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The Relationship Between Environmental Turbulence and Organizational Improvisation in Hospitals: The Moderator Role of Organizational Culture

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Abstract

Aim: In today's business environment, dynamism, uncertainty, and environmental turbulence are quite high. Organizational improvisation is seen as an effective mechanism for organizations operating in these environments to respond to demands from the environment. This study aims to examine the relationship between environmental turbulence and organizational improvisation, and also the moderator role of organizational culture (adhocracy, clan, hierarchy, and market culture).

Methods: The study used a descriptive cross-sectional design. The data were collected from 487 lower, middle, and upper-level managers working in private hospitals in Istanbul. The disproportionate stratification method was used since hospitals are not homogeneous regarding technological and financial structure, size, and human resource quality. The data was analyzed using Statistical Package for the Social Sciences 23 program through PROCESS macro.

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Results: The results show a positive relationship between environmental turbulence and organizational improvisation. Also, adhocracy, clan, and market cultures moderate the environmental turbulence and organizational improvisation relationship. As these three organizational cultures increase, the effect of environmental turbulence on organizational improvisation weakens.

Conclusion: This study indicates that environmental turbulence is an effective factor in hospitals' organizational improvisation capability. Furthermore, the moderation analysis suggests that organizational culture may be an important mechanism underlying environmental turbulence and organizational improvisation relationship.

Keywords: Environmental turbulence, organizational improvisation, organizational culture, hospital management, organizational theory

INTRODUCTION

From a modern perspective, the environment can be defined as the sum of factors outside the organization's boundaries that impact the organization (Song et al., 2021; Hatch and Cunliffe, 2013). With the influence of systems and contingency theory, the relationships between the organization, technology, and environment have started to be analysed in detail (Gemici, 2019). The environment has two main importance for organizations. The first one is that it has the inputs needed by the organization, and the second one is that it is a source of uncertainty for organizations (Ülgen and Mirze, 2018). Uncertainty in the environment has been analysed by different authors such as Burns and Stalker, Lawrence Lorsch, James Thompson, Robert Duncan, and Emery and Trist. Emery and Trist stated that universal principles and decision methods cannot be applied to all organizations and that it is necessary first to understand the environments in which organizations interact and determine their characteristics (Koçel, 2018).

Emery and Trist defined four different types of environments in this context and revealed their characteristics. These are placid randomized environment, placid clustered environment, disturbed reactive environment, and turbulent environment (Emery and Trist, 1965). The four types of environment are ranked in order of increasing complexity, and the turbulent environment is considered the most complex environment for organizations (White et al., 1984). Emery and Trist defined the turbulent environment as a rapidly changing, complex, dynamic environment with dynamic processes and no predictability (Ülgen and Mirze, 2018; Emery and Trist, 1965).

Environmental turbulence can be defined as the magnitude, speed, and unpredictability of changes in an organization's environment. As environmental turbulence increases, the environmental factors become more uncertain and unpredictable (Rego et al., 2022; Hina et al., 2021; Song et al., 2021). Today's business environment is highly dynamic and uncertain. Contingency theory states that an organization is an open subsystem within a social system and is affected by the environment. Therefore, organizations must adapt all aspects of their operations to the requirements of the external environment to ensure survival and sustainability (Song et al., 2021; Hatch and Cunliffe, 2013). Hence, in high environmental turbulence settings, organizations do not have the luxury of waiting for the appropriate and necessary information or resources to overcome a particular challenge (Akgün et al., 2007). In such environments, organizations can ignore environmental demands to change plans, try to accelerate planning and execution cycles, or take an improvised approach that merges planning and execution processes (Moorman and Miner, 1998). Improvisation is considered necessary when plans and procedures fail due to environmental turbulence. "The greatest danger in times of turbulence is not the turbulence-it is to act with yesterday's logic. -Peter Drucker" (Subudhi and Mishra, 2022). Although there is no denying the importance of planning, when faced with unexpected situations, strictly following plans and procedures, in Drucker's words, acting with yesterday's logic, can lead to paralysis of an organization's activities. Therefore, in such situations, it is important for organizations to improvise with available resources to tackle complex challenges (Wilden and Gudergan, 2015; Akgün et al., 2007).

Improvisation is the degree of closeness between the planning and execution of an activity. In this context, the shorter the time between the planning and execution of an activity, the more improvisational the activity is (Moorman and Miner, 1998). Organizational improvisation can be defined as a creative action by the organization and its members to produce the desired result within a limited time by making use of all available resources (Levallet and Chan, 2013; Crossan et al., 2005; Cunha et al., 1999; Moorman and Miner, 1998). It is an almost real-time response to an unexpected trigger. The main reason for improvisation is the lack of time for planning, but it is certainly not an irrational act or inaction. Improvisation requires action. In some situations, organizations may decide not to respond. This does not mean improvisation (Kung and Kung, 2019). Individuals or organizations do not have a plan or time to plan for their situation; they constantly think about the best opportunity (Cunha et al., 1999). In this way, by improvising,

organizations can quickly change their behavior according to changing conditions (Kung and Kung, 2019). Otherwise, as Jack Welch puts it, "When the rate of change inside an institution becomes slower than the rate of change outside, the end is near" (AlNuaimi et al., 2022). Therefore, improvisation against unexpected and unplanned situations emerges as an important capacity of organizations (Limon and Dilekçi, 2020). The study hypothesis formed in this context is as follows;

Hypothesis 1 (H_1): Environmental turbulence has a positive effect on organizational improvisation capability.

Another potential variable that may impact organizational improvisation is organizational culture. Deshpande and Webster (1989) defined organizational culture as shared values and beliefs that help individuals understand the organizational process. Hofstede et al. (2010) defined organizational culture as the shared programming of the mind that distinguishes members of an organization from others. Organizational culture is also defined as a model of basic assumptions that a group discovers or develops while coping with the problems of external adaptation and internal integration (Schein, 1990). Although there is not a clear consensus in the literature on the definition of organizational culture, there is a consensus that organizational culture affects the behavior of employees (Hofstede et al., 2010; Schein, 1990). Each organizational culture has characteristics such as result orientation, risk-taking, innovation, sustainability, and aggressiveness. Therefore, different organizational cultures are likely to affect employees' behaviours and, thus, organizational behavior differently. This study is based on the competitive values model (CVF) developed by Cameron and Quinn (2006). As seen in Figure 1, Cameron and Quinn presented four organizational cultures (adhocracy, clan, market, hierarchy) on two axes, vertical and horizontal. One end of the vertical axis emphasizes more organic processes with flexibility, autonomy, and dynamism, while the other emphasizes more mechanical processes with order, control, and stability. The horizontal axis emphasizes external focus, interaction, and adaptation to the environment, differentiation and competition at one end, and internal focus, integration, and coordination at the other. While external focus refers to the reaction to changes in the environment and a competitive environment, internal focus refers to the harmony in the organization's internal characteristics (Strese et al., 2016; Cameron and Quinn, 2006). Within the scope of this model, organizational culture types will be explained, and the impact of the

interaction of organizational culture types with environmental turbulence on organizational improvisation will be discussed.

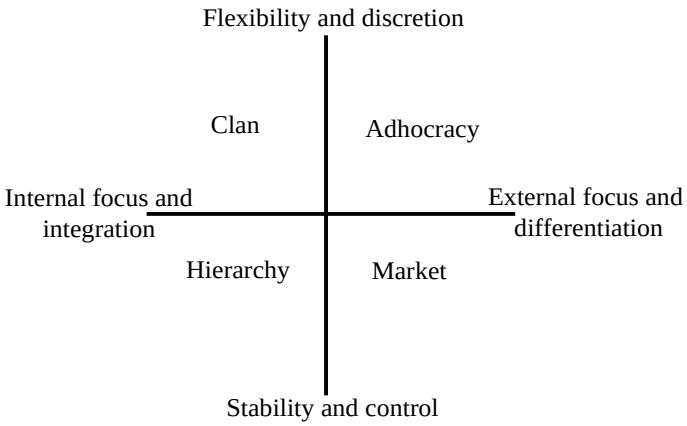

Figure 1: The Competing Values Framework, Adapted from Cameron and Quinn (2006)

Adhocracy is considered the ideal type of organization that emerged with the world's transition from the industrial to the information age. Adhocracy is also a type of organization that can respond rapidly to highly turbulent and ever-accelerating conditions that are highly symbolic of the world of the twenty-first century. The main objective of adhocracy is to encourage adaptability, flexibility, and creativity in situations of uncertainty and high turbulence in the environment. In organizations with an adhocracy culture, external orientation and flexibility are at the forefront. Employees are innovative, and dynamism is emphasized by encouraging employees to take risks. However, this does not mean unnecessary and uninformed risk-taking, ignoring customer needs, covering up mistakes, and lack of coordination. As the adhocracy culture increases, employee involvement in processes and a certain level of tolerance for mistakes increases (Lee and Kim, 2017; Cameron and Quinn, 2006). Such cultures that tolerate mistakes encourage action and view failure as a learning opportunity are said to contribute to organizational improvisation (Du et al., 2019; Cunha and Cunha, 2003; Cunha et al., 1999; Crossan, 1998). The following study hypothesis was developed to examine the moderating role of adhocracy culture in the impact of environmental turbulence on organizational improvisation capability in today's highly turbulent business environment:

Hypothesis 2a (H_{2a}): The effect of environmental turbulence on organizational improvisation is moderated by adhocracy culture, such that this effect is stronger when adhocracy culture is high.

Clan culture is a type of organizational culture with flexibility and internal focus. In organizations with a clan culture, commitment, high cohesion, cooperation, teamwork, consensus, participation in processes, shared values, and collectivism are very important (Kim and Kim, 2015). This provides high flexibility for quickly exchanging creative ideas among organization members (Ogbeibu et al., 2021). In addition, leaders in this organizational culture have mentor and facilitator characteristics. These leaders create an atmosphere where members can take risks and discover new things (Strese et al., 2016). One of the basic assumptions in clan culture is that the environment can be best managed through teamwork by empowering employees. Increasing clan culture means more employee empowerment, involvement in processes, teamwork, communication, and trust in employees. In fast-changing, highly turbulent environments where it is difficult for managers to plan far in advance, one effective way to coordinate organizational activity is to ensure that all employees share the same values, beliefs, and goals. Clan culture provides organizations with this (Cameron and Quinn, 2006). As in jazz music and theatre, improvisation in organizations often takes place in and between groups. Although improvisation is inherently unpredictable, it is a collective action between people and requires collaboration (Vera and Crossan, 2004; Kamoche et al., 2003). Hence, it can be stated that the effect of environmental turbulence on organizational improvisation depends on clan culture. In this context, the following study hypothesis was developed:

Hypothesis 2b (H_{2b}): The effect of environmental turbulence on organizational improvisation is moderated by clan culture, such that this effect is stronger when clan culture is high.

Market culture focuses on alignment with the external environment, where external factors such as suppliers and customers are the primary concern rather than internal issues. Unlike a hierarchical culture where specialized jobs and centralized decisions drive internal control, the market culture operates through competitive dynamics. The dominant core value in this culture is competitiveness. Organizations with a market culture focus on external positioning with an emphasis on competition and quick decision-making. For this reason, they encourage employees to be proactive and competitive and to be aggressively oriented to outperform competitors (Lee

and Kim, 2017; Kim and Kim, 2015; Cameron and Quinn, 2006). Organizations with a market culture consider customer demands, aggressive competition, and rapid response to environmental conditions to improve the organization (Hejazi, 2016). Although market culture reflects a results-oriented organization, strong leadership can motivate employees to make new creative efforts. Ogbeibu et al. (2021) found that market culture increases creativity. The faster the competitive environment among organizations, the faster organizations must respond to changes in the environment (D'Aveni, 1995). This implies that the faster the pace of the environment surrounding the organization, the more likely it is to engage in improvisational activities. Therefore, we believe that a market culture with high competitive dynamics, fast decision-making, and a high emphasis on the external environment will play a role in the impact of environmental turbulence on organizational improvisation. The study hypothesis formed in this context is as follows:

Hypothesis 2c (H_{2c}): The effect of environmental turbulence on organizational improvisation is moderated by market culture, such that this effect is stronger when market culture is high.

Hierarchy culture emphasizes formal rules and procedures for control, stability, and predictability. These rules and procedures determine what employees do and hold the organization together (Cameron and Quinn, 2006). Organizations with a hierarchy culture have a formal and structured work environment. Therefore, it can be stated that there are mechanical processes for stability and control in this culture type. In this culture, instead of adapting to changes in the environment, the aim is to maintain order and the organization's current state by sticking to rules, plans, and procedures (Lee and Kim, 2017; Strese et al., 2016). However, when changes in the environment are significant, strictly following plans and procedures may bring organizational activities to a halt (Wilden and Gudergan, 2015; Akgün et al., 2007). In this context, the following study hypothesis was developed:

Hypothesis 2d (H_{2d}): The effect of environmental turbulence on organizational improvisation is moderated by hierarchy culture, such that this effect is weaker when hierarchy culture is high.

Few studies have addressed the relationship between environmental turbulence and organizational improvisation, and there are differences in the findings of these studies. In addition, this relationship has not been examined in the health sector, and the moderation mechanisms that have the potential to affect this relationship have not been addressed. This study aims to examine

the relationship between environmental turbulence and the organizational improvisation capabilities of hospitals, which are important health system actors in the health sector where change, uncertainty, and dynamism are quite high, and to reveal the effect of various organizational culture types on the relationship between environmental turbulence and organizational improvisation.

1. RESEARCH METHODOLOGY

1.1.Study Design, Participants, and Procedures

This study was designed as descriptive in terms of its purpose and cross-sectional in terms of its time dimension. The study population consists of lower, middle, and upper-level managers working in 172 private hospitals in Istanbul. The managers who will participate in the study must have worked in the hospital for at least three months to comprehend the characteristics of the organizational culture and environment. Since there is no information about this period in the literature, the opinions of academicians who are experts in organizational behavior and organizational theory literature were taken. The three months were determined and based on a rational basis. Within the scope of the study, a disproportionate stratified sampling method was used. The primary purpose of using this sampling method is that hospitals are not homogeneous in terms of human resource quality, number of beds, financial structure, technological competence, and other infrastructure facilities. In addition, we assume that organizational improvisation will differ according to the strata. In this context, hospitals are divided into three strata: A, B, and C.

According to this stratification, in the first strata (A), hospitals with all kinds of medical and technological competence, with a bed number of 100 or more and providing hotel services that can be called luxury; In the second strata (B), there are hospitals with 50-100 beds, which are slightly lower than the first strata, offering services in the form of 3-4 star hotels, with all kinds of medical applications except for specific diagnostic and analysis methods that require excessive technological investment. The third strata (C) includes hospitals with fewer beds and staff volume than the others, offering services in primary branches with limited facilities and mainly catering to the regional low-income group. The hospital classification criteria of the Turkish Ministry of Health were also used in this classification.

The sample size was calculated to represent the population most accurately. In the calculation of the sample size, the assumption of .50, the safest ratio in cases where the proportions of the examined variable are unknown, was used in the study, and the sample size was calculated in the INSTAT 2.0 statistical package program. The estimated ratio of .50 and the estimated half-width of the confidence interval (CI) were assumed to be .7. By adding a 10% margin of error to the obtained number of 410, 451 people were obtained, and this value was taken as the sample size. Based on this sample size, it was planned to reach 150 managers from each stratum. The researchers themselves collected the data through a face-to-face questionnaire method. The study was conducted between December 2021 and January 2022 with the participation of 546 managers from 33 hospitals. In total, 546 managers from 33 hospitals participated in the survey voluntarily.

However, when the questionnaires were examined, 59 were excluded from the evaluation according to the recommendations of Tabachnick and Fidell (2012) due to more than 50% missing data. In addition, three managers (two females and one male) did not agree to participate in the study. As a result, data analysis was carried out with a total of 487 valid questionnaires, 163 from hospitals in group A, 162 from hospitals in group B, and 162 from hospitals in group C. 67% of the participants were female, and about half of them had a bachelor's degree or higher, and 54% of them were middle managers. The participants are 34.9 years old on average (minimum 20 years, maximum 75 years; standard deviation (SD)=8.84), has been working as managers in their hospitals for an average of 4.55 years (minimum one year, maximum 25 years; SD=4.53), and have been working in the health sector for an average of 12.6 years (minimum one year, maximum 55 years; SD=7.98).

1.2.Measures

In this study, three scales consisting of forty-four items were used. All scales are five-point Likert-type, ranging from 1 (Strongly disagree) to 5 (Strongly agree). As the scales' scores increase, environmental turbulence, organizational improvisation capability clan, adhocracy, market, and hierarchy culture increase. In addition, questions such as age and gender were asked to obtain the participant's demographic information, and six questions such as experience and managerial level were asked to learn the working profiles of the participants. The variables of environmental turbulence, organizational improvisation, and organizational culture in the research model are quantitative and are handled in the analyses as follows.

1.2.1. Environmental Turbulence

Wilden and Gudergan (2015) developed the Environmental Turbulence scale and adapted it to Turkish by Kaplan (2020). This scale includes three sub-dimensions, namely "Technological Turbulence," "Market Turbulence," and "Competitor Turbulence," and a total of twelve items.

1.2.2. Organizational Improvisation Capability

The organizational improvisation capability scale was developed by Kung and Kung (2019) and adapted into Turkish by Limon and Dilekçi (2020). This scale initially consists of two sub-dimensions, "Speedy Novel Solution" and "Unplanned Reconfiguration," with eight items. As a result of the validity analysis conducted by Limon and Dilekçi (2020), the scale showed a single-factor structure consisting of eight items.

1.2.3. Organizational Culture

The Organizational Culture scale was developed by Cameron and Quinn (2006) and adapted into Turkish by Akdeniz (2018). In this scale, there are four sub-dimensions and twenty-four items, namely "Clan Culture," "Adhocracy Culture," "Market Culture," and "Hierarchy Culture." These are the items that managers can quickly answer. Since it was stated in previous studies that organizational size would affect organizational improvisation, the hospital group was used as a control variable as an indicator of hospital size (Limon and Dilekçi, 2020; Kamoche et al., 2003).

1.3. Statistical Analyses

Confirmatory factor analysis (CFA) was conducted using the Analysis of Moment Structures (AMOS) 23 program to test the construct validity of the scales. In addition, Cronbach's Alpha coefficient was calculated to test the reliability of the scales. To test study hypotheses, ordinary least squares (OLS) regression was performed using the PROCESS macro (v4.1), developed by Hayes (2022). For a significant effect within the scope of PROCESS macro, 95% CI should not contain zero values. All analyses using the PROCESS macro were conducted with a sample size of 5,000 using the bootstrap technique and 95% CI. In addition, SPSS 23 program was used to consider each study variable's mean scores, standard deviations, and correlation coefficients.

2. ANALYSIS

2.1.Validity and Reliability Analyses Results

As a result of the CFA to test the construct validity of the research model, it is seen that all indices are within the threshold value range ($\chi 2$: 2147.983 degrees of freedom (df)=874; $\chi 2$ /df=2.458; comparative fit index (CFI)=.910; root mean square error of approximation (RMSEA)=.055;

standardized root mean square residual (SRMR)=.047). The loadings of the items within the scales ranged between .503 and .885. However, the eighth item of the environmental turbulence scale was excluded because its loading value was below .30. Exploratory factor analysis (EFA) was also conducted to test the validity of the environmental turbulence scale. Before conducting EFA, Kaiser-Meyer-Olkin (KMO) and Bartlett's test were performed to test the suitability of the data for factor analysis. As a result of the analysis, since the KMO value was .816 and the Bartlett test result was statistically significant, it was determined that the data was suitable for factor analysis (Tabachnick and Fidell, 2012). A three-factor structure explaining 61% of the total variance was obtained. Also, the eighth and fifth items were removed from the scale because they were cross-loading items. In addition, since the first factor explained 35% of the total variance, it was deemed appropriate to evaluate the environmental turbulence scale as a single dimension (Büyüköztürk, 2007). Therefore, the environmental turbulence scale was considered a unidimensional structure consisting of 10 items in testing the hypotheses. Cronbach's Alpha coefficients calculated to test the reliability of the scales are presented in Table 1. Cronbach's Alpha coefficients greater than .70 indicate that the scales are reliable (Hair et al., 2018).

2.2. Hypotheses Testing

Table 1 presents the descriptive statistics of the variables and the correlations between all variables before testing the study hypotheses.

Table 1: Descriptive Statistics and Correlations of the Research Variables

Variables	Mean (SD)	1	2	3	4	5	6
1. Environmental turbulence	4.02 (.55)	**.81**					
2. Organizational improvisation	4.08 (.72)	.438***	**.93**				
3. Adhocracy culture	3.74 (.78)	.374***	.609***	**.90**			
4. Clan culture	3.97 (.79)	.343***	.614***	.754***	**.91**		
5. Market culture	3.90 (.70)	.459***	.600***	.776***	.667***	**.86**	
6. Hierarchy culture	3.92 (.72)	.355***	.595***	.739***	.671***	.740***	**.90**

Notes: n = 487; SD: standard deviation; *** $p < .001$ (two-tailed); Diagonals (in bold) represent Cronbach's alpha coefficient.

Table 2 presents the findings on the effect of environmental turbulence on organizational improvisation. As a result of the analyses, tolerance values greater than .10 and variance inflation factors (VIF) values less than 5 indicate no multicollinearity problem (Keith, 2019).

Table 2: Findings on the Effect of Environmental Turbulence on Organizational Improvisation

Model†	b††	SE	t-value	95% CI
Total Effect Model Outcome: OI				
ET	.583***	.054	10.78	.477, .689
Hospital Group				
Group B	−.067	.072	−.925	−.208, .075
Group C	−.079	.071	−1.107	−.219, .061

Notes: OI: organizational improvisation; ET: environmental turbulence; SE: standard error; *** $p < .001$; †Bootstrap sample size=5,000; ††Unstandardized effects are reported in the table.

Table 2 shows that environmental turbulence has a statistically significant positive effect on organizational improvisation (b=.583; 95% CI = .477 to .689). Therefore, it is determined that as environmental turbulence increases, organizational improvisation also increases. With these results, hypothesis H_1 is accepted.

Tables 3-6 present the findings on the moderating role of organizational culture types on the effect of environmental turbulence on organizational improvisation.

Table 3: Findings on The Moderator Role of Adhocracy Culture in The Impact of Environmental Turbulence on Organizational Improvisation

Model†	b††	SE	t-value	95% CI
Moderation Model (Model 1 of the Hayes' PROCESS) Outcome: OI				
ET	.301***	.050	6.001	.202, .399
AC	.464***	.034	13.50	.397, .532
ET x AC	−.124**	.048	−2.588	−.218, −.030
Hospital Group				
Group B	−.017	.061	−.275	−.136, .102
Group C	−.001	.060	−.015	−.120, .118
Results for conditional effect of ET on OI at different levels of AC				
A Low (-1 SD)	.398***	.057	6.993	.286, .510
A Medium (Mean)	.301***	.050	6.008	.202, .399
A High (+1 SD)	.203**	.068	2.994	.070, .336
R^2			.430	
ΔR^2			.008**	

Notes: OI: organizational improvisation; ET: environmental turbulence; AC: adhocracy culture; SE: standard error; *$p < .05$; **$p < .01$; ***$p < .001$; †Bootstrap sample size=5,000; ††Unstandardized effects are reported in the table.

Table 3 shows that environmental turbulence has a statistically significant positive effect on organizational improvisation (b=.301, 95% CI=.202 to .399). In addition, the effect of adhocracy culture on organizational improvisation is also positive and statistically significant (b=.464; 95% CI=.397 to .532). When the effect of the interaction of environmental turbulence and adhocracy culture (ET x AC) on organizational improvisation is examined, it is seen that this

effect is statistically significant (b=−.124; 95% CI=−.218 to −.030). When the interaction term is included in the model, the variance explained increases statistically significantly (ΔR^2=.008; p<.01). According to these findings, it can be stated that adhocracy culture moderates the effect of environmental turbulence on organizational improvisation.

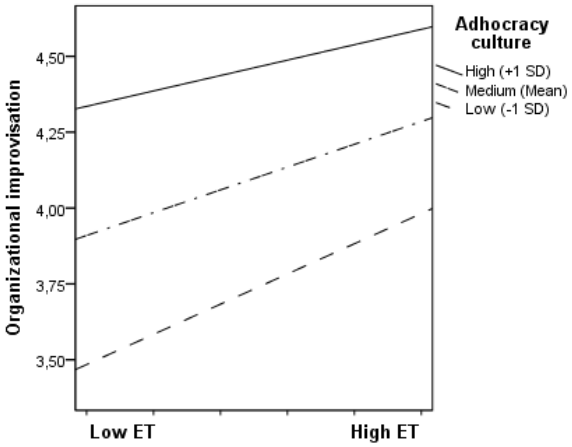

Figure 2: The Effect of Environmental Turbulence On Organizational Improvisation at Different Levels of Adhocracy Culture. ET, environmental turbulence; SD, standard deviation

Figure 2 shows that the effect of environmental turbulence on organizational improvisation varies depending on the adhocracy culture. As indicated in Table 3, the effect of environmental turbulence on organizational improvisation is positive and statistically significant at low, medium, and high levels of adhocracy culture. However, as seen in Figure 2, as the adhocracy culture increases, the effect of environmental turbulence on organizational improvisation weakens. With these results, hypothesis H_{2a} is rejected.

Table 4: Findings on the Moderator Role of Clan Culture in the Impact of Environmental Turbulence on Organizational Improvisation.

Model†	b††	SE	t-value	%95 CI
Moderation Model (Model 1 of the Hayes' PROCESS) Outcome: OI				
ET	.315***	.048	6.498	.219, .410
CC	.469***	.033	14.12	.404, .534
ET x CC	−.142**	.045	−3.150	−.231, −.054
Hospital Group				
Group B	−.101	.060	−1.704	−.218, .016
Group C	−.124*	.059	−2.100	−.239, −.008
Results for conditional effect of ET on OI at different levels of CC				
A Low (-1 SD)	.427***	.054	7.786	.321, .533
A Medium (Mean)	.315***	.048	6.450	.219, .410
A High (+1 SD)	.202**	.066	3.086	.074, .331

R^2	.453
ΔR^2	.011**

Notes: OI: organizational improvisation; ET: environmental turbulence; CC: clan culture; SE: standard error; *p < .05; **p < .01; ***p < .001; †Bootstrap sample size=5,000; ††Unstandardized effects are reported in the table.

Table 4 shows that environmental turbulence has a statistically significant positive effect on organizational improvisation (b=.315; 95% CI=.219 to .410). Moreover, the effect of clan culture on organizational improvisation is also positive and statistically significant (b=.469; 95% CI=.404 to .534). When the effect of the interaction of environmental turbulence and clan culture (ET x CC) on organizational improvisation is examined, it is seen that this effect is statistically significant (b=−.142; 95% CI=−.231 to −.054). When the interaction term is included in the model, the variance explained increases statistically significantly (ΔR^2=.011; p<.01). According to these findings, it can be stated that clan culture moderates the effect of environmental turbulence on organizational improvisation.

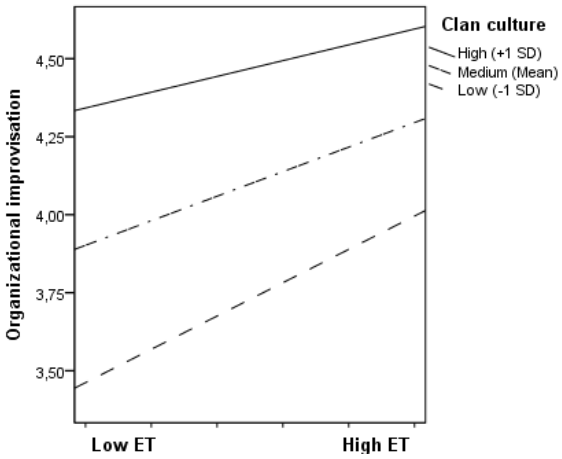

Figure 3. The Effect of Environmental Turbulence on Organizational Improvisation at Different Levels of Clan Culture. ET, environmental turbulence; SD, standard deviation

Figure 3 shows that the effect of environmental turbulence on organizational improvisation varies depending on clan culture. As seen in Table 4, the effect of environmental turbulence on organizational improvisation is positive and statistically significant at all levels of clan culture. However, as the clan culture increases, the effect of environmental turbulence on organizational improvisation weakens. With these results, hypothesis H_{2b} is rejected.

Table 5. Findings on the Moderator Role of Market Culture in the Impact of Environmental Turbulence on Organizational Improvisation

Model[†]	b[††]	SE	t-value	95% CI
Moderation Model (Model 1 of the Hayes' PROCESS) Outcome: OI				
ET	.241***	.054	4.445	.135, .348
MC	.518***	.042	12.43	.436, .599
ET x MC	−.122*	.053	−2.329	−.226, −.019
Hospital Group				
Group B	.024	.063	.378	−.099, .147
Group C	.024	.062	.389	−.098, .147
Results for conditional effect of ET on OI at different levels of MC				
A Low (-1 SD)	.327***	.058	5.621	.213, .441
A Medium (Mean)	.241***	.054	4.445	.135, .348
A High (+1 SD)	.156**	.072	2.165	.014, .298
R^2			.400	
ΔR^2			.007*	

Notes: OI: organizational improvisation; ET: environmental turbulence; MC: market culture; SE: standard error; *p < .05; **p < .01; ***p < .001; [†]Bootstrap sample size=5,000; [††]Unstandardized effects are reported in the table.

Table 5 shows that environmental turbulence has a statistically significant positive effect on organizational improvisation (b=.241; 95% CI=.135 to .348). Moreover, the effect of market culture on organizational improvisation is also positive and statistically significant (b=.518; 95% CI=.436 to .599). When the effect of the interaction of environmental turbulence and market culture (ET x MC) on organizational improvisation is examined, it is seen that this effect is statistically significant (b=−.122; 95% CI=−.226 to −.019). When the interaction term is included in the model, the variance explained increases statistically significantly (ΔR^2=.007; p<.05). According to these findings, it can be stated that market culture moderates the effect of environmental turbulence on organizational improvisation.

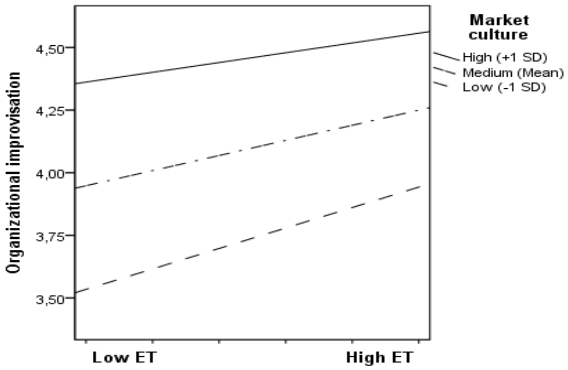

Figure 4: The Effect of Environmental Turbulence on Organizational Improvisation at Different Levels of Market Culture. ET, environmental turbulence; SD, standard deviation

Figure 4 shows that the effect of environmental turbulence on organizational improvisation varies depending on the market culture. As seen in Table 5, environmental turbulence has a statistically significant positive effect on organizational improvisation at all levels of market culture. However, as market culture increases, the effect of environmental turbulence on organizational improvisation weakens. With these results, hypothesis H_{2c} is rejected.

Table 6: Findings on the Moderator Role of Hierarchy Culture in the Impact of Environmental Turbulence on Organizational Improvisation

Model†	Effect††	SE	t-value	95% CI
Moderation Model (Model 1 of the Hayes' PROCESS) Outcome: OI				
ET	.339***	.050	6.771	.241, .437
HC	.500***	.038	13.13	.425, .575
ET x HC	−.042	.051	−.837	−.142, .057
Hospital Group				
Group B	−.019	.062	−.303	−.139, .102
Group C	−.062	.061	−1.016	−.182, .058
R^2			.415	
ΔR^2			.001	

Notes: OI: organizational improvisation; ET: environmental turbulence; HC: hierarchy culture; ***p < .001; †Bootstrap sample size=5,000; ††Unstandardized effects are reported in the table.

Table 6 shows that environmental turbulence has a statistically significant positive effect on organizational improvisation (b=.339; 95% CI=.241 to .437). Moreover, the effect of hierarchy culture on organizational improvisation is also positive and statistically significant (b=.500; 95% CI=.425 to .575). When the effect of environmental turbulence and hierarchy culture interaction (ET x HC) on organizational improvisation is examined, it is seen that this effect is not statistically significant (b=−.042; 95% CI=−.142 to .057). According to these findings, it can be stated that hierarchy culture does not have a moderator role in the effect of environmental turbulence on organizational improvisation. With these results, hypothesis H_{2d} is rejected.

3. DISCUSSION

In this study, the effect of environmental turbulence on the organizational improvisation capability of hospitals in the health sector is examined, where environmental uncertainty and dynamism are quite high and under the influence of legal restrictions. It was determined that the turbulence in the environment of private hospitals positively affects the organizational improvisation capability of hospitals. When the literature is examined, it is seen that organizational improvisation still needs to be sufficiently examined and is still in the development phase. Some studies address the

relationship between environmental turbulence and improvisation conceptually and empirically in various sectors. However, when the results of these studies are considered, it is seen that different results are presented, discussions continue, and the number of studies is limited. For example, the study conducted by Moorman and Miner (1998) in the electronics and food sector is similar to our study findings and supports our results. In the conceptual study of Cunha and Cunha (2003), it is emphasized that there will be a curvilinear relationship between environmental turbulence and organizational improvisation. Accordingly, it is stated that organizational improvisation will be low when environmental turbulence is low and high, and organizational improvisation will be high when environmental turbulence is moderate. However, our study found a linear relationship between environmental turbulence and organizational improvisation capability and that organizational improvisation increases as environmental turbulence increases. The study conducted by Pavlou and El Sawy (2010) with 507 participants working in the new product development unit also supports our study findings. In a study conducted by Akgün et al. (2007) with the participation of 197 product or project managers in high technology sectors, no relationship was found between environmental turbulence and team improvisation.

As seen in Tables 3-5, adhocracy, market, and clan cultures moderate the relationship between environmental turbulence and organizational improvisation. On the other hand, it was determined that hierarchy culture did not have a moderator role in this relationship (Table 6). When the literature is examined, it is assumed that as the level of adhocracy, clan, and market culture increases, the positive effect of environmental turbulence on organizational improvisation will strengthen (Hejazi, 2016; Cameron and Quinn, 2006; Cunha and Cunha, 2003; Kamoche et al., 2003). However, according to the findings, as the level of these three organizational cultures increased, the positive effect of environmental turbulence on organizational improvisation weakened. The research data were collected between December 2021 and January 2022, when the coronavirus disease 2019 (COVID-19) pandemic was intense in Turkey, and the number of daily cases was 35,000 on average. Therefore, the turbulence in the environment of hospitals (M=4.02) and the organizational improvisation capability of hospitals (M=4.08) are quite high. Although there is a positive effect of environmental turbulence on organizational improvisation at low, medium, and high levels of adhocracy, clan, and market culture, contrary to what was assumed, this positive effect weakens as the levels of adhocracy, clan, and market culture increase, and this may be due to the characteristics of health services.

Health services differ from services in other sectors due to its characteristics. One of the most fundamental characteristics is that error cannot be accepted because its output is human health (Teleş, 2022). In addition, due to legal obligations, situations such as improvisation are likely to bring some legal problems. Therefore, even if the three organizational culture levels increase in health service delivery, the effect of environmental turbulence on organizational improvisation cannot be strengthened. Because it is not possible to improvise everything in health service delivery literally, but it is necessary to adhere to specific procedures and standards. Otherwise, malpractice may occur, human health may be at risk, and the organization and healthcare professionals may face negative situations such as lawsuits (Morgan et al., 2016; Brinkerhoff 2004). Therefore, it is thought that this situation limits the strengthening of the effect of environmental turbulence on organizational improvisation, despite the increase in three organizational culture levels.

This study has several theoretical implications. First, the study contributes to the development of the organizational improvisation literature, especially the management literature, by addressing the relationship between environmental turbulence and organizational improvisation, in which the results are not similar, and discussions continue (Pavlou and ElSawy, 2010; Akgün et al., 2007; Cunha and Cunha, 2003; Moorman and Miner, 1998). Secondly, the inclusion of the organizational culture variable in the model, which has the potential to affect this relationship, provides a different perspective by clarifying and better understanding this relationship and shows that organizational culture affects this relationship. In addition, conducting this study in the health sector, which is a sample with different characteristics from the sectors previously studied, and due to the characteristics specific to health services, enriches the organizational improvisation literature by revealing a different understanding from the results obtained so far.

This study has some limitations, and the research findings should be interpreted in light of these limitations. First, due to the study's cross-sectional design, each variable was measured simultaneously, with no temporal precedence. Therefore, causal inferences from the findings of this research should be made carefully. Secondly, the study data were collected from private hospitals in Istanbul during the COVID-19 period. Therefore, this may limit the generalizability of research findings to periods other than the COVID-19 pandemic. Third, although only three individuals declined to participate in the study, the volunteer/self-selection bias may have affected

the results. Despite the limitations of the study, the sampling method is its strength. The use of a stratified sampling method increases external validity and generalizability. The study findings will likely differ in public hospitals and other sectors. In future studies, comparisons between public and private sectors in multiple centers and comparisons between different sectors will contribute to clarifying the relationship between environmental turbulence and organizational improvisation.

4. CONCLUSIONS

In summary, this study indicates that environmental turbulence is an influential factor in the organizational improvisation capability of private hospitals. The moderation analysis findings revealed that organizational culture types are important mechanisms for clarifying the relationship between environmental turbulence and the organizational improvisation capability of private hospitals. Situations where high uncertainty and dynamism, such as the COVID-19 pandemic, cause hospitals to make more improvised decisions. Therefore, it is thought that knowing that the organizational culture affects this decision process will benefit health managers in making healthier decisions.

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Health Tourism Training: A Study on Secondary Education

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Abstract

In previous studies on health tourism education in Türkiye, it has been observed that it is the subject of higher education. As in many European countries, vocational education starts after primary education in Türkiye. This study aims to answer the questions of what is the place and importance of health tourism education at the vocational secondary education level in Türkiye and how this situation is related to Türkiye's health tourism policies and goals, such as becoming the capital of health tourism in 2053 and creating a global brand with the slogan "Health Türkiye". The research used a case study design as a qualitative research method. For the research, the documents and development plans of the curricula of 53 fields and 114 branches in vocational secondary education were examined. In the examination, it was seen that there are courses related to health tourism in the 4-year education programs in the fields of health services and accommodation and travel services. However, it was observed that 50% of the courses in the curriculum of Accommodation and Travel Services and 100% in the curriculum of Health Services are elective courses. It is

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thought that the inclusion of courses for health tourism education in vocational secondary education will contribute to the creation of a qualified workforce by the targets in the Development Plan. Because the place and importance of health tourism education at the secondary education level have not been examined before, and Türkiye's targets regarding health tourism, our study is a pioneering and important study in determining the status of health tourism in the framework curricula at the secondary education level.

