 52.71		HP4 = 0.87*AOHP, Errorvar. = 4.79, R <sup>2</sup> = 0.45 (0.0041) 213.93	(0.082) 58.22
HP2 = 0.96*AOHP, Errorvar. = 4.89, R <sup>2</sup> = 0.50 (0.0044) 218.68	(0.085) 57.74	HP5 = 0.40*AOHP, Errorvar. = 8.79, R <sup>2</sup> = 0.38 (0.0030) 134.39	(0.078) 112.71
HP3 = 0.95*AOHP, Errorvar. = 5.26, R <sup>2</sup> = 0.47 (0.0044) 218.86	(0.084) 62.61		
Attitude of Administrative Personnel (AOAP)			
AP1 = 1.00*AOAP, Errorvar. = 3.96, R <sup>2</sup> = 0.56 (0.10) 38.55		AP3 = 0.98*AOAP, Errorvar. = 3.99, R <sup>2</sup> = 0.55 (0.010) 96.19	(0.099) 40.32
AP2 = 0.83*AOAP, Errorvar. = 5.47, R <sup>2</sup> = 0.39 (0.0073) 113.31	(0.088) 61.93	AP4 = 0.64*AOAP, Errorvar. = 7.48, R <sup>2</sup> = 0.22 (0.0063) 100.88	(0.083) 90.28
Hospital Context: Psycho-Social Aspects (HCPSA)			
PS1 = 1.00*HCPSA, Errorvar. = 6.11, R <sup>2</sup> = 0.44 (0.097) 63.27		PS2 = 1.11*HCPSA, Errorvar. = 5.96, R <sup>2</sup> = 0.50 (0.0054) 207.81	(0.10) 59.53

(See Tables 1 and 2 for abbreviations)

Table 3 presents the model's fit indices and the overall model appears to be realistic once its fit indices are compared to the limits proposed in the literature (Diamantopoulos and Siguaw, 2000; Schermelleh-Engel *et al.*, 2003).

An in-depth investigation is the next step and thus, measurement equations are checked. The first investigation, denoted in Table 4, belongs to the dependent variables that form the patient satisfaction.

Table 4 reveals noteworthy findings. An overall look shows that the statistical structures emerged are preserved.

It is also striking that many items have moderate or strong relationships with their respective factors and that each item contributes to its factor positively.

There are, however, some distinctions. To start with, the most powerful connections overall are between attitude of doctor and its items, followed by those between physical aspects of hospital context and its related items. On the other hand, the weakest harmony in general could be observed when relationships between attitude of administrative personnel and the related items are in question. A detailed check on the aforesaid contributions points out a resembling outcome to the case with connection strengths-the biggest contributions are made by the items of attitude of doctor and physical and psycho-social aspects of hospital context to their respective factors.

The following Table 5, presents those measurement equations for the independent variables this time. These variables belong to the components of current health service experience.

Table 5 implies a similarity to the situation of the dependent variables given in Table 4. There are moderate and strong relationships, positive contributions and the conservation of the original structure. A distinct feature of the independent variables is that each item is able to encourage its respective factor much powerfully in comparison to the dependent variables.

The statistical validity of the model along with appropriate measurement equations necessitated the investigation of the research hypothesis; therefore, structural equations between patient satisfaction and the current health service experience are reported in Table 6.

The results presented in Table 6 give rise to the conclusion that patient satisfaction is affected by the patient's current health service experience. The table,

moreover, reveals noteworthy outcomes. The foremost outcome is that the patients' experience had the strongest connection to their satisfaction with physical aspects of the hospital (HCPA) ( $R^2$ : 0.88), followed by their satisfaction with doctors' attitudes (AOD) ( $R^2$ : 0.70). With a sharp decline in the coefficient of determination, the experience and satisfaction with Hospital Context's Psycho-Social Aspects (HCPSA) relationship was third ( $R^2$ : 0.40) and the experience and satisfaction with health personnel attitude (AOHP) relationship was fourth ( $R^2$ : 0.32). The loosest connection was between the experience and satisfaction with the Attitudes Of Administrative Personnel (AOAP) ( $R^2$ : 0.24). Therefore, patients considered that their satisfaction was not monolithic in terms of the effect posed by their experience. While satisfaction with the physical hospital context and attitude of doctors were posited to be very closely related to health service experience, the strength of relationship declined profoundly once other satisfaction factors were accounted for. Administrative personnel attitudes, moreover, were not much perceived as a part of the health service experience in comparison to others in order to affect the satisfaction.

All the satisfaction factors were contributed positively by all the experience factors, except for one: satisfaction with the attitudes of administrative personnel.