Keywords: Development plan, health tourism, vocational training

INTRODUCTION

Suleiman the Magnificent saying, "There is no object as respected among the people as the state, there is no state in the world like a breath of health", is one of the first words that come to mind when health is mentioned for centuries. Health, which is accepted as one of the fundamental human rights, should be accessible to everyone, regardless of language, religion, race, political opinion, economic and social status. In this regard, people have always sought places thought to be healing to protect their health or regain their lost health. The oldest health complex dates back to B.C Wong and Hazley (2021), and Demir (2013) stated that the first health center was built in the ancient Greek civilization, and Aydın (2012) in his study stated that in the ancient Greek civilization, patients went to Mediterranean countries for treatment, Çetinkaya and Bostan (2023) stated that in ancient Egypt, people travelled to places where medical knowledge was abundant. Studies on health tourism, when looking at the historical development of health tourism, show that since ancient times, people have been travelling to places with thermal springs and temples that are said to be healing to find healing or protect their health. The primary purpose of these travels is to find healing and/or stay healthy.

People today, as in the past, travel to different places from where they live for health. Sometimes mystical reasons, staying healthy, and sometimes regaining health after deteriorating general well-being can be the primary motivation for these travels. The fields of health and tourism, which are different from each other, intersect at the point of travel, which is essential in both fields. When the definitions of tourism are examined, it can be seen that people travel to a place other than their permanent residence, lasting more than 24 hours, without making money and returning to their primary residence. For a trip to be considered a tourism activity, individuals must be outside their permanent residence, the reason for travel must be temporary and not to work somewhere, they must be a consumer in the place travelled, and they must return from temporary

accommodation to permanent residence (Sezgin, 2001). Health tourism can be defined as a type of tourism (Pessot, Spoladore, Zangiacomi and Sacco, 2021) in which non-citizens come temporarily to receive health services (Oruç, Caner and Vatansever, 2024) and has grown exponentially in recent years and including a wide range of services (Mandagi and Tappy, 2023).

Doğan and Baynal Doğan (2020) pointed out health tourism as an alternative tourism whose visibility is constantly increasing among tourism activities. Environmental factors and the increasing elderly population have increased the number of people with impaired health, making the health need more widespread. People can easily access health institutions, doctors and thermal facilities worldwide via the internet. With the increase in population, the need for health services has also increased and access to health facilities has become more accessible thanks to technological developments. All these developments have led to an increase in health tourism movements. Health tourism provides much higher returns than other tourism activities (Özer and Yıldırım, 2022) and plays an important role in sustainable tourism development (Sattari, Ziya, Sakhdari and Hosseini, 2020).

Health tourism revenues worldwide are increasing yearly; according to market research, this trend is expected to continue in the coming years. The increasing importance of health tourism has caused countries to increase their interest in health tourism (Ayat and Sharifi, 2024). With this awareness, countries increase infrastructure and superstructure investments in health tourism and provide incentives to the private sector. Along with the investments made in health tourism, educated human resources in the field are also important. Health tourism education is of great importance in understanding the cultural diversity of societies and embracing this diversity, and contributes to the development of students' language skills and offers students the opportunity to get to know the health systems and practices in different countries. By becoming aware of issues such as the quality of health services, costs and patient satisfaction, students can understand that health tourism is not only an economic activity, but also a phenomenon that increases the accessibility of health services. This understanding enables students to become more sensitive individuals to global health problems. In this context, studies on health tourism education were examined in the literature. It has been observed that current studies focus on health tourism education at the associate, undergraduate and graduate levels. However, in Türkiye, vocational education starts in secondary education right after primary education. Therefore, it is essential to examine the place of health tourism education in secondary education. However, no studies have

been conducted on health tourism in secondary education. In this context, the study examined the current status of health tourism education at the secondary education level in Türkiye, its curriculum, and the areas in which health tourism education is provided. In the next part of the study, the conceptual framework was created. Then, the methodology and the findings about the current situation of health tourism education in secondary education institutions in Türkiye were shared. The last section shares suggestions regarding health tourism education at the secondary education level.

Conceptual Framework

The target audience of health tourism, which has emerged as a niche market in the field of tourism, consists of people whose life expectancy has increased in terms of quality and quantity (Çetinkaya and Bostan, 2023), whose health has deteriorated or who are more sensitive about protecting their health (Özsarı and Karatana, 2013). Stress encountered in daily life, environmental factors and increasing population negatively affect people's general health. In addition, research shows that 12.3% of the world's population comprises the elderly (Bölüktaş, 2020) and older people need more health services. A healthy metabolism is one of people's physiological needs, and receiving health services elsewhere than the country of residence is not new. People have travelled for this basic need since ancient times, and these travels are now associated with health tourism. Health tourism is defined by Kantar and Işık (2014) as travels to protect and improve health and treat diseases. The Ministry of Health defines all kinds of health services and related support services received by natural persons who come to Türkiye from abroad temporarily for health purposes, who are not citizens of the Republic of Türkiye, or who are citizens of the Republic of Türkiye but reside abroad, as health tourism (shgmturizmdb.saglik.gov.tr/). The expected points of definition are travel and health. The concept of health, travel, tourism and wellness has created health tourism (Wong et al., 2021).

Goodrich and Goodrich (1987) stated that health tourism emerged as a country's efforts to attract tourists to its health services, facilities and touristic values through marketing. When we look at the definitions and opinions about the emergence of health tourism, it is seen that it is done not only for treatment but also to stay healthy and to bring the general well-being of the body to a higher health standard. This situation has caused health tourism to be divided into groups. This grouping is classified according to the history of travel for health purposes. When the literature is

examined, it is seen that different authors divide health tourism into various groups. Accordingly, health tourism;

• Asadi and Daryaei (2011) divided into two groups: wellness tourism and medical tourism,

• Kördeve (2016), in 4 groups: medical tourism, thermal tourism, elderly tourism and disabled tourism,

• Kantar and Işık (2014), in 4 groups: medical tourism, thermal / spa/wellness tourism, disabled tourism and elderly tourism,

• Ünal and Demirel (2011), in 3 groups as climatism, dualism and thermalism,

• Doğan et al. (2020), in 3 groups: medical tourism, thermal / spa/wellness tourism and elderly and disabled tourism,

• Göktaş (2018), in 4 groups: medical tourism, spa tourism, elderly care and disabled care tourism, and spa and wellness tourism.

• Çetinkaya and Bostan (2023), in 3 groups: medical tourism, thermal tourism and disabled and third-age tourism,

• Özsarı and Karatana (2013), in 5 groups: spa tourism, spa and wellness tourism, elderly tourism, disabled tourism and medical tourism,

• Yardan, Dikmetaş, Coşkun Us and Şansa (2014), in 3 groups: medical tourism, thermal and spa/wellness tourism and elderly and disabled tourism,

• Aydın (2012) divided it into three groups: thermal tourism, beauty and wellness tourism, and medical tourism.

• Bulut and Şengül (2019) examined it into four groups: medical tourism, elderly tourism, disabled tourism, and thermal / spa/wellness tourism.

When the groupings are examined, it can be seen that some authors examined the types of health tourism as two groups, while others examined them as 3, 4 and 5 groups. However, it is seen that the types of health tourism are essentially the same and, as in the case of elderly and disabled tourism, some authors classify it as a single group, while others classify it as two groups.

Although people's travel purposes may vary depending on the types of health tourism, travel not only of the individual whose health is impaired but also of the family members who will accompany him/her; In some cases, the travels of physicians and medical personnel, as well as the travel of tourists who have a health emergency during a touristic trip, are considered within the scope of health tourism. Shortening travel times with developing technology and individuals' easy

access to information contribute positively to health tourism development. When local health systems do not provide appropriate options (Yardan et al., 2014), people can access information about doctors where they live, doctors in other cities of their country, and doctors worldwide via the internet and evaluate alternatives (Aydın, 2012). Health tourism has a feature that can be done in twelve months of the year, regardless of any season (Bulut and Şengül, 2019), in the sense of spreading tourism activities throughout the year for countries that create tourism supply to eliminate the seasonal effects of tourism and to use touristic opportunities allows more effectively.

In line with the developments recorded in the field of health tourism in recent years, the effect of health tourism on spreading tourism activities throughout the year and Türkiye's expectations from the field of health tourism, Türkiye has developed various strategies and these strategies are included in the development plans prepared by the Strategy and Budget Directorate of the Presidency of the Republic of Türkiye.

Table 1: Health Tourism in Development Plans

Development Plan	Plan Period	Article Number Related to Health Tourism
9th Development Plan	2007 - 2013	551
10th Development Plan	2014 - 2018	53 869 872
11th Development Plan	2019 - 2023	63 94 425.2 589 589.1 589.2 589.3
12th Development Plan	2024 - 2028	230 278 364.3 713 713.1 713.2 713.3 713.4 713.5

Source: Compiled by researchers using data from https://www.sbb.gov.tr

While no strategy regarding health tourism was determined in the development plans prepared until the 9th Development Plan covering the years 2007 - 2009, it was stated in one item in the 9th Development Plan that health tourism services would be supported. In 3 items of the 10th Development Plan, it is briefly stated that health tourism is an area that can create investment impact, that the development of health tourism is essential and that alternative tourism types such

as health tourism will be supported. The seven items in the 11th Development Plan state that the health tourism sector is expected to grow, and Türkiye's potential in the health tourism market comes to the fore. Promotion and investment activities will be carried out as health tourism extends tourism activities to 12 months. Health tourism service capacity will be improved in terms of quality and quantity. It has been stated that legal regulations will be completed, and elderly and rehabilitation tourism will be integrated into health tourism. In the nine items of the 12th Development Plan, it is stated that the developments in the field of health tourism, targets for 2053, qualified workforce, and service capacity will be improved in quality and quantity, and promotion and marketing activities will be increased. A separate program regarding health tourism development has been prepared in the 10th Development Plan. In the development plans made between 2007 and 2024, the growth expectation of the health tourism sector made it essential for Türkiye to determine a strategy in terms of health tourism. In this regard, in Türkiye, "to plan the services related to health tourism and tourist health, to give the necessary permits, to carry out the work and transactions related to health tourism in coordination with the relevant institutions and organizations, to establish the acceptance criteria for health tourism for patients coming to our country from abroad for treatment purposes and to examine the demands and complaints of patients, to provide assistance and consultancy services when necessary to patients within the scope of health tourism and tourist health and to keep records, to plan and coordinate the procedures regarding patients who come to our country within the scope of bilateral cooperation in the field of health and whose treatment is deemed appropriate, International Health Services Joint Stock Company (USHAŞ) in order to "ensure coordination with", the Department of Health Tourism was established within the scope of the "Directive on the Duties of the Department Heads of the General Directorate of Health Services" dated 10/01/2020 and numbered 244 (shgmturizmdb.saglik.gov.tr/).

According to 2018 data, Türkiye received a 4.7% share of the world health tourism pie with 1.7 billion dollars of income from health tourism and ranked 3rd in the world (Çetinkaya et al., 2023). Türkiye's income from health tourism and the number of people coming within the scope of health tourism have increased over the years. Table 2 shows the number of people coming to Türkiye for health tourism between 2019 and 2023 and the income generated.

Table 2: Number of People Participating in Health Tourism and Income Earned

Year	Number of people	Income (Billion $)
2019	701046	1.492.438
2020	407423	1.164.779
2021	670730	1.726.973
2022	1258382	2.119.059
2023	1398504	2.307.130

Source: https://www.ushas.com.tr/sağlık-turizmi-verileri/

With the increasing importance of health tourism, investments in the health field in Türkiye have increased, and high standards have been achieved (Bulut and Şengül, 2019). In the world health tourism market, Türkiye has significant advantages in terms of price, climate and transportation (Dikmetaş Yardan et al., 2014). According to Bulut and Şengül (2019), the bypass operation is most conveniently performed in Türkiye, costing approximately 11,000 - 15,000 dollars. In addition, during the COVID-19 period, Türkiye strengthened its image as an assertive and essential destination in terms of health tourism. Its health system infrastructure has modern medical devices and experienced and competent health personnel (Özer and Yıldırım, 2022).

Ensuring customer satisfaction in health tourism, as it is a type of tourism that requires travel services in addition to health services (Çamlıdere and Söyük, 2019), requires the patient to be satisfied not only with the health professionals from whom he receives health services but also with all the personnel he receives service from during his trip (Kayar et al., 2022). All employees who directly communicate with the guest are directly related to the guest's satisfaction (Ünal & Demirel, 2011). In development plans, emphasis was placed on improving service quality and quantity and on a qualified workforce. In studies conducted by different researchers, in line with development plans, the lack of qualified workforce was emphasized (Bulut and Şengül, 2019; Aydın, 2012; Dikmetaş Yardan et al., 2014; Özsarı et al., 2013; Ulusoy et al., 2018).

The health facility's physical and technological infrastructure and superstructure can be established at the highest level within financial means. However, training human resources to provide the services in this facility is critical to make a difference. A qualified workforce is essential for quality service. A qualified workforce can be created by providing qualifications to the workforce, and gaining the desired qualification is possible through education.

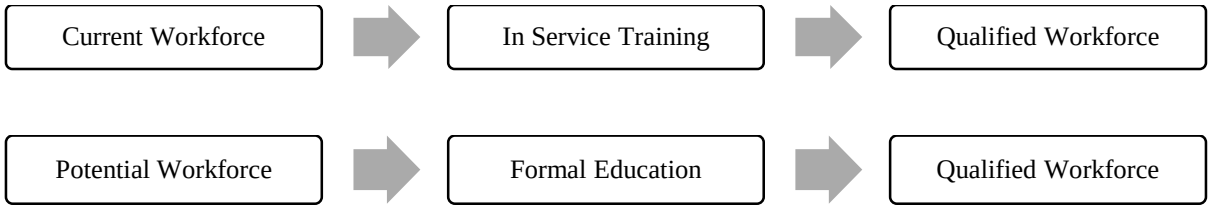

Figure 1: Qualifying the Workforce through Education Source: Created by the authors

Qualifying the workforce is done through in-service training for the existing workforce and formal education for the potential workforce. Education is the process of developing desired behavior in the individual. According to the dictionary of the Turkish Language Association, education is defined as "directly or indirectly helping children and young people to acquire the necessary knowledge, skills and understanding to take their place in social life, and to develop their personalities, inside or outside school; It is defined as “upbringing”. Vocational education trains the qualified personnel needed in the field (Phusavat et al., 2021) and prepares students for job levels at different levels of professions according to the level of vocational education they receive (Levesque et al., 2000). Vocational education is provided to provide knowledge, skills, and equipment related to a profession. Duman (2003) expressed the vocational dimension of education as training. Vocational education harmonizes the job and the individual (İşler, 2012). Vocational education is defined in the training material prepared by the Workplace-Based Vocational Education Department of the Ministry of National Education, General Directorate of Vocational and Technical Education, as "the type of education that provides the necessary knowledge and skills to train qualified technical personnel in professions needed in all areas of social life" (MTEGM, 2020). Education, specifically vocational education, is essential for a qualified workforce, which is pointed out in development plans and identified in some studies. Although there are different opinions about the start time of vocational education, vocational education is mainly provided at the secondary education level in the member countries of the Organization for Economic Co-operation and Development (OECD) and European countries (İşler, 2012). In Türkiye, vocational education starts at the secondary education level after completing the 8-year primary education process. Looking at the studies on health tourism education in Türkiye, Göktaş (2018), Ulusoy et al. (2018), and Kayar et al. (2022) show that there is a focus on health tourism education at the higher education level. However, no study has been found that focuses on health tourism education at the secondary education level. As in many European countries, vocational education in Turkey starts at the secondary education level. A Turkish proverb says: “a tree bends

when it is young" as it means "You can't teach an old dog new tricks". Therefore, in order to achieve the targets set for health tourism in Turkey's development plans, importance should be given to health tourism education at the secondary education level.

1. RESEARCH METHODOLOGY

The study used a case study design, one of the qualitative research methods used in education, social sciences, and many similar fields (Yin et al., 2012). The data collection method was carried out through document analysis, a secondary data source. The research questions of the study are as follows:

1) What is the place and importance of health tourism education at Türkiye's vocational secondary education level?

2) Is this situation compatible with Türkiye's 12th Development Plan's targets of becoming the capital of health tourism and a global brand in 2053?

In order to answer the research questions, the post-2020 framework education programs of the General Directorate of Vocational and Technical Education, Department of Programs and Teaching Materials were examined. It was determined that there are training programs in 53 vocational fields and 114 branches. Among these fields, it was found that the fields of health services and accommodation and travel services contain courses related to health tourism. The courses and their aims were revealed. In addition, development plans were analyzed to understand Türkiye's targets and strategies related to health tourism.

2. MAIN FINDINGS

In this context, it has been seen that two areas include the subject of health tourism. The courses in these fields associated with health tourism education are shown in Tables 3 and 4.

Table 3: Courses Containing Health Tourism (Accommodation and Travel Services Field)

Grade Level	Lecture	Subject	Achievements of the subject
9	General Tourism	Tourism Movements	National and international literature explains the types of tourism.
10	Reservation at the Front Office	Making a Reservation For Other Services	Health, by operating procedure, takes tourism reservations
11 / 12*	Alternative Tourism	Alternative Tourism Types	Explains common alternative tourism types by national and international standards
11 / 12*	World Travel and Tourism Geography	Health and Sports Tourism Centers	Explains health tourism centres according to tourism data

Source: Compiled using megep.meb.gov.tr data *Elective course

The subject of health tourism was mentioned as one of the three learning outcomes of the Reservation for Other Services subject of the Reservation in the Office course. The subject was mentioned as one of the two achievements of the Alternative Tourism Types subject of the Alternative Tourism course, which is planned as 2 lesson hours per week at the 11th or 12th-grade level. The subject was mentioned as one of the three achievements of the Health and Sports Tourism Centers subject of the World Travel and Tourism Geography course, which is planned to be 3 lesson hours per week. Alternative Tourism, World Travel, and Tourism Geography courses are not compulsory but are included in the elective course pool. Although General Tourism and Front Office Reservation courses are compulsory, the number of subjects and achievements related to health tourism are relatively few.

Table 4: Courses Containing Health Tourism (Health Services Field)

Grade Level	Lecture	Subject	Achievements of the subject
11 / 12*	Health Tourism Centres	Concept of Health Tourism	Explains the concept of health tourism Distinguishes the stakeholders of the health tourism concept
		Health Tourism Centres in Türkiye	Explains the health tourism centres in our country. Explains the characteristics of our country in terms of health tourism.
		Thermal Water Resources	Explains the concept of thermal water resources. Explains the usage areas of thermal water resources
		Health Tourism in the World and Türkiye	Explains thermal tourism regions in Türkiye. Explains health tourism regions in the world
11 / 12*	Health Tourism Process Management	Types of Health Tourism	Explains the differences between the concepts of health tourism and tourist health. Explains the types of health tourism
		Health Law	Explains the legal regulations regarding health tourism
		Health Tourism Structuring in Health Institutions	Explains the characteristics and duties of international patient units in health institutions. Explains the stakeholders and characteristics of the international patient cycle in health tourism.
		Intermediary Institutions / Organizations in Health Tourism	List intermediary institutions/organisations in health tourism Explains the work and transactions carried out by intermediary institutions/organisations in health tourism.
		Government Support and Incentives in Health Tourism	Explains the parts of the decision regarding health tourism regarding the support of foreign exchange-generating service trade. Explains government support and incentives in health tourism
11 / 12*	Professional English – German	Dating Concepts	It uses the basic terms of greeting in English and German through its technique. Uses basic terms related to asking for personal information appropriately in English-German

			It uses basic terms in English and German regarding asking and answering questions by its technique.
		General Health Terms	Uses basic health-related terms in English and German by its technique. Uses basic terms related to diseases suitable for its technique in English and German. Uses basic terms related to the symptoms of diseases suitable for its technique in English and German. Uses the basic terms related to the treatment appropriate to its technique in English and German
		Body Systems and Medicine Regarding Applications Terms	Uses basic terms related to the human body in English and German by its technique. It uses basic terms related to body systems appropriate to its technique in English and German. Uses basic terms related to medical practices appropriate to its technique in English and German.
		Hospital Check-in Procedures	Uses basic terms regarding hospital admission procedures in English and German. Uses basic terms regarding hospital discharge procedures in English and German.

Source: Compiled using megep.meb.gov.tr data

When the framework curriculum of the health services field of vocational high schools is examined in table 4, it can be seen that there are four independent courses named Health Tourism Centers, Health Tourism Process Management, Vocational English and Vocational German at the 11th or 12th-grade level of the Midwife Assistant, Nurse Assistant and Health Care Technician branches of the field. It was seen that the course was in the elective courses pool. As discussed in the next section, health tourism education at the secondary school level has a sufficient place in the curriculum, but when evaluated in terms of the quality of the courses, existing elective courses need to be restructured as compulsory courses.

3. DISCUSSION

Health tourists spend higher amounts than tourists who travel only for touristic purposes. Services such as transportation, accommodation, and health care constitute health tourism and are processed and offered, creating a high added value. A higher expenditure per tourist provides higher added value. Ulusoy et al. (2018) determined that although it is among the sectors with high added value, the number of programs aimed at training professional human resources in health tourism is low. Göktaş (2018) conducted a study on health tourism education in higher education, and Kayar et al. (2022) found in their studies that there are associate degree programs in 9 universities in the field of health tourism education.

This study examined the health tourism situation in secondary education programs. In this context, it has been determined that no secondary education courses in health services and accommodation and travel services focus directly on health tourism. However, some courses can be associated with health tourism. In the field of health services, it has been observed that Health Tourism Centers, Health Tourism Process Management, Professional English and Vocational German courses are included in the curriculum within the scope of health tourism education. It is positive that there are courses on health tourism in the field of health services. However, it is thought-provoking that the courses are not compulsory but elective. Whether these courses are selected is essential in determining how efficient health tourism education is at the secondary education level. In the accommodation and travel services field, it has been observed that some subjects of Alternative Tourism, World Travel and Tourism Geography, General Tourism and Front Office Reservation courses include health tourism and some concepts related to health tourism. However, it has been determined that General Tourism and Front Office Reservation courses are compulsory among these courses. In contrast, Alternative Tourism and World Travel and Tourism Geography courses are elective. Although the elective nature of the courses does not change the fact that courses in this field are included in the curriculum, it leads to the conclusion that health tourism education at the secondary education level is insufficient. Considering Türkiye's goals, it is recommended that elective courses be taught as compulsory courses.

Health professionals provide health services to health tourists. However, health tourists do not only benefit from health services during their travels; they also benefit from other services such as accommodation and food and beverages. Therefore, health professionals must be qualified, and the personnel providing other services within the scope of health tourism must be qualified. Human resources management of businesses selects qualified personnel for qualified jobs when recruiting personnel. Çamlıdere et al. (2019) determined that the main criteria in personnel selection within the scope of health tourism are education and experience. Özsari et al. (2013) emphasized that the personnel who will provide services in the field of health tourism must be trained. Considering that courses related to health tourism education at the secondary education level are elective courses, that is, factors such as the physical facilities of the school, teacher conditions and student preferences are influential in the selection of these courses, it is thought that they are insufficient in terms of training qualified human resources. It is recommended that

standards regarding health tourism education are determined in vocational high schools, the necessary infrastructure is provided in schools and the necessary guidance is given to students.

Ozer et al. (2022) determined that personnel who do not speak the language, problems that may be experienced in inpatient admission and transfer, and transactions carried out by inexperienced and unsupervised people and institutions cause a terrible image. Kantar et al. (2014) suggested that the foreign language knowledge of the personnel who work or will work in the field of health tourism should be increased and that a health tourism course should be included in the training programs in this field. Bulut and Şengül (2019) suggested training personnel with foreign language knowledge. Although Vocational English and Vocational German courses in health services are in the curriculum for foreign language education on health tourism in secondary education, these courses are elective. Therefore, since it is not known whether these courses are taught, it cannot be concluded that a qualified workforce with foreign language knowledge graduates from secondary schools. Because health tourists come from all over the world, elective foreign language courses should be compulsory.

Aydın (2012) emphasized that the personnel working in the facilities considered within the scope of health tourism should have received health, food and psychology training in addition to tourism training. It is positive that there are courses related to health tourism in secondary education in health services. However, it is a negative situation that these courses are elective. Considering that health tourists are also provided with hotel management and food and beverage services in addition to health services, compulsory courses on health tourism in the fields of accommodation and travel services and food and beverage services should be included in the curriculum. This awareness should be added to the curriculum in housekeeping training, considering that they will be sensitive to chemicals used in general surface and room cleaning.

Countries with a say in the world health tourism market can build health complexes equipped with the latest technology and very different and futuristic architectural features. This is entirely a matter of financial resources. However, making a difference between competing countries in health tourism is directly related to staffing quality. The 12th Development Plan, covering the years 2024 - 2028, aims for Türkiye to become the health capital of the world in 2053 and to be transformed into a global brand with the "Health Türkiye" brand. Strategies to achieve these goals are mentioned under nine headings. The global medical tourism market value reached 97 billion dollars in 2022 (grantthornton.com.tr, 2023). In 2023, Türkiye's GDP by production

method was 1.1 trillion dollars (data.tuik.gov.tr). According to 2022 figures, world health tourism expenditures constitute approximately 10% of Türkiye's gross national product in 2023. Although attracting all of the world's health tourism expenditures to Türkiye is impossible, severe strategies must be determined if a coincidental result is not expected for a severe goal, such as becoming the capital of health tourism. Directing behavior to a certain point is possible with education. In this context, behaviors must be directed to a specific goal, not to be random. As can be understood from previous studies, existing programs in higher education institutions related to health tourism are insufficient. The situation is not much different at the secondary education level. In order to achieve such serious goals, importance should be given to health tourism, starting from secondary education, in order to make a difference in terms of the quality of the workforce. The emphasis on health tourism subjects should be increased in schools where hotel management and tourism education are provided. Elective courses in health services should be taught as compulsory courses to all students.

There are inter-ministerial relations regarding health tourism. The development plan determined that the Ministry of Health and the Ministry of Culture and Tourism would be the coordinator ministries. The Ministry of National Education should also be designated as the responsible institution for planning and programming health tourism education at the secondary education level. The study determined the status of health tourism education at the secondary education level in Türkiye. The study is expected to help relevant institutions develop a strategy in the education dimension to train a qualified workforce in line with Türkiye's goals.

The importance of health tourism education in secondary education covers a wide range from the professional development of individuals to the cultural interaction of societies. Raising future generations as well-equipped and conscious individuals in the field of health tourism will contribute to increasing not only this sector, but also the general health and welfare of the society. Therefore, including health tourism education in the secondary education curriculum will be an important step for our future.

Limitations and Future Directions

The study is limited to areas that can be associated with health tourism education at the secondary education level. In the study, framework curriculums of areas that can be associated with health tourism education were examined. During the review, it was seen that most of the related courses were elective courses, and it is not known whether these courses were taught to students. It is

recommended for researchers to conduct a more detailed study to determine whether elective courses are taught to students.

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JHMT Editorial

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Investigation of the Knowledge Level of Hospital Managers About Strategic Management Tools and Their Use

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Abstract

Aim: Effective and efficient implementation of all elements of strategic management is important for health organizations to achieve their future goals. This study aims to examine the knowledge levels of hospital managers about strategic management tools, their usage of these tools, and the priorities and needs in tool selection.

Methods: The population of the study is the managers working in private hospitals in Antalya Province. 90 managers constitute the sample of the study. The data were collected by face-to-face questionnaire method. The questionnaire includes sociodemographic characteristics form and statements to measure the level of knowledge and use of strategic management tools. Mann Whitney U and Kruskal-Wallis tests were applied to examine the differences between groups, and Spearman Correlation Analysis was applied to examine the relationships between variables. SPSS.25 Package Program was used to analyze the data obtained. Statistical significance was accepted at 0.05 level.

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Results: 59% of the participants were female, 63% had a bachelor's degree, and the majority (41%) were middle managers. Those who did not receive managerial training and strategic management training were the majority (54% and 71%, respectively). When the knowledge level of the managers about strategic management tools was analyzed, mission and vision (98.9%) received the highest score, and value chain analysis (73.3%) received the lowest score. It was observed that the priorities of the administrators in the selection of strategic management tools were different between the groups according to gender, level of education, and type of school graduated from. In addition, statistically significant relationships were found between the priorities in the selection of strategic management tools and age, professional experience and years of working in the organization.

Conclusion: Managers have limited knowledge and use of strategic management tools and there are differences in the selection of strategic management tools according to their sociodemographic status.

Keywords: Health management, strategic management, private hospitals

INTRODUCTION

The concept of strategy, which comes from the Greek word “strategos”, initially emerged in the military field, but over time, the meaning of the concept has evolved and has been applied to other human activities, especially business strategies (Fuertes et al, 2020). In today's dynamic and competitive environment, it has become an indispensable part of the business world (Susanto et al, 2023). Strategy allows an organization to structure its resources and capabilities to meet the needs of the environment in order to gain competitive advantage. The process of undertaking a strategy is referred to as strategic management (Henry, 2021, p.7). The purpose of strategic management is summarized as the effective and efficient use of organizational resources in order to achieve the goals of the organization (Ülgen and Mirze, 2010). In this context, strategic management includes identifying the resources, strengths and weaknesses of the organization and creating an action plan that will enable the organization to achieve its long-term goals (Susanto et al, 2023).

Strategic thinking is a valuable tool that can help organizations consider their future direction and identify ways to stay relevant in an ever-changing world. It includes the evaluation of the evolving needs of an organization's stakeholders and the changing technological, social, demographic, economic, legal/political and competitive environment (Ginter et al, 2018, p.16). Scientists who use the concept of strategy in the field of business often associate this concept with

the competitive advantage of businesses. Kotler et al.'s (2014) definition of strategy is associated with the effective plans that businesses make to achieve their goals and the management of resource allocation in accordance with these plans. Porter (1996) underlined that strategy guides businesses in determining the actions that will differentiate them from their competitors while determining their fields of activity and talked about the original value of being unique. Henderson and Mcadam (1998), on the other hand, examined all the action plans developed by businesses to achieve competitive advantage and prepared to make the advantage sustainable, under the heading of strategy, and stated that they serve to differentiate businesses from their competitors by gaining awareness of advantages and disadvantages. Ülgen and Mirze (2010) explained all long-term, result-oriented decisions made as a result of businesses analyzing their competitors' activities and determining their own goals with the concept of strategy.

Determining strategies based on the structural characteristics of the business, its culture and existing resources, especially human resources, selecting the most appropriate strategy, implementing it and evaluating the results are of critical importance in increasing business performance. Strategies that act as a guide or compass to overcome uncertainty with the right approach make it easier to manage the future by giving the business a proactive perspective (Çubukçu, 2018).

Strategic management is the process of evaluating, developing, and implementing strategies to maintain or increase competitive advantage (Nicole et al, 2022). It is important in health services, as in all fields. Strategic management began to be used seriously in healthcare organizations since 1983 (Ginter et al, 2018). There are a number of issues that can be identified today that are driving health care organizations towards strategic management. One of these is changing customer demand. Healthcare organizations are trying to satisfy increasingly demanding users. In addition, organizations need internal changes to keep up with the rapid changes in technology (Speziale, 2015). Another is that the number of competitors is increasing every day, providing a strong competitive environment in the sector. Although the number of hospitals providing secondary and tertiary healthcare services in our country has increased over the years in all sectors, the most obvious increase has been in the private sector (Kurtluk and Altındağ, 2022).

In this context, the strategic thinking and management skills of the managers of healthcare organizations are very important. Underlining that the future of businesses lacking a strategy is

uncertain, regardless of the mission of the organization, researchers emphasize the importance of closely following medical and technological developments, resource use efficiency and costs in healthcare institutions, as well as changes and developments in all related sectors, since human health is in question. Every decision to be taken within the scope of strategic management should also be tested with scientific methods and analyzed regarding the current and future process of health policies (Soylu and İleri, 2010).

Clark (1997) defines strategic management tools as methodological tools that offer different methods, techniques and approaches to organizational managers in strategic decision-making processes. When the literature on strategic management tools is examined, it is seen that they are the subject of study by researchers in different fields. Within the scope of this research, 16 strategic management tools among the 25 strategic management tools included in Rigby and Bilodeau's (2013) study were discussed in terms of adaptability to private hospitals.

This study aims to examine the knowledge levels of hospital managers about strategic management tools, their usage of these tools, and the priorities and needs in tool selection.

1. RESEARCH METHODOLOGY

The study was conducted using data obtained cross-sectionally with the quantitative research method.

Population and Sample

The population of the research consists of the employees who are working in managerial positions in the private hospitals in Antalya. There are 26 private hospitals in Antalya province. In the planning phase of the study, preliminary interviews were conducted with the managers of these hospitals throughout the province. According to the information obtained from the preliminary interviews, it was found that there were 130 people working in senior and middle management positions in the hospitals. No sampling was used in the study and an attempt was made to reach the entire population. However, institutional permission could be obtained from only 10 of the private hospitals. 100 people from these hospitals volunteered for the study and completed the questionnaire. When the questionnaires were examined, it was found that 10 of them were incomplete or completed by staff who were not part of the population. For this reason, inappropriate surveys were not included in the study. As a result, the study sample consisted of 90 people.

Data Collection Tool and Method

The data collection method used was a face-to-face survey. Parts of the survey are explained below.

Part 1: Questionnaire on socio-demographic characteristics: Sociodemographic statements were prepared by the researchers based on the literature reviewed. There are 9 questions for managers, asking about their age, gender, education level, professional experience, length of time working in the institution, school graduated from, position in the business, management education and strategic management training. In addition, the form includes questions about the duration of operation of the hospitals, the number of beds and the number of employees.

Part 2: Strategic management tools knowledge and usage levels survey: The survey form was taken from the report titled "Management and Tools and Trends 2009" prepared by D. Rigby and B. Bilodeau (Rigby & Bilodeau, 2013), translated and adapted to the healthcare sector by İpek Bilgin Demir. The survey in question was taken from Demir's master's thesis titled "A Research on Strategic Management Knowledge and Usage Levels of Hospital Managers" (Demir, 2015). It consists of 2 subsections. In the 1st subsection: There are statements regarding the level of knowledge and usage status of 16 strategic management tools. In this section, yes/no type answers are received. In the 2nd subsection there are 20 statements answered on a 5-point Likert type (1-5 points) for Measuring Priorities and Needs in the Selection of Strategic Management Tools. Increasing scores indicate that the level of agreement with the statement has increased positively.

Statistical analysis: Before the analysis, skewness - kurtosis coefficients and Q-Q graphs were examined to determine whether the data showed a normal distribution, and it was determined that they did not show a normal distribution. In addition, the number of units remained below 30 in some test groups. For these reasons, it was decided to use non-parametric tests.

Mean and standard deviation values were examined in the descriptive statistics of the data. To examine the differences between groups, the Mann Whitney-U test was applied in the analysis between two groups and the Kruskal-Wallis test was applied between three or more groups. Spearman Correlation Analysis was applied for correlation-seeking analyses.

SPSS.25 (Statistical Package of Social Sciences) Package Program was used in the analysis of the data obtained. Statistical significance was accepted at the 0.05 level.

Ethical approach: Prior to the research, approval was received from Istinye University Social and Human Sciences Ethics Committee dated 28.07.2023 and numbered 2023/07 - 80. Then,

institutional permissions were obtained from hospitals to conduct the survey. Subsequently, the consent of the participants in hospitals with institutional permission was obtained before the interview, and the principle of volunteering was adhered to.

2. ANALYSIS

The average age of the research participants is 42±7.4 years, their professional experience is 18±7.7 years, and the duration of employment in the institution is 8±5.5 years. The majority are women (58.9%), have a bachelor's degree (63.3%), and are mid-level managers (41.1%). According to the type of school graduated from, most education was received at a business faculty (35.6%). Among the participants, the majority are those who have not received management training and strategic management training (54.4% and 71.1%, respectively). In terms of the characteristics of hospitals, the shortest period of operation is 5 years, and the longest period of operation is 23 years. Most of them have a bed capacity of 1-100 and employ over 300 people (Table 1).

Table 1: Descriptive Information for Administrators and Hospitals

Variables		**Mean**	**SD**
Age (years)		42	7.4
Professional Experience (years)		18	7.7
Duration of Working in the Institution (years)		8	5.5
Characteristics of Participants	**Groups**	**n**	**%**
Gender	Female	53	58.9
	Male	37	41.1
Education Level	Associate degree	6	6.7
	Bachelor's degree	57	63.3
	Postgraduate	15	16.7
	Doctorate	12	13.3
Graduation School	Medical School	13	14.4
	Faculty of Management	32	35.6
	Faculty of Economics	17	18.9
	Faculty of Health Sciences	28	31.1
Management Position	Senior Manager	13	14.4
	Physician Manager	9	10.0
	Administrative Services Manager	15	16.7
	Nursing Services Manager	16	17.8
	Other Mid-Level Manager	37	41.1
Receiving Management Training	Yes	41	45.6
	No	49	54.4
Receiving Strategic Management Training	Yes	26	28.9
	No	64	71.1
Features of the Hospital		**n**	**%**
Activity Duration (years)	5	1	10
	10 -15	8	80
	23	1	10
Number of Beds	1-100	5	50

	101-200	4	40
	201-300	1	10
Number of Employees	100-200	3	30
	201-300	3	30
	301 +	4	40

When the knowledge level of the participants regarding strategic management tools was examined, it was seen that they had the highest knowledge of the "mission and vision" statement, followed by "customer relationship management" and "total quality management" tools. It was observed that the lowest level of knowledge was "value chain analysis". Among these tools, the most used tools by the participants in the last five years are "social media and the internet", while the least used tool is " business process reengineering" (Table 2).

Table 2: Managers' Knowledge and use of Strategic Management Tools

Strategic Management Tools	Knowledge (yes)		Used in the Last 5 Years (yes)	
	Number (n)	Percentage (%)	Number (n)	Percentage (%)
Balanced Scorecard	28	31.1	18	20.0
Benchmarking	77	85.6	36	40.0
Business Process Reengineering	30	33.3	12	13.3
Core Competencies	48	53.3	25	27.8
Total Quality Management	88	97.8	71	78.9
Customer Relationship Management	88	97.8	74	82.2
Downsizing	47	52.2	15	16.7
Mission and Vision Statements	89	98.9	73	81.1
Outsourcing	82	91.1	63	70.0
Strategic Planning	70	77.8	51	56.7
Strategic Alliances	50	55.6	19	21.1
Social media and Internet	87	96.7	76	84.4
Value Chain Analysis	24	26.7	14	15.6
Business Portfolio Analysis	32	35.6	17	18.9
Supply Chain Management	78	86.7	65	72.2
SWOT Analysis	75	83.3	40	44.4

As shown in Table 3, when the managers' priorities in the selection of strategic management tools were evaluated according to their gender, statistically significant results were observed between the groups in some statements. In the answers given to the statements "Innovative activities are very important for the development of our business", "Our top managers do not hesitate to take higher risks in order to increase their earnings", "We are not selective in the supply of goods and services necessary for our business", "Our business has a structure that can carry out all its activities on its own" and "Our business operates by being aware of the capabilities it has", the average score of female managers is significantly higher than male managers ($p=0.006$; $p<0.001$;

p=0.038; p=0.019 and p=0.007, respectively). In addition, there was no significant difference between the groups according to whether the participants received management training and strategic management training or not (p>0.05).

Table 3: Priorities in Choosing Strategic Management Tools by Gender

	Gender				Management Training				Strategic Management Training			
Statements for Determining the Priorities in the Selection of Strategic Management Tools	**Groups**	**x̄**	**Sd**	**Z**	**Groups**	**x̄**	**Sd**	**Z**	**Groups**	**x̄**	**Sd**	**Z**
Organizational culture is as important a factor as strategy in business success.	Female	4.38	0.71	-1.021	Yes	4.27	0.92	-0.221	Yes	4.08	1.09	-0.930
	Male	4.05	1.15		No	4.22	0.94		No	4.31	0.85	
Failure to give sufficient importance to customers' opinions will harm our performance.	Female	4.57	0.69	-1.745	Yes	4.44	0.84	-0.065	Yes	4.38	0.90	-0.433
	Male	4.32	0.82		No	4.49	0.68		No	4.50	0.69	
Innovative activities are very important for the development of our business.	Female	4.77	0.42	**-2.775***	Yes	4.71	0.46	-0.973	Yes	4.65	0.56	-0.346
	Male	4.30	1.00		No	4.47	0.92		No	4.55	0.82	
All employees of our company are actively involved in innovative activities.	Female	3.70	1.09	-0.142	Yes	3.80	1.08	-1.265	Yes	3.96	0.87	-1.245
	Male	3.68	1.03		No	3.59	1.04		No	3.58	1.11	
We make our decisions based on short-term financial returns.	Female	2.49	1.15	-0.680	Yes	2.49	0.98	-0.933	Yes	2.54	1.07	-0.798
	Male	2.30	1.00		No	2.35	1.18		No	2.36	1.10	
We take into account possible future changes when making decisions.	Female	4.06	0.80	-0.038	Yes	4.20	0.72	-1.482	Yes	4.19	0.57	-0.580
	Male	4.05	0.85		No	3.94	0.88		No	4.00	0.89	
Our ability to adapt to change gives us a significant competitive advantage.	Female	4.38	0.60	-1.784	Yes	4.20	0.95	-0.370	Yes	4.04	1.18	-0.191
	Male	3.89	1.17		No	4.16	0.87		No	4.23	0.77	
We share our dreams with our employees and customers to better introduce ourselves to them.	Female	3.70	0.89	-0.547	Yes	3.71	0.87	-0.437	Yes	3.69	0.74	-0.029
	Male	3.62	0.83		No	3.63	0.86		No	3.66	0.91	
We keep senior management's opinions at the forefront when making long-term decisions.	Female	4.04	0.88	-1.745	Yes	3.90	0.89	-0.038	Yes	3.65	0.98	-1.426
	Male	3.65	1.06		No	3.86	1.04		No	3.97	0.96	
Our top managers do not hesitate to take higher risks in order to increase their earnings.	Female	3.64	0.92	**-3.500***	Yes	3.27	1.10	-0.227	Yes	3.38	1.24	-0.609
	Male	2.81	1.13		No	3.33	1.09		No	3.27	1.03	
We are not selective in the supply of goods and services necessary for our business.	Female	2.77	1.38	**-2.077***	Yes	2.32	1.27	-1.180	Yes	2.46	1.42	-0.395
	Male	2.16	1.28		No	2.69	1.43		No	2.55	1.36	
Our business has a structure that can carry out all its activities on its own.	Female	3.30	1.05	**-2.339***	Yes	3.12	1.21	-0.385	Yes	3.04	1.25	-0.083
	Male	2.73	1.17		No	3.02	1.07		No	3.08	1.09	
Our business operates by being aware of the capabilities it has.	Female	3.92	0.87	**-2.720***	Yes	3.80	0.98	-0.939	Yes	3.77	0.99	-0.358
	Male	3.38	1.01		No	3.61	0.95		No	3.67	0.96	
The basis of the performance evaluation process is the performance of our employees.	Female	3.70	1.17	-1.248	Yes	3.61	1.12	-0.039	Yes	3.81	0.85	-0.790
	Male	3.49	1.07		No	3.61	1.15		No	3.53	1.22	
Our business does not see any harm in using outsourcing in the areas it needs.	Female	4.13	0.56	-1.048	Yes	4.07	0.61	-0.217	Yes	3.92	0.74	-1.186
	Male	3.97	0.69		No	4.06	0.63		No	4.13	0.55	
We continue our efforts towards sustainability even if it negatively affects our profitability.	Female	3.42	0.95	-1.426	Yes	3.17	1.09	-1.001	Yes	3.08	1.13	-1.392
	Male	3.11	0.97		No	3.39	0.84		No	3.38	0.88	
Nowadays, customers' loyalty to the brand is less than it used to be.	Female	3.09	1.08	-0.157	Yes	3.05	1.14	-0.377	Yes	3.23	1.07	-0.801
	Male	3.11	1.20		No	3.14	1.12		No	3.05	1.15	
Today's market leaders are expected to still be leaders 5 years from now.	Female	3.38	0.88	-0.445	Yes	3.37	0.99	-0.342	Yes	3.46	0.91	-0.223
	Male	3.43	1.19		No	3.43	1.04		No	3.38	1.06	
Over the next three years, we will focus on increasing our revenues rather than reducing our costs.	Female	3.38	1.08	-1.102	Yes	3.27	1.05	-0.178	Yes	3.31	1.01	-0.084
	Male	3.14	1.03		No	3.29	1.08		No	3.27	1.09	
It is felt that economic conditions are improving in our sector.	Female	2.55	1.07	-1.100	Yes	2.44	1.05	-0.025	Yes	2.42	1.07	-0.143
	Male	2.30	1.08		No	49.00	2.45	1.100	No	2.45	1.08	

*p<0.05

When analyzed according to the educational level of the managers, a statistically significant difference was found between the groups in the answers given to the statement "Today's market leaders are expected to still be leaders 5 years from now" (p=0.021). The score of the participants with a bachelor's degree is higher than the others. There was a statistically significant difference between the groups in the responses to the statement "Innovative activities are very important for the development of our business" according to the type of school graduated from (p=0.041). Participants who graduated from business school had the highest average score. According to the management position, there was no statistically significant difference between the groups in any of the statements (p>0.05) (Table 4).

Table 4: Priorities in Choosing Strategic Management Tools by Management Position, Education Level, and Type

Statements for Determining the Priorities in the Selection of Strategic Management Tools	Management Position				Education Level				Education Type			
	Groups	x̄	Sd	H	Groups	x̄	Sd	H	Groups	x̄	Sd	H
Organizational culture is as important a factor as strategy in business success.	SM	4.46	0.66	1.188	Associate	4.17	1.60	0.782	Medical School	4.23	0.73	2.390
	PM	4.22	0.67		Bachelor's	4.19	0.97		Management	4.50	0.51	
	ASM	4.27	1.03		Postgraduate	4.40	0.51		Economics	4.00	1.23	
	NSM	4.38	0.62		Doctorate	4.33	0.78		Health Sciences	4.11	1.13	
	Other	4.11	1.13									
Failure to give sufficient importance to customers' opinions will harm our performance.	SM	4.46	0.66	3.103	Associate	4.50	0.55	0.463	Medical School	4.38	0.65	4.995
	PM	4.44	0.53		Bachelor's	4.44	0.85		Management	4.66	0.48	
	ASM	4.53	0.52		Postgraduate	4.60	0.51		Economics	4.00	1.23	
	NSM	4.75	0.45		Doctorate	4.42	0.67		Health Sciences	4.57	0.57	
	Other	4.32	0.97									
Innovative activities are very important for the development of our business.	SM	4.62	0.65	3.808	Associate	4.83	0.41	2.884	Medical School	4.46	0.66	**8.253***
	PM	4.44	0.53		Bachelor's	4.51	0.85		Management	4.72	0.52	
	ASM	4.33	1.11		Postgraduate	4.80	0.41		Economics	4.24	0.97	
	NSM	4.81	0.40		Doctorate	4.50	0.67		Health Sciences	4.68	0.82	
	Other	4.59	0.76									
All employees of our company are actively involved in innovative activities.	SM	3.54	0.88	6.463	Associate	4.33	0.82	2.628	Medical School	3.62	0.77	1.021
	PM	3.44	0.73		Bachelor's	3.60	1.15		Management	3.63	1.04	
	ASM	3.53	0.92		Postgraduate	3.80	0.94		Economics	3.65	1.12	
	NSM	4.25	0.86		Doctorate	3.67	0.78		Health Sciences	3.82	1.19	
	Other	3.62	1.26									
We make our decisions based on short-term financial returns.	SM	2.31	1.38	6.384	Associate	2.83	0.98	4.200	Medical School	2.08	0.86	2.820
	PM	2.22	0.97		Bachelor's	2.51	1.18		Management	2.28	1.09	
	ASM	1.87	0.74		Postgraduate	2.27	0.88		Economics	2.59	1.33	
	NSM	2.56	1.09		Doctorate	1.92	0.79		Health Sciences	2.61	1.03	
	Other	2.65	1.09									
We take into account possible future changes when making decisions.	SM	4.23	0.93	6.823	Associate	4.33	0.52	3.362	Medical School	4.00	0.58	0.886
	PM	3.89	0.33		Bachelor's	4.00	0.89		Management	4.13	0.79	
	ASM	4.20	0.86		Postgraduate	4.33	0.49		Economics	4.00	1.06	
	NSM	4.31	0.60		Doctorate	3.83	0.84		Health Sciences	4.04	0.79	
	Other	3.86	0.89									

Statements for Determining the Priorities in the Selection of Strategic Management Tools	Management Position				Education Level				Education Type			
	Groups	x̄	Sd	H	Groups	x̄	Sd	H	Groups	x̄	Sd	H
Our ability to adapt to change gives us a significant competitive advantage.	SM	4.54	0.66	6.277	Associate	4.33	0.52	1.753	Medical School	4.08	0.64	2.055
	PM	4.00	0.50		Bachelor's	4.11	0.99		Management	4.34	0.75	
	ASM	3.93	0.96		Postgraduate	4.40	0.83		Economics	3.88	1.45	
	NSM	4.38	0.62		Doctorate	4.17	0.72		Health Sciences	4.21	0.74	
	Other	4.11	1.10									
We share our dreams with our employees and customers to better introduce ourselves to them.	SM	3.69	0.86	6.448	Associate	4.17	0.41	7.285	Medical School	3.08	0.76	7.475
	PM	3.00	0.87		Bachelor's	3.65	0.83		Management	3.78	0.83	
	ASM	3.53	0.92		Postgraduate	3.93	0.96		Economics	3.65	0.86	
	NSM	3.81	0.91		Doctorate	3.17	0.84		Health Sciences	3.82	0.86	
	Other	3.81	0.78									
We keep senior management's opinions at the forefront when making long-term decisions.	SM	4.08	0.95	4.244	Associate	4.33	0.82	1.671	Medical School	3.69	1.03	1.177
	PM	3.67	1.00		Bachelor's	3.82	1.02		Management	4.00	0.88	
	ASM	3.47	0.99		Postgraduate	4.00	0.76		Economics	3.88	1.22	
	NSM	3.94	0.93		Doctorate	3.75	1.06		Health Sciences	3.82	0.91	
	Other	4.00	0.97									
Our top managers do not hesitate to take higher risks in order to increase their earnings.	SM	3.15	0.90	4.768	Associate	3.83	0.75	1.584	Medical School	3.15	0.99	2.335
	PM	3.33	1.00		Bachelor's	3.25	1.11		Management	3.13	1.19	
	ASM	3.00	0.85		Postgraduate	3.27	1.22		Economics	3.35	0.86	
	NSM	3.81	1.11		Doctorate	3.33	0.99		Health Sciences	3.54	1.14	
	Other	3.24	1.21									
We are not selective in the supply of goods and services necessary for our business.	SM	2.54	1.45	1.781	Associate	2.33	1.75	2.579	Medical School	2.00	1.00	3.236
	PM	1.89	0.93		Bachelor's	2.67	1.35		Management	2.41	1.34	
	ASM	2.53	1.36		Postgraduate	2.47	1.51		Economics	2.94	1.35	
	NSM	2.69	1.45		Doctorate	2.00	1.04		Health Sciences	2.64	1.52	
	Other	2.59	1.42									
Our business has a structure that can carry out all its activities on its own.	SM	3.38	1.12	4.618	Associate	4.17	0.75	6.322	Medical School	2.77	1.01	7.335
	PM	2.44	1.01		Bachelor's	2.96	1.13		Management	2.91	1.15	
	ASM	2.87	1.13		Postgraduate	3.13	1.13		Economics	3.71	1.21	
	NSM	3.19	0.83		Doctorate	2.92	1.08		Health Sciences	3.00	1.02	
	Other	3.14	1.25									
Our business operates by being aware of the capabilities it has.	SM	3.77	0.60	4.995	Associate	4.33	0.52	4.498	Medical School	3.77	0.60	2.522
	PM	3.67	0.71		Bachelor's	3.56	1.02		Management	3.53	0.95	
	ASM	3.60	0.63		Postgraduate	3.87	1.06		Economics	3.88	1.05	
	NSM	4.19	0.91		Doctorate	3.83	0.58		Health Sciences	3.75	1.08	
	Other	3.51	1.19									
The basis of the performance evaluation process is the performance of our employees.	SM	3.69	0.75	2.220	Associate	4.00	0.89	1.405	Medical School	3.62	0.65	1.721
	PM	3.56	0.73		Bachelor's	3.61	1.24		Management	3.56	1.13	
	ASM	3.53	0.99		Postgraduate	3.47	1.13		Economics	3.88	1.05	
	NSM	3.81	1.38		Doctorate	3.58	0.67		Health Sciences	3.50	1.35	
	Other	3.54	1.28									
Our business does not see any harm in using outsourcing in the areas it needs.	SM	3.85	0.38	4.198	Associate	4.00	0.63	2.803	Medical School	4.00	0.58	5.533
	PM	4.11	0.60		Bachelor's	4.14	0.61		Management	3.97	0.47	
	ASM	4.00	0.38		Postgraduate	3.93	0.70		Economics	3.94	0.75	
	NSM	4.25	0.78		Doctorate	3.92	0.52		Health Sciences	4.29	0.66	
	Other	4.08	0.68									
We continue our efforts towards sustainability even if it negatively affects our profitability.	SM	3.46	0.66	1.987	Associate	3.33	1.03	2.408	Medical School	3.46	0.88	3.977
	PM	3.33	1.00		Bachelor's	3.21	0.98		Management	3.31	0.78	
	ASM	3.13	0.92		Postgraduate	3.27	1.16		Economics	2.82	1.13	
	NSM	3.50	1.10		Doctorate	3.67	0.49		Health Sciences	3.46	1.04	
	Other	3.19	1.02									

Statements for Determining the Priorities in the Selection of Strategic Management Tools	Management Position				Education Level				Education Type			
	Groups	x̄	Sd	H	Groups	x̄	Sd	H	Groups	x̄	Sd	H
Nowadays, customers' loyalty to the brand is less than it used to be.	SM	3.31	1.11	1.652	Associate	2.67	1.37	2.042	Medical School	3.23	1.17	3.276
	PM	3.22	1.30		Bachelor's	3.05	1.17		Management	3.28	1.02	
	ASM	3.27	1.10		Postgraduate	3.27	0.80		Economics	3.18	1.24	
	NSM	3.00	0.97		Doctorate	3.33	1.16		Health Sciences	2.79	1.13	
	Other	2.97	1.19									
Today's market leaders are expected to still be leaders 5 years from now.	SM	3.23	1.30	3.322	Associate	2.83	1.17	**9.709***	Medical School	2.77	1.09	6.579
	PM	3.00	1.23		Bachelor's	3.61	0.94		Management	3.63	0.98	
	ASM	3.67	1.11		Postgraduate	3.40	0.91		Economics	3.53	1.18	
	NSM	3.25	0.78		Doctorate	2.67	1.07		Health Sciences	3.36	0.83	
	Other	3.51	0.90									
Over the next three years, we will focus on increasing our revenues rather than reducing our costs.	SM	3.31	0.95	1.486	Associate	4.00	1.10	7.381	Medical School	3.15	0.90	0.705
	PM	3.33	0.87		Bachelor's	3.39	1.05		Management	3.22	1.10	
	ASM	3.13	1.25		Postgraduate	2.87	1.06		Economics	3.41	1.23	
	NSM	3.06	1.00		Doctorate	2.92	0.90		Health Sciences	3.32	1.02	
	Other	3.41	1.12									
It is felt that economic conditions are improving in our sector.	SM	2.46	1.13	1.653	Associate	2.67	1.03	1.162	Medical School	2.38	0.96	3.401
	PM	2.44	1.13		Bachelor's	2.47	1.14		Management	2.25	1.11	
	ASM	2.13	1.06		Postgraduate	2.47	1.06		Economics	2.88	1.27	
	NSM	2.56	1.03		Doctorate	2.17	0.84		Health Sciences	2.43	0.92	
	Other	2.51	1.10									

SM: Senior Manager, PM: Physician Manager, ASM: Administrative Services Manager, NSM: Nursing Services Manager, Other: Other Mid-Level Manager

In Table 5, the relationships between managers' priorities in the selection of strategic management tools and age, years of professional experience and duration of working in the institution are examined.

Negative and weak relationships were observed between age and the statements "We make our decisions based on short-term financial returns" (r=-0.367; p<0.001), "We are not selective in the supply of goods and services necessary for our business" (r=-0.245; p=0.020), "Over the next three years, we will focus on increasing our revenues rather than reducing our costs" (r=-0.220; p=0.037) and "It is felt that economic conditions are improving in our sector" (r=-0.216; p=0.041).

Negative and weak relationships were observed between professional experience and the statements "We make our decisions based on short-term financial returns" (r=-0.221; p=0.036) and "We are not selective in the supply of goods and services necessary for our business" (r=-0.236; p=0.025).

There are positive and weak relationship between the duration of working in the institution and the statements "Failure to give sufficient importance to customers' opinions will harm our performance" (r=0.282; p=0.007), "Innovative activities are very important for the development of our business" (r=0.210; p=0.047), "We share our dreams with our employees and customers to

better introduce ourselves to them" (r=0.262; p=0.013) and "We continue our efforts towards sustainability even if it negatively affects our profitability" (r= 0.228; p=0.031). On the other hand, a negative and weak relationship was observed between the statement "Over the next three years, we will focus on increasing our revenues rather than reducing our costs" and the duration of working in the institution (r=-0.224; p=0.034).

Table 5: The Relationship Between Managers' Priorities in Choosing Strategic Management Tools and Age, Professional Experience and Years of Working in the Organization

Statements for Determining the Priorities in the Selection of Strategic Management Tools		Age	Professional Experience	Working Duration in the Institution
Organizational culture is as important a factor as strategy in business success.	r	0.014	-0.025	-0.054
Failure to give sufficient importance to customers' opinions will harm our performance.	r	-0.095	0.033	**0.282****
Innovative activities are very important for the development of our business.	r	-0.041	0.004	**0.210***
All employees of our company are actively involved in innovative activities.	r	-0.015	0.026	0.180
We make our decisions based on short-term financial returns.	r	**-0.367****	**-0.221***	0.029
We take into account possible future changes when making decisions.	r	-0.042	-0.025	0.011
Our ability to adapt to change gives us a significant competitive advantage.	r	-0.057	-0.043	0.174
We share our dreams with our employees and customers to better introduce ourselves to them.	r	-0.025	0.005	**0.262***
We keep senior management's opinions at the forefront when making long-term decisions.	r	-0.113	-0.111	0.007
Our top managers do not hesitate to take higher risks in order to increase their earnings.	r	0.000	0.098	0.173
We are not selective in the supply of goods and services necessary for our business.	r	**-0.245***	**-0.236***	0.060
Our business has a structure that can carry out all its activities on its own.	r	-0.034	-0.042	0.140
Our business operates by being aware of the capabilities it has.	r	-0.037	-0.017	0.101
The basis of the performance evaluation process is the performance of our employees.	r	0.019	-0.021	-0.159
Our business does not see any harm in using outsourcing in the areas it needs.	r	-0.165	-0.135	0.001
We continue our efforts towards sustainability even if it negatively affects our profitability.	r	0.159	0.166	**0.228***
Nowadays, customers' loyalty to the brand is less than it used to be.	r	0.129	0.013	0.057
Today's market leaders are expected to still be leaders 5 years from now.	r	-0.089	-0.130	0.019
Over the next three years, we will focus on increasing our revenues rather than reducing our costs.	r	**-0.220***	-0.154	**-0.224***
It is felt that economic conditions are improving in our sector.	r	**-0.216***	-0.172	-0.054

*p<0.05 ** p<0.01

3. DISCUSSION

Healthcare organizations are businesses that provide uninterrupted services with intensive labor and overtime of teams of professionals trained in different fields (Swayne et al, 2006). Health services worldwide are becoming increasingly complex (Plsek & Greenhalgh, 2001). Strategic management is important for them to be managed effectively.

In this study, the level of knowledge of middle and senior managers of ten private hospitals operating in Antalya Province about strategic management tools, their use of these tools, and their priorities and needs in tool selection were examined.

Similar to the results of this study, previous studies show that hospital managers have the highest level of knowledge about strategic management tools and that the tools they use are mission and vision statements, SWOT analysis, total quality management, social media tools and strategic planning with the internet (Rigby & Bilodeau, 2007, 2009, 2013; Erbaşı & Ünüvar, 2012; Bilgin Demir, 2015; Çınar et al., 2019).

Similar to the results of this study, previous studies reveal that the least preferred strategic management tools used by hospital managers are business process reengineering, downsizing, balanced scorecard and value chain analysis (Rigby & Bilodeau, 2007). In addition, Rigby and Blodeau's (2013) study, which included all sector managers on a global scale, found that the rate of use of strategic management tools was moderate (61-83%). Similarly, in the research of Çınar et al. (2019), it was observed that the rate of managers' use of strategic management tools was between 50-80%.

However, studies, including this study, show that managers' knowledge of strategic management tools and therefore their use of strategic management tools remain at a limited level. Rigby (2007) stated that the success of strategic management tools depends on managers' knowledge of the strengths and weaknesses of each tool, its integration with their needs, and its use in the right place and at the right time and emphasized that in the absence of objective data about the tools, the selection and use of these tools risk dangerous consequences for organizations. In this direction, it is thought that it would be important to develop skills to increase the knowledge and usage levels of managers.

In the current study, it was found that female managers gave higher scores to some statements in priorities in the selection of strategic management tools. In Ergül's (2017) study, it was determined that the level of knowledge of strategic management tools of male participants

was higher than that of female participants and the use of strategic management tools in the last one year was higher in female participants than male participants. Çağatay (2019) compared the gender of the participants and their perspectives on the use of strategic management tools in his study and stated that there was no significant difference according to the gender of the participants as a result of the analysis.

When it was examined whether the priorities of hospital managers in the selection of strategic management tools differed according to their educational status, it was observed that the educational status differed only in the response to the statement "Today's market leaders are expected to still be leaders 5 years from now". Unlike this study, Bilgin Demir (2015) grouped the educational status of the participants as undergraduate and graduate and observed that there was no significant difference between the educational status of hospital managers and their priorities in the selection of strategic management tools. In Ergül's (2017) study, it was determined that there was a difference between the educational level of the participants and the use of strategic management tools in the last year, satisfaction level and requirement level, but the use of strategic management tools in the next year and the level of use of strategic management tools did not differ according to the educational level of the participants. In Çağatay's (2019) study, participants' perspectives on the use of strategic management tools were examined according to their educational level. As a result of the research in which the level of education was gathered in 7 categories; it was seen that participants with higher education, 4-year faculty and master's degree used more strategic management tools than the participants in the medical specialty group.

In the research, as managers' professional experience increased, negative relationships were observed in the statements "We make our decisions based on short-term financial returns" and "We are not selective in the supply of goods and services necessary for our business". These results show that the time spent in the profession has an impact on managers' perspective on short-term investments and their tendency to act selectively. In Ergül's (2017) study, it was observed that the level of knowledge of strategic management tools, usage status in the last year, usage status in the future, satisfaction level and need level differed according to the participants' working period in the institution, while the level of strategic management tools usage level did not differ according to the participants' working period in the institution. In Çağatay's (2019) study, the total working years of managers were examined by dividing them into 5 categories, and it was observed that

those with a total working time of 21 years or more used more strategic management tools compared to those with a working time of 1-5 years.

Finally, the relationship between the years of working in the organization and the determination of the priorities in the selection of strategic management tools is examined. There is a positive and significant relationship between the working duration and the statements "Not giving enough importance to the opinions of customers will harm our performance", "Innovative activities are very important for the development of our business", "We share our dreams with our employees and customers in order to introduce ourselves better to them", "We continue our efforts towards sustainability even if it negatively affects our profitability" and "In the next three years, we will focus on increasing our revenues rather than reducing our costs" and years of service in the organization. When these results are analyzed, it is seen that as the time spent by the managers in the organization increases, they gain awareness about the opinions of the customers, the importance they attach to sustainability increases, and they focus on the benefits of profitability rather than reducing costs. It also suggests that common dreams reinforce the sense of belonging and the effects on organizational culture increase the tendency of managers to take positive steps. In Ergül's (2017) study, it was observed that the level of knowledge of strategic management tools, the level of use in the last year, the level of use in the future, the level of satisfaction, and the level of need-requirement differed according to the participants' working time in the organization, while the level of use of strategic management tools did not differ according to the participants' working time in the organization.

4. CONCLUSIONS

The health sector, which is about improving the health of individuals and society, is an open system that is affected by the changes in the environment in a very fast and multifaceted way. At the same time, with its structural and functional characteristics, it makes it compulsory to evaluate both the service delivery activities and the elements of management and operation of health enterprises, which have both a dynamic and complex organizational chart, in integrity by taking all aspects.

As a result of this study, it was determined that managers have knowledge of strategic management tools and actively use some of these tools. However, it is seen that some management tools are used very little. Accordingly, it is possible to say that managers' knowledge of strategic management tools is limited. In addition, it was observed that female managers received higher

scores than male managers in both the priorities in the selection of strategic management tools and the level of institutionalization. In addition, significant differences were observed between the groups in terms of educational level and type of school graduated in the priorities of the managers in the selection of strategic management tools. In addition, there are significant relationships between these choices and the participants' age, years of professional experience and years of working in the organization.

In the light of these results, the following recommendations have been developed;

- When considering the importance of employing individuals with training in management and strategic management in hospital administration for predicting success, it becomes crucial to enhance the skills and knowledge of current managers in this field. It is recommended to provide both in-service and out-of-service training to improve their competency. Additionally, creating mentoring programs where experienced managers offer support to younger managers is advised.
- On the other hand, it is thought-provoking that there was no significant difference between the groups who received both management and strategic management training and those who did not. This result reminds us of the necessity to review the content and quality of these trainings and the importance of conducting studies to improve them at the academic level.
- Since this study covers private health organizations, it should be taken into consideration that the element of competition stands out. For this reason, conducting studies in which public and private sector health organizations will be compared within themselves or between groups will contribute to the literature.
- Since this study was conducted on a sample limited to Antalya province, it is thought that there is a need for more comprehensive studies that will increase the generalizability of the results and address different geographical regions of Turkey.

Limitations: There are some limitations in the research. This research sample is limited to the participation of employees working as senior and mid-level managers in private hospitals in Antalya Province. The research is limited to data collected between August - November 2023.

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Distance Health Services Organization in University Hospitals: The Case of a Public University Hospital

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Abstract

In today's globalized healthcare market, it must strive to deliverthe healthcare services required by their target audience using modern medical technology and software, regardless of physical location, country and/or geography. Although distance health services and telemedicine applications are not new, their use has surged among healthcare organizations due to the contagious nature of the New Coronavirus Disease (Covid-19) or corona pandemic. This study aims to analyze the legal aspects of Distance Health Services (DHS) in a public university hospital, including the process for obtaining a "Distance Health Service Activity Permit Certificate", the characteristics, quantity and qualifications of the human resources required, the physical setup of the service areas, and the information technologies and systems to be used. It also addresses the ministry audit criteria related to the pricing, invoicing and reimbursement for health services, aiming to contribute to the structuring stages of distance health services of similar health institutions.

Keywords: Distance Health Services, Tele-Medicine, Hospital, E-Health, Tele-Health

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INTRODUCTION

With the development and spread of information and communication technologies (ICT) across all areas of life, significant changes have occurred in business practices. In this context, the advancement of distance health services should be viewed in parallel with developments in information technologies, such as machine learning, big data, artificial intelligence applications, and the increased ease of accessing and sharing information through the widespread use of personal computers and the internet.

CONCEPTS RELATED TO DISTANCE HEALTHCARE SERVICES

Before defining telemedicine, telehealth, m-health, and e-health, it is useful to explain these concepts in detail. The World Health Organization (WHO) defines telemedicine as "the delivery of healthcare by all health professionals, where distance is a critical factor, using information and communication technologies to improve the health of individuals and communities through diagnosis, treatment, illness and injury prevention, exchange of valid information for research and evaluation, and continuing education for healthcare providers" (WHO, 2010). This definition emphasizes the use of information and communication technologies in healthcare-related tasks and processes. Telemedicine plays an important role in enhancing access to healthcare services by enabling the transfer of specialized medical knowledge to remote areas, improving health outcomes, and supporting decision-making processes (Iqbal and Khan, 2017).

A concept closely related to telemedicine is telehealth. Kazley et al. (2012) note that although telemedicine and telehealth can be used interchangeably, telehealth encompasses a broader range of services, including those provided by other healthcare professionals (such as pharmacists, physiotherapists, and nurses) outside of hospitals, in addition to hospital-based diagnostic and treatment services. Telemedicine specifically refers to the remote delivery of clinical services, including activities like diagnosis, monitoring, and treatment (Bonica et al., 2024). In contrast, telehealth is a broader term that includes not only clinical services but also non-clinical services, such as remote administrative meetings and continuing medical education (Ahmad et al., 2022).

M-health is defined as 'medical and public health applications supported by mobile devices such as mobile phones, patient monitoring devices, personal digital assistants (PDAs), and other wireless devices' (WHO, 2011). Additionally, it is important to discuss the concept of e-health.

The Ministry of Health defines e-health as 'the use of information technologies in the healthcare sector to provide effective and efficient health services, ensure rapid access for citizens, and facilitate sustainable data sharing with relevant stakeholders.' In summary, e-health can be defined as 'all types of medical informatics applications designed to facilitate the management and delivery of health services' (Bonfiglo, 2013). Della Mea (2001) noted that with the emergence of the e-health concept, the term 'telemedicine' became obsolete, and e-health emerged as an umbrella concept encompassing all applications of information and communication technologies in health services. Therefore, it is more accurate to consider telehealth services as a component of e-health.

As a term that encompasses telemedicine, telehealth, m-health, and e-health, distance healthcare emphasizes the remote delivery of health services using information and communication technologies. Its goals include increasing treatment effectiveness, reducing costs, and ensuring the sustainability of health systems on a global scale (Ahmad et al., 2022). The Ministry of Health (2022) defines distance healthcare as 'healthcare services provided by a healthcare professional to individuals requesting services through a distance health information system.

DEVELOPMENT OF DISTANCE HEALTH SERVICES

The development of information and communication technologies (ICT) has significantly impacted various sectors, reshaping communication, access to information, and business processes. In the late 20th century, the rise of the knowledge economy marked a clear transition to networked social and economic activities. This shift was facilitated by the widespread adoption of ICT by governments, citizens, and businesses, as well as the establishment of global internet infrastructure (Yeretnova and Sartakova, 2021).

The health sector is one of the areas where technological developments have been most rapidly reflected. Innovations in ICT have profound consequences for the delivery and organization of health services, as well as for health and disease management. In this regard, the development of distance health services worldwide progresses in parallel with the information and communication infrastructures of individual countries.

Recent advances in medical technology have revolutionized the way patients are monitored, tracked, and managed over long distances, including wireless medical sensor networks and wearable devices (Binu et al., 2019). These developments are crucial for providing access to

healthcare services, particularly for individuals in rural and underserved areas where traditional healthcare delivery may be limited (Carey et al., 2018). Furthermore, the integration of distance health interventions based on internet or mobile communication networks has proven effective for chronic disease management, such as hypertension, by offering ongoing support and medication adherence reminders (Wu et al., 2019).

Overall, the development of telehealth alternatives has a transformative impact on bridging gaps in access to healthcare and delivering quality care to various segments of society. The use of telehealth services has gained prominence globally, especially during the Covid-19 pandemic, demonstrating its effectiveness in enabling real-time consultations between healthcare providers, facilitating distance screening for conditions such as dermatological issues, and implementing monitoring programs for chronic diseases like chronic obstructive pulmonary disease and heart failure (Behar et al., 2020).Additionally, the integration of clinical guidelines into distance health applications has shown potential for increasing acceptance, utilization, and accessibility of these guidelines, particularly for healthcare professionals in remote areas, thereby enhancing the overall quality of care provided (Reddy et al., 2017).

DISTANCE HEALTH SERVICES IN TÜRKİYE

From the Turkish perspective, one of the pioneering steps in the process of e-health services was the establishment of the Information Processing Center at Hacettepe University Hospital. In 1967, Dr. Aydın Köksal, assigned by İhsan Doğramacı to set up a data processing center in the hospital, worked for two years, resulting in the largest computer system established in Türkiye at that time. Subsequently, the hospital implemented important health informatics systems such as the CORTTEX Integrated Hospital Information Management System and PACS, maintaining its position as a pioneering institution in this field (Köksal, 2007; Ak, 2009).

In the 1990s, as part of the 1st and 2nd Health Projects of the Ministry of Health, the establishment and development of health information systems, hospital information systems, and management information systems at the national level became priority targets. Consequently, the Department of Information Processing was established within the ministry to coordinate these initiatives (Özsarı, 1998; Ak, 2009). With the introduction of the 2003 Health Transformation Program (HTP), numerous health information technology applications were implemented to facilitate access to health services (Caner et al., 2018; Kose et al., 2020). Currently, various

applications such as the Central Physician Appointment System (CPAS), Personal Health Record System (PHRS), Ministry of Health Communication Center (MHCC), Barrier-Free Health Communication Center (HCS), and the Ministry of Health Telemedicine System are in use (Kuh, 2019). These technological advancements have created new possibilities and opportunities in health service delivery, including distance health service provision.

The Covid-19 pandemic, which lasted several years in Türkiye as it did worldwide, significantly contribute to the adoption and spread of information and communication technologies across all aspects of life. During the pandemic, schools continued education through remote methods, remote working became commonplace, and discussions emerged regarding the application of digital opportunities in various sectors.

In 2021, the Ministry of Health General Directorate of Health Information Systems launched the "Dr. e-Nabız Tele-Health Project" through the E-Nabız system to enhance citizens' access to healthcare services. This project enabled Covid-19 patients in isolation and citizens in contact with healthcare providers to conduct online video consultations with their physicians. Patients who made appointments through the MHRS could see their doctors online and print prescriptions by clicking on the link sent via SMS at the appointment time. The project was piloted in hospitals in Ankara, Kırıkkale, Yalova, and Istanbul, as well as in family physicians' offices in Samsun, with the goal of expanding its reach. Furthermore, in recent years, telehealth services have emerged as an alternative to strengthen primary health care and home care, reduce hospital visits and admissions, and thereby decrease costs.

On February 10, 2022, the Ministry of Health published the "Regulation on the Provision of Distance Healthcare Services" to establish a legal framework for delivering these services. The regulation includes provisions for providing healthcare services regardless of location and outlines the principles for authorizing facilities to offer distance healthcare services, registering health information systems, and supervising healthcare providers. It mandates that the information systems necessary for distance healthcare services must be developed and registered in accordance with the standards set by the Ministry. Distance healthcare services encompass various offerings, such as examinations, medical consultations, disease management, and follow-up care. The regulation also addresses patient information, identity verification, patient rights, and the protection of personal data. Additionally, prohibitions and limitations on providing distance healthcare services have been established, and such services are also permitted within the

framework of international health tourism. Healthcare facilities must obtain an operating license from the Ministry to provide distance healthcare services.

FUTURE FORECAST REGARDING DISTANCE HEALTHCARE SERVICES

Telehealth offers numerous advantages that contribute to improving healthcare delivery and patient outcomes. One significant benefit is that patient care can be provided away from hospitals or other healthcare facilities. This allows for risk assessments and screening processes for conditions such as infectious diseases to be conducted remotely using mobile applications or self-administered test kits (Sullivan & Aral, 2022). Consequently, this decentralization of patient care increases access to healthcare services, reduces the physical burden on healthcare facilities, and makes healthcare more convenient and efficient for patients. Additionally, remote health monitoring lowers healthcare costs by providing cost-effective solutions for both healthcare providers and patients, thereby contributing to the sustainability of global healthcare systems (Binu et al., 2019). By leveraging telehealth technologies, healthcare organizations can optimize resource utilization and streamline healthcare delivery processes, which reduces costs while improving treatment outcomes.

Telehealth interventions based on the Internet or mobile communication networks have the potential to enhance patient engagement and adherence to treatment plans, particularly for chronic diseases such as hypertension. These interventions are especially beneficial for older patients and those living in rural areas, as they provide ongoing support, medication adherence reminders, and lifestyle guidance (Wu et al., 2019). Moreover, telehealth systems facilitate the implementation of personalized care strategies, offering tailored interventions and follow-up care for patients, ultimately leading to improved health outcomes (Liu et al., 2022). Overall, the advantages of telehealth extend beyond cost savings to encompass access, patient engagement, and personalized care delivery, with the potential to significantly transform healthcare delivery and enhance patient well-being.

Despite these advantages, distance health services also present some disadvantages. One notable challenge is the potential obstacles healthcare providers face when integrating telehealth technologies into traditional workflows (Alvarado et al., 2017). A failure to effectively integrate telehealth technology with conventional service delivery can lead to inefficiencies and hinder the adoption of these services by both patients and healthcare personnel, preventing seamless

integration into existing healthcare practices. Additionally, some remote health monitoring devices may have limitations, such as signal quality issues, intermittent recordings, and patient acceptance problems, which can affect the reliability and effectiveness of telehealth interventions (Liu et al., 2022). Furthermore, challenges arise in directing patients who are accustomed to receiving care in hospitals and healthcare facilities toward telehealth services.

The digital divide, highlighted by Kuh (2019), emphasizes the disparities between individuals who can and cannot access information and communication technologies, as well as those who can effectively utilize them. This divide can also manifest in access to health services, potentially leading to inequalities among individuals, institutions, societies, and countries in the context of distance healthcare services.