It is a catch that the initial contact and awareness factors of the experience deteriorated satisfaction with administrative personnel attitudes ( $\gamma$ : -0.32, S.E.: 0.0049,  $t$ : -65.73 and  $\gamma$ : -0.26, S.E.: 0.0073,  $t$ : -35.88 respectively), whereas patients' experienced speed of such personnel was a positive contributor ( $\gamma$ : 1.02, S.E.: 0.0098,  $t$ : 104.05). One implication is the possibility of administrative personnel's unfavorable behavior during the first contact with hospitals, nurses and doctors.

**Table 5:** Measurement equations for the independent variables

Initial Contact (IC)			
IC1 = 3.03*IC, Errorvar.= 2.59, R <sup>2</sup> = 0.78		IC3 = 2.99*IC, Errorvar.= 2.61, R <sup>2</sup> = 0.77	
(0.0060)	(0.085)	(0.0065)	(0.086)
508.72	30.31	457.88	30.31
IC2 = 2.77*IC, Errorvar.= 3.88, R <sup>2</sup> = 0.66			
(0.0064)	(0.085)		
433.78	45.70		
Speed (S)			
S1 = 2.74*S, Errorvar.= 4.46, R <sup>2</sup> = 0.63		S3 = 2.14*S, Errorvar.= 7.23, R <sup>2</sup> = 0.39	
(0.016)	(0.12)	(0.013)	(0.084)
166.00	37.15	163.69	85.86
S2 = 2.48*S, Errorvar.= 5.31, R <sup>2</sup> = 0.54			
(0.012)	(0.083)		
198.50	64.15		
Awareness (AW)			
AW1 = 2.18*AW, Errorvar.= 3.82, R <sup>2</sup> = 0.55		AW3 = 2.23*AW, Errorvar.= 7.17, R <sup>2</sup> = 0.41	
(0.011)	(0.094)	(0.0098)	(0.083)
202.28	40.71	226.18	86.31
AW2 = 2.36*AW, Errorvar.= 4.04, R <sup>2</sup> = 0.58			
(0.0099)	(0.084)		
238.15	48.29		

(See Tables 1 and 2 for abbreviations)

**Table 6:** Structural equations of the research model

HCPA = 1.97*IC + 0.042*S + 0.96*AW, Errorvar. = 0.68, R <sup>2</sup> = 0.88			
(0.0058) (0.0046) (0.0054) (0.019)			
338.79 9.16 179.07 36.46			
AOD = 2.15*IC + 0.079*S + 1.08*AW, Errorvar. = 2.49, R <sup>2</sup> = 0.70			
(0.0057) (0.0057) (0.0064) (0.026)			
378.32 13.91 167.92 96.95			
AOHP = 0.86*IC + 0.40*S + 0.89*AW, Errorvar. = 3.54, R <sup>2</sup> = 0.32			
(0.0051) (0.0065) (0.0076) (0.033)			
169.20 61.48 117.72 108.60			
AOAP = - 0.32*IC + 1.02*S - 0.26*AW, Errorvar. = 3.83, R <sup>2</sup> = 0.24			
(0.0049) (0.0098) (0.0073) (0.057)			
-65.73 104.05 -35.88 67.14			
HCPSA = 0.74*IC + 0.68*S + 0.95*AW, Errorvar. = 2.91, R <sup>2</sup> = 0.40			
(0.0059) (0.0086) (0.0094) (0.056)			
125.39 79.34 100.70 51.58			

(See Tables 1 and 2 for abbreviations)

Another implication could be the perception of patients that they were misled or not helped enough by the administrative staff during hospital and clinic choices throughout the hospital environment.

An examination of the coefficient values enabled a comparison among each experience factor in terms of contributing to patient satisfaction. The speed, ease and convenience of the initial contact with hospitals, nurses and doctors had the strongest positive effects on satisfaction with the physical hospital context ( $\gamma$ : 1.97, S.E.: 0.0058,  $t$ : 338.79) and attitudes of doctors ( $\gamma$ : 2.15, S.E.: 0.0057,  $t$ : 378.32). This outcome suggested that the patients were contented about their doctors and hygiene, accessibility and guidance of the hospital upon their first interaction with the hospital environment.

Awareness factor of the experience acted similarly and enforced satisfaction with physical hospital context profoundly ( $\gamma$ : 0.96, S.E.: 0.0054,  $t$ : 179.07) and it further boosted satisfaction with attitudes of doctors ( $\gamma$ : 1.08, S.E.: 0.0064,  $t$ : 167.92). Due to the nature of awareness, it involved deliberate hospital and clinic choices and confidence in treatment. It seemed that this specific nature paid off.