Despite these challenges, distance health services are expected to play an increasingly significant role in our lives as a component of healthcare delivery. Next-generation information and communication technologies, such as artificial intelligence, deep learning, machine learning, and big data, will further enhance the effectiveness and efficiency of distance health services.

This study aims to develop an application procedure for healthcare institutions wishing to provide distance health services within the framework of the legislation in Türkiye. The following sections will explain this process using the example of a university hospital.

DISTANCE HEALTH SERVICE APPLICATION PROCESS IN TÜRKİYE

Distance Health Service Activity Permit Certificate

Health institutions wishing to provide distance health services must first obtain a 'Distance Health Service Activity Permit.' Once the permit is secured, it must be added to the institution's existing activity permit, necessitating an update to the activity permit. The application process for obtaining a Distance Health Service Activity Permit Certificate is regulated by the Regulation on the Provision of Distance Health Services (Art. 8). To apply for this permit, the health institution must submit the required documents to the Provincial Health Directorate;

- Health Facility Opening/Operation Permit Certificate
- Distance Healthcare Information System (DHIS) Authorization Certificate
- Technological Equipment List
- Venue List
- List Containing the Information of the Healthcare Professional(s)

· International Health Tourism Authorization Certificate (If available)

If the Provincial Health Directorate identifies any deficiencies during the examination of the application file, it will notify the applicant within 15 business days. If the application meets the necessary requirements, it will be forwarded to the General Directorate of Health Services after being reviewed by a commission established by the Directorate. Upon approval by the General Directorate, the 'Distance Health Service Activity Permit' will be issued, specifying the fields and boundaries of the activity. If the applicant health institution holds an International Health Tourism Authorization Certificate, the relevant international health areas will also be indicated.

Distance Health Information System

Distance Health Information Systems (DHIS) can be defined as platforms that utilize technologies focused on protecting personal data, ensuring patient privacy, and securely sharing information in the service delivery processes between healthcare users or clients and healthcare professionals providing distance healthcare services. For these systems to be used in delivering health services, they must be developed or registered with the Ministry of Health. This regulation has initiated billing processes for health institutions affiliated with the Ministry of Health, aligning them with the standards set by the Social Security Institution.

With the amendments made to the Social Security Institution Health Implementation Communiqué (SCIHIC), the following changes now apply to health institutions affiliated with the Ministry of Health:

Distance health services can be invoiced using the procedure code '520032 Health Services for Distance Patient Evaluation' found in the Annex-2B list of the SCIHIC. However, when provided by tertiary healthcare providers affiliated with the Ministry of Health, the code '520032' will be billed at twice the transaction point price.

- For the same patient at the same health service provider, the cost of “Health services for distance patient evaluation” is covered by the Institution at most once per day.
- If prescribed, medications can be obtained from contracted pharmacies.
- The number of applications for “Health services for distance patient evaluation” invoiced to the Institution cannot exceed 15% of the total number of outpatient applications across all branches, excluding emergency room applications, during a single day at the health service provider.

- If the amounts listed in Annex-2/A of the SUT are billed during the outpatient visit of the patient to the same health service provider for the same specialty branch, excluding emergency room applications, the "520032 Health services for distance patient evaluation" procedure cannot be billed for the same specialty branch within 10 days, including the day of the outpatient visit.
- If the "520032 Health services for distance patient evaluation" procedure is billed during the patient's outpatient visit to the same healthcare provider for the same specialty branch, excluding emergency room applications, the "520032 Health services for distance patient evaluation" procedure cannot be billed for the same specialty branch within 10 days, including the day of the outpatient visit.

Distance International Health Tourism Services

Healthcare facilities that have obtained an International Health Tourism Authorization Certificate are permitted to provide distance healthcare services as part of international health tourism and tourist health, in accordance with the relevant legislation. In this context, an International Health Tourism Unit must be established within the healthcare institution.

To establish this unit, the healthcare facility must achieve a minimum score of 85 out of 100 in the Turkish Quality Standards in Health Evaluations. Additionally, a physician responsible for health tourism and an assistant must be designated for this unit, both of whom must have scored at least 65 points on the foreign language exams conducted by the Turkish Student Selection and Placement Centre, or have qualifications that are recognized as equivalent. This information must be communicated to the Ministry of Health.

Authentication and Protection of Personal Data in Distance Health Services

According to the principles outlined in the Ministry of Health General Directorate of Public Hospitals' circular numbered 2024/8 on Distance Patient Assessment (DPA), it has been established that data controllers and individuals responsible for data processing must handle personal data obtained through services provided under the Regulation on Distance Health Services in compliance with the Law on the Protection of Personal Data and relevant legislation. They are responsible for ensuring the technical and administrative security related to this matter. The circular also states that healthcare professionals may request the client to display their official

identity document on camera at the beginning or during the video call within the healthcare institution.

Audit and Administrative Sanctions in Distance Health Service Provision

The audit questions in the annex of the Regulation on the Provision of Distance Health Services are categorized as appropriate, inappropriate, and exempt. Regarding administrative sanctions, the ministry's detection levels are graded between 1 and 5. As the number of determinations increases, the severity of the administrative sanctions also escalates in parallel. When examining the ministry's audit questions; it is evident that health institutions may face administrative sanctions for several reasons. These include providing distance health services without the ministry's permission, offering services in areas for which they are not authorized, delivering services outside the scope of distance health, utilizing healthcare professionals who have not been issued a work certificate, employing professionals who are not authorized to practice their profession in Türkiye, failing to provide necessary information to individuals requesting health services, neglecting to take required measures in accordance with the Patient Rights Regulation, and not storing personal data in compliance with the "Law No. 6689 on the Protection of Personal Data" and its secondary regulations. Additionally, the Ministry imposes sanctions for issues such as taking video and audio recordings without the express consent of the parties, failing to store these recordings in the health institution or in secure data centers permitted by the Ministry without the express consent of the parties, not deleting the recordings after twelve months, not providing relevant works and actions related to distance health services in the central health data system according to the procedures and principles determined by the Ministry, and failing to send the information and documents requested by the Ministry.

1. STRUCTURING THE DISTANCE HEALTH SERVICES SYSTEM AT DOKUZ EYLÜL UNIVERSITY HOSPITAL

1.1. Method

In obtaining research data, we utilized relevant literature, data related to the Distance Health Services Unit of Dokuz Eylul University Hospital (DEUH), and national legislation on the subject. This part of our study will focus on the structuring of the distance health services system in DEUH, a public university hospital where the distance health system has been established. To conduct the research, a study permission certificate dated 08.03.2024, numbered E-14585038-663.08-930701,

was obtained from the hospital. The ethical appropriateness of the study was approved by decision number 33, made during the meeting of the Dokuz Eylul University Social and Human Sciences Scientific Research and Publication Ethics Committee on 02.04.2024.

1.2. Distance Health Service Activity Authorization Certificate

Healthcare organizations wishing to provide distance healthcare services must have/issue the documents required in Table-2.

Table 2. Documents Required for Distance Health Service Activity Authorization Certificate

Documents to be Prepared for Distance Health Service Activity Authorization Certificate Application	Explanations
Activity Authorization Certificate	Health Institution Opening/Functioning Authorization Certificate
Distance Healthcare Information System (KTS) Authorization Certificate	The period of authorization granted by the Ministry of Health must not be older than the validity date for the application.
Technological Equipment List	Computer, hard disk, Audio and video peripheral equipment etc.
Venue List	The sketch of the room / clinic / clinic units within the institution / organization where the distance health service is planned to be provided, the approval of the sketch by the unit where the institution / organization / medical practice requesting service provision is licensed, the sketch should cover the area where the distance health service provision will be made, it should be clearly visible and clearly visible, and it should be indicated in writing on the sketch in the form of "Distance Health Service Provision Room / Clinic" that the relevant service is planned to be provided in these units / units..
List Containing Information of Healthcare Professional(s)	List of physicians who will provide distance health services (including Dietician, Psychologist and Physiotherapist), Identity information, diplomas (certified as original, including the registration part on the back of the diploma) and the identity information and diplomas (certified as original, including the registration part on the back of the diploma) of the relevant physician/non-physician professional (Dietician, Psychologist and Physiotherapist) must be included.
International Health Tourism Authorization Certificate	If the institution/organization wants to provide the service in question within the international scope, there must be a document to be submitted
The commitment letter	In the commitment letter, a commitment letter sample containing explanations on how they will fulfill the service-based activity (working hours, working order, working order of the physicians providing services, etc.) should be prepared and all of the documents in question should be approved by the authorized person (Manager / Managing Director / Health Professional) of the health institution / organization requesting wet signed and stamped and submitted to the ministry)

DEUH completed the documents specified in Table 2 and submitted an official application to the Izmir Provincial Directorate of Health. In accordance with the provisions of the "Regulation on the Provision of Distance Health Services," published in the Official Gazette on 10.02.2022 and numbered 31746, the hospital received a "Distance Health Service Activity Permit Certificate" dated 04.01.2024, with document number USH-694. However, for health institutions to legally commence distance health services, the phrase "Distance Health Service Delivery Unit" must be added to the list of "Medical Units/Centers Licensed/Certified within the Health Facility" on the hospital's activity authorization certificate, and the "Activity Authorization Certificate Revision Approval Date" must be reflected in the renewed activity authorization certificate. Following the issuance of the authorization certificate, 61 physicians from 18 departments/sciences were included in the distance health service system in the first stage. In selecting the departments/sciences and physicians, the hospital management conducted a voluntary demand assessment among the physicians.

Table 3. Departments/Disciplines and Number of Physicians Included in the Distance Health Services System at DEUH in the First Stage

Department	Number of Physicians
Department of Ophthalmology	1
Department of Otolaryngology	1
Department of Radiology	1
Department of Chest Diseases	1
Department of Medical Genetics	1
Department of Public Health	1
Department of Forensic Medicine	1
Department of Medical Pharmacology	1
Mental Health and Diseases	2
Department of Neurosurgery	2
Department of Medical Biochemistry	2
Department of Nuclear Medicine	3
Department of Urology	5
Department of Infectious Diseases	5
Department of Physical Therapy and Rehabilitation	5
Department of Cardiology	8
Department of Pediatrics	8
Department of Internal Medicine	13
Total	61

With the implementation of the online appointment system for hospital distance health services and the integration of the Distance Health Information System (DHIS) with the hospital's existing Hospital Information Management System (HIMS), distance health services are now being offered

by physicians who previously applied to the hospital management to provide these services. The documents of 80 physicians and healthcare workers have been submitted to the Provincial Health Directorate with a request to be added to the "Distance Health Service Activity Permit Certificate." Once the review is completed by the directorate, feedback will be provided to address any deficiencies identified. If there are no deficiencies and a favorable decision is made, the application will be sent to the General Directorate of Health Services for approval to issue a new document. Upon approval from the general directorate, the new "Distance Healthcare Activity Permit Certificate" will be issued.

Table-4: Departments/Disciplines and Number of Physicians Included in the Distance Health Services System at DEUH in the Second Stage

Department	Number of Physicians
Department of Pediatric Cardiology	1
Department of Skin and Venereal Diseases	1
Pediatric Infection Department	1
Department of Pediatric Gastroenterology	1
Department of Pediatric Rheumatology	1
Department of Child Neurology	1
Pediatric Genetic Diseases	1
Department of Orthopedics and Traumatology	1
Chest Diseases Intensive Care	1
Department of Ear Nose and Throat	1
Department of Sports Medicine	1
Department of Geriatrics	1
Department of Occupational Diseases	1
Department of Chest Diseases	1
Department of Urology	1
Medical Aesthetics and Cosmetology	1
Dietitian	1
Psychologist	1
Physiotherapist	1
Department of Gynecology and Obstetrics	2
Department of Medical Oncology, Division	2
Endocrinology-Metabolism Diseases Department	2
Pediatric Metabolism Science Branch	2
Department of Cardiovascular Surgery	2
Department of Neurology	2
Department of Cardiology	2
Department of Internal Medicine	2
Department of General Surgery	3
Child Adolescent and Mental Health Department	3
Department of Pediatric Hematology and Oncology	3
Department of Mental Health and Diseases	3
Department of Anesthesiology and Reamination	4

Department of Pathology	4
Department of Radiology	6
Department of Child Health and Diseases	11
Total	60

2. FINDINGS REGARDING DISTANCE HEALTH SERVICES AT DOKUZ EYLUL UNIVERSITY HOSPITAL

A total of 80 online interviews were conducted at DEUH from the date of receiving the authorization certificate for distance health services until the date of the study. The findings indicate that the areas with the highest interest in distance health service activities are, in order, Mental Health, Forensic Medicine, Rheumatology, Urology, and Medical Genetics. It is believed that the field of Mental Health attracts patients due to the lengthy nature of treatment and the unique characteristics of the discipline. Conversely, feedback regarding the field of Forensic Medicine suggests that service users seek legal opinions, particularly from forensic medicine experts, which contributes to the interest in this area.

3. DISCUSSION AND RECOMMENDATIONS

The dissemination of Distance Health Service Activities within health institutions is crucial for reaching healthcare professionals regardless of time and location. In this context, distance health services serve as a tool to enhance the overall health level of society. Additionally, allocating a certain percentage of the income generated through distance health services to healthcare workers can have a motivational impact. This approach not only incentivizes staff but also provides an alternative revenue stream for the healthcare institution. Given the limited financial resources of public university hospitals, such revenues can help alleviate financial pressures on the institution, at least to some extent.

One of the challenges encountered in delivering distance health services is that, despite the service user making an appointment and paying the fee, the meeting may not occur for various reasons. In such cases, refund transactions are processed through the accounting office in accordance with public legislation. Furthermore, integration issues may arise between the Distance Health Information System (DHIS) and the Hospital Information Management System (HIMS) used by the hospital. At this juncture, the integrative role of health managers becomes even more critical for all parties involved.

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Sustainable Marketing of Agro-Tourism: The Socio-cultural Perspective

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Abstract

Agricultural tourism has emerged as a niche tourism phenomenon and its demand has soared across the globe. This paper focuses on the socio-cultural sustainability of agro-tourism. Key socio-cultural dimensions, social capital and authenticity, are examined based on a purposeful sample of spatially dispersed farms in the US. The study results illustrate that agrotourism holds tremendous potential to strengthen and promote local food systems by promoting traditional ways of farming. Focus should particularly center on objective and negotiated dimensions of authenticity, social cohesion, trust and reciprocity. Marketing strategies promoting socio- cultural consumption of agro-tourism are suggested.

Keywords: Authenticity, social capital, sustainability, agro-tourism, and farms

INTRODUCTION

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Agricultural tourism has emerged as a niche tourism phenomenon and its demand has soared across the globe. It is regarded as a conduit that bonds people from particularly urban areas to the natural environment and cultural traditions. It offers spaces to gather knowledge about agriculture from farmers, indulge in activities such as fruit and vegetable picking and directly purchase fresh produce from farms (Siri 2020; Sonnino, 2004). Agricultural tourism offers a combination of tourism and recreation activities (Barbieri & Mshenga, 2008; Busby & Rendle, 2000) such as staying overnight at a farm, participating at an agro-festival or agro-event and enjoying activities such as harvesting agricultural produces, bird-watching, horse-riding, etc. Visitors, particularly, after witnessing the devastating impact of the pandemic are more mindful of how they consume food and gastronomic experiences in an authentic and healthful manner.

There is more consciousness towards the benefits of nutritional fresh food and a healthy lifestyle (Siri 2020). The consumers are keen to gather knowledge about the source of foods that they eat or to identify the first point in the supply chain where food is grown (NFU, 2015a). Therefore, a demand is surging to scrutinize agro-tourism from a sustainability lens and understand this phenomena from both demand and supply standpoints (Goyal, Chadha & Singh 2023; Sumardi, Najib, Mahomed, Dardanella et al. 2023).

Extant literature acknowledges the three pillars of sustainability: economic, environmental, and socio-cultural (Saarinen 2013, 2020; Vukolić, Gajić, Petrović, Bugarčić et al. 2023). Economic sustainability is often noted to prioritize needs of tourists without extending consideration to environmental impacts and views of the host community (Barbieri 2013; Chhabra 2010b). Environmental sustainability, on the other hand, is concerned about tourist numbers and carrying capacity of a destination. The third pillar promotes socio-cultural aspects of tourism and is mindful of the host community views and needs. It is important to promote tourism activities that complement preferences and activities of local communities, particularly, if their cultural and traditional resources are being tapped to draw tourists. According to Revert´e and P´erez (2017), tourism should have potential to fortify local identities and traditional ways of living. For instance, place attachment refers to a strong bond (Williams, Patterson, Roggenbuck et al. 1992) between residents and tourists that holds potential to foster social cohesion and pride in local culture (Ferrari, Hernández-Maskivker & Nicotera 2022). Furthermore, to promote socio-cultural sustainability of tourism, it is important to focus on factors that channel tourism to enhance

authenticity of local resources and strengthen social capital. In fact, extant literature recognizes the significance of promoting authenticity and social capital to support the socio- cultural pillar of sustainability (Amoako 2020; Ciani and Vörös 2020; Khazami & Lakner 2022; Kothari & Perwej 2021; McCracken 1998). Authenticity in this regard refers to traditional ways of living and respect and value for cultural lifestyle. Tourism demand for some versions of authenticity can enhance social cohesion and social capital such as participating together in traditional activities or gathering authentic knowledge. This study examines the social-cultural sustainability of agro-tourism by taking the perspectives of farmers who use their farms to offer agro-tourism experiences.

According to Kamble and Bouchon (2016) and McCracken (1998), the notion of social cohesion is multidimensional and relates to bonds between people. It is underpinned on trust, social connections, local self-esteem, sense of pride, and attachment. Ferrari et al. describe various aspects of social cohesion as "are social order, control, networks, capital and solidarity, together with reduction of wealth inequalities, common values and civic culture, place belonging, and identity" (2022, p. 119). The authors point out that from a socio-cultural lens, "sustainable tourism can have a profound impact on a community, as it brings together individuals working for a shared purpose, improves social capital and relationships, creates a sense of belonging and trust, encourages cooperation, …… teamwork, improves social relations, and creates ……. harmonious relationships (2022, p. 119). Authenticity is another aspect of socio-cultural sustainability which promotes a local sense of pride, social cohesion and therefore social capital (Baimoratova et al. 2023). The notion of authenticity is significant in the socio- cultural component of niche forms of tourism such as heritage and rural tourism because niche tourists seek "genuine" experiences and value for authentic/traditional experiences can generate a position response from the locals. In other words, if tourists are mindful of local culture and traditions and generate economic benefits by buying local souvenirs and other products, locals arelikely to develop a more friendly and welcoming disposition (Stanciu, Popescu & Stanciu 2023).

Agro-tourism has emerged as an alternative popular form of tourism that lends support to microenterprises and circular economy in rural regions. The term agro-tourism signifies an interconnected relationship between agriculture and tourism (Lane, 2018; Petroman & Cornelia, 2010). Farms, as agro-tourism settings, hold potential to generate genuine and long-lasting memories for visitors by offering opportunities for solitude and authentic experiences in natural

rural spaces (Joshi et al. 2020). In the context of farm tourism, local attributes are an asset such as natural appeal, atmosphere, hospitality of agritourism service supplier, cultural heritage, community involvement in hospitality, and venue safety (Hamayana 2021; Rodrigues & Virtudes, 2019; Saroyo & Mulyati, 2015). Agro-tourism has also been referred as agri-tourism in documented literature and described as an innovative agricultural activity that spans tourism and agriculture environments and diversifies the farm portfolio (Barbieri, Sotomayor & Arroyo 2019; Nimase 2020; Nugraha, Prayitno, Hasyim & Roziqin 2021; Sumardi, Najib, Mahomed, Dardanella et al. 2023). Nimase defines agro-tourism as a "practice of attracting travelers or visitors to an area or areas used primary for agricultural purpose and holds potential" to generate revenue for the farmers (year p. 1). Agritourism can also be defined as "visiting a working farm or other agricultural setting for enjoyment, education, or active involvement in an operation's activities" (Gao, Barbieri, & Valdivia, 2014, p. 367). Sustainability is, in fact, the core emphasis of agrotourism destinations (Barbieri et al., 2019; Shukla, 2019; Streifeneder, Hoffmann & Corradini 2023; Sumardi et al. 2023; Vukolić, Gajić, Petrović, Bugarčić et al. 2023).

Agrotourism holds potential to embrace all key pillars of sustainability- economic, ecological, and socio-cultural (Susila et al. 2024; Vukolić et al. 2023). Its economic sustainability/efficiency ensures that tourism is a viable source of income and emphasis on satisfying consumer demand. Ecological considerations include generating minimal negative impacts on the natural environment by preserving biodiversity and responsible use of natural resources. With regard to socio-cultural dimensions, social capital and authenticity stand out. Social equity refers to generating equitable income, employment and promoting overall quality of life through civic engagement, personal development opportunities and fostering respect for socio-cultural values of the community (Buzoianu, Pargaru, Chiotan & Uta 2024; Nasihuddin, Pamuji, Rosyadi, & Ahmad 2020). This paper focuses on the socio-cultural sustainability of agro-tourism. In summary, this paper endeavors to answer the following research questions: What is the role of farms in promoting agro-tourism in rural regions? What types of authentic experiences are offered at the agro tourism farms that promote cultural authenticity? How are the farms promoting social capital? How does social capital intersect with authenticity to promote socio-cultural aspects of sustainability?

Literature Review

With regard to social capital, focus is on the social bonding between the farmers, the local residents and the visitors. A review of documented literature shows that social capital has multiple connotations (Carrasco & Cid-Aguayo, 2012). According to Coleman, social capital "exists in the relationships between people" (1988, p. 100). Social interactions and connections between people generate benefits (Currie and Stanley 2008). Coleman's definition takes a holistic and integrated view and regards social capital as a public good. It is also about fostering bonds to ensure ongoing access to resources (Julien 2015). Based on the foregoing, social capital can be described as phenomena that is based on successful realization of mutual obligations grounded in trust, reciprocity and interchange of knowledge (Coleman 1988, p. 119).

It is important to recognize that social capital also encapsulates a variety of key environmental and psychological aspects of the community (Acedo et al. 2017). Place or spaces have become important attributes of social capital (Rutten et al. 2010). This notion holds a different value for locals and the tourists (Chang et al. 2015). As pointed by Baimoratova, Chhabra and Timothy (2023), social capital refers to community cohesion and survival such as through occupation, acquiring of property and, most particularly, by building social bonds. It specifically refers to relationships, social networks and interactions that arise through trust, reciprocity and cooperation. It is also postulated that attention needs to be paid to generating and promoting attributes of a place that are valued by locals as well as the tourists and offer a harmonious space for interactions and building of social bonds (Baimoratova and Chhabra 2023). As an instance, a multi themed restaurant can provide diverse and novel cultural atmosphere with food and service. A friendly environment can result in a memorable experience for the customers (Baimoratova et al. 2023). Farms hold potential to offer welcoming spaces that can facilitate social capital for the tourists, residents and other local stakeholders. Furthermore, although some studies have examined agrotourism from a cultural standpoint and authenticity (Andéhn & L'Espoir Decosta 2021; Baimoratova eet al. 2023; Barbieri, 2013; Flanigan, Blackstock, & Hunter, 2014; Yang, 2012), insights based on delineated versions of authenticity is remiss. It has been extensively recognized that authenticity is not a monolithic phenomenon; it can be delineated into multiple dimensions such as objectivist, constructivist, negotiated, existentialist, and theoplacity (Chhabra 2010a, 2021; Steiner and Resinger 2006). This study aims to examine authenticity offerings at a purposeful sample of farms based on its various dimensions.

Undeniably, authenticity as a notion has permeated tourism literature. A perusal of documented literature identifies five prominent discourses on authenticity: objective, constructivist, negotiation, existentialist and theoplacity. The objective (sometimes referred as essentialist) school of thought supports cultural continuity, true versions of the original, genuineness such as made locally by indigenous or local communities (Chhabra 2021; Cohen, 1988; Theobald, 1998). It relates to that type of heritage/local tradition that is frozen and has not evolved with changing times. The constructivist school of thought is premised on the notion that prevailing market forces and environments shape demand for authenticity. Therefore, the demand-led connotations mirror tourists' perceptions of authenticity (Chhabra 2008). Next, examples of constructivist settings are commodified cultures, pseudo settings and deliberately constructed backstages (Chhabra 2010a; MacCannell, 1992). Authenticity is modified to appeal to the audience and a capitalist stance is embraced. The negotiated theory, on the other hand, refers to a middle point, a tradeoff between the essentialist and constructivist concepts. It is regarded as a co-created by the suppliers and the consumers (Adams, 1996) and holds that objective authenticity can still be retained while meeting the market demand. And, if amended mindfully, it can "preserve traditions by generating demand or attributing value to them" (Medina 2003, p. 354). Commodification, in this case, can serve as a useful purpose in some case and help breathe life into some dying cultures, handcrafts or traditions.

The existentialist school of thought support the subjective negotiation of meanings and argues that these meanings shape authentic experiences (Uriely, 2005). This notion is described by terms such as "self discovery", "being true to oneself" (Steiner & Reisinger, 2006, p. 299), enriched living within optimized tourist moments (Wang, 1999) and Csikszentmihalyi's theory of optimum flow (Csikszentmihalyi & Csikzentmihaly 1990). In other words, the existentialist theory, therefore, advocates optimized experiences and a sense of exhilaration. Its negotiated version (theoplacity) "integrates cultural and social meanings with physical objects, thereby seeking negotiations with the essentialist ideology" (Chhabra 2010a, p. 795). Theoplacity is the second type of negotiation that adorns the authenticity discourse. In summary, authenticity notion can be broadly delineated into two perspectives: "as genuineness or realness of artefacts or events and also as a human attribute signifying being one's true self or being true to one's essential nature" (Steiner and Reisinger 2006, p. 299). The two conceptual rifts in the authenticity debate show "that

most scholars have rested their ideologies within the two visibly distinct theoretical streams: (1) essentialist and its variations and (2) existentialist and theoplacity" (Chhabra 2010a, p. 795). Information on motives of agro-tourists can offer insights on what type of authentic experiences are popular and whether they stimulate social bonds with the farmers and their employees and other stakeholders, including the local community (Susila, Dean, Harismah, Priyono et al. 2024).

Studies examining motivations of visitors to agrofarms or agro-related events is sparse. The next couple of paragraphs takes a cursory view of meager existing literature from the standpoint of authenticity and social capital and motivations of agro-tourists (Leo, Brien, Astor, Najib et al. 2021; Sutiarso, Arcana & Suprapto 2021). It is noted that authenticity and social bonding are regarded as one of the key motivators of visitors who patronize agro environments and farm spaces. As an instance, in examining visitors to an agricultural fair, Siri (2020) notes that key motivations are the desire for novel experiences, to participate in leisure activities and build new relationships while cementing existing relationships. The author also notes that these motivations differ based on gender and type of tourist such as solo versus group/family travelers.

Park, Reisinger and Kang (2008) write that a socially authentic aspect of the experience is interacting and bonding with the farmers and their community. For instance, the authors report that motivations for attending a food and wine festival includes enjoying new flavor, enjoyment, escape from the mundane, spending time with family, connecting with new people and bonding with the experts such as the food and wine specialists. Cultural immersion in a traditional agricultural setting is also reported by some authors (Jia 2020; Wang, Ying, Mejia, Wang, Qi, & Chan, 2020). For instance, Jia (2020) examines food habits of diners from different cultural backgrounds and finds that traditional food attracts the Chinese where as an enjoyable experience is a big draw for the Americans. Smith, Costello and Muenchen (2010) study an international culinary event and note that "food, event novelty, and socialization are push motivations identified for attending a culinary event; secondly, food products, support services, and essential services are pull motivations" (Park et al. 2008, p. 272). These studies confirm that authenticity (as a proxy for novelty and cultural uniqueness), socialization with family and other people and the specialized suppliers are key motivations for attending a food setting such as a culinary event or a farm or a restaurant.

Specific agro settings such as farmers market and farms are a big attraction for visitors seeking authentic food and cultural experience in addition to socializing in a pristine environment (Jolly and Reynolds 2005; Che, Veeck & Veeck 2006; Patricia, Suryawardani, Suamba & Wiranatha 2020; Srikatanyoo and Campiranon 2010). According to Jolly and Reynolds (2005), motives for participating in agricultural farm/Ranch activities include buying fresh and authentic produce (such as fresh/homemade), buying from the source (farmer), having an educational experience, the natural surroundings, relaxation and participating in farm activities in an authentic manner. Che et al. (2006) share three popular reasons for attending an agritourism site: authentic and fresh produce, experiencing farm activities such as picking vegetables, spending time and enjoying farm activities with family. These authors investigated consumption decisions and demographic characteristics of agritourism consumers. Seventeen agritourist motivations are noted by Srikatanyoo and Campiranon (2010) which can be grouped into: social, relief from stress, a niche environment, and wellbeing. Park et al. (2008) offer detailed insights on several motivational categories such as: mental relaxation (to escape from daily stress, physical), enjoyment (of scenery, life), natural niche setting (to enjoy the agricultural environment and experience farming life and activities and improve farming aptitude), novelty (to discover new places and unique experiences), and social (to seek family togetherness, making friends with likeminded people). Intervening factors that are likely to shape these motivations can be gender and solo versus family visits. For instance, visitors who attend with families are more likely to spend time together and escape the daily mundane life in addition to buying fresh produce from the farmers. Clearly, motivations reported by other authors are represented in Park et al.'s (2008) comprehensive list.

Insights into the motivations of agro-tourists' can offer important information from a sustainable marketing standpoint, particularly from the perspective of event planners and managers (Sekali, Suryawardani & Dewi 2021). Based on the foregoing, three most recurrent motives canbe : novelty, authentic farm- related activities (such as fruit and vegetable picking, learning/training, gathering agricultural knowledge and skills and other types of farming related training), and social bonding (building new and fostering existing relationships with the farmers, other like-minded people and tourists and the family). As indicated, directly buying fresh produce from farmers is regarded as an authentic activity. Some studies note that agritourism visits are more influenced by pull motivations rather than push factors. In summary, a purview of documented literature shows

that authenticity (in the form of the setting, source and produce) and socialization are key reasons for patronizing farms. To meet these motivations, it is equally important to examine the initiatives of farmers and the manner in which they are meeting the motivations of tourists. This study takes a supply-side view and offers notable insights from a socio-cultural sustainability standpoint.

1. RESEARCH METHODOLOGY

Farms were identified from four spatially dispersed state across the US. These states are Virginia, Tennessee, Arizona and Oregon. Approximately 105 farms were selected. The basic criteria for selecting them was their key of focus on agro-tourism. Insights were obtained on tourism-related activities such a U-Pick products, season festivals, and farm tours. It was noted that Virginia promotes agrotourism farms on its state tourism website in a directory style whereas Tennessee promotes agrotourism farms on its government website, under the department of agriculture. Arizona promotes agrotourism farms on its state tourism website on various "trails" and corridors that visitors can traverse to visit the farms and Oregon promotes agrotourism farms on its tourism website through various "tours" that include farm visits.

An online questionnaire was designed and distributed using Qualtrics link. Farmers were emailed inviting them to participate in a survey for this project and the survey was sent to them followed by reminder emails over the next couple of months (February 10th, 2022 and March 5th, 2022). Response rate was 38%. The survey was divided into six sections. The aim was to elicit information on items such as socio-demographic characteristics of the farm owner, insights of visitors from the standpoint of the farm management, general information about the farm, social capital, sustainable supply chain and authenticity.

Socio-demographics of the farm manager/owner elicited for information on gender, place of residence, age and education. With regard to general information about the farm, answers were elicited on the following questions: How long have you been connected to this farm? Also, in what capacity? What is the original history of your farm? Does it use that history or heritage to shape its promotional materials and offer a heritage experience to its customers?

The section of social capital was included and the purpose of this section was to gather your insights on the manner in which the farms offer/promote ideas and activities with their customers, associated with the local 'sense of place' (commitment of customers towards a

destination that offers pleasing and unique experiences), networking (online as well as through hosting special events) initiatives, trust-building efforts, efforts to identify and promote common norms and values, and social interaction (when customers use the farm services- both during take-out or onsite) and relationship building efforts to retain the interest of their target markets.

Several questions were designed to elicit information on social capital. These included: How will you describe the identity of your farm the town/place where it is located? In which way do you feel connected to your neighborhood? In which way do you think your farm adds to the cultural heritage of the town/city? How do you integrate that sense of connection at your farm (For instance- through décor, language, menu design, special events, stories and/or flyers)? What kind of community events do you participate in that help forge a shared sense of identity and social bonding? How do you promote and share this sense of local and social identity with your customers? Do you think your customers are able to relate or connect with the identity of your farm? What initiatives do you take to attract visitors and motivate your customers to visit you again? How do you get involved with other community members to improve your neighborhood (please offer examples)? A few questions sought to obtain insights on the opportunities offered to encourage ideas from the customers to enhance sustainable practices inside the farm and in the vicinity; efforts to earn the trust of your customers and your neighborhood community; opportunities to promote a multicultural environment and efforts to create a sense of place and belonging at your farm; type of community events organized to offer opportunities for social interactions and inter-cultural dialogue and whether the farms are able to integrate them with their offerings; initiatives taken at the farm to contribute/promote the well-being of the local community and the town or city where the farmers is located and; community events the farm managers/owners liked to attend and the manner in which they were beneficial to them and their farm. The farmers were also asked if they made efforts to engage/socialize with their customers at those events.

To obtain insights on efforts to promote efforts to safeguard authenticity of the farm offerings, the following questions were asked: Does your farm showcase authentic displays related to its heritage or history or that of the neighborhood or town? How was your farm impacted by Covid-19? What, in your views, are the main strengths of your farm, from an authentic food standpoint? Information was also elicited regarding the competitors, the manner in which the farms

maintain their uniqueness. That, what differentiated them from the competitors and what were the challenges encountered by the farmers in selecting or while using local and sustainably produced ingredients?

As mentioned earlier, Qualtrics was used and the data was analyzed based on frequencies and measures of standard tendency. ATLAS-ti was used to identify themes from open-ended data. The answers were also content analyzed manually for cross-checking purpose Furthermore, two coders were used to check inter-coder reliability. It was found to be 90%. Post data collection phase was also conducted and answers (particularly open-ended) were shared with ten farm owners to ensure appropriate interpretation of data happened.

2. ANALYSIS

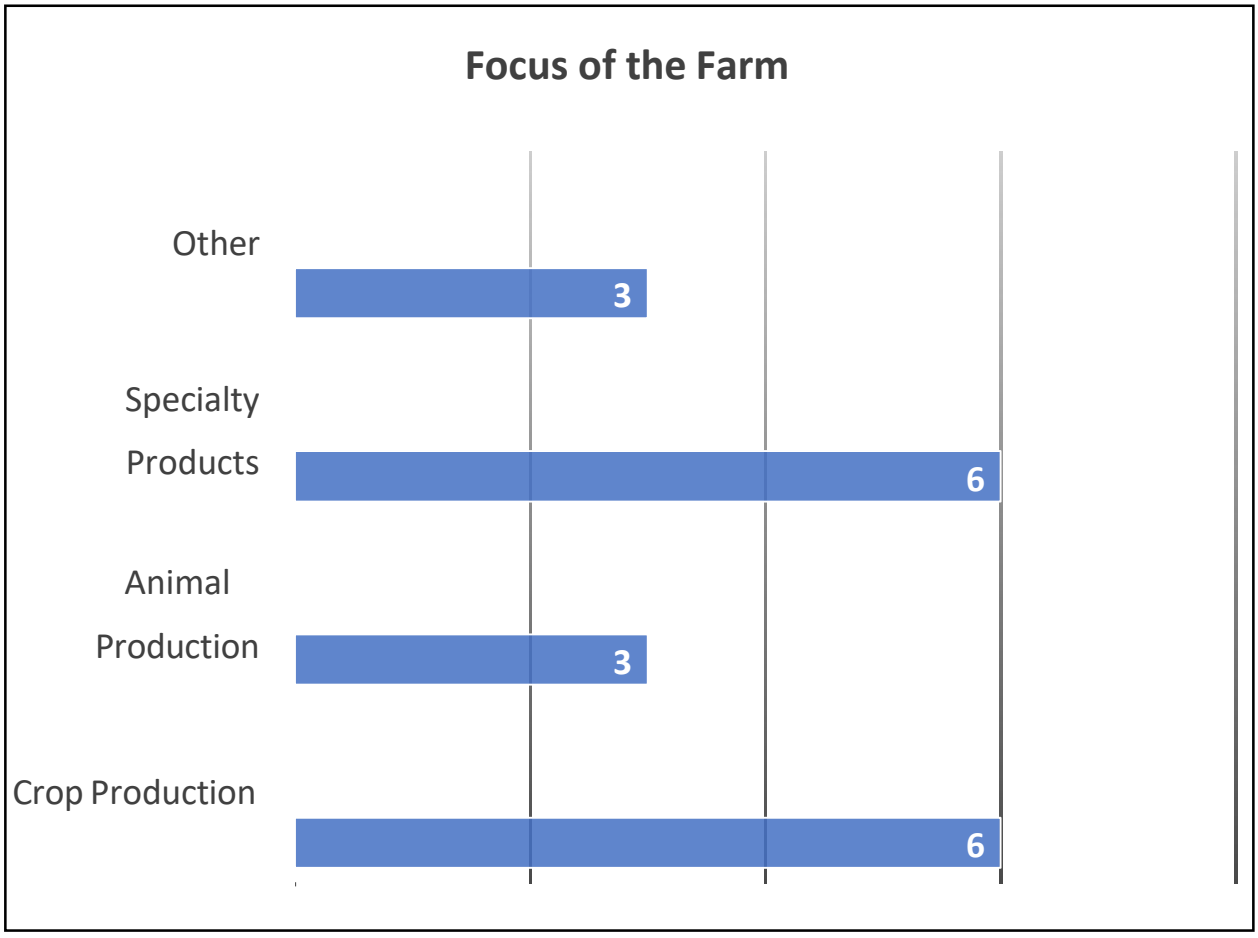
The majority of respondents are noted to be females, and the majority of the age group is between 41 – 50 years old. Most respondents have completed higher education. Average years in agrotourism business is 20 years and average years in farming is found to be 21. The average acreage of the farms is 369 acres, and the majority of the farms are open throughout the year.

The visitors at the selected farms are local as well as from other states in the US. Average time spent at the farm is three hours. Based on the content analysis of farm websites and the survey responses, as Figure 1 illustrates, it can be noted that the farms focus equally on their specialty products and crop production. Besides the ‘other’ category includes activities designed specifically for tourists such as “educational programs for kids, sunflower picking, pumpkin picking, strawberry picking, milking cows, cutting a Christmas tree, journeying through the corn maze, pony rides, and petting of animals.” Some farms have a farm store on premises and they offer house made food items and events for visitors to enjoy and immerse themselves in natural rural farm settings of scenic beauty. The following mission statements of a couple of farms notably capture their key focus: "Our mission is to share the agricultural experience by helping connect people, from our community and beyond, back to the land. Living close to earth is a lifestyle.

To be a farmer is to be an agronomist, economist, mechanic, entrepreneur, and common laborer. Farming is not just tilling the land, planting a seed and harvesting one's crop. It takes commitment and patience, but the fruits of the labor are well worth it. We want to share the joy of healthy living, hard work and of course, hard play." Another farm describes its mission as “an

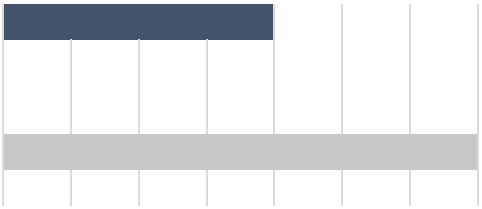
authentic 150-year-old farmstead, from a time when the pace was slower and most everyone still grew a lot of their own food. Back then, most people filled their gardens with vegetables, flowers, and fruits to survive! Now we do it to thrive! Connecting with nature and goodness drives our efforts to offer you nature at close hand; to help you create a home refuge using well-chosen plants and healthful natural food grown on our farm and in your own garden." As evidenced in the above statements, authenticity is featured in a predominant manner in addition to social cohesion and health. In other words, traditions and cultural grounding make the farms unique from the competitors. Furthermore, the farms boast of their unique natural settings, conservation methods, mindfulness towards the environment, and visitor opportunities to purchase fresh produce and feel connected with the earth and the animals.

Figure 1: Focus of the Farm



As Figures 2 and 3 illustrate, a variety of programs and experiences are offered at the farms. Most farms highlight farm-based activities followed by hands-on activities, recreation self-harvest and traditional learning skills followed by non-agricultural recreation such as handmade souvenirs and overnight stay experiences. They also cross-sell from other farms and other complimentary businesses to demonstrate solidarity. Such cross-selling activities have been noted by several studies (Che et al. 2006; Joshi et al. 2020; Rodrigues and Virtudes 2019; Siri 2020). Other activities shared are group related aimed at strengthening family bonds, for the purpose of interaction and knowing other like-minded visitors. These physical activities offer opportunities for immersive experiences. Examples include self harvesting, U-pick and learn, learning activities such as traditional way of harvesting, houseplant basics, Rosecare, and life cycle stages of farm produce such as pumpkins and strawberries, 'hands-on encounter with living things' and planting in addition to "visiting the baby calves and the older calves, seeing the milking parlor, in store presentation about farm animals and dairy products, Visitors will learn about what the animals eat, and their life cycles." Other activities and experiences include hosting of farm tours and non-agricultural activities such as riding ponies, interaction with a historian to learn about the town's history and offering information on other local businesses which sell non-agricultural products and offer entertainment services such as theater shows, quilting etc.

Figure 2: Market Offerings at the Farm Site



Most farms describe themselves as authentic working farms because they use traditional ways of harvesting and offer activities in a socially engaging and culturally enriching manner.

Social Capital

Various social capital dimensions are identified in the survey responses. Table 1 offers a detailed breakdown of each dimension and the associated activities and programs. As evidenced in the mission statements of the farms and the survey results, several dimensions of social capital are noted such as social cohesion, trust and reciprocity (giving back and a shared sense of place). The farms connect with the identity of their home town and adhere to ethical guidelines by focusing on inclusivity and diversity.

Figure 3: Experiences at the Farm

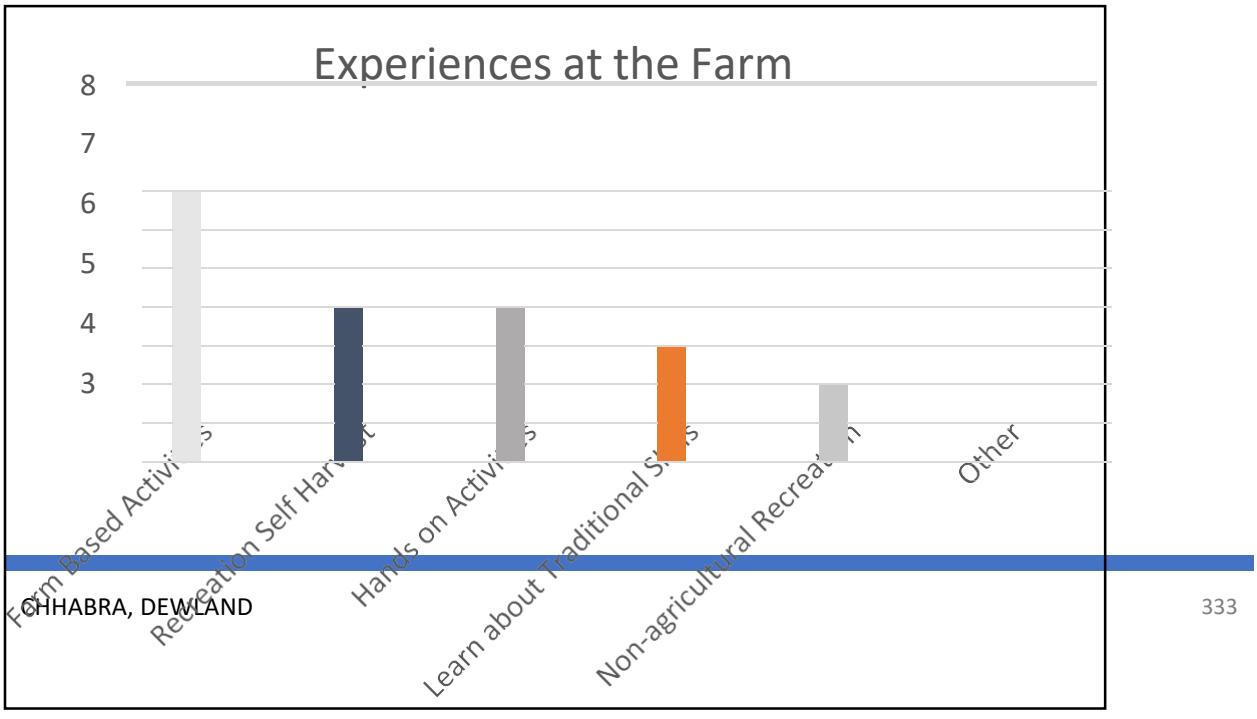


Table 1: Social Capital Dimensions

Social Capital Dimensions	Activities and Programs
Community wellbeing	Classes; event to support nonprofits
Improving the neighborhood	Use sustainable farming methods
Encouraging tourists to embrace ecological practices	Talking with consumers; promoting online
Shared sense of place and social bonding	Customer service; putting on events
Enhancing the identity of the town/place	Continues reputation of farming
Promoting a multicultural environment	Put on variety of festivals; partner with local nonprofits

In summary, social capital, a key component of sustainable agro-tourism plays a vital role in promoting agro-tourism. To examine the extent/type of social capital related with farm tourism, a purposeful sample of farms are surveyed by employing a multiple set of attributes that describe social capital such as: trust, sense of place and belonging, collective action, identity, customer involvement, community norm and values (Baimoratova et al. 2023, p. 3). Findings show that the farms closely stimulate social capital by connecting their venues with the town's heritage and sense of place. Also, they foster social capital by aligning themselves with the objectively authentic aspects of local and personal heritage and farming traditions. This can also be evidenced in their mission statements. One farm offers Farm Share Programs which help to foster mutually beneficial relationships. Some farms offer group rates for birthday parties, wedding venue, groups, and bonfire groups. Some host "company picnics, church events, family gatherings, and school groups." Approximately, 30% of the farms are engaged in community service. For instance, they sponsor local animal shelters, make donations to local elementary schools and fundraising events such as "Boys & Girls Club, St. Jude Children Hospital, James K. Polk Memorial Home and many others." In summary, from Table 1, it can be clearly seen that the farms promote and contribute towards social capital through a variety of ways and activities.

Authenticity

To determine the authenticity of the agro-activity and farm, a Word Cloud was created using ATLAS-ti (see Figure 1). The key themes identified from the answers of respondents were: Behind the scenes look at farming which shows how produce is grown and packed from "blossom to

bottle." Commitment towards authenticity can be evidenced in the welcome messages for the visitors, maintaining an ethical work environment by ensuring inclusivity, commitment to their work. The farmers also ensure that that produce is authentic, that is, it is fresh, of good quality, and grown in the farm.

Figure 4: History Depicted in Farms

Objective and negotiated versions of authenticity can be identified based on the narratives of farmers such as we "offer behind the scene view, grow and produce what we sell; true farm experience without gimmicks, no hidden agenda or subterfuge- genuine and backstage views, local and home grown." Authentic displays related to heritage or history are showcased in a variety of ways such as farm to table dinners, local and specialty crops, and history. It is also noted that the

farms ensured authenticity was maintained during covid times by staying true to themselves, ensuring traditional continuity, and safety and hygiene on the farm premises. Main strengths from an authentic produce and service standpoint are noted to be: adherence to history, genuineness, localness, honesty, and showcasing of backstage.

Figure 5: Authenticity and Agro-tourism

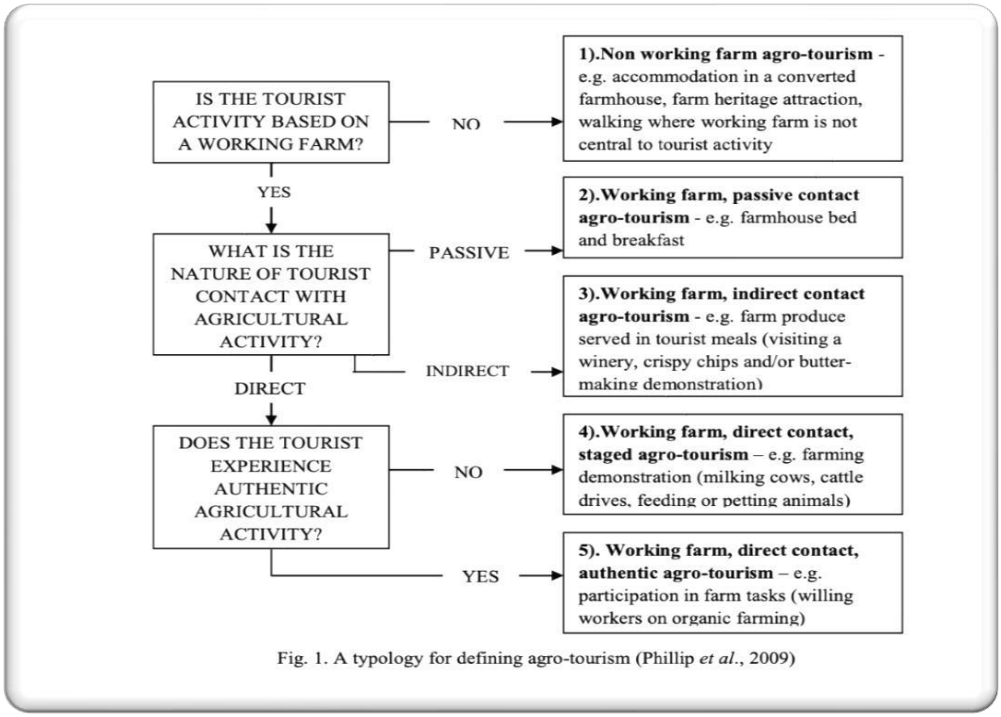


Fig. 1. A typology for defining agro-tourism (Phillip *et al.*, 2009)

Intersection between Social Capital and Authenticity

Based on the foregoing, and as illustrated in Figure 2, the results from the survey and content analysis of the mission statements show that the farms promote three versions of authenticity, either simultaneously or individually: objective, negotiated and existential (Green & Philips 2014).

Several surveyed farms are working farms. They offer direct exposure to the farm operations and its various agricultural activities but in a somewhat staged setting to ensure safe experiences. Farmers make certain that the tourists experience authentic agricultural activities in numerous ways such as by U-pick activities, volunteering on farm tasks, milking cow and feeding/petting animals. Most of the activities are interactive and in groups or in the presence of the farm employees. They help stimulate social capital for the visitors as well as the farming community. By cross-selling other local non-agricultural products and educating the visitors about the area's heritage and history, some farms offer opportunities to immerse in both objectively, negotiated and to some extent existentially authentic experiences. In summary, the mix of authenticities promote trust, social bonding and reciprocity. Narratives build around authenticity and various dimensions of social capital, in the noted marketing messages, are designed to attract agro-tourists.

3. CONCLUSION AND IMPLICATIONS

Based on the survey data, it is evident that most surveyed farms offer a variety of activities such as U-Pick produce products, seasonal festivals, and hands on activities. Agrotourism holds tremendous potential to strengthen and promote local food systems (Rodrigues & Virtudes, 2019; Saroyo & Mulyati, 2015). For instance, it promotes local food consumption, conscious consumers and increases appreciation for local food (Barbieri, Sotomayor & Arroyo 2019; Ferrari et al. 2022; Nimase 2020; Nugraha, Prayitno, Hasyim & Roziqin 2021). Agrotourism is a viable form of sustainable tourism as it promotes all key pillars of sustainability. It is emerging as an important stimulus for rural development as it contributes towards social-cultural sustainability, environmental sustainability, economic sustainability and promotes localized food supply chains (Baimoratova et al. 2023; Sumardi et al. 2023; Susila et al. 2024; Vukolic et al. 2023).

This study shows that the farmers, as local producers, take numerous initiatives to create a bond with tourists which stimulates more local food consumption. By making social connections and offering learning and hands-on experiences, farmers are attracting and educating mindful visitors (Siri 2020). The initiatives by various farms hold potential to augment appreciation for local food. Farms are microenterprises and small businesses are usually rooted in cultural traditions (Roberts 2023). They are conduits of cultural and natural conservation. By focusing on true or close to true versions of authenticity and social cohesion, such microenterprises can stimulate

viable economic benefits for the farm and its peripheral areas (Jolly and Reynolds 2005; Che, Veeck & Veeck 2006; Srikatanyoo and Campiranon 2010). Selling handmade souvenirs at the farms is one way to promote local traditions.

In summary, farms constitute "an important part of the community system" (Roberts 2023, p. 299) and hold tremendous potential to promote socio-cultural sustainability by offering authentic activities that also holds potential to foster social bonds between tourists, between the farms and the local residents and between tourists and other agrotourism stakeholders beyond the farm premises. Based on the programs and initiatives of the surveyed farms, it can be noted that almost all farms promote social capital and objective and negotiated versions of authenticity on site. Almost 30% are more engaged with the broader community. According to Roberts (2023), social cohesion, cultural conservation, and equity are the key principles that form the core of socio-cultural sustainability; and at a micro level, social capital can be connected with "respect for community culture/s, local cohesiveness and pride, safe and enjoyable tourist experiences and residents' control over their lives" (2023, p. 299). More farms should take initiatives to connect with other stakeholders in their town or region and co-ordinate programs with local organizations and businesses.

Studies focusing on sustainable agro-tourism promotion strategies in marketing literature are meager (Roslina, Nurmalina, Najib & Asnawi 2021). Park et al. suggest that agro-tourism marketing initiatives can "focus on the activities that seem exciting to the tourists, such as agricultural innovation or agricultural technologies. The activities may encourage participation and emphasize on strengthening of relationships such as by facilitating co-created activities among the visitors, their companions, and the organizers. When seeing images of such activities in a piece of advertisement, the tourists might be stimulated by the pull motivation such as a desire for leisure activities" (2008, p. 286). Going forward, this study recommends that it is important to examine the initiatives of farmers based on a lifestyle entrepreneur model. Future studies should also make an effort to suggest marketing strategies that specifically promote socio-cultural aspects of sustainability to enhance overall wellbeing of the tourists and the hosts. Farmers should collectively devise these marketing strategies, to attract target markets, in collaboration with the local destination marketing organizations and other stakeholders.

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An Examination of Factors Influencing Physicians' Acceptance and Use of the e-Nabız System

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Abstract

Aim: This study aims to identify the factors influencing physicians' acceptance and use of the e-Nabız system by comparing two models.

Methods: Conducted with 388 physicians from university hospitals across Turkey, the study utilized an online survey based on the Unified Theory of Acceptance and Use of Technology (UTAUT) scale. Descriptive analyses, frequency and percentage distributions, reliability analysis, confirmatory factor analysis, and structural equation modelling were applied to the collected data.

Results: In Model 1, the behavioral intention was influenced by performance expectancy and social influence, while usage behavior was shaped by social influence, facilitating conditions, and behavioral intention. Model 1 accounted for 75% of the variance in behavioral intention and 69% in usage behavior. In contrast, Model 2 identified performance expectancy, anxiety, habit, personal

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technology innovativeness, and workflow as significant predictors of behavioral intention. Usage behavior in Model 2 was influenced by habit, facilitating conditions, anxiety, personal technology innovativeness, workflow, and behavioral intention, explaining 84% of the variance in behavioral intention and 85% in usage behavior.

Conclusion: The findings indicate that Model 2 provides a more comprehensive explanation of the factors affecting the acceptance and use of the system. To enhance acceptance and usage, the study suggests focusing on anxiety management, emphasizing performance benefits, aligning the system with workflow, educating users about new technologies, and implementing incentives to foster habitual use. Future research should explore other technology acceptance models in various healthcare information systems to deepen understanding.

Keywords: IT Acceptance and Use, UTAUT, Structural Equation Modelling, physicians, e-Nabız

INTRODUCTION

The importance of healthcare services in maintaining a healthy and quality life is undeniable. A comprehensive examination of an individual in healthcare service delivery requires not only assessing the current state but also considering past health data. Numerous stakeholders (healthcare professionals, service providers, suppliers, reimbursement agencies, judicial bodies, pharmacies, health authorities, health care planners, and health administrators) involved in healthcare delivery require access to health records (Dönmez and Uğurluoğlu, 2017; Dupont, et al., 2017).

The rapid advancement of technology has precipitated digital transformation in the healthcare sector, resulting in the extensive implementation of information and communication technologies, including artificial intelligence, machine learning, the Internet of Things, robotic systems, blockchain, wearable technologies, cloud computing, 3D printers, mobile health applications, and augmented and virtual reality (Atilla and Seyhan, 2022). Digital health services contribute to enhanced accessibility in healthcare, equitable service provision, improved health literacy, increased diagnostic and treatment capabilities, time and resource optimization, cost reduction, job satisfaction, productivity and efficiency, expanded service capacity, and the development of evidence-based health policies (Kayserili and Tefiroglu, 2023).

In the context of the Health Transformation Project, the Ministry of Health implemented a decision to establish health information systems to facilitate effective access to information in the decision-making process. Various systems have been implemented, including Sağlık-Net, Hospital Information Management System, Family Medicine Information System, MHRS (Centralized

Appointment System), Drug Tracking System, tele-radiology, tele-pathology, e-Nabız, e-Prescription, Family Medicine Information System, and Core Resource Management System (Avaner and Fedai, 2017; Orhan et al., 2021). The e-Nabız application was introduced in 2015 as a personal health record system. The users of the e-Nabız system comprise citizens, physicians, healthcare institutions, and health system administrators. Physicians serve not only as primary users of this system but also play a pivotal role in its successful implementation.

To facilitate individual health management, health records collected from healthcare institutions nationwide through the Sağlık-Net infrastructure and individual health data tracked by the person are integrated into e-Nabız. This system enables individuals to manage their personal health data and provides the option to share it with selected parties. Sharing health records with the physician can enable comprehensive evaluation during diagnosis and treatment, prevent time loss, avoid redundant tests, and reduce healthcare expenditures. The reduction of healthcare workers' and institutions' workload, the lowering of costs, and the enhancement of service quality, quantity, and efficiency become feasible (Aggelidis and Chatzoglou, 2009). The efficient and effective utilization of resources in the national economy facilitates the reduction of healthcare expenditures, thereby enabling the allocation of resources to new investments in healthcare. This contributes to increasing the capacity of healthcare services and fostering a healthier society. Furthermore, the system enables individuals to evaluate the healthcare services they receive, express their satisfaction, and contribute to the improvement of service quality based on this feedback.

Health information systems not only support the provision of healthcare services but also facilitate the collection, sharing, analysis, and utilization of information for administrative purposes and decision-making processes. In this context, e-Nabız contributes significantly to the digitalization of the healthcare system. Evaluating user acceptance is as important as developing and improving a new technology (AlQudah et al., 2021). It is noted that certain developed technologies are rejected by users, with the rate of information technology rejection in the healthcare sector being approximately 40%. Investigating the factors influencing user acceptance is essential for reducing investment costs, enhancing the quality of patient care, and increasing technology acceptance and usage (Liu et al., 2015).

Models such as the Technology Acceptance Model (TAM) and the Integrated Theory of Acceptance and Use of Technology (ITAUT) have effectively understood the adoption of

technologies used in health care. The idea that TAM is not sufficient to explain the factors affecting the behavioural intention of individuals to adopt new technologies in the field of health (Penney et al., 2021; Yen et al., 2017), new models have been tried to be developed. UTAUT was created by combining eight different models. With the development and change of technological applications over time, it was necessary to investigate different variables that determine users' acceptance and use of new technologies. UTAUT was renewed in 2012 by adding hedonic motivation, habit, and price value variables, and it was named UTAUT-2. This model determined technology acceptance and usage as an eight-factor structure with the dimensions of 'performance expectancy, effort expectancy, social influence, facilitating conditions, hedonic motivation, price value, habituation and behavioural intention' (Venkatesh et al., 2012).

Research on technology acceptance in healthcare using TAM, UTAUT 1, and UTAUT 2 has included studies on hospital staff's acceptance of hospital information systems (Aggelidis and Chatzoglou, 2009), nurses' acceptance of electronic health records (Alsyouf et al., 2022), physicians' use of personal digital assistants (Başak et al., 2015), physicians' acceptance of; telemedical consultations (Diel et al., 2023), electronic medical records and decision support systems (Heselmans et al., 2012), e-health applications (Hoque et al., 2016), electronic health records (Hossain et al., 2019; Steininger et al., 2014), telemedicine services (Kissi et al., 2020), and mobile health applications (Wu et al., 2022); and healthcare workers' acceptance of e-prescription (Sema et al., 2024).

These studies have been carried out in order to identify factors affecting technology acceptance in healthcare such as top management support (Alsyouf et al., 2022), anxiety, education, and self-efficacy (Aggelidis and Chatzoglou, 2009), compatibility and information technology anxiety (Diel et al., 2023), personal innovativeness (Hoque et al., 2016; Hossain et al., 2019), resistance to change (Hossain et al., 2019), sacrifice, cognitive trust, and physicians' evaluation (Wu et al., 2022).

Grood et al. (2016) stated that the barriers to physicians' acceptance of e-health technology include threatened autonomy, privacy and security concerns, decreased patient-doctor interaction and increased workload. In the literature review, no study was found in which the effect of technology on workflow and workload on physicians' acceptance of technology and factors such as anxiety, personal technological innovation and workflow were examined together.

In this context, the aim of this study is to examine physicians' acceptance and usage levels of the e-Nabız system, along with the factors influencing these levels, through a comparative analysis of two versions of the Unified Theory of Acceptance and Use of Technology (UTAUT). By identifying the factors affecting physicians' acceptance of the e-Nabız system, this study provides essential information for e-Nabız stakeholders and contributes to the literature by explaining the influence of variables such as anxiety, personal technological innovativeness, and workflow on physicians' technology acceptance. This innovative study, which focuses on investigating the workflow in physicians' acceptance and use of technology, is a unique contribution to the literature.

1. RESEARCH METHODOLOGY

1.1. Ethical Considerations

Prior to the research, ethical approval was obtained from the Ethics Committee for Social and Human Sciences Research, with the decision dated 15/11/2019 and numbered 47083. Subsequently, a request for research permission was sent to all university hospitals for the implementation of the study, and permission was obtained from approximately 95% of them, allowing the research to proceed. Before administering the survey, participants were informed in writing about the purpose of the research and the voluntary nature of their participation, including their right to withdraw from the survey at any time.

1.2. Study Design

The research problem is to explain the level of acceptance and use of the e-Nabız system by physicians, as well as the factors influencing this level. To address this problem, a survey was conducted between January and July 2020 using a descriptive research model.

1.3. Participants

The study population comprises physicians employed in university hospitals, which are tertiary healthcare institutions. In addition to providing advanced diagnostic and treatment services, university hospitals engage in educational and research activities. To optimize patient outcomes and ensure efficient, safe, and high-quality care in tertiary healthcare institutions, comprehensive health records are imperative. In this context, the adoption and utilization of the e-Nabız system, a health record system, by physicians in university hospitals may yield significant benefits in service delivery. Approximately 32,000 physicians are employed in university hospitals (Health

Statistics Yearbook, 2019). To statistically represent this population with a 95% confidence interval, a sample size of 381 physicians is required (Taherdoost, 2017). A web-based survey was distributed to physicians via electronic mail addresses obtained through the electronic document management system and the institutional websites of their affiliated organizations, yielding 388 valid responses.

1.4. Data Collection

In this study, data were collected using an online survey method. The survey included items pertaining to demographic characteristics and functional variables based on the Unified Theory of Acceptance and Use of Technology (UTAUT) scale. The survey was converted into an online format utilizing Google Forms. The survey link was disseminated from the researcher's institutional email account to the email addresses of physicians accessible through institutional websites. In order to ensure data security in the study, each participant was limited to answering the questionnaire only once. Thus, a participant was prevented from answering the questionnaire more than once.

1.5. Instruments

A five-point Likert scale based on the Unified Theory of Acceptance and Use of Technology (UTAUT) was employed in this study. Both the first and second versions of the UTAUT model were utilized. The first version of UTAUT (Venkatesh et al., 2003) comprises 20 items across five dimensions, while the second version (Venkatesh et al., 2012) includes 47 items across eight dimensions. The first UTAUT model consists of performance expectancy, effort expectancy, social influence, facilitating conditions, behavioural intention, and use behaviour dimensions.

In the second version, the dimensions of hedonic motivation and price value were replaced with factors hypothesized to influence physicians' acceptance and use of the e-Nabız system: anxiety (Abdekhoda et al., 2015; Çalışkan, 2017; Zhou 2012), personal technological innovativeness (Zhou, 2012), and workflow (Grood et al., 2016). The constructed second model examines the effects of performance expectancy, effort expectancy, social influence, facilitating conditions, habit, anxiety, personal technological innovativeness, and workflow on acceptance intention and usage behaviour. Illustrations of both models are provided in Figures 1 and 2.

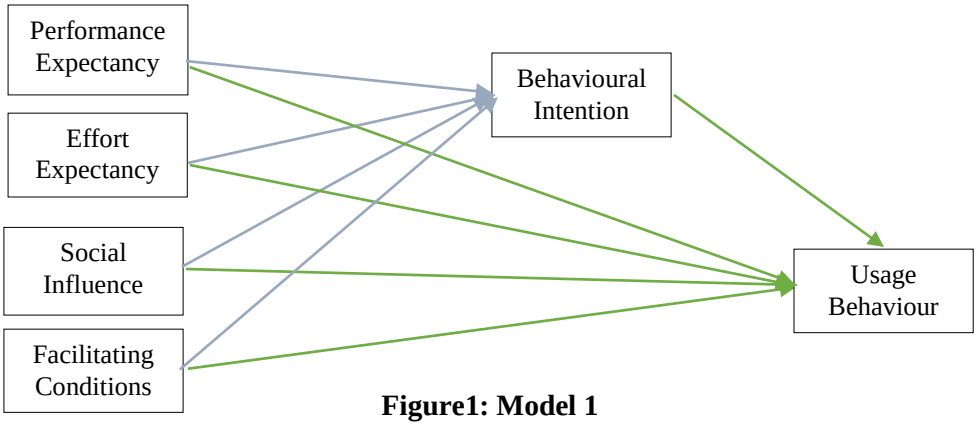

Figure1: Model 1

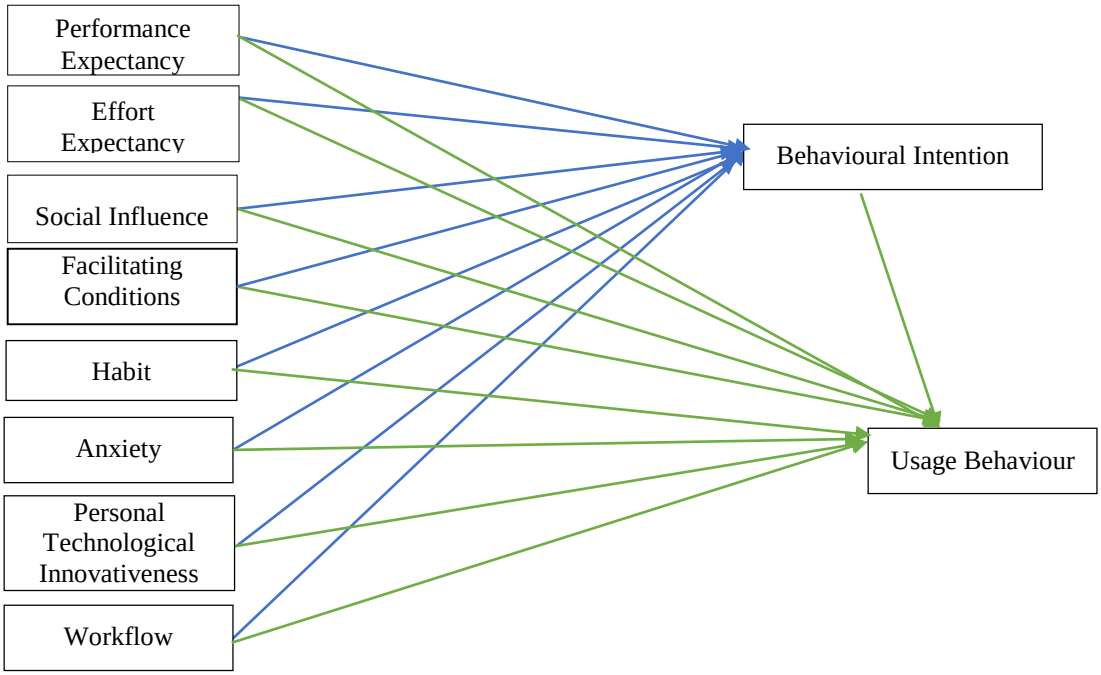

Figure 2: Model 2

2. ANALYSIS

In the study, demographic data were analysed using frequencies and percentages. For the analysis of functional variables, descriptive statistics, including minimum and maximum values, mean, and standard deviation, were obtained using SPSS software. Confirmatory factor analysis (CFA) and structural equation modelling (SEM) was conducted with the AMOS software. The goodness-of-fit criteria for the model were examined to evaluate the suitability and reliability of the model.

Cronbach's Alpha analysis was performed to assess the reliability of the scale. Statistical significance was determined at $p<0.05$.

2.1. Results of Analysis

The demographic data of the participants are presented in Table 1. According to the table, 66% of the participants are male, the majority fall within the 31-50 age range, and most have 11-20 years of work experience. The study was conducted nationwide in Türkiye, with the highest participation rate from the Marmara region at 30%.

Table 1: Frequency Distribution of Participants' Demographic Variables

Variable	Category	Frequency (n:388)	%
Gender	Female	132	34
	Male	256	66
Age (average:42,2)	30 and below	75	19
	31-40	104	27
	41-50	109	28
	51-60	85	22
	61 and above	15	4
Duration of Practice (average:17,7)	1-5 years	78	20
	6-10 years	33	8
	11-20 years	123	32
	21-30 years	105	27
	31 years and above	49	13
Region of Practice	Marmara	115	30
	Central Anatolia	86	22
	Black Sea	81	21
	Aegean	40	10
	Mediterranean	38	9
	Eastern Anatolia	14	4
	Southeastern Anatolia	14	4

The normality of the data was assessed using mean, mode, median, kurtosis, and skewness values. The similarity or proximity of the mean, mode, and median values indicates normal distribution (Howitt and Cramer, 2011; Lind et al., 2006; McKillup, 2012; Tabachnick and Fidell, 2013). These values are presented in Table 2. As shown in Table 2, skewness and kurtosis values fall within the range of -1.5 to +1.5, confirming the normal distribution of the data (Tabachnick and Fidell, 2013).

Table 2: Arithmetic Mean, Mode, Median, Skewness, and Kurtosis Values for Sub-dimensions of the Scale

Sub-dimension	Arithmetic Mean	Mode	Median	Standard Deviation	Skewness	Skewness Std. Error	Kurtosis	Kurtosis Std. Error
Performance Expectancy	4.12	5.00	4.20	0.82	-1.17	0.12	1.43	0.25
Effort Expectancy	3.87	5.00	4.00	0.95	-0.87	0.12	0.54	0.25
Social Influence	3.39	3.33	3.33	1.01	-0.34	0.12	-0.43	0.25
Facilitating Conditions	4.02	5.00	4.00	0.89	-1.07	0.12	1.10	0.25
Habit	3.38	5.00	3.50	1.13	-0.22	0.12	-1.01	0.25
Anxiety	3.59	4.00	3.50	0.87	-0.43	0.12	0.12	0.25
Personal Technological Innovativeness	3.71	5.00	4.00	1.01	-0.59	0.12	-0.30	0.25
Workflow Impact	2.97	2.67	3.00	0.69	-0.03	0.12	0.60	0.25
Behavioural Intention	3.92	5.00	4.00	0.99	-0.76	0.12	0.11	0.25
Usage Behaviour	2.78	3.00	2.80	0.51	0.28	0.12	1.89	0.25

The confirmatory factor analysis (CFA) results for Versions 1 and 2 of the Unified Theory of Acceptance and Use of Technology (UTAUT) model, performed using the AMOS software, are illustrated in Figures 3 and 4. To achieve the desired level of model fit, items with factor loadings below 0.50 were removed, and the analysis was repeated. Specifically, for Model 1, the items removed were "ease of use (item 4)" and "performance expectancy (item 5)." Subsequent modifications were implemented to ensure optimal model fit, yielding the following fit indices for the scale model: CMIN=690.150, Df=277, CMIN/Df=2.492, RMSEA=0.062, CFI=0.948, TLI=0.939. The path coefficients, along with both the standardized and unstandardized results, are detailed in Table 3. The final model structure adheres to the model fit criteria, demonstrating that the factor loadings are statistically significant. These findings validate the robustness and reliability of the model, affirming that it meets the necessary fit criteria and effectively explains the acceptance and use of technology.

Table 3: Standardized Path Coefficients for Model 1

			Standardized Coefficient	Unstandardized Coefficient	S.E.	C.R.	p	R^2
PE6	<---	PE	0.765	1.000				0.584
PE4	<---	PE	0.680	0.709	0.053	13.442	**<0.01**	0.462
PE3	<---	PE	0.617	0.819	0.067	12.194	**<0.01**	0.380
PE2	<---	PE	0.847	1.322	0.077	17.249	**<0.01**	0.718
PE1	<---	PE	0.899	1.222	0.075	16.373	**<0.01**	0.809
EE4	<---	EE	0.847	1.000				0.717
EE3	<---	EE	0.830	1.032	0.052	19.912	**<0.01**	0.689
EE2	<---	EE	0.848	1.060	0.051	20.653	**<0.01**	0.719

EE1	<---	EE	0.886	1.110	0.050	22.177	**<0.01**	0.785
SI6	<---	SI	0.567	1.000				0.321
SI5	<---	SI	0.883	1.666	0.137	12.127	**<0.01**	0.780
SI4	<---	SI	0.914	1.692	0.137	12.312	**<0.01**	0.835
SI3	<---	SI	0.794	1.553	0.136	11.458	**<0.01**	0.631
SI2	<---	SI	0.669	1.236	0.120	10.287	**<0.01**	0.447
SI1	<---	SI	0.702	1.262	0.119	10.632	**<0.01**	0.493
FC3	<---	FC	0.626	1.000				0.391
FC2	<---	FC	0.926	1.446	0.103	14.048	**<0.01**	0.857
FC1	<---	FC	0.875	1.279	0.093	13.680	**<0.01**	0.765
BI3	<---	BI	0.962	1.000				0.925
BI2	<---	BI	0.915	0.980	0.028	35.035	**<0.01**	0.837
BI1	<---	BI	0.880	0.826	0.027	30.619	**<0.01**	0.774
UB5	<---	UB	0.709	1.000				0.502
UB4	<---	UB	0.841	1.296	0.087	14.927	**<0.01**	0.707
UB3	<---	UB	0.680	0.793	0.064	12.341	**<0.01**	0.462
UB2	<---	UB	-0.647	-0.927	0.079	-11.777	**<0.01**	0.418
UB1	<---	UB	-0.577	-0.643	0.070	-9.192	**<0.01**	0.333

PE: Performance Expectancy, EE: Effort Expectancy, SI: Social Influence, FC: Facilitating Conditions, BI: Behavioural Intention, UB: Usage Behaviour, S.E.: Standard Error,

Specifically, for Model 1, the items removed were "ease of use (item 4)", "performance expectancy (item 5)", “anxiety (item 5,6,7)” and “workflow (item 3)”. Subsequent modifications were implemented to ensure optimal model fit, yielding the following fit indices for the scale model: CMIN=1853.369, Df= 727, CMIN/Df= 2.549, RMSEA=0.063, CFI=0.914, TLI=0.903. The path coefficients, along with both the standardized and unstandardized results, are detailed in Table 4. The final model structure adheres to the model fit criteria, demonstrating that the factor loadings are statistically significant. These findings validate the robustness and reliability of the model, affirming that it meets the necessary fit criteria and effectively explains the acceptance and use of technology.

Table 4: Standardized Path Coefficients for Model 2

			Standardized Coefficient	Unstandardized Coefficient	S.E.	C.R.	p	R^2
PE6	<---	PE	0.764	1.000				0.584
PE4	<---	PE	0.659	0.689	0.053	13.059	**<0.01**	0.434
PE3	<---	PE	0.611	0.812	0.067	12.050	**<0.01**	0.374
PE2	<---	PE	0.843	1.315	0.077	17.065	**<0.01**	0.710
PE1	<---	PE	0.907	1.233	0.076	16.280	**<0.01**	0.822
EE4	<---	EE	0.783	1.000				0.614
EE3	<---	EE	0.929	1.250	0.059	21.275	**<0.01**	0.864
EE2	<---	EE	0.942	1.273	0.059	21.609	**<0.01**	0.887
EE1	<---	EE	0.803	1.088	0.051	21.348	**<0.01**	0.645
SI6	<---	SI	0.569	1.000				0.324
SI5	<---	SI	0.884	1.660	0.136	12.213	**<0.01**	0.782
SI4	<---	SI	0.909	1.674	0.135	12.369	**<0.01**	0.827
SI3	<---	SI	0.797	1.549	0.134	11.541	**<0.01**	0.635
SI2	<---	SI	0.671	1.235	0.119	10.359	**<0.01**	0.451

SI1	<---	SI	0.706	1.262	0.118	10.718	**<0.01**	0.498
FC3	<---	FC	0.629	1.000				0.396
FC2	<---	FC	0.920	1.428	0.101	14.072	**<0.01**	0.846
FC1	<---	FC	0.879	1.277	0.093	13.784	**<0.01**	0.773
H4	<---	H	0.901	1.000				0.811
H3	<---	H	0.702	0.650	0.038	16.935	**<0.01**	0.493
H2	<---	H	0.880	1.012	0.039	25.694	**<0.01**	0.775
H1	<---	H	0.909	1.052	0.038	27.853	**<0.01**	0.826
A1	<---	A	0.783	1.000				0.612
A2	<---	A	0.810	1.014	0.062	16.344	**<0.01**	0.657
A3	<---	A	0.810	1.023	0.063	16.342	**<0.01**	0.656
A4	<---	A	0.620	0.903	0.075	12.114	**<0.01**	0.385
PTI1	<---	PTI	0.782	1.000				0.611
PTI2	<---	PTI	0.902	1.437	0.071	20.107	**<0.01**	0.813
PTI3	<---	PTI	0.918	1.386	0.067	20.541	**<0.01**	0.842
PTI4	<---	PTI	0.869	1.428	0.075	19.168	**<0.01**	0.755
W1	<---	W	0.866	1.000				0.751
W2	<---	W	-0.537	-0.601	0.059	-10.115	**<0.01**	0.288
W4	<---	W	0.811	0.933	0.066	14.225	**<0.01**	0.657
BI1	<---	BI	0.879	1.000				0.773
BI2	<---	BI	0.917	1.189	0.043	27.480	**<0.01**	0.840
BI3	<---	BI	0.960	1.209	0.039	30.651	**<0.01**	0.922
UB1	<---	UB	0.565	1.000				0.319
UB2	<---	UB	0.658	1.499	0.150	9.962	**<0.01**	0.433
UB3	<---	UB	-0.671	-1.244	0.123	-10.084	**<0.01**	0.450
UB4	<---	UB	-0.843	-2.067	0.180	-11.505	**<0.01**	0.711
UB5	<---	UB	-0.714	-1.601	0.173	-9.239	**<0.01**	0.510

PE: Performance Expectancy, EE: Effort Expectancy, SI: Social Influence, FC: Facilitating Conditions, H: Habit, A: Anxiety, PTI: Personal Technological Innovativeness, W: Workflow, BI: Behavioural Intention, UB: Usage Behaviour, S.E.: Standard Error,

Within the scope of the study, reliability tests were conducted for the developed models. The Cronbach's Alpha coefficient for Model 1 was calculated to be 0.869, while for Model 2, it was found to be 0.877. These Cronbach's Alpha values indicate a high level of reliability for both models, suggesting that the scales used are consistently reliable for measuring the constructs of interest.

Structural equation modelling (SEM) path analysis was conducted using the SPSS AMOS program to analyse the structure of the two models developed based on confirmatory factor analysis results. The results of the analysis are presented in Figures 5 and 6.

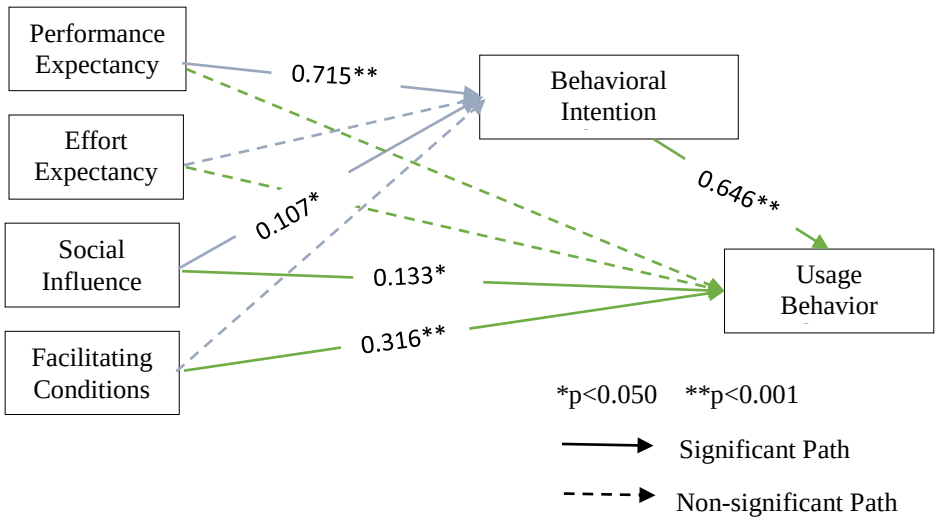

Figure 5: Path Analysis Results of Model 1

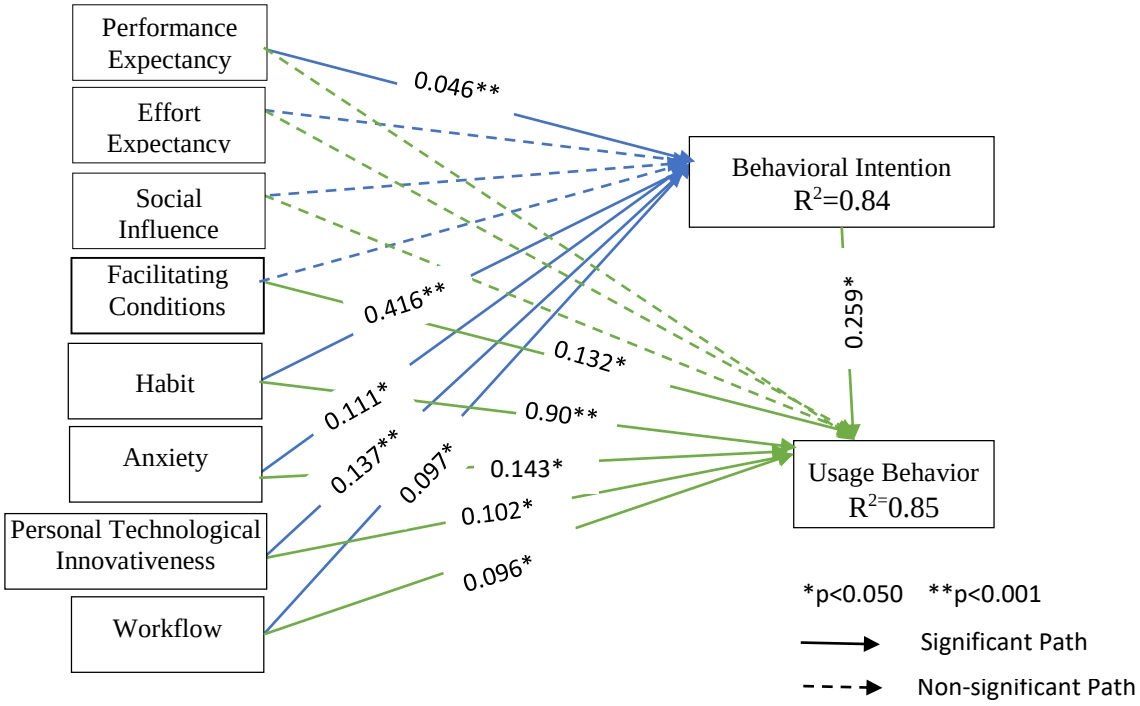

Figure 6: Path Analysis Results of Model 2

The structural equation analysis results for Model 1 are detailed in Table 5. According to these results, the factors influencing behavioural intention were performance expectancy (0.715) and social influence (0.107). The factors affecting usage behaviour were social influence (0.133), facilitating conditions (0.316), and behavioural intention (0.646). Performance expectancy was

identified as the most influential factor on behavioural intention. Model 1 explained 75% of the variance in behavioural intention and 69% in usage behaviour.

Table 5: Path Analysis Table for Model 1

			Unstandardized Coefficient	Standardized Coefficient	S.E.	C.R.	p	R^2
PE	→	**BI**	0.962	0.715	0.086	11.15	<**0.01**	0.741
EE	→	BI	-0.01	-0.009	0.097	-0.107	0.915	
SI	→	**BI**	0.165	0.107	0.066	2.503	**0.012**	
FC	→	BI	0.204	0.132	0.105	1.952	0.051	
BI	→	**UB**	0.575	0.646	0.08	7.21	<**0.01**	0.693
PE	→	UB	-0.094	-0.078	0.11	-0.851	0.395	
EE	→	UB	-0.079	-0.073	0.103	-0.76	0.447	
SI	→	**UB**	0.183	0.133	0.071	2.562	**0.01**	
FC	→	**UB**	0.437	0.316	0.119	3.687	<**0.01**	

PE: Performance Expectancy, EE: Effort Expectancy, SI: Social Influence, FC: Facilitating Conditions, BI: Behavioural Intention, UB: Usage Behaviour, S.E.: Standard Error,

The structural equation modelling (SEM) analysis outcomes for Model 2, utilized in this research, are detailed in Table 6. Analysis of Table 6 indicates that performance expectancy (0.462), anxiety (0.111), habit (0.416), personal technological innovativeness (0.137), and workflow (-0.097) are significant determinants of behavioural intention. Consistent with Model 1, performance expectancy is the most influential factor on behavioural intention. The variance in behavioural intention explained by these factors in Model 2 is 84%. In terms of usage behaviour, significant determinants include habit (-0.900), facilitating conditions (-0.132), anxiety (0.143), personal technological innovativeness (0.102), workflow (0.096), and behavioural intention (-0.259). Habit, with the highest factor loading, emerges as the most critical determinant of usage behaviour. Model 2 accounts for 85% of the variance in usage behaviour. Comparative analysis of the results from both models suggests that Model 2 offers a more comprehensive explanation, elucidating 85% of the factors influencing the acceptance and utilization of the e-Nabız system.

Table 6: Path Analysis Table for Model 2

			Unstandardized Coefficient	Standardized Coefficient	S.E.	C.R.	p	R^2
PE	→	**BI**	0.514	0.462	0.065	7.947	<**0.01**	**0.836**
EE	→	BI	-0.106	-0.099	0.058	-1.835	0.067	
SI	→	BI	-0.013	-0.01	0.05	-0.264	0.792	
FC	→	BI	-0.058	-0.046	0.064	-0.908	0.364	
H	→	**BI**	0.306	0.416	0.051	6.054	<**0.01**	
A	→	**BI**	0.117	0.111	0.05	2.327	**0.02**	
PTI	→	**BI**	0.158	0.137	0.037	4.303	<**0.01**	
W	→	**BI**	-0.077	-0.097	0.026	-2.916	**0.004**	
PE	→	UB	0.111	0.147	0.061	1,803	0.071	**0.847**

EE	→	UB	0.086	0.118	0.051	1.697	0.09
SI	→	UB	0.015	0.017	0.043	0.339	0.734
FC	→	**UB**	-0.114	-0.132	0.056	-2.018	**0.044**
H	→	**UB**	-0.45	-0.9	0.062	-7.256	**<0.01**
A	→	**UB**	0.102	0.143	0.045	2.282	**0.022**
PTI	→	**UB**	0.079	0.102	0.033	2.387	**0.017**
W	→	**UB**	0.051	0.096	0.023	2.195	**0.028**
BI	→	**UB**	-0.176	-0.259	0.069	-2.556	**0.011**

PE: Performance Expectancy, EE: Effort Expectancy, SI: Social Influence, FC: Facilitating Conditions, H: Habit, A: Anxiety, PTI: Personal Technological Innovativeness, W: Workflow, BI: Behavioural Intention, UB: Usage Behaviour, S.E.: Standard Error

3. DISCUSSION

This study examines the acceptance and usage levels of the e-Nabız system among physicians, as well as the factors influencing these levels. The factors affecting intention and usage were identified by comparing the two models considered in the study. It was observed that Model 2 explained intention and usage behaviour with a greater number of factors. The results obtained were then discussed in relation to findings from existing literature on health-related studies.

Performance expectancy refers to the belief that using the system will enhance one's performance. Physicians can achieve faster access to data, reduce redundant tests, and save time, thereby providing more services by using the e-Nabız system. Studies examining various Technology Acceptance Models (TAM) have found that the relationship between performance expectancy and intention is significant in all reviewed studies, highlighting the importance of perceiving information technologies (IT) as useful for acceptance and promotion (Holden and Karsh, 2010). Performance expectancy is a crucial determinant of physicians' intention to adopt technology (Başak et al., 2015; Breil et al., 2022; Diel et al., 2023; Liu et al., 2015). The design, training, and informational processes of IT should ensure that its benefits in the healthcare sector are perceived and that it is easy to use. Therefore, it is essential to organize in-service training and awareness programs about the system's performance-enhancing features or to support users through methods that boost motivation.

Effort expectancy refers to the belief that using the technology does not require much effort. It can influence the intention to use technology either directly or through attitude (Alsyouf et al., 2022). In their meta-analysis, Holden and Karsh (2010) found inconsistent results regarding the relationship between effort expectancy and intention. On the other hand, 7 out of 13 studies show

a significant relationship. Başak et al. (2015) identified effort expectancy as a factor affecting physicians' intention to adopt technology (personal digital assistants).

On the other hand, Liu et al. (2015) and Heselmans et al. (2012) found no significant effect of effort expectancy on the intention to use technology, aligning with the findings of our study (Heselmans et al., 2012; Liu et al., 2015). The lack of a significant effect of effort expectancy on intention in our study might be due to integrating the e-Nabız system with the existing information systems that participants already use, or it could be related to the ongoing usage over time. It is noted that effort expectancy is more crucial during the initial stages of technology use and tends to diminish in importance over time (Liu et al., 2015).

Social influence refers to the impact individuals deemed important, such as friends, colleagues, and supervisors, have on one's behaviour. It is posited that social influence can affect an individual's intention to use technology and their performance expectancy (Steininger et al., 2014). In our comparative study of the two models, social influence emerged as a factor influencing behavioural intention in the first model. In contrast, the second model did not identify it as a determinant. A review of the literature on technology acceptance models within the healthcare sector reveals that the effect of social influence on intention needs to be clarified, being significant in only four out of eight studies. The insignificance of social influence among physicians could be explained by their professional independence, general resistance to peer pressure, or the mandatory nature of the system's usage (Holden and Karsh, 2010).

Facilitating Conditions refer to users' perceptions that adequate technical infrastructure, expert support, and compatibility are available to support the use of technology (Venkatesh et al., 2003). Consistent with our study, previous research has found a significant relationship between facilitating conditions and behavioural intention (Aggelidis and Chatzoglou, 2009; Boontarig et al., 2012; Heselmans et al., 2012; Liu et al., 2015; Wu et al., 2022). Furthermore, facilitating conditions impact usage behaviour significantly (Venkatesh et al., 2003; Hossain et al., 2019).

Habit is a critical determinant of technology usage (Venkatesh et al., 2012). Habit encompasses both the repetition of past behaviours and the automaticity of behaviour (Cobelli and Blasi, 2024), implying that well-established habits are likely to predict future behaviour and fulfil expectations for technology investments. Therefore, the habit factor must be considered an essential element. Prior studies consistently support the significant relationship between habit, intention, and usage behaviour (Sergueeva et al., 2019; Wu et al., 2022; Yu et al., 2021).

Physicians' concerns regarding the use of the e-Nabız system are often related to its reliability and data security. They may fear that entering patient health data into mobile health systems could pose risks, create legal and ethical issues, or compromise privacy. Users of information technology frequently express concerns about the loss, theft, or misuse of personal information, and these privacy concerns can negatively impact behavioural intention (Sergueeva et al., 2019). In recent years, the increasing incidence of cyberattacks on health information systems (Diel et al.,, 2023; Jalali et al., 2021) may heighten physicians' anxieties about information technology. Our study identifies concern as a factor affecting both behavioural intention and usage. Contrary to our findings, Breil et al. (2022) discovered that anxiety did not impede the acceptance of m-health applications among physicians (Breil et al., 2022). Another study found that concerns about autonomy significantly impacted perceived ease of use (Abdekhoda et al., 2015). Research indicates that privacy concern represents the most significant negative predictor of behavioural intention (Çalışkan, 2017). Zhou (2012) stated that trust in information technology influences usage intention. Measures such as trainings on information security, cyberattack simulations, data encryption, software updates, two-factor authentication, and antivirus software can be implemented to alleviate these concerns (Jalali et al., 2021).

Personal innovativeness in technology reflects users' willingness to try new technologies. It encourages individuals to be open-minded, take risks, and engage in experimentation (Zhou, 2012). Our study found a significant relationship between personal innovativeness in technology, intention, and usage behaviour consistent with previous studies (Hossain et al., 2019; Hoque et al., 2016). Enhancing personal innovativeness in technology can be supported through professional development and in-service training programs.

Physicians' use of information systems during clinical workflows can impact efficiency and patient comfort (Abdekhoda et al., 2015; Hossain, 2019; Sema et al., 2024). Integrating new technology into any process can lead to changes in workflows. Therefore, processes should be redesigned to accommodate new technology, and organizational structures should be adapted to align with these changes (Yen et al., 2017). Our study determined that workflow significantly relates to both intention and usage.

Behavioural intention has been consistently identified as the primary determinant of usage behaviour in previous studies (Hossain et al., 2019; Kissi et al., 2020; Wu et al., 2022; Zhou, 2012).

Our study corroborates these findings, demonstrating that behavioural intention significantly influences usage.

This study presents several limitations. It encompasses only physicians employed at university hospitals who voluntarily participated in the electronic survey. Due to the pandemic, the research was conducted via an online survey methodology to mitigate the risk of infection, and the survey was distributed to physicians with accessible email addresses. Physicians who did not participate in the survey and those whose email addresses were unobtainable were excluded from the study. The study is temporally confined to the period from January to July 2020.

4. CONCLUSIONS AND RECOMMENDDATIONS

User evaluations of health information systems (HIS) are essential for enhancing these systems and realizing desired benefits for all stakeholders. Physicians' acceptance and usage levels of the e-Nabız system are particularly significant in achieving its strategic objectives. This study evaluates whether different versions of the Unified Theory of Acceptance and Use of Technology (UTAUT) offer a more comprehensive explanation of physicians' acceptance and usage of the e-Nabız system. The results indicate that the model developed based on the second version of UTAUT provides a more effective explanation of physicians' acceptance and usage of the e-Nabız system.

The second model, which produced more comprehensive results than the first model, was interpreted in the evaluations conducted. In the second model, factors that were found to have a statistically significant impact on behavioural intention include performance expectancy, facilitating conditions, habit, anxiety, personal technological innovativeness, and workflow. Factors such as effort expectancy, social influence, and facilitating conditions were found to have no significant impact on intention. The factors that were identified as having a statistically significant impact on usage behaviour are behavioural intention, facilitating conditions, habit, anxiety, personal technological innovativeness, and workflow. The model's ability to explain technology acceptance and usage was high, with a variance of 85%.

To enhance the effective and efficient use of the e-Nabız system by physicians, information system designers, healthcare institution administrators, the Ministry of Health, and other stakeholders can utilize the results of this study. Measures that could contribute to the acceptance and use of information technologies include conducting initiatives to reduce physicians' anxiety

and build their confidence, making technological investments in cybersecurity, employing prevention and detection tools, communicating the performance enhancement contributions of the e-Nabız system to physicians, designing the information system to facilitate workflow, educating individuals on new technologies to develop personal technological innovativeness, and supporting physicians through incentive systems to foster habit development.

This study utilizes the Unified Theory of Acceptance and Use of Technology (UTAUT) model to investigate physicians' acceptance of technology, thereby contributing to the development and management of the e-Nabız system and extending the UTAUT framework. Additionally, this research addresses the growing demand for more studies in the healthcare sector, where information technology investments and applications are increasingly prevalent. Future research should explore the factors influencing the acceptance and use of the e-Nabız system across public and private sectors and primary healthcare institutions. Furthermore, the acceptance and use of various health information systems could be examined using different iterations of technology acceptance models.

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An Analysis of the Health Literacy Levels of Students in A Public University's Faculty of Health Sciences

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Abstract

Aim: This study aimed to assess health literacy levels among Health Sciences students at a public university and examine associations between health literacy and sociodemographic characteristics.

Methods: A descriptive, cross-sectional design targeted the entire student population (N=176). No sampling was used, as the study targeted the entire population. Data were collected via face-to-face surveys using a socio-demographic form and the THLS-32 Scale. Of 176 surveys, 151 were returned, with three excluded due to incomplete responses, yielding an 84.09% response rate.

Results: Findings indicated that 66.3% of participants had sufficient or excellent health literacy. Female students scored higher on TS-AI perceptions than males, and Health Management students scored higher than Emergency Aid and Disaster Management students. Final-year students and those with social security had higher TS perceptions.

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Conclusion: This study found generally high health literacy levels, with notable differences by gender, department, academic year, and social security status. The findings emphasize the need for tailored university health literacy programs and digital platforms to address gaps in evaluation and access skills, particularly for students lacking social security. Integrating health literacy into public health initiatives could further promote a health-literate student population.

Keywords: Health literacy, university students, THLS-32 Scale

INTRODUCTION

The concept of literacy refers to an individual's ability to engage with written language in their daily activities. Consequently, literacy has a significant impact on individuals' actions, attitudes, and norms in their daily lives (Barton & Hamilton, 2012). Indeed, as socially active beings, humans rely on literacy as a fundamental skill to comprehend and interpret the world around them throughout their lives. It is believed that literate individuals not only contribute to their personal development but also play a role in addressing and improving societal issues (Güneş, 1997). Health literacy, specifically, is defined as "the ability to read, listen, comprehend, think critically, and make decisions regarding health-related information" (Huang et al., 2020). Increasing health literacy levels leads to improvements in quality of life and the consumption of more beneficial health services, while simultaneously reducing the costs associated with healthcare consumption (Ateş et al., 2024)

The Concept of Health Literacy

Health literacy has become an increasingly important concept in public health and healthcare services since the 1970s (Simonds, 1974). It refers to individuals' ability to access, comprehend, and utilize health information. The World Health Organization (WHO) defines health literacy as the ability to correctly understand and make decisions about health-related information to protect, improve, and enhance quality of life (Nutbeam, 1998; WHO, 2013). Anbarasan et al. (2019) emphasized that health literacy determines individuals' capacity to make informed health-related decisions. The Ministry of Health defines this concept within the framework of cognitive and social skills (Health Promotion and Development Glossary, 2011), while the Institute of Medicine describes health literacy as the ability to read, understand, and use health information to make appropriate health decisions (Nielsen-Bohlman et al., 2004). Hussein et al. (2018) define health

literacy as the ability of individuals to use personal data and skills to make health decisions, highlighting its crucial role in improving healthcare systems. Sorensen et al. (2012) describe health literacy as the ability to access, comprehend, and apply health information to improve health and prevent disease. Berry et al. (2017) argue that health literacy encompasses the skills necessary to access and use information to make decisions and perform actions that impact health. Furthermore, health literacy is considered a critical competence for managing and utilizing health information and is recognized as a fundamental component of health promotion and development (Kirchhoff et al., 2022).

The Importance of Health Literacy

Health literacy (HL) began to gain significance in the 1900s and became a broader conceptual framework with the increasing number of studies on the topic in the 2000s (Özman, 2023). Initially discussed in the United States and Canada, HL has gradually become an important concept in healthcare services and public health on a global scale. In Europe, the HLS-EU project developed the first large-scale survey on health literacy, which played a key role in expanding understanding in this field. This project highlighted how HL enhances individuals' abilities to maintain and improve their quality of life, particularly by making it easier to understand and navigate healthcare systems in developed societies (Kickbusch & Maag, 2008). Consequently, the project illustrated the essential role of HL in helping individuals better manage their health by providing the knowledge and skills needed to make informed decisions. Therefore, the significance of HL has become evident at both individual and societal levels, with direct effects on public health and the healthcare system.

Individuals with low health literacy (HL) face significant challenges in disease management, medication adherence, and self-care, often leading to restricted access to healthcare services and difficulties managing chronic conditions. Studies indicate that those with low HL tend to have limited knowledge, participate less in preventive health services, and experience higher hospitalization rates (Taggart et al., 2012; Nutbeam, 2008). Beyond individual health, HL profoundly impacts public health. Low HL levels contribute to inadequate understanding of health information, insufficient disease knowledge, and poor medication adherence, resulting in worsened health outcomes, higher mortality risks, inefficient healthcare utilization, increased costs, and widened health disparities (Nielsen-Bohlman et al., 2004; Berkman et al., 2011; Sheridan et al., 2011). Moreover, low HL hampers effective communication with healthcare

providers, further limiting healthcare access (Yılmaz, Çolak & Ersoy, 2009). Enhancing HL is essential not only for individuals' self-care but also for the well-being of their families and communities..

Another important aspect of HL is its role in the management of non-communicable diseases (NCDs). The growing prevalence of NCDs and the associated increase in healthcare costs have further emphasized the importance of HL (Joshi et al., 2024). Current research indicates that HL is one of the most promising and cost-effective approaches to preventing and managing non-communicable diseases (Pleasant, 2014; Pleasant et al., 2015). Individuals with high HL levels are more capable of accessing healthcare services, scheduling appointments, managing insurance procedures, and handling medical costs (Dexter et al., 1998; Wilson et al., 2003). This facilitates more effective integration into healthcare systems and enhances the quality of healthcare services.

In conclusion, improving HL is of great importance not only for individual health but also for public health. In societies with adequate HL levels, individuals positively impact both their own health and the overall health of the community. The World Health Organization has also identified HL as a key tool for achieving the Sustainable Development Goals (WHO, 2017). Therefore, enhancing HL not only helps individuals maintain a healthy lifestyle but also improves the efficiency of healthcare systems (Nutbeam, 2000; McQueen et al., 2007).

Factors and Conditions Influencing Health Literacy

Health literacy (HL) is influenced by various factors and plays a significant role in individuals' capacity to access, understand, and utilize health information. Key factors include education, socioeconomic status, age, gender, occupation, lifestyle, and others. Individuals with higher levels of education tend to better comprehend health information and access healthcare services more easily, while those with lower educational attainment often have HL levels below average (Lael-Monfared et al., 2019; Özman, 2023). Low-income individuals face greater difficulties in accessing and utilizing healthcare services, negatively affecting their HL levels (Özman, 2023). Furthermore, advancing age can impair individuals' ability to understand health information, leading to lower HL levels (Hüseyin et al., 2018). While women generally have better access to health information, men often exhibit lower HL levels (Hüseyin et al., 2018). Individuals working in the healthcare sector tend to have higher HL levels (Özman, 2023). Additionally, lifestyle behaviors play a role in HL, as individuals with healthier living habits are shown to have higher

HL levels (Hüseyin et al., 2018). A lack of digital literacy can also limit access to health information, thereby lowering HL levels (Özman, 2023).

Levels of Health Literacy

Recent studies on health literacy have emphasized the importance of individuals being informed about their health. In this context, health literacy levels are categorized into three types: functional, interactive, and critical (Nutbeam, 2000; Ishikawa, 2008). Functional health literacy refers to individuals' ability to acquire basic knowledge, such as understanding health risks and how to use healthcare services, and applying this information in their daily lives (Nutbeam & Lloyd, 2021). Interactive health literacy involves more advanced skills, enabling individuals to adapt new information to changing circumstances and make decisions in collaboration with others. Those with this level of literacy can effectively evaluate various sources of information and utilize communication channels to make informed health decisions (Nutbeam & Lloyd, 2021). Critical health literacy, the most advanced level, involves the ability to critically analyze information from different sources. This level of literacy provides both individual and societal benefits by creating a profound impact on health determinants (Chinn, 2011).

Recent Studies on Health Literacy

In recent years, numerous studies have examined health literacy (HL), highlighting how it is shaped by various factors, including education level, age, gender, socioeconomic status, and lifestyle. Sezer (2012) found that HL scores improve with higher education levels, establishing a positive correlation between health literacy and healthy lifestyle choices. Similarly, Türkoğlu (2016) revealed a significant association between HL and self-care practices in Isparta, noting that factors such as occupation, age, and family size influence HL, with individuals using alternative medicine reporting higher HL levels.

Research among university students has shown varied HL levels influenced by sociodemographic factors. Malatyalı (2018) reported that 62.8% of students in Sivas had sufficient or excellent HL, with higher scores among women and correlations with age, gender, family education, and income. Altınok (2019) observed that HL levels among health sciences students differed by department and health status, although age, class year, and family background in healthcare had no significant effect. Further emphasizing the impact of lifestyle on HL, Arıkan (2020) found a moderate, positive relationship between healthy behaviors and HL, underscoring the importance of promoting HL development.

Additional studies explore HL among specific age groups and academic settings. Kavuncuoğlu (2020) found age effects on HL in Erzurum, with those aged 25-44 showing generally sufficient or excellent HL levels. Juvinyà-Canal et al. (2020) investigated HL in Spain, reporting that nursing students had the highest scores among university students and that HL levels varied by academic department. Alp (2021) observed that among students in Burdur, HL did not significantly differ by gender, location, faculty, or income level, although self-control was a factor in healthy behaviors.

More recent studies have broadened the scope of literacy to include digital and health competencies in public health contexts. Farooq (2023) examined digital literacy among medical students in Lahore, finding high proficiency in operational skills and privacy protection, with female students scoring higher in privacy protection while male students excelled in other dimensions. Tekin and Tekin (2024) found a weak positive correlation between health literacy levels and healthy lifestyle behaviors among Faculty of Health Sciences students.In Turkey, Yılmaz and Günal (2023) found that female students had higher HL levels than males in a health sciences faculty, with HL increasing across academic years, although participants demonstrated only average competency in interpreting health policies. In their study, Çın et al. (2024) associated the high COVID-19 awareness and health literacy (SOY) scores and the low levels of COVID-19 phobia among Faculty of Health Sciences students with their enrollment in the Faculty of Health Sciences. Akgül et al. (2023) explored the link between HL and COVID-19 awareness, observing that higher HL among health sciences students correlated with heightened COVID-19 awareness and significant differences in COVID-19 awareness based on gender, residence, and high school background. Assessing and enhancing health literacy (HL) in faculties of health and medicine is of great importance, given the future roles these students will undertake within the healthcare system. Understanding HL levels accurately and implementing educational programs to improve these levels are critical steps toward fostering a health-literate community of healthcare professionals in the future.

1. RESEARCH METHODOLOGY

Purpose of the Research: This study aimed to assess health literacy levels among Health Sciences students at a state university and examine associations with sociodemographic characteristics.

Sampling and Data Collection: This study is quantitative, descriptive, and cross-sectional research. The research aimed to evaluate health literacy among all students enrolled in the Faculty of Health Sciences at a state university between November 1, 2022, and February 1, 2023 (N=176). The study did not employ any sampling method, aiming to reach the entire population. Out of the 176 questionnaires distributed, 151 were returned, with three questionnaires excluded due to incomplete or biased responses, resulting in a response rate of 84.09%.

The research questions are as follows:

I. What are the health literacy levels of the participants?

II. Do participants' health literacy levels differ according to socio-demographic characteristics?

Data Collection Tools: The data collection instrument used in this study consisted of two sections and a total of 42 questions:

Socio-Demographic Data Form: This section gathered information regarding participants' gender, age, marital status, place of residence, social security status, and other relevant sociodemographic details.

Turkey Health Literacy Scale-32 (THLS-32): Developed by the Turkish Ministry of Health in 2016, the THLS-32 is based on the "European Health Literacy Survey-HLS-EU" and has been validated and tested for reliability in Turkey. It contains 32 items structured into *two* main dimensions: Treatment and Service (TS) and Disease Prevention/Health Promotion (DPHP). These dimensions are further divided into *four* processes (Accessing Health-Related Information-AHRI, Understanding Health-Related Information-UHRI, Appraising Health-Related Information-AHRI, and Applying Health-Related InformationAHRI), making a total of *eight* subdimensions.

The TSOY-32 scale consists of 32 items, with a 5-point Likert scale (1 = Very easy, 2 = Easy, 3 = Difficult, and 4 = Very difficult, 5= No opinion). Codes 1-4 are recoded to 4-1 before scoring, and the total score is standardized to a 0-50 scale using:

Formula:

$$Index = (Mean - 1) * (\frac{50}{3})$$

Definitions:

Index: The calculated individual-specific index.

Mean: The average score

1: Lowest possible mean (for an index minimum of 0).

3: Mean range.

50: Maximum chosen score.

The index values derived from the results are used to categorize health literacy into four levels:

0-25 points: inadequate

>25-33 points: problematic – limited

>33-42 points: sufficient

>42-50 points: excellent

Data Analysis: Data were transferred to IBM SPSS 22.00 for statistical analysis. The Kolmogorov-Smirnov test was applied to assess the normality of the data distribution, which revealed a non-normal distribution. Consequently, non-parametric tests were employed, including the Mann-Whitney U Test and Kruskal-Wallis H Test, to analyze differences. Spearman's correlation coefficient was used to examine relationships between variables. Descriptive statistics, such as frequency distributions, percentages, standard deviations, and arithmetic means, were calculated for sociodemographic and other relevant data. All data were analyzed within a 95% confidence interval and a 5% margin of error.

Ethical Approval: Ethical approval for this study was granted by the Non-Interventional Clinical Research Ethics Committee of Ardahan University. It is assumed that all students who participated in the study answered the questionnaire honestly, accurately, and impartially. However, the data collected from these students cannot be generalized to other universities in Turkey.

2. ANALYSIS

The distribution of socio-demographic characteristics of the students who participated in the research is shown in Table 1.

Table 1: Distribution of Socio-Demographic Characteristics of Participants (n=148)

	Frequency (f)	**Percentage (%)**		**Frequency (f)**	**Percentage (%)**
Gender			**Department**		
Female	96	64.9	Emergency Aid and Disaster Management (EADM)	51	34.5
Male	52	35.1	Health Management (HM)	97	65.5
Marital Status			**Class**		
Single	147	99.3	EADM-1	32	21.6

Married	1	0.7	EADM-3	19	12.8
Age			HM-1	34	23.0
18-19 yaş	34	23.0	HM-3	28	18.9
20-21 yaş	59	39.9	HM-4	35	23.6
22 yaş ve üzeri	55	37.2	**Social Security**		
Place of Residence			None	50	33.8
Village	38	25.7	SGK	86	58.1
District	49	33.1	Other	12	8.1
City	61	41.2	**Income Status**		
Chronic Disease			Income less than expenses	58	39.2
Yes	11	7.4	Income equals expenses	73	49.3
No	137	92.6	Income more than expenses	17	11.5

Of the participants, 64.9% were female, the vast majority were single (99.3%), and 39.9% belonged to the 20-21 age group. In terms of the families' place of residence, 41.2% lived in urban areas. While 92.6% of the students had no chronic illness, 65.5% were studying in the Health Management (HM) department, 23.6% were HM-4th year students, 58.1% were covered by the Social Security Institution (SGK), and 49.3% reported that their income was equal to their expenses.

The normality and reliability analyses, as well as the mean scores of the data, are presented in Table 2.

Table 2: Normality and Reliability Analysis with Participants' Mean Scores (n=148)

Dimension	Kolmogorov-Smirnov (p)	Cronbach's Alpha	Mean	Std. Deviation (SD)
Treatment and Service (TS)	.001	.902	3.15	.58
Access to Information (TS-AI)	.000	.680	3,.3	.61
Understanding Information (TS-UI)	.000	.722	3.11	.67
Evaluating Information (TS-EI)	.000	.675	**2.93**	.72
Applying/Using Information (TS-AUI)	.000	.737	**3.32**	.64
Disease Prevention and Health Promotion (DPHP)	.008	.927	3.17	.61
Access to Information (DPHP-AI)	.000	.781	3.17	.70
Understanding Information (DPHP-UI)	.000	.707	**3.18**	.63
Evaluating Information (DPHP-EI)	.000	.739	**3.18**	.66
Applying/Using Information (DPHP-AUI)	.000	.817	**3.14**	.73
Access to Health-Related Information (A-HRISİ-BU)	.000	.833	3.20	.60
Understanding Health-Related Information (U-HRI)	.000	.829	3.14	.60
Evaluating Health-Related Information (E-HRI)	.017	.814	**3.06**	.63
Applying/Using Health-Related Information (AU-HRI)	.000	.850	**3.23**	.62

Total Score for THLS-32 Scale	.000	.951	**3.16**	.57

p=<.05

Based on the data presented in Table 2 and the analyses conducted, it was determined that the data did not follow a normal distribution, as the Kolmogorov-Smirnov test results indicated p<.05. Therefore, non-parametric tests (Mann-Whitney U and Kruskal-Wallis H tests) were chosen for further analysis. The reliability analysis results showed high internal consistency, with the overall (THLS-32) Cronbach's Alpha coefficient for the scale being (α=.951), along with high consistency in the Treatment and Service (TS) subdimension (α=.902) and the Disease Prevention and Health Promotion (DPHP) subdimension (α=.927). This indicates that the scale is reliable and provides consistent results.

Additionally, the arithmetic mean scores of the participants were examined for the overall scale and all subdimensions, and it was found that the mean perception scores of participants were above 3 for all. Therefore, it was concluded that participants have a health literacy level above the average.

2.1. Findings for the First Research Question

The first research question in the study was defined as: "I. What are the health literacy levels of the participants?" To address this question, the index mean scores and health literacy levels for the overall scale and all subdimensions were examined.

The index mean scores related to the health literacy levels of the participants are presented in Table 3.

Table 3: Participants' Mean Index Scores and Health Literacy Levels Based on the THLS-32 Scale and its Subdimensions (n=148)

Health Literacy Index Mean Scores								**Health Literacy Levels**							
Dimension	**Mean**	**Std. Dev.**	**Std. Error**	**95% Confidence Interval**		**Min.**	**Max.**	**Inadequate** (0-25)		**Problematic** (>25-33)		**Sufficient** (>33-42)		**Excellent** (>42-50)	
		(SD)	**(SE)**	**Min.**	**Max.**			**N**	**%**	**N**	**%**	**N**	**%**	**N**	**%**
Treatment and Service (TS)	**35.8**	9.64	.79	34.2	37.4	5.21	50	22	14.9	22	14.9	64	**43.2**	40	**27**
Access to Information (TS-AI)	37.1	10.2	.84	35.5	38.8	0	50	26	17.6	7	4.7	71	48	44	29.7
Understanding Information (TS-UI)	35.2	11.1	.91	33.4	37	0	50	28	18.9	15	10.1	70	47.3	35	23.6
Evaluating Information (TS-EI)	32.3	11.7	.96	30.4	34.2	0	50	43	29.1	18	12.2	61	41.2	26	17.6
Applying/Using Information (TS-AUI)	38.7	10.7	.88	37	40.5	0	50	18	12.2	8	5.4	63	42.6	59	39.9

Disease Prevention and Health Promotion (DPHP)	**36.1**	10.2	.84	34.4	37.8	8.33	50	25	16.9	21	14.2	57	**38.5**	45	**30.4**
Access to Information (DPHP-AI)	36.2	11.7	.96	34.3	38	4.17	50	28	18.9	8	5.4	68	45.9	44	29.7
Understanding Information (DPHP-UI)	36.3	10.5	.86	34.6	38	0	50	24	16.2	9	6.1	76	51.4	39	26.4
Evaluating Information (DPHP-EI)	36.4	11.1	.91	34.5	38.2	0	50	27	18.2	17	11.5	59	39.9	45	30.4
Applying/Using Information (DPHP-AUI)	35.6	12.1	.99	33.6	37.6	0	50	17	11.5	20	13.5	64	43.2	45	30.4
Access to Health-Related Information (A-HRI)	36.6	9.95	.82	35	38.3	8.33	50	19	12.8	20	13.5	67	**45.3**	42	**28.4**
Understanding Health-Related Information (U-HRI)	35.74	9.93	.82	34.1	37.4	2.08	50	21	14.2	23	15.5	67	**45.3**	37	**25**
Evaluating Health-Related Information (E-HRI)	**34.28**	10.45	.86	32.6	36	4.17	50	29	19.6	28	18.9	58	**39.2**	33	**22.3**
Applying/Using Health-Related Information (AU-HRI)	**37.05**	10.59	.87	35.3	38.8	0	50	17	11.5	20	13.5	62	**41.9**	49	**33.1**
Total Score for THLS-32 Scale	**35.95**	9.46	.78	34.4	37.5	10.42	50	19	12.8	31	20.9	59	**39.9**	39	**26.4**

Based on Table 3, the overall index mean score for the THLS-32 scale was found to be 35.95 (95% CI: 34.42-37.49, min.:10,42-max:50). The index mean score for the Treatment and Service (TS) dimension was 35.80 (95% CI: 34.24-37.37, min.:5,21-max:50), which is lower than the overall mean, while the Disease Prevention and Health Promotion (DPHP) dimension had a mean score of 36.10 (95% CI: 34.44-37.76, min.:8,33-max:50), higher than the overall mean.

When examining the subdimensions related to evaluating health-related information, it was observed that the score for the Applying/Using Health-Related Information (AU-HRI) subdimension was the highest at 37.05 (95% CI: 35.33-38.77), while the Evaluating Health-Related Information (E-HRI) subdimension had the lowest score at 34.28 (95% CI: 32.58-35.98).

According to the information in Table 3, 66.3% of the overall study group had sufficient or excellent health literacy levels. The findings related to the subdimensions are as follows: 70.2% of participants had sufficient or excellent health literacy in the TH dimension, 68.9% in the DPHP

dimension, 73.8% in the A-HRI subdimension, 70.3% in the U-HRI subdimension, 61.5% in the E-HRI subdimension, and 75% in the AU-HRI subdimension.

2.2. Findings for the Second Research Question

The second research question of the study was defined as: "II. Do participants' health literacy levels differ according to their socio-demographic characteristics?" The evaluation of the data was conducted through difference analyses using non-parametric tests (Mann-Whitney U and Kruskal-Wallis H tests).

Table 4: Comparison of the THLS-32 Scale and Subdimensions by Gender (n=148)

Dimension	Gender	N	Mean Rank	Mann-Whitney U	p-value
Treatment and Service (TS)	Male	52	70.19	2272.0	.368
	Female	96	76.83		
Access to Information (TS-AI)	Male	52	63.72	1935.5	**.023***
	Female	96	80.34		
Understanding Information (TS-UI)	Male	52	71.75	2353.0	.562
	Female	96	75.99		
Evaluating Information (TS-EI)	Male	52	76.06	2577.0	.740
	Female	96	73.66		
Applying/Using Information (TS-AUI)	Male	52	71.31	2330.0	.498
	Female	96	76.23		
Disease Prevention and Health Promotion (DPHP)	Male	52	73.84	2461.5	.890
	Female	96	74.86		
Access to Information (DPHP-AI)	Male	52	72.59	2396.5	.686
	Female	96	75.54		
Understanding Information (DPHP-UI)	Male	52	71.46	2338.0	.519
	Female	96	76.15		
Evaluating Information (DPHP-EI)	Male	52	77.57	2655.5	.517
	Female	96	72.84		
Applying/Using Information (DPHP-AUI)	Male	52	72.16	2374.5	.621
	Female	96	75.77		
Access to Health-Related Information (A-HRI)	Male	52	67.07	2109.5	.119
	Female	96	78.53		
Understanding Health-Related Information (U-HRI)	Male	52	71.81	2356.0	.572
	Female	96	75.96		
Evaluating Health-Related Information (E-HRI)	Male	52	76.81	2616.0	.629
	Female	96	73.25		
Applying/Using Health-Related Information (AU-HRI)	Male	52	71.96	2364.0	.594
	Female	96	75.88		
Total Score for THLS-32	Male	52	72.28	2380.5	.643
	Female	96	75.70		

*: $p<.05$.

According to Table 4, it was found that only the perception of TS-AI (Access to Information in the Treatment and Service dimension) showed a significant difference according to gender ($U=1935.5$; $p=.023$, $p<.05$). According to this result, women (Mean Rank=80.34) had

higher TS-AI perceptions compared to men (Mean Rank=63.72). No significant gender differences were found in any of the other subdimensions of the scale (p>.05).

Table 5: Comparison of the THLS-32 Scale and Subdimensions by Age (n=148)

Dimensions	Age Group	N	Mean Rank	Kruskal-Wallis H- χ^2	p-Value	Difference (Post-hoc LSD)
Treatment and Service (TS)	18-19 years[1]	34	65.88	5.531	.063	
	20-21 years[2]	59	69.58			
	22 + years[3]	55	85.11			
Access to Information (TS-AI)	18-19 years[1]	34	62.15	8.317	**.016***	(1-3)
	20-21 years[2]	59	69.98			
	22 + years[3]	55	86.98			
Understanding Information (TS-UI)	18-19 years[1]	34	70.68	4.269	.118	
	20-21 years[2]	59	68.04			
	22 + years[3]	55	83.79			
Evaluating Information (TS-EI)	18-19 years[1]	34	71.78	0.978	.613	
	20-21 years[2]	59	71.87			
	22 + years[3]	55	79.00			
Applying/Using Information (TS-AUI)	18-19 years[1]	34	62.62	6.930	**.031***	(1-3)
	20-21 years[2]	59	70.97			
	22 + years[3]	55	85.64			
Disease Prevention and Health Promotion (DPHP)	18-19 years[1]	34	66.63	1.662	.436	
	20-21 years[2]	59	75.25			
	22 + years[3]	55	78.55			
Access to Information (DPHP-AI)	18-19 years[1]	34	69.82	0.539	.764	
	20-21 years[2]	59	76.07			
	22 + years[3]	55	75.71			
Understanding Information (DPHP-UI)	18-19 years[1]	34	69.84	1.397	.497	
	20-21 years[2]	59	72.36			
	22 + years[3]	55	79.68			
Evaluating Information (DPHP-EI)	18-19 years[1]	34	70.35	0.682	.711	
	20-21 years[2]	59	73.78			
	22 + years[3]	55	77.84			
Applying/Using Information (DPHP-AUI)	18-19 years[1]	34	60.57	4.831	.089	
	20-21 years[2]	59	77.77			
	22 + years[3]	55	79.60			
Access to Health-Related Information (A-HRI)	18-19 years[1]	34	66.07	2.575	.276	
	20-21 years[2]	59	73.43			
	22 + years[3]	55	80.85			
Understanding Health-Related Information (U-HRI)	18-19 years[1]	34	70.90	2.394	.302	
	20-21 years[2]	59	70.01			
	22 + years[3]	55	81.55			
Evaluating Health-Related Information (E-HRI)	18-19 years[1]	34	70.71	0.885	.642	
	20-21 years[2]	59	72.80			
	22 + years[3]	55	78.67			
Applying/Using Health-Related Information (AU-HRI)	18-19 years[1]	34	60.28	6.024	**.049***	(1-3)
	20-21 years[2]	59	74.66			
	22 + years[3]	55	83.12			
Total Score for THLS-32	18-19 years[1]	34	65.49			

	20-21 years[2]	59	72.81	3.228	.199
	22 + years[3]	55	81.88		

*: p<.05

According to Table 5, statistically significant differences were found between participants' ages and their perceptions in the health literacy subdimensions. In terms of Access to Information in the Treatment and Service (TS-AI) dimension, participants aged 22 and above (Mean Rank = 86.98) had higher perceptions compared to those aged 18-19 (Mean Rank = 62.15) (χ^2=8.317; p=.016). Similarly, in the Applying/Using Information in the Treatment and Service (TS-AUI) dimension, participants aged 22 and above (Mean Rank = 85.64) had higher perceptions than those in the 18-19 age group (Mean Rank = 62.62) (χ^2=6.930; p=.031). Furthermore, in the Applying/Using Health-Related Information (AU-HRI) dimension, participants aged 22 and above (Mean Rank = 83.12) had higher perceptions than those in the 18-19 age group (Mean Rank = 60.28) (H=6.024; p=.049). These findings indicate that age has an effect on health literacy perceptions.

Table 6: Comparison of the THLS-32 Scale and Subdimensions by Academic Department (n=148)

Dimensions	Department	N	Mean Rank	Mann-Whitney U	p-value
Treatment and Service (TS)	EADM	51	62.61	3080.0	**.014***
	HM	97	80.75		
Access to Information (TS-AI)	EADM	51	62.30	3095.5	**.011***
	HM	97	80.91		
Understanding Information (TS-UI)	EADM	51	61.31	3146.0	**.006***
	HM	97	81.43		
Evaluating Information (TS-EI)	EADM	51	67.10	2851.0	.125
	HM	97	78.39		
Applying/Using Information (TS-AUI)	EADM	51	63.75	3021.5	**.025***
	HM	97	80.15		
Disease Prevention and Health Promotion (DPHP)	EADM	51	67.84	2813.0	.170
	HM	97	78.00		
Access to Information (DPHP-AI)	EADM	51	69.78	2714.0	.326
	HM	97	76.98		
Understanding Information (DPHP-UI)	EADM	51	69.99	2703.5	.346
	HM	97	76.87		
Evaluating Information (DPHP-EI)	EADM	51	67.71	2820.0	.158
	HM	97	78.07		
Applying/Using Information (DPHP-AUI)	EADM	51	64.47	2985.0	**.037***
	HM	97	79.77		
Access to Health-Related Information (A-HRI)	EADM	51	65.81	2916.5	.073
	HM	97	79.07		
Understanding Health-Related Information (U-HRI)	EADM	51	64.73	2972.0	**.043***
	HM	97	79.64		
Evaluating Health-Related Information (E-HRI)	EADM	51	67.14	2849.0	.129
	HM	97	78.37		

Applying/Using Health-Related Information (AU-HRI)	EADM	51	63.58	3030.5	**.024***
	HM	97	80.24		
Total Score for THLS-32	EADM	51	65.01	2957.5	.051
	HM	97	79.49		

*: p<.05

According to Table 6, significant differences were found in participants' perceptions of the Treatment and Service (TS) dimension and its related subdimensions based on the academic department they were enrolled in. For the overall TS perception, students in the Health Management (HM) department (Mean Rank= 80.75) had higher perceptions compared to students in the Emergency Aid and Disaster Management (EADM) department (Mean Rank = 62.61) (U=3080.0; p=.014). Similarly, in the TS-AI (Access to Information) dimension, HM students (Mean Rank = 80.91) had higher perceptions than EADM students (Mean Rank = 62.30) (U=3095.5; p=.011). In the TS-UI (Understanding Information) dimension, HM students (Mean Rank = 81.43) scored significantly higher than EADM students (Mean Rank = 61.31) (U=3146.0; p=.006). For the TS-AUI (Applying/Using Information) dimension, HM students (Mean Rank = 80.15) also had higher perceptions compared to EADM students (Mean Rank = 63.75) (U=3021.5; p=.025).

Additionally, in the DPHP-AUI (Applying/Using Information in Disease Prevention and Health Promotion) dimension, HM students (Mean Rank = 79.77) had higher perceptions compared to EADM students (Mean Rank = 64.47) (U=2985.0; p=.037).

For the U-HRI (Understanding Health-Related Information) dimension, HM students (Mean Rank = 79.64) had higher perceptions compared to EADM students (Mean Rank = 64.73) (U=2972.0; p=.006). Similarly, in the Sİ-BKU (Applying/Using Health-Related Information) dimension, HM students (Mean Rank = 80.24) scored significantly higher than EADM students (Mean Rank = 63.58) (U=3030.5; p=.024).

Due to the presence of only 2 students in HM-2 and 3 students in EADM-2, these groups were excluded from the study to avoid significant bias in the data.

Table 7: Comparison of THLS-32 Scale and its Sub-Dimensions According to Participants' Classes (n=148)

Dimensions	Class	N	Mean Rank	Kruskal Wallis H-χ2	p-value	Difference (Post-hoc LSD
Treatment and Service (TS)	EADM-1[1]	32	52.00			
	EADM-3[2]	19	80.47			(1-3)

	HM-1[3]	34	82.96	19.746	**.001***	(1-5)
	HM-3[4]	28	62.14			(4-5)
	HM-4[5]	35	93.50			
Access to Information (TS-AI)	EADM-1[1]	32	47.56	25.188	**.000***	(1-2)
	EADM-3[2]	19	87.13			(1-3)
	HM-1[3]	34	77.07			(1-5)
	HM-3[4]	28	66.14			(4-5)
	HM-4[5]	35	96.46			
Understanding Information (TS-UI)	EADM-1[1]	32	56.69	14.771	**.005***	(1-5)
	EADM-3[2]	19	69.11			
	HM-1[3]	34	82.09			
	HM-3[4]	28	66.13			
	HM-4[5]	35	93.04			
Evaluating Information (TS-EI)	EADM-1[1]	32	61.92	10.431	.034	
	EADM-3[2]	19	75.82			
	HM-1[3]	34	86.00			
	HM-3[4]	28	60.70			
	HM-4[5]	35	85.16			
Applying/Using Information (DPHP-AUI)	EADM-1[1]	32	51.36	18.691	**.001***	(1-5)
	EADM-3[2]	19	84.63			
	HM-1[3]	34	79.81			
	HM-3[4]	28	65.46			
	HM-4[5]	35	92.23			
Disease Prevention and Health Promotion (DPHP)	EADM-1[1]	32	61.31	16.307	**.003***	(1-5)
	EADM-3[2]	19	78.84			
	HM-1[3]	34	74.46			(4-5)
	HM-3[4]	28	58.98			
	HM-4[5]	35	96.66			
Access to Information (DPHP-AI)	EADM-1[1]	32	63.73	13.182	**.010***	(1-5)
	EADM-3[2]	19	79.97			
	HM-1[3]	34	74.72			(4-5)
	HM-3[4]	28	59.02			
	HM-4[5]	35	93.54			
Understanding Information (DPHP-UI)	EADM-1[1]	32	63.72	14.540	**.006***	(1-5)
	EADM-3[2]	19	80.55			
	HM-1[3]	34	75.12			(4-5)
	HM-3[4]	28	57.52			
	HM-4[5]	35	94.06			
Evaluating Information (DPHP-EI)	EADM-1[1]	32	64.36	16.518	**.002***	(1-5)
	EADM-3[2]	19	73.34			
	HM-1[3]	34	73.46			(4-5)
	HM-3[4]	28	58.71			
	HM-4[5]	35	98.04			
Applying/Using Information (DPHP-AUI)	EADM-1[1]	32	56.31	14.229	**.007***	(1-5)
	EADM-3[2]	19	78.21			
	HM-1[3]	34	77.82			
	HM-3[4]	28	65.55			
	HM-4[5]	35	93.04			
Access to Health-Related Information (A-HRI)	EADM-1[1]	32	55.16	18.703	**.001***	(1-5)
	EADM-3[2]	19	83.76			
	HM-1[3]	34	76.18			(4-5)
	HM-3[4]	28	61.68			
	HM-4[5]	35	95.79			

Understanding Health-Related Information (U-HRI)	EADM-1[1]	32	59.42	15.996	**.003***	(1-5) (4-5)
	EADM-3[2]	19	73.66			
	HM-1[3]	34	79.22			
	HM-3[4]	28	60.30			
	HM-4[5]	35	95.51			
Evaluating Health-Related Information (E-HRI)	EADM-1[1]	32	62.20	13.852	**.008***	(1-5) (4-5)
	EADM-3[2]	19	75.45			
	HM-1[3]	34	80.06			
	HM-3[4]	28	58.11			
	HM-4[5]	35	92.94			
Applying/Using Health-Related Information (AU-HRI)	EADM-1[1]	32	53.81	18.464	**.001***	(1-5) (4-5)
	EADM-3[2]	19	80.03			
	HM-1[3]	34	78.97			
	HM-3[4]	28	63.09			
	HM-4[5]	35	95.20			
Total Score for THLS-32	EADM-1[1]	32	56.58	19.508	**.001***	(1-5) (4-5)
	EADM-3[2]	19	79.21			
	HM-1[3]	34	77.76			
	HM-3[4]	28	59.27			
	HM-4[5]	35	97.34			

*: p<.05

In Table 7, it was found that there are significant differences in participants' perceptions of the THLS-32 scale overall and its sub-dimensions based on the classes they have attended. In terms of TS perception, it was determined that EADM first-year students (Mean Rank=52.00) had lower scores compared to HM first-year (Mean Rank=82.96) and HM fourth-year (Mean Rank=93.50) students (χ^2=19.746; p=.001). Similarly, in the TS-AI dimension, EADM first-year students (Mean Rank=47.56) had lower scores compared to HM first-year (Mean Rank=77.07), HM fourth-year (Mean Rank=96.46), and EADM third-year (Mean Rank=87.13) students (χ^2=25.188; p=.000).

In the TS-UI dimension, HM fourth-year students (Mean Rank=93.04) exhibited higher perceptions compared to EADM first-year students (Mean Rank=56.69) (χ^2=14.771; p=.005). Likewise, in the TS-AUI dimension, HM fourth-year students (Mean Rank=92.23) had higher perceptions compared to EADM first-year students (Mean Rank=51.36) (χ^2=18.691; p=.001).

For general DPHP perception, HM fourth-year students (Mean Rank=96.66) scored higher than EADM first-year students (Mean Rank=61.31) and HM third-year students (χ^2=16.307; p=.003). Additionally, in the DPHP-AI, DPHP-UI, and DPHP-EI dimensions, the perceptions of HM fourth-year students were found to be significantly higher than those of EADM first-year and HM third-year students (p<.05).

In the A-HRI and U-HRI dimensions, HM fourth-year students (Mean Ranks=95.79 and 95.51, respectively) had significantly higher perceptions compared to EADM first-year and HM third-year students (χ^2=18.703; p=0.001 and χ^2=15.996; p=.003). Finally, in terms of total THLS-32 scores, HM fourth-year students (Mean Rank=97.34) exhibited higher perceptions compared to EADM first-year (Mean Rank=56.58) and HM third-year (Mean Rank=59.27) students (χ^2=19.508; p=.001).

Table 8: Comparison of THLS-32 Scale and its Sub-Dimensions According to Participants' Social Security Status (n=148)

Dimension	Social Security	N	Mean Rank	Kruskal Wallis H-χ^2	p-value	Difference (Post-hoc LSD
Treatment and Services (TS)	None[1]	50	61.31	7.672	**.022***	(1-2)
	SGK[2]	86	80.08			
	Other[3]	12	89.50			
Access to Information (TS-AI)	None[1]	50	60.31	9.475	**.009***	(1-2) (1-3)
	SGK[2]	86	80.12			
	Other[3]	12	93.33			
Understanding Information (TS-UI)	None[1]	50	66.63	3.372	.185	
	SGK[2]	86	77.10			
	Other[3]	12	88.67			
Evaluating Information (TS-EI)	None[1]	50	65.66	3.260	.196	
	SGK[2]	86	79.11			
	Other[3]	12	78.29			
Applying Information (TS-AUI)	None[1]	50	63.79	5.048	.080	
	SGK[2]	86	79.27			
	Other[3]	12	84.96			
Disease Prevention and Health Promotion (DPHP)	None[1]	50	69.10	1.268	.530	
	SGK[2]	86	76.84			
	Other[3]	12	80.21			
Access to Information (DPHP-AI)	None[1]	50	71.23	.450	.799	
	SGK[2]	86	76.19			
	Other[3]	12	76.04			
Understanding Information (DPHP-UI)	None[1]	50	69.09	1.449	.485	
	SGK[2]	86	76.53			
	Other[3]	12	82.46			
Evaluating Information (DPHP-EI)	None[1]	50	72.38	.197	.906	
	SGK[2]	86	75.44			
	Other[3]	12	76.62			
Applying/Using Information (DPHP-AUI)	None[1]	50	67.96	1.885	.390	
	SGK[2]	86	77.38			
	Other[3]	12	81.12			
Access to Health-Related Information (A-HRI)	None[1]	50	64.51	4.496	.106	
	SGK[2]	86	78.62			
	Other[3]	12	86.62			
Understanding Health-Related Information (U-HRI)	None[1]	50	67.09	3.028	.220	
	SGK[2]	86	76.88			
	Other[3]	12	88.29			

Evaluating Health-Related Information (E-HRI)	None[1]	50	67.61	1.960	.375
	SGK[2]	86	78.02		
	Other[3]	12	77.96		
Applying/Using Health-Related Information (AU-HRI)	None[1]	50	65.67	3.399	.183
	SGK[2]	86	78.35		
	Other[3]	12	83.67		
Total Score for THLS-32	None[1]	50	65.59	3.563	.168
	SGK[2]	86	78.16		
	Other[3]	12	85.38		

*: p<.05.

According to Table 8, participants' perceptions of Treatment and Services (TS) show a statistically significant difference based on their social security status (χ^2=7.672; p=.022). Specifically, students with social security (Mean Rank=80.08) have higher perceptions of TH compared to those without social security (Mean Rank=61.31). Additionally, a significant difference was also found in the Treatment and Services Access to Information (TS-AI) sub-dimension based on social security status (χ^2=9.475; p=.009). Participants without any social security have the lowest health literacy perceptions in the TS-AI dimension (Mean Rank=60.31). These findings indicate that having social security has a significant impact on health literacy perceptions.

Table 9: Comparison of THLS-32 Scale and its Sub-Dimensions According to Participants' Family Income Levels (n=148)

Dimension	Income Level	N	Mean Rank	Kruskal Wallis H-χ2	p-value	Difference
Treatment and Services (TS)	Income < Expenses[1]	58	67.85	4.953	.084	
	Income = Expenses[2]	73	75.23			
	Income > Expenses[3]	17	94.03			
Access to Information (TS-AI)	Income < Expenses[1]	58	73.93	.928	.629	
	Income = Expenses[2]	73	72.81			
	Income > Expenses[3]	17	83.71			
Understanding Information (TS-UI)	Income < Expenses[1]	58	67.81	6.395	**.041***	(1-3)
	Income = Expenses[2]	73	74.47			
	Income > Expenses[3]	17	97.44			
Evaluating Information (TS-EI)	Income < Expenses[1]	58	69.42	4.662	.097	
	Income = Expenses[2]	73	73.84			
	Income > Expenses[3]	17	94.68			
Applying Information (TS-AUI)	Income < Expenses[1]	58	68.29	4.175	.124	
	Income = Expenses[2]	73	75.38			
	Income > Expenses[3]	17	91.91			
Disease Prevention and Health Promotion (DPHP)	Income < Expenses[1]	58	72.99	3.006	.222	
	Income = Expenses[2]	73	71.77			
	Income > Expenses[3]	17	91.35			

Access to Information (DPHP-AI)	Income < Expenses[1]	58	73.15	3.981	.137
	Income = Expenses[2]	73	71.12		
	Income > Expenses[3]	17	93.62		
Understanding Information (DPHP-UI)	Income < Expenses[1]	58	77.11	2.588	.274
	Income = Expenses[2]	73	69.62		
	Income > Expenses[3]	17	86.56		
Evaluating Information (DPHP-EI)	Income < Expenses[1]	58	72.16	2.264	.322
	Income = Expenses[2]	73	72.97		
	Income > Expenses[3]	17	89.03		
Applying/Using Information (DPHP-AUI)	Income < Expenses[1]	58	70.72	1.896	.387
	Income = Expenses[2]	73	74.64		
	Income > Expenses[3]	17	86.79		
Access to Health-Related Information (A-HRI)	Income < Expenses[1]	58	73.14	2.424	.298
	Income = Expenses[2]	73	72.06		
	Income > Expenses[3]	17	89.62		
Understanding Health-Related Information (U-HRI)	Income < Expenses[1]	58	72.78	3.437	.179
	Income = Expenses[2]	73	71.67		
	Income > Expenses[3]	17	92.50		
Evaluating Health-Related Information (E-HRI)	Income < Expenses[1]	58	70.59	3.887	.143
	Income = Expenses[2]	73	73.19		
	Income > Expenses[3]	17	93.44		
Applying/Using Health-Related Information (AU-HRI)	Income < Expenses[1]	58	68.41	3.344	.188
	Income = Expenses[2]	73	75.86		
	Income > Expenses[3]	17	89.44		
Total Score for THLS-32	Income < Expenses[1]	58	70.71	3.765	.152
	Income = Expenses[2]	73	73.16		
	Income > Expenses[3]	17	93.21		

*: p<.05

According to Table 9, it was determined that only the perceptions of TS-UI (Treatment and Services Understanding Information) showed a statistically significant difference based on the family income levels of the participants (χ^2=6.395; p=.041, p<.05). Specifically, participants whose families' income exceeds their expenses (Mean Rank=97.44) have higher TS-UI perceptions compared to those with families whose income is less than their expenses (Mean Rank=67.81). In contrast, no significant differences were found in the other sub-dimensions of the scale based on family income levels (p>.05).

In addition, no statistically significant differences were found in participants' health literacy perception levels based on socio-demographic variables such as marital status, parents' education levels, place of residence, or the presence of chronic illness, as indicated by the socio-demographic data form.

3. DISCUSSION

This study demonstrates that one of the state university students generally possess a high level of health literacy (HL), with 66.3% showing sufficient or excellent HL levels across several dimensions. Specifically, scores in dimensions such as Access to Health-Related Information (A-HRI) (73.7%) and Applying/Using Health-Related Information (AU-HRI) (75%) were relatively high, suggesting strong capabilities in obtaining and utilizing health information. However, a lower score in the Evaluating Health-Related Information (E-HRI) dimension (61.5%) indicates potential gaps in students' critical appraisal skills, which are crucial for informed health decisions.

Comparative studies underscore both similarities and differences across student populations. For instance, Soysal and Obuz (2020) reported very high HL levels (95.6%) among their participants, contrasting with the results of Şahinöz et al. (2018), who found only 38.4% of students with sufficient HL. Malatyalı (2018) observed that 62.8% of university students had sufficient or excellent HL, a finding more closely aligned with the current study. This variability across studies could reflect differing sample demographics, regional factors, and educational approaches, pointing to the need for more standardized methodologies to measure HL effectively.

This study also aligns with a broader national context provided by the Turkish Ministry of Health (2020), which indicated that only 31.1% of the Turkish population achieved sufficient or excellent HL levels, suggesting that university students generally display higher HL than the national average. This discrepancy may be attributed to the influence of higher education on HL, as supported by Akçilek (2017), who found generally limited HL levels in a broader population using the THLS-32 scale, and by Doğru (2021), who also reported limited HL.

Gender differences were observed in the Treatment and Services dimension, with female students scoring higher, likely due to socio-cultural factors that encourage women to engage more with health-related responsibilities. Similar results were observed by Türkoğlu (2016), Çopurlar et al. (2017), Matsumoto and Nakayama (2017), Ergün (2019), Akgül and Tanrıkulu (2023), Çın et al. (2024) who also found that women generally exhibited higher HL levels. However, contrasting studies (UNESCO, 2012; Sezer, 2012; Nacar, 2018; Alp, 2021; Ilgaz, 2021; Doğru, 2021; Ateş et al., 2024) reported no significant gender differences, while Gül (2022) found lower

HL among women in Manisa, attributing this to socio-cultural factors such as lower general literacy levels and patriarchal influences. These variations suggest that gender's impact on HL may be context-dependent, shaped by regional and cultural factors. But Tekin and Tekin (2024) identified in their study that male participants exhibit higher levels of health literacy.

The relationship between HL and age is another notable finding, with older students scoring higher in certain HL dimensions, likely due to cumulative educational experiences and increased exposure to health information. This positive association between age, class level, and HL has been supported by studies like Halladay et al. (2017), Doğrucan Katrancı (2019), Erman (2023), Çın et al. (2024). However, opposing finding from Aktaş et al. (2020) and Ateş et al. suggest that younger individuals may exhibit higher HL due to greater digital health resource engagement, highlighting the potential influence of generational access to technology.

There is no significant difference in participants' HL levels based on where they lived. Similar results were reported by Şahinöz et al. (2018), Ertem (2019) and Akgül and Tanrıkulu (2023), who found no significant effect of place of residence on HL. However, other studies (Dündar and Dede, 2012; Üçpınar, 2014; Zhang et al., 2016) found that individuals living in rural areas had lower HL levels than those in urban areas. These inconsistencies may stem from differences in access to local healthcare services, variations in digital infrastructure, changes in methods of accessing information over the years, and the limited availability of the internet in rural areas. This highlights the need for further research into the impact of rural-urban disparities on HL.

Our study found no significant differences in health literacy (HL) levels based on the income status of participants' families. Ertem (2019) reached a similar conclusion in a study conducted with university students in Ankara. Conversely, several studies have found that individuals with higher income levels tend to have higher HL levels (Özdemir et al., 2010; Liu et al., 2015; Gözlü, 2018; Yeşildal & Kaya, 2021; Karabulut, 2021; Kerkez, 2023; Çın et al, 2024).

This study did not find significant associations between HL and chronic illness status, consistent with findings by Malatyalı (2018), Yılmaz and Günal (2023), Akgül and Tanrıkulu (2023), and Ateş et al (2024). Conversely, studies by Tekin and Tekin (2024), Mitic and Rootman et al. (2012), Paasche-Orlow et al. (2007), Çimen (2015), and indicated lower HL among individuals with chronic illnesses, potentially due to the complexity of medical information and psychological barriers. Zhang et al. (2016) further noted that low HL is often associated with

psychological issues like depression, suggesting that chronic illness may exacerbate HL challenges for some individuals.

Field of study also appeared to influence HL, with Health Management (HM) students demonstrating higher HL levels than those in Emergency Aid and Disaster Management (EADM), possibly due to HM students' more extensive exposure to health-related courses. This finding is consistent with research from HLS-EU (2012), Nacar (2018), Yağız (2020), Soylar and Kadıoğlu (2020), and Kavuncuoğlu (2023), which highlighted the role of curriculum in HL development. However, other studies (İkinci et al., 2012; Kulenovic et al., 2015; Akgül and Tanrıkulu, 2023) found no significant program-based differences, potentially due to variations in curricular emphasis on HL across institutions.

Lastly, individuals with social security had higher HL levels, likely because social security facilitates access to healthcare services, thus enhancing health-related knowledge. This finding aligns with studies by Güven (2016) and Yıldırım (2022), though studies by Kendilci (2022), Kerkez (2023) reported no significant effect of social security on HL, which may be attributed to broader systemic factors affecting healthcare access.

In conclusion, this study reinforces the significance of HL for individual and public health, particularly among university students. It highlights the need for targeted strategies, such as university-based HL education programs and digital health literacy platforms, to bridge identified gaps in HL dimensions like evaluation skills. Future research should incorporate larger, diverse samples and employ qualitative methods to explore the socio-cultural and psychological factors that influence HL. Enhanced focus on faculty-specific and cross-departmental HL comparisons would offer valuable insights into the role of curriculum in shaping HL. Additionally, initiatives to integrate HL education into public health campaigns and community centers could contribute to a more health-literate society.

Limitations: This study assumes that participants answered survey questions sincerely and accurately. Limitations include its restriction to a single institution and voluntary student participants, along with a cross-sectional design limited to one time period. Thus, the findings cannot be generalized.

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The Evaluation of Graduate Theses on Organizational Cynicism Levels of Healthcare Professionals

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Abstract

Aim: This study was conducted to examine postgraduate theses on organizational cynicism in Turkey, where the sample group consisted of healthcare professionals.

Methods: The database of The Council of Higher Education (Yükseköğretim Kurulu (YÖK)) was analyzed using "Cynicism, Organizational Cynicism, Cynic" separately and together, and 58 postgraduate theses were reached, the sample of which consisted of healthcare professionals. The theses obtained were evaluated using the data collection form and descriptive statistics prepared by the researchers.

Results: Within the scope of the study, 86.2% of the theses examined were master's theses and only 8 doctoral theses were found on this subject. It was determined that the first thesis on this subject was published in 2013, 41.3% of the theses were written in the departments of

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Business/Business Administration/ General Business Administration, and the number of studies increased over the years. It was determined that quantitative research methods were used in 98.2% of the studies, 41.3% of which were conducted in Istanbul, and qualitative research designs were used in only one study.

Conclusion: When the postgraduate theses examined in the study are evaluated in general, it can be said that the organizational cynicism levels of healthcare professionals are at a moderate level. This study is important in terms of revealing the current situation regarding organizational cynicism in health services and creating data for action plans. In addition, it is thought that examining the organizational cynicism levels of health professions separately (physician, nurse, midwife, health technician, etc.) and taking initiatives specific to each profession will provide great benefits to both employees and those receiving service, and this will positively affect the provision of health services and increase the quality of patient care. In addition, the study makes an important contribution by revealing open areas for scientists who will study cynicism.

Keywords: Cynicism, organizational cynicism, cynic

INTRODUCTION

While it is stated in the scientific literature that there is no universally accepted definition of the concept of cynicism, the concept of cynicism is generally explained as an attitude related to the individual's dislike and distrust of others (Andersson, 1996). Cynicism, which was developed by Antisthenes in ancient Greek philosophy, has been defined as an attitude resulting from the employee's critical evaluation of the organization, the reasons for their actions, and their values. The term does not imply a readiness to find fault, but rather careful consideration and judgment. This definition emphasizes that cynicism is an evaluative judgment resulting from the individual's employment experiences. (Bedeian, 2007).

In short, organizational cynicism includes all negative attitudes developed by the employee towards the organization (Tutar, 2016). Individuals with a cynical attitude towards the institution they work for believe that the problems in the institution can be determined, but they think that efforts for correction and change are futile due to the deficiencies in the nature of the system. These individuals do not trust the motives of their managers and they also believe that their employers will exploit their labor when they get the chance, that organizational rewards are not distributed fairly, and that openness, honesty, and sincerity are lacking in organizational activities (Arslan, 2012).

In studies conducted on the subject, it is stated that many factors can cause organizational cynicism. Some of these are; psychological contract violations, long working hours, excessive stress and role overload, perception of injustice within the organization, personality traits-role conflicts, increased organizational complexity, mismanaged change efforts, failure to meet personal and organizational expectations, inadequate promotions compared to the level of competition, lack of communication, dismissals and decreased organizational support (Erkutlu, 2017; Yıldız et al., 2013).

It is reported in the literature that organizational cynicism has both individual and organizational consequences. The results of organizational cynicism from an individual perspective are listed as nervous and emotional disorders, emotional breakdown, depression, insomnia, disappointment, anger, rage, irritation, resentment and tendency to defensive behaviors; while the results from an organizational perspective are stated as decrease in morale and motivation, reluctance to engage in organizational citizenship behaviors, dissatisfaction with work, interpersonal conflict, increase in complaints, decrease in organizational commitment, increase in alienation from work, increase in turnover rate, increase in absenteeism, decrease in organizational performance, reluctance in efforts for organizational change and decrease in trust in managers in the organization (Keçeli, 2019; Erkutlu, 2017; Türköz et al., 2013). Cynical behaviors of employees, who form the basic structure of organizations, have negative consequences both individually and organizationally and this fact makes it important to examine cynicism behavior organizationally (Tayfun and Çatır, 2014).

Healthcare professionals' concerns about the future of the institution they work for, their skepticism of the management, and their constant criticism of the healthcare system can directly affect the quality of the healthcare service provided. This issue is also very important for nursing services management, as it has been reported that employees who develop negative attitudes towards the institution they work for have lower levels of job satisfaction and less commitment to their organization, and individuals who tend to show cynical behavior often show low performance and absenteeism (Akbolat et al., 2014).

Early recognition of cynicism behaviors seen in healthcare professionals working under intense, stressful and difficult conditions that require dedication and taking the necessary precautions will increase their motivation, commitment to the institution, job satisfaction and

productivity. This will also have a positive impact on the provision of healthcare services and the quality of patient care (Topçu et al., 2017).

1. RESEARCH METHODOLOGY

Purpose and Type of the Study: This review study; The study was conducted in a descriptive manner in order to obtain a general data source on the organizational cynicism levels of healthcare professionals by examining the postgraduate theses regarding the organizational cynicism levels of healthcare professionals in Türkiye.

Sample: In the study, the website of The Council of Higher Education (Yükseköğretim Kurulu (YÖK))'s National Thesis Center was searched with the keywords "cynicism, organizational cynicism, cynic" and 58 postgraduate theses consisting of the sample group of healthcare professionals were reached.

Data Collection: The "Data Collection Form" prepared by the researchers was used in the study. Data were collected and grouped under the headings of master's and doctoral theses, year of publication, province, department, sample, purpose and research result.

Data Analysis: Descriptive statistics (number and %) were used and Microsoft Office Excel 2019 program was used in the evaluation of the data.

Ethics Committee Permission: The data obtained from the National Thesis Platform of the The Council of Higher Education (Yükseköğretim Kurulu (YÖK)) by the researcher was obtained by providing appropriate definition. Since all the information collected in this study belongs to the public and there was no interaction with the participants in the study, it was not necessary to obtain ethics committee approval.

2. ANALYSIS

The database of the Council of Higher Education National Thesis Center was searched using "Cynicism, Organizational Cynicism, Cynic" separately and together, and 58 postgraduate theses were reached, the sample of which consisted of healthcare professionals (Table 1).

Table 1: Descriptive Information on Postgraduate Theses

Author name/ Year/ Province	Type of Thesis	Department	Sample	Thesis Name	Aim of the Study

Fatma Özcan/ 2013/ Kütahya	master's degree	Business Administration	Hospital Workers (n:100)	A Research In Order To Determine The Relationship Between Organizational Cynicism And Organizational Commitment	The main purpose of the research is to investigate the relationship between organizational cynicism and organizational commitment behavior.
Gülhan Akman/ 2013/ İstanbul	master's degree	Hospital and healthcare institutions management	Healthcare Professionals (n:325)	Cynisim And Organizational Cynicism Levels Comparison Of Healthcare Professionals In Health Sector	In the study, demographical characteristics of the participants, cynicism (personal) and organizational cynicism were evaluated to determine the relation between cynicism and organizational cynicism.
Esra Çaylak/ 2014/ Erzurum	master's degree	Nursing Management	Nurses (n:323)	Relationship Between Organizational Silence with Organizational Cynicism and The Intention of Quitting Job Among Nurses	A descriptive and correlational design was used to examine the relationship between nurses' organizational silence, organizational cynicism levels, and their intention to leave their jobs.
Dilek Ev Kocabaş/ 2014/ Isparta	master's degree	Health Management	Nurses (n:369)	The Relation Between Emotional Labor And Organizational Cynicism In Nurses : A Research In Isparta City Centrum Hospitals	To examine the relationship between emotional labor and organizational cynicism levels in nurses and whether there are differences in emotional labor and organizational cynicism levels between nurses working in public and private hospitals.
Murat İskender Aktaş/ 2014/ İstanbul	master's degree	Health Management	Healthcare Workers (n:251)	Determination of Organizational Cynicism Levels of Health Care Workers	The aim of this study is to specify the levels of organizational cynicism health workers.
Sibel Akben/ 2014/ İstanbul	master's degree	Business Management	Sağlık Çalışanları (n:325)	Investigation Of The Relationship Between Perception Of Employee Leadership, Stress And Organizational Cynicism In Health Sector Employees	The aim of the study was to investigate the relationship between servant leadership perception, stress and organizational cynicism of employees at Necip Fazıl City Hospital.
Kerime Cesur Yeşilçimen /2015/ İstanbul	master's degree	Nursing Management	Nurses (n:438)	Organizational Cynicism And Organizational Trust Relationship İn Nursing	A descriptive and correlational design was used to determine the organizational cynicism and organizational trust levels of nurses and to demonstrate the affecting personal and professional factors and the relationship between them.
Penbegül Köroğlu/ 2015/ Samsun	master's degree	Health Management	Hospital Staff (n:281)	Effect Of Organizational Justice Perception Of Employees To Their Organızational Cynicism Attitude In Health Institutions	It is aimed to detect the effect of organizational justice perception of employees to Their organizational cynicism attitude in health institutions.
Deniz Kanar/ 2015/ İstanbul	master's degree	Health Management	Hospital Administrative Staff (n:193)	Determining The Level Of General And Organizational Cynicism Among The Hospital Administratıve Staff	This descriptive study is aimed at determining the level of general cynicism (personality) and organizational cynicism of administrative staff working in a university hospital.
Seda Yavuzer Zan/ 2016/ Erzurum	master's degree	Nursing Management	Nurses (n:220)	Impact Of Perceived Organizational Support Of Nurses On Their Organizational Cynicism And Organizational Commitment	A descriptive and correlational design was used to examine the effect of nurses' perceived organizational support on their organizational cynicism and organizational commitment.
Sultan Çalbay/ 2016/ İstanbul	master's degree	Nursing	Nurses (n:410)	Defining the Levels of Organizational Cynicism Among Nurses	It was planned to determine the organizational cynicism levels of nurses.
Gülfide Yıldız Çeltikoğlu/ 2016/ İstanbul	master's degree	Hospitals and Healthcare Institutions	Nurses (n:300)	The Cynicism Vocational Effect Of Loyalty: A Study On Nurses	Establishing the conceptual framework of organizational cynicism, evaluating professional commitment and its indicators, as well as revealing the effect of cynicism on professional commitment.

Buse Ercan/ 2016/ Isparta	master's degree	Labor Economics and Industrial Relations	Hospital Staff (n:225)	The Role of Leadership Styles In The Relatıonship Between Burnout And Cynicism: An Application Into Hospital Staff	The aim of the study is to examine the role of leadership styles in the relationship between organizational cynicism and burnout levels according to the perceptions of hospital employees.
Duygu Topal Yıldırım/ 2016/ İstanbul	master's degree	Business Administration	Health Workers (n: 186)	Organizational Culture and Organizational Cynicism Relationship: Research For Health Workers	The aim of this research is to examine the relationship between organizational culture and organizational cynicism among healthcare professionals working in hospitals in Istanbul and to reveal whether this relationship varies according to demographic data.
Zehra Kaşka Üreten/ 2016/ İstanbul	master's degree	Health Management	Health Professionals (n:457)	A Research To Measure The Organizational Cynicism Levels Of Professional Health Groups: Comparison Of A Public Hospital With A Private Hospital	The purpose of this study was to investigate the level of organizational cynicism and correlation with their demographic details in public and private hospitals and to compare the results of working.
Özgün Ağırdan/ 2016/ İstanbul	master's degree	Business Administration	Hospital Employees (n:371)	Organizational Cynicism: A Study On Hospital Employees	The aim of this study is the determination of both organizational and general cynicism level on hospital employees.
Esendal Güleç/ 2017/ İstanbul	master's degree	Business Management	Hospital Staff (n:370)	Effects Of Paternal Leadership And Organızation Culture On Organızational Cynicism: Comparing The Public And Private Hospitals In Fatih Health Service Region	The aim of the study is to define the concepts of Paternalist Leadership, Organizational Culture and Organizational Cynicism and to investigate the dimensions of the relationship between paternalist leadership and organizational culture, such as employees' cynical attitudes towards the organization, negative attitudes and non-participation in decisions.
Gizem Akyurt/ 2017/ İstanbul	master's degree	Nursing	Nurses (n:327)	Examination Of Cynicism And Burnout In Nurses	It was conducted descriptively to examine cynicism and burnout in nurses.
Mehmet Işık/ 2017/ Ankara	master's degree	Healthcare Institutions Management	Doctors, Nurses And Midwifes (n:321)	Relationship between Organizational Climate and Organizational Cynicism: A Research in Public Hospital	This research was carried out in order to determine the organizational climate and organizational cynicism attitudes and display the relationship between organizational climate and organizational cynicism according to socio-demographic and professional features of doctors, nurses and midwifes working in a public hospital.
Hüseyin Arı/ 2018/ İstanbul	master's degree	Health Management	Nurses (n:390)	The Role Of Organizational Cynicism For The Effect Of Emotional Labor On Indivıdual Work Performance	The aim of the research is to determine the emotional labor and performance levels of healthcare professionals in private hospitals and to measure how organizational cynicism changes the relationship between emotional labor and performance.
İbrahim Enes Uyar/ 2018/ İstanbul	master's degree	Nursing	Nurses (n:337)	The Relationship Between Organizational Cynicism and Organizational Identification in Nurses	The research was performed to examine the relationship between organizational cynicism and organizational identification in nurses.
Hilal Erturhan Işkın/ 2018/ Sivas	PhD	Business Administration	Hospital Staff (n:455)	The Effect Of Organizational Justice On Organızational Citizenship, Organizational Cynicism And Organizational Revenge: A Study At Sivas Cumhuriyet University Health Services Application And Research Hospital	The main purpose of this thesis is to determine effect of levels of organizational justice of employees on organizational citizenship behaviors, organizational cynics behaviors and organizational revenge intentions and behaviors.

Cansu Terzi/ 2018/ İstanbul	master's degree	General Business Administration	Doctors (n:436)	The Investigation Of The Effects Of Organizational Cynicism On Organizational Commitment: A Research On Doctors	This study aimed to investigate the effects of organizational cynicism perceptions on organizational commitment among physicians working in public and private hospitals.
Canan Bulut Korkmaz/ 2018/ Edirne	master's degree	Health Management	Healthcare Professionals (n:283)	The Relationship Between Organizational Cynicism Levels and Job Satisfaction of Healthcare Workers: Diyarbakır Selahaddin Eyyübi State Hospital Example	The aim of the study was to determine the relationship between the organizational cynicism levels and job satisfaction attitudes of healthcare personnel working in Diyarbakır Selahaddin Eyyübi State Hospital.
Gökçen Özkan/ 2018/ Malatya	PhD	Business Administration	Health Workers (n:371)	A Research to Determine the Relationship Between Organizational Cynicism and Employees' Procrastination Behaviors	The purpose of the research to determine the relationship between organizational cynicism and procrastination of employees.
Semra Köse/ 2018/ Sakarya	PhD	Business Administration	Health Personnel (n:535)	The Mediatör Role Of Organizational Cynicism In The Relationship Between Organizational Injustice and Silence	The aim of the study is to investigate the relationship between organizational injustice, silence, and organizational cynicism both theoretically and empirically, and to determine whether organizational cynicism has an intermediary role in the relationship between organizational injustice and silence.
Pınar Erdoğan/ 2018/ Konya	PhD	Business Administration	Health Personnel (n:300)	The Impact of Positive Psychological Capital on Organizational Citizenship Behavior, Organizational Cynicism and Burnout: An Application in the Health Sector	The aim of the research is to measure the effect of positive psychological capital on organizational citizenship behavior, organizational cynicism and burnout.
Buse Tunç/ 2018/ İstanbul	master's degree	Business Administration	Healthcare Professionals (n:180)	Relationships Between Organizational Citizenship Behavior, Work Autonomy, Safety Clımate, Emotıonal Intelligence, Cynicism And Burnout And A Research In Health Care	It is aimed to investigate the effect between organizational citizenship behavior, work autonomy, organizational security climate, the effects of emotional intelligence variables on each other and cynicism.
Sedat Çiçek/ 2018/ İstanbul	master's degree	Hospital and healthcare institutions management	Healthcare Professionals (n:260)	Relationship Between Work Autonomy, Career, Cynicism, Performance And Smart Simplicity And Research	The study was conducted to reveal the opinions and expressions of individuals working in healthcare institutions on job autonomy, career, cynicism, performance and smart simplicity.
Banu Kanat/ 2019/ Manisa	master's degree	Nursing	Nurses (n:278)	The Effects Of Organizational Cynicism On Organizational Commitment İn Nurses.	In this research, it was aimed to examine the effects of organizational cynicism on organizational commitment in nurses.
Tuçe Okan/ 2019/ Sivas	master's degree	Health Management	Nurses (n:217)	The Effect Of Emotional Labor Of Nurses On Organizational Cynicism	It was conducted to examine the effects of nurses' emotional labor and its sub-dimensions on organizational cynicism.
Gülşah İdikurt/ 2019/ Sivas	master's degree	Health Management	Healthcare Workers (n:299)	The Effect Of Health Care Workers' Organizational Justice Perception On Their Organizational Cynicism Attitudes	The aim of this study was to determine the effect health care workers' organizational justice perception on their organizational cynicism attitudes.
Furkan Çelebi/ 2019/ Samsun	PhD	Business Administration	Healthcare Professionals (n:622)	The Mediating Role Of Organizational Cynicism On The Impact Of Destructive Leadership On Organizational Deviance: A Health Sector Research In Samsun	In this study, the effects of destructive leadership act on organizational deviance acts and organizational cynicism attitudes have been examined.
Merve Öztürk/ 2019/ Ankara	master's degree	Business Administration	Doctors and Nurses (n:50)	The Impact of Organizational Cynicism on Patient Safety Culture	The aim of the study is to examine the relationship between organizational cynicism and patient safety culture.

Eda Bozkurt/ 2019/ Konya	master's degree	Health Management	Healthcare Manager (n:20)	Organizational Change In Health Executives: A Qualitative Research	The aim of this study is to examine the organizational change and the change in organizational change which is very important in terms of sustaining the existence of the organizations within the environmental conditions in which the strong competition is experienced and the continuity of change.
Gül Serap Yaraş/ 2019/ Sivas	master's degree	Health Management	Doctors and Nurses (n:277)	The Relationship Between The Intention To Leave Work And The Dimensions Of Organizational Silence And Organizational Cynicism: A Study With Doctors And Nurses	The aim of this descriptive study is to find out between the intention to leave work and the dimensions of organizational silence and organizational cinism among doctors and nurses.
Aysun Tekin/ 2019/ Konya	master's degree	Health Management	Health Workers (n:335)	Investigation of the Effects of Business Family Conflict and Organizational Cynicism on Job Satisfaction in Health Workers	The aim of the study is to examine the effects of work-family conflict and separation cynicism experienced by healthcare personnel on job satisfaction.
Gizem Asena Elçiçek Boyalı/ 2019/ Ankara	master's degree	Business Administration	Healthcare Providers (n:397)	The Relationship of Psychological Capital with Job Satisfaction and Organizational Cynicism: A Field Research	The primary purpose of this research is to examine the relationship between psychological capital, which is an important output in organizational life, and job satisfaction and organizational cynicism.
Perihan Abay/ 2019/ İstanbul	PhD	Business Administration	Hospital Staff (n:500)	The Effect of Ethical Leadership and Organizational Justice Perception on Organizational Cynicism Behaviors of Employees: An Application in a Healthcare Organization	The aim of this study is to determine the effect of ethical leadership and organizational justice perception on organizational cynicism behaviors of employees.
Yeşim Biçici/ 2019/ Manisa	master's degree	Nursing	Nurses (n:340)	The Effect of Organizational Cynicism on Organizational Commitment in Nurses	This study was conducted to examine the effect of organizational cynicism on organizational commitment among nurses.
Gülçin Yıldırım/ 2020/ Çanakkale	master's degree	Nursing	Academician Nurses (n:356)	The Relationship Between Organizational Perception Of Justice And Organizational Cynical Approach Among Academician Nurses	This thesis study has been conducted to determine the relationship between organisational perception of justice and organisational cynical approach among academician nurses in a descriptive and correlational way.
Fulya Tetik/ 2020/ İstanbul	master's degree	Nursing	Nurses (n:247)	The Relatıonship Between Organizational Cynicism And Nurses' Perceptions Of Teamwork	In this study, it was aimed to determine the relationship between the nurses' teamwork perception levels and organizational cynicism levels, which constitute one of the most important elements of health services.
Emel Şeker/ 2020/ Adana	master's degree	Nursing	Nurses (n:280)	Investigation Of The Correlation Between The Organizational Cynicism And Organizational Commitment Levels Of Nurses	This study which was designed in descriptive research design so as to determine the correlation between the organizational cynicism and organizational commitment of nurses.
Emrah Öz/ 2020/ Afyonkarahisar	master's degree	Business Administration	Healthcare Professıonals (n:352)	The Impact Of Organizational Structure On Organizational Cynicism Perceptions And Organızational Alienation Degrees Of Workers: A Research On Health Sector	The main purpose of the research is to reveal the relationships between organizational structure, organizational cynicism and organizational alienation in line with the opinions of healthcare professionals working in healthcare organizations.
Sefa Yaşar/ 2021/ İstanbul	master's degree	Nursing	Nurses (n:850)	The Effect of Nurses' Individual, Occupational and Work Environment Characteristics and Organizational Cynicism Levels on Work Motivation	The aim of this study is to determine the effect of nurses' individual, occupational and work environment characteristics and organizational cynicism levels on work motivation.

Ömer Faruk Kuş/ 2021/ İstanbul	master's degree	Health Management	Family Physicians (n:253)	The Relationship Between Organizational Cynicism Levels And Organizational Commitments Of Family Physicians	The aim of this study is to examine the relationship between family physicians' organizational commitment levels and organizational cynicism levels.
Yiğit Şerif Karabulut/ 2022/ İstanbul	PhD	Health Management	Healthcare Professıonals (n:339)	Investıgatıon Of The Relatıonshıp Between Organizational Commıtment And Organızatıonal Cynıcısm Levels Of Healthcare Professıonals And Employee Productıvıty	The research is a cross-sectional study examining the relationship between the organizational commitment and organizational cynicism levels of health workers and their productivity levels.
Dilek Özdoğan/ 2022/ Tunceli	master's degree	Business Administration	Healthcare Professionals (n:246)	Examination of The Relationship Between The Perceptions of Healthcare Professionals of Mobbing And Organizational Cynicism	The aim of this study is examine the relationships between the perceptions of health workers towards mobbing and organizational cynicism.
Evren Yanar/ 2022/ Bayburt	master's degree	Business Administration	Healthcare Workers (n:324)	The Relationship Between Organizational Gossip and Organizational Cynicism: An Application On Healthcare Workers	The main purpose of this research is to determine the effect of organizational gossip on organizational cynicism.
Mustafa Koşar/ 2022/ Osmaniye	master's degree	Business Administration	Health Personnel (n:250)	The Effect Of Perceived Organizational Support On Organizational Cynicism And Organizational Commitment	This study examined the effect of perceived organizational support on organizational commitment and organizational cynicism as well as the mediating role of organizational cynicism in the effect of perceived organizational support on organizational commitment.
Deniz Arıkök/ 2022/ İstanbul	master's degree	Business Administration	Healthcare Professionals (n:356)	The Mediating Role of Organizational Identification in the Effect of Organizational Cynicism on Turnover Intention: A Study in the Health Sector	The aim of this study was to examine the relationships between organizational cynicism, organizational identification and turnover intention and to determine whether organizational identification has a mediating role in the effect of organizational cynicism on turnover intention.
Emre Karasu/ 2023/ Kayseri	PhD	Health Management	Health Workers (n:330)	Regulatory Role Of Organızatıonal Cynıcısm In The Effect Of Proactıve Personalıty On Internal Entrepreneurshıp: A Research On Health Sector Employees In Nıgde	The aim of this research is to examine the moderator role of organizational cynicism in the effect of proactive personality traits on the intrapreneurship of the employees in the sample of health workers.
Hava Aydın/ 2023/ Nevşehir	master's degree	Health Management	Healthcare Professionals (n:360)	The Effect Of Mushroom Management Approach On The Level Of Organızatıonal Cynicism Of Healthcare Professıonals	The main purpose of this study is to determine the mushroom management perceptions and organizational cynicism levels of healthcare professionals and to determine whether the employees' mushroom management perceptions affect their organizational cynicism levels.
Ahmet Bahadır Uçar/ 2023/ Sivas	master's degree	Health Management	Famıly Doctors (n:112)	Investıgatıon Of The Levels Of Organızatıonal Cynıcısm And Organızatıonal Commıtment And The Relatıonshıp Between Famıly Doctors Workıng In Tokat Accordıng To Some Socıo-Demographıc Characterıstıcs	The aim of the study is to examine the organizational cynicism and organizational commitment levels of family physicians working in the province of Tokat and the relationship between them according to some socio-demographic characteristics.
Duygu Köleoğlu/ 2023/ Antalya	master's degree	Business Administration	Healthcare Workers (n:349)	The Role Of Distribution Justice In The Relationship Between Work Life Balance And Cynism	The aim of this study is to examine the role of distributive justice in the relationship between work-life balance and cynicism.

Aslı Kandemir Emekli/ 2023/ Kayseri	master's degree	Business Administration	Healthcare Professionals (n:200)	The Effect Of Violence To Employee On Organizational Cynicism And The Mediating Role Of Perceived Organizational Support: An Implementation In The Health Sector	This research was conducted to determine the effect of exposure to violence of health workers from various professions on organizational cynicism and the mediating role of perceived organizational support in this effect.
Gülseren Güç/ 2024/ İstanbul	master's degree	Business Administration	Healthcare Professionals (n:346)	The Effect Of Green Human Resources Management Practices On Organizational Cynicism And Organizational Commitment	It is aimed to reveal the effects of green human resources management practices on organizational cynicism and organizational commitment.
Oğuzhan Yavuz/ 2024/ Çanakkale	master's degree	Business Administration	Healthcare Professionals (n:200)	Examination Of The Relationships Between Organizational Justice, Organizational Cynicism, And Turnover Intention Among Healthcare Workers	The main purpose of the study is to determine the effect of organizational justice perceptions on organizational cynicism and turnover intention of individuals working in the health sector.

In the study, 86.2% of the theses included in the scope of the study were master's theses, the first thesis was published in 2013, 41.37% of the studies were conducted in the departments of Business Administration/Business Management/General Business Administration, and the number of studies has gradually increased over the years. In addition, it was seen that in the theses, in addition to examining the relationships between cynicism and the descriptive characteristics of the participants, the relationships with other organizational behavior topics such as organizational silence, intention to leave, emotional labor, organizational trust, organizational support, organizational commitment, burnout, individual job performance, organizational identification, organizational justice, perception of teamwork and work motivation were also examined. . It was determined that quantitative research methods were used in 98.2% of the studies, 41.3% of which were conducted in Istanbul, and qualitative research designs were used in only one study.

Özcan (2013) concluded in her study, which was planned to investigate the relationship between organizational cynicism and organizational commitment behavior, that there is a significant and negative relationship between organizational cynicism and organizational commitment and that organizational commitment is affected by organizational cynicism.

Akman (2013); In her study titled comparison of organizational and general cynicism levels of healthcare workers, she found that healthcare workers were moderately cynical towards life and people (3.153 ± 0.700) and weakly cynical towards the organization (2.391 ± 0.752).

Çaylak (2014); in her descriptive and correlational design study on the relationship between organizational silence and organizational cynicism and intention to leave among nurses, determined that the organizational cynicism levels of nurses were at a moderate level and mostly at a cognitive level, and also determined that although the organizational cynicism levels of nurses

were at a moderate level, half of the nurses did not consider leaving their jobs, and also determined that there was a low level and significant positive relationship between organizational silence and organizational cynicism.

Kocabaş (2014), in her study examining the relationship between emotional labor and organizational cynicism in nurses, found a significant relationship between the sub-dimension of emotional labor behavior, superficial behavior, and the sub-dimension of organizational cynicism, cognitive attitude. She also found a negative and significant relationship between the sub-dimension of emotional labor behavior, deep acting, and the affective dimension of organizational cynicism. She found the organizational cynicism sub-dimension means as 3.03 for affective cynicism, 3.65 for cognitive cynicism, and 3.79 for behavioral cynicism.

In his study designed to determine the organizational cynicism levels of healthcare professionals, Aktaş (2014) determined that the average score of the answers given by healthcare professionals regarding their organizational cynicism levels was 2.86.

Akben (2014) determined that there is a significant and positive relationship between organizational cynicism and stress in his research planned to examine the relationship between servant leadership perception, stress and organizational cynicism behavior in the health sector, while there is a negative relationship between organizational cynicism and servant leadership perception.

In Yeşilçimen's (2015) study, the relationship between organizational cynicism and organizational trust in nurses was investigated and it was determined that there were significant and negative moderate relationships between each of the cognitive, affective and behavioral factors of cynicism and the trust in the manager, trust in colleagues and trust in the institution sub-dimensions. It was also determined that the levels of organizational cynicism in nurses were moderate in cognitive (X=2.53±0.86), affective (X=2.25±0.86) and behavioral (X=2.63±0.82) dimensions.

Köroğlu (2015) determined the mean score of employees' organizational cynicism perceptions as 2.60±0.867 in his study, which was planned to determine the effect of organizational justice perceptions of personnel working in health institutions on organizational cynicism attitudes.

In the descriptive study conducted by Kanar (2015) to determine the general (personality) cynicism and organizational cynicism levels of administrative staff working in a university hospital, the general cynicism score average of the administrative staff participating in the study

was determined as 3.3±0.5 and the organizational cynicism score average was determined as 3.0±0.6, indicating that the hospital administrative staff had a moderate cynical tendency.

In Zan's (2016) master's thesis, which was conducted with a descriptive and correlational design on the effect of nurses' perceived organizational support on organizational cynicism and organizational commitment, it was determined that there was a negative and moderately significant relationship between nurses' perceived organizational support and organizational cynicism, and nurses showed moderate organizational cynicism behavior.

In the research conducted by Çalbay (2016) to determine the levels of organizational cynicism in nurses, it was stated that nurses experienced moderate levels of organizational cynicism.

In Yıldız Çeltikoğlu's (2016) study on the effect of cynicism on professional commitment, while there was a relationship between the cognitive dimension of organizational cynicism and the variables of marital status, presence of children and level of education, and between the behavioral dimension of organizational cynicism and the variables of gender, marital status, presence of children and length of service in the profession, a relationship was found only between the affective dimension of organizational cynicism and age groups.

Ercan (2016); In his study planned to examine the role of leadership styles in the relationship between organizational cynicism and burnout levels according to the perceptions of hospital employees working in hospitals in Salihli district center, the cynicism scale score average of the participants was determined as X=2.54±0.84.

In the study by Topal Yıldırım (2016) examining the relationship between organizational culture and organizational cynicism, it was determined that the average score of the participants on the organizational cynicism scale was 2.72±1.19.

Kaşka Üreten (2016); In her research to measure the organizational cynicism levels of health professional groups, she found that although the organizational cynicism level of health workers working in private hospitals was low in all dimensions, only the affective dimension was low in health workers working in public hospitals.

Ağırdan (2016) determined in his research, which was planned to determine the organizational cynicism and general cynicism levels of hospital employees, that the organizational cynicism levels of hospital employees were at a medium level.

Güleç (2017) In her study examining the effects of paternalistic leadership and organizational culture on organizational cynicism, the mean score of hospital employees on the organizational cynicism scale was determined as 2.8733 ± 0.74496.

In the descriptive study conducted by Akyurt (2017) to examine cynicism and burnout in nurses, it was determined that there was a positive relationship between the burnout scale sub-dimensions, organizational cynicism scale sub-dimensions, total organizational cynicism scale and personality cynicism scale scores. It was determined that the total organizational cynicism scale mean score was 2.98±0.87 and the general cynicism scale mean score was 3.54±0.71.

Işık (2017), in his study examining the relationship between organizational climate and organizational cynicism, found that the organizational cynicism levels of physicians, nurses and midwives working in the hospital were at a moderate level and reported that organizational climate affected organizational cynicism.

In the study conducted by Arı (2018) to determine the emotional labor and performance levels of healthcare professionals in private hospitals and to measure how organizational cynicism changes the emotional labor and performance relationship, it was determined that there was a weak negative relationship between individual job performance score and emotional organizational cynicism. In this study, when the organizational cynicism sub-dimension and total score averages were examined; the cognitive cynicism sub-dimension average was 2.67 ± (1.00), the emotional cynicism sub-dimension average was 2.24 ± (1.14), the behavioral cynicism sub-dimension average was 2.39 ± (1.07), and the general organizational cynicism average was 2.45 ± (0.91).

In Uyar's (2018) study, which was conducted with a descriptive and correlational design to examine the relationship between organizational cynicism and organizational identification in nurses, it was determined that there was a negative, moderate, significant relationship between organizational cynicism and organizational identification; it was observed that nurses' organizational cynicism levels were moderate and they were prone to cynical attitudes.

Erturhan Işkın (2018), in her research examining the effect of organizational justice on organizational citizenship, organizational cynicism and organizational revenge, found the organizational cynicism mean score of hospital employees to be 2.14±0.88 and reported that the organizational cynicism level of hospital employees was low.

In Terzi's (2018) study, which was planned to investigate the effect of organizational cynicism perceptions on organizational commitment among physicians working in public and

private hospitals, the mean of the organizational cynicism scale was determined as 2.94±0.88 and it was stated that the organizational cynicism perceptions of physicians were at a moderate level.

Korkmaz (2018); In her research examining the relationship between organizational cynicism levels and job satisfaction of healthcare professionals, she found that there was a significant relationship between the job satisfaction scale and the organizational cynicism scale and its sub-dimensions.

In the research conducted by Özkan (2018) to determine the relationship between organizational cynicism and procrastination behavior of employees, it was determined that the average organizational cynicism level of the healthcare professionals participating in the research was high.

Köse (2018); In her study, which was carried out to determine the mediating role of organizational cynicism in the relationship between organizational injustice and silence, it was stated that it has a mediating effect in the relationship between organizational injustice and silence in terms of affective cynicism and behavioral cynicism, but it does not have a mediating effect in the relationship between organizational injustice and silence in terms of cognitive cynicism.

In the study conducted by Erdoğan (2018) to measure the effect of positive psychological capital on organizational citizenship behavior, organizational cynicism and burnout, the organizational cynicism level of healthcare personnel was determined to be medium.

Tunç (2018); In her research examining the relationships between organizational citizenship behavior, job autonomy, organizational safety climate, emotional intelligence, cynicism and burnout in healthcare institutions, it was determined that organizational safety climate and emotional intelligence have an explanatory effect on cynicism, and cynicism has an explanatory effect on burnout in healthcare institution employees.

Çiçek (2018); In his study titled “Relationships between job autonomy, career, cynicism, performance and smart simplicity” and a research, he found that job autonomy and smart simplicity have an explanatory effect on cynicism in healthcare workers and also found that cynicism has an explanatory effect on performance.

In Kanat's (2019) study, which aimed to examine the effect of organizational cynicism on organizational commitment in nurses, a negative and very weak relationship was found between organizational cynicism and organizational commitment total scores, while it was determined that the organizational cynicism levels of nurses were at a moderate level.

In the study conducted by Okan (2019) to examine the effect of nurses' emotional labor behavior on organizational cynicism, it was seen that the total organizational cynicism score average of nurses was 3.05±0.88. According to this determined value, it can be said that the organizational cynicism level of nurses is in the medium-high range.

In her study, which was planned to determine the effect of organizational justice perception on organizational cynicism attitudes among healthcare professionals, İdikurt (2019) determined that the perception of organizational justice among healthcare professionals negatively affects the organizational cynicism attitude.

In his research, which was planned to determine whether organizational cynicism has a mediating role in the effect of destructive leadership on organizational deviance behaviors, Çelebi (2019) found that organizational cynicism attitudes in health institutions were at a moderate level and that there was a mutual relationship between the variables of destructive leadership, organizational deviance and organizational cynicism.

Öztürk (2019), in her study examining the effect of organizational cynicism on patient safety culture, determined that organizational cynicism negatively affects patient safety, quality service, and employees' work motivation.

In Bozkurt's (2019) study examining organizational change cynicism in healthcare managers using a qualitative research design, it was observed that the organizational citizenship behaviors of individuals working in the healthcare sector were higher than their organizational cynicism levels.

Yaraş (2019), in her study to examine the relationship between organizational silence and organizational cynicism dimensions and intention to leave the job among physicians and nurses, found the average organizational cynicism score of the participants to be 3.05±1.09.

In Tekin's (2019) study to examine the effects of work-family conflict and organizational cynicism on job satisfaction among healthcare workers, it was found that the mean of the affective sub-dimension of the organizational cynicism scale was higher than the mean of the behavioral sub-dimension of the organizational cynicism scale.

Elçiçek Boyalı (2019) found that psychological capital has a significant effect on organizational cynicism in her study, which was planned to examine the relationship between psychological capital, job satisfaction and organizational cynicism.

In Abay's (2019) doctoral thesis, which was planned to determine the effect of ethical leadership and organizational justice perception on employees' organizational cynicism behaviors, it was determined that organizational cynicism was not affected by organizational justice and ethical leadership in the general context.

Biçici (2019) determined in her study, which was planned to examine the effect of organizational cynicism on organizational commitment in nurses, that nurses experienced moderate level of cynicism (39.31±12.35).

In Yıldırım's (2020) descriptive and relationship-seeking study to determine the relationship between the organizational justice perceptions of academic nurses and organizational cynicism behaviors, a strong negative relationship was determined between the organizational justice perception and organizational cynicism attitude. It was also determined that the organizational cynicism attitude of the participants was above average.

In the descriptive and correlation-seeking research conducted by Tetik (2020) to determine the relationship between nurses' teamwork perception levels and organizational cynicism levels, it was determined that nurses' organizational cynicism levels were at a moderate level.

In the study conducted by Şeker (2020) to determine the relationship between organizational cynicism and organizational commitment levels of nurses, it was determined that nurses experienced moderate organizational cynicism.

In his research conducted to reveal the relationships between organizational structure, organizational cynicism and organizational alienation in line with the opinions of healthcare professionals working in healthcare organizations, Öz (2020) reported that the organizational structure perceived by hospital employees was mechanical, and their perceptions of organizational cynicism and organizational alienation levels were at a moderate level.

In the study conducted by Yaşar (2021) to examine the effects of nurses' individual, professional and work environment characteristics and organizational cynicism levels on their work motivation, it was determined that nurses' organizational cynicism levels were at a moderate level, with the lowest score in the affective sub-dimension and the highest score in the behavioral sub-dimension.

Kuş (2021), in his study examining the relationship between the organizational commitment levels and organizational cynicism levels of family physicians, found that the organizational cynicism levels of family physicians were low and that there was no significant

difference between the relationship between organizational cynicism and organizational commitment.

In Karabulut's (2022) study, which aimed to determine the relationship between the organizational cynicism and organizational commitment levels of healthcare professionals working in hospitals and employee productivity, it was determined that the participants' organizational cynicism was at an above-average level.

Özdoğan (2022) In her research titled "Examining the Relationships Between Healthcare Workers' Perceptions of Mobbing and Organizational Cynicism", it was determined that the levels of organizational cynicism perception remained low and below average ($\bar{x}$: 2.08).

In Yanar's (2022) study, which was conducted to examine the effect of organizational gossip on organizational cynicism levels, the average organizational cynicism score of the participants was found to be 3.11±0.89, and it was determined that there was a significant and positive relationship between organizational gossip and organizational cynicism.

Koşar (2022); In his research titled “The effect of perceived organizational support on organizational cynicism and organizational commitment”, he found that organizational cynicism has a high mediating role in the effect of organizational support on organizational commitment.

In the study conducted by Arıkök (2022) to examine the relationships between organizational cynicism, organizational identification and intention to leave the job and to determine whether organizational identification has a mediating role in the effect of organizational cynicism on intention to leave the job, the mean organizational cynicism score of the participants was determined as 3.00±0.88, and it was found that organizational identification had a mediating effect in the effect of organizational cynicism on intention to leave the job.

In Karasu's (2023) doctoral thesis, in which he examined the moderating role of organizational cynicism in the effect of proactive personality traits on employees' intrapreneurship in a sample of healthcare professionals, it was determined that proactive personality traits had a significant effect on intrapreneurship and organizational cynicism played a moderating role in this relationship.

In her study titled “The effect of the mushroom management approach on the organizational cynicism level of healthcare professionals”, Aydın (2023) found that the average value of the participants’ responses to the statements regarding their perception of organizational

cynicism was 2.85 and reported that the participants' organizational cynicism levels were at a moderate level.

In his study planned to examine the organizational cynicism and organizational commitment levels of family physicians working in Tokat province and the relationship between them according to some socio-demographic characteristics, Uçar (2023) found that the total score average of the organizational cynicism scale of the participants was at a moderate level (x=2.76±0.75).

In the study conducted by Köleoğlu (2023) to investigate the effects of distributive justice on work-life balance and cynicism and its role in the interaction between these two phenomena, the mean cynicism score of the participants was determined as 2.7597±0.9884.

Kandemir Emekli (2023); In her study titled "The effect of employee violence on organizational cynicism and the mediating role of perceived organizational support: An application in the health sector", it was found that the degree of exposure to violence of the participants had a positive effect on their level of organizational cynicism; It also found that participants' perceived organizational support levels had a negative effect on their organizational cynicism levels. It was also determined that perceived organizational support had a partial mediating role in the effect of exposure to violence on organizational cynicism.

In the study conducted by Güç (2024), which aimed to reveal the effect of green human resources management practices on organizational cynicism and organizational commitment, the average score of the participants on the organizational cynicism scale was determined as 3.01±.42.

Yavuz (2024), in his study examining the relationships between organizational justice, organizational cynicism and intention to leave the job on health care workers, found that organizational justice significantly and negatively affects organizational cynicism and that there is a significant and positive relationship between organizational cynicism and intention to leave the job.

3. DISCUSSION

Organizational cynicism is defined as all negative attitudes developed by employees towards the organization (Tutar, 2016). The cynical behavior of employees, who are the most important resource of organizations, reveals the importance of cynicism behavior in organizational terms,

and a detailed examination of the subject is important from a managerial perspective (Tayfun and Çatır, 2014).

While the postgraduate theses examined in the study generally show that healthcare professionals' organizational cynicism levels are at a moderate level, the literature indicates that cynicism is caused by reasons such as low income, decreased organizational support (Cartwright and Holmes, 2006), excessive stress and role load (Altınöz et al., 2011), long working hours (Akyüz and Yurduseven, 2016), service periods, failure to meet expectations, lack of communication, and broken promises (Erkutlu, 2017). In their study, Çaylak and Altuntaş (2017) stated that reasons such as long working hours, harsh working conditions, inadequate wages, non-participation in organizational decision-making processes, and lack of appreciation may cause cynical attitudes in healthcare professionals.

Gül and Ağıröz (2011) emphasized that organizational cynicism is an attitude that emerges as a result of experiences within the organization, that it is not an innate and unchangeable personality trait, and that organizational cynicism is a preventable situation. It is also emphasized that management has important duties in preventing organizational cynicism.

It is reported that organizational cynicism causes negativities for both the organization and the employees, causing low morale, low performance, high absenteeism, job dissatisfaction and employee turnover. It is also stated that employees experience feelings of helplessness, apathy, disappointment, alienation and have higher levels of emotional exhaustion (Özen Kutanis and Çetinel, 2010). Researchers emphasize that some effective strategies should be implemented to manage the phenomenon of cynicism that emerges in organizations, and list some of these strategies as ensuring the participation of employees in decisions taken regarding them, being fair within the organization and establishing a continuous discipline system, providing consultancy to employees, informing employees about changes, managing competition within the organization, adopting an empathic approach, increasing time efficiency, learning from past negativities, offering new opportunities to employees and increasing trust (Özler et al., 2010; Helvacı and Çetin, 2012).

There are some actions that are suggested to be effective in reducing the cynicism levels of employees and that managers should take. The first of these is to ensure that employees participate more in change processes. Second, the better employees understand the reasons for the work done in the organization, the more they can see the events from the management's perspective and put

in more effort accordingly. It is stated that this situation will reduce the tendency of employees to blame the management. Third, instead of ignoring past failures, the reasons for those failures should be explained and lessons should be learned. It is emphasized that managers spending more time with employees and establishing good relationships also reduces the cynicism levels of employees (Wanous et al., 2000).

As a result of the study conducted by Volpe et al. on nurses and physicians, it was determined that 20% of the participants had a highly cynical attitude and it was reported that employees with this attitude could affect other employees in the organization. It is thought that employees with cynical attitudes in the organization affect the behavior of other organization members by speaking negatively about organization members, criticizing the organization, and having negative attitudes towards their coworkers. Researchers state that there is a solution to organizational cynicism. These solutions are listed as including employees in decision-making processes, organization members being sincere, honest, sincere and transparent towards each other, and providing better working conditions (Volpe et al., 2014).

4. CONCLUSIONS

Although there are 517 postgraduate theses in the National Thesis Center database of the Council of Higher Education (Yükseköğretim Kurulu (YÖK)) that include the subject of cynicism, the fact that only 58 of these theses were sampled by healthcare professionals suggests that this subject should be studied more theses with different research designs and different variables. In addition, the fact that most of the theses examined were master's theses shows that it is important to address the subject in a more in-depth and comprehensive doctoral theses dimension. Although the increase in the number of postgraduate theses on cynicism in recent years is remarkable, the fact that only one study has been encountered that examines the cynicism or organizational cynicism levels of healthcare professionals, especially at a qualitative level, clearly shows that this subject needs to be investigated with different research methods. In addition, it is thought that examining the organizational cynicism levels of health professions separately (physician, nurse, midwife, health technician, etc.) and taking initiatives specific to each profession will provide great benefits to both employees and those receiving service, and this will positively affect the provision of health services and increase the quality of patient care. In this context, this study is important in terms of revealing the current situation regarding organizational cynicism in terms of health services

management and creating data for action plans to be made. In addition, the study makes an important contribution by revealing the open areas for scientists who will work on the subject of cynicism