Despite these noteworthy contributions to the mentioned satisfaction factors, the speed component of experience failed to do so. Its weak encouraging effects on satisfaction with physical hospital context ( $\gamma$ : 0.042, S.E.: 0.0046,  $t$ : 9.16) and attitudes of doctors ( $\gamma$ : 0.079, S.E.: 0.0057,  $t$ : 13.91) implied that the patients did not assign a high priority to the speed of paperwork, treatment and time frame length between appointment and medical examination once their contentment regarding hospitals' physical features and attitudes of doctors were asked.

A look on the rest of the satisfaction factors, namely satisfaction with attitudes of health personnel and

psycho-social hospital context, revealed that they were positively and nearly equally affected by the experience's initial contact ( $\gamma$ : 0.86, S.E.: 0.0051,  $t$ : 169.20 and  $\gamma$ : 0.74, S.E.: 0.0059,  $t$ : 125.39 respectively) and awareness ( $\gamma$ : 0.89, S.E.: 0.0076,  $t$ : 117.72 and  $\gamma$ : 0.95, S.E.: 0.0094,  $t$ : 100.70 respectively) factors. The other experience factor, speed, was a weaker determinant of satisfaction with attitudes of health personnel ( $\gamma$ : 0.40, S.E.: 0.0065,  $t$ : 61.48) and hospitals' psycho-social context ( $\gamma$ : 0.68, S.E.: 0.0086,  $t$ : 79.34). A combination of the previous finding about speed and this current one urged the idea that the patients did not consider the speed to be as influential as the other factors of experience in general when their satisfaction was under the spotlights.

## Conclusion and Recommendations

This study investigated two issues in some of the largest public hospitals in Turkey: how patient satisfaction is shaped and how this satisfaction is affected by the patients' current experience. The results show that patient satisfaction is composed of physical and psycho-social aspects of the hospital context, in addition to the attitudes of doctors, nurses, other health staff and administrative personnel toward patients. The other end, the health service experience, depends on the conditions of the initial contact with hospitals, doctors and nurses; speed of paperwork, treatment process and time between appointment and initial medical examination and patient awareness about the hospital and clinic choices and confidence for an effective treatment.

Patients perceive the physical features of the hospitals and the doctors' attitudes as the foremost satisfaction elements under the influence of their experience. Though other satisfaction elements are also affected by the experience, the intensities of the connections are in poorer condition in comparison. The analysis, moreover, highlights that the experience affects patient satisfaction positively, with only two negative exceptions related to satisfaction with administrative personnel. These exceptions suggest that the administrative personnel could have refrained from providing the expected help, guidance and behaviors to patients.

Patients also report that their first contact with the hospital environment, as well as their sentience and confidence, encourage their satisfaction with their doctors and physical features of hospitals. Nevertheless, they propose that the speed of operations and paperwork in hospital domain is a lesser influential factor over these two satisfaction dimensions.

For the two other satisfaction dimensions, satisfaction with attitudes of health personnel and hospitals' psycho-social context, a very similar picture is present: all the three experience factors boost these dimensions, but the speed is a straggler.

The ultimate conclusion is that the patients' current health service experience is entirely effective on their satisfaction, but the nature of this effect shows variations at factor level. While all the three experience factors are influencers, speed is only able to pose a weaker effect on the satisfaction overall. The experience's adjuvant effects on the satisfaction are exempted once satisfaction with attitudes of administrative personnel is in question. Attitudes of doctors and physical hospital facilities are the two satisfaction elements that are exposed to the effects of health service experience the most.

All these facts urge some recommendations. This study has an overall look on the mentioned relationship, but it is believed that further useful insights could be reached once a more focused approach is taken. Future studies, for instance, could investigate the relationship using data from specific clinics, types of hospitals, or hospitals from specific regions or even countries. This approach is expected to provide an opportunity to account for any contextual differences in the nature of the relationship and it also enables comparisons. The focused approach could also be longitudinal; and therefore, temporal changes of the relationship could be monitored within many contexts. Another recommendation would be the involvement of other related issues for a greater multifaceted approach. Possible candidates such as cost of treatment, food quality and treatment individualization could be of value to distinguish possible aspects that are not seen as relevant by patients regarding the relationship.

Besides these recommendations for future research, another set of recommendations belongs to practicability. Due to being one of the most powerful determinants, hospitals under question and in general should pay close attention to their doctors' behaviors towards their patients besides checking their professional competencies. While a more patient-friendly physical environment is recommended, non-health care hospital workers should attend to professional communication courses.

### Authors' Contributions

**Evren AYRANCI:** Organized the study, contributed to the literature review and data collection process, designed the theoretical frame and the research model, performed the analyzes, commented on the results, made the recommendations.

**Nazmiye ATALAY:** Performed the literature review and data collection process, contributed to the writing of the paper.

### Ethics

Ethical issues (plagiarism, informed consent, misconduct, data fabrication and/or falsification, double publication and/or submission, redundancy, etc.) have been completely observed by the authors.

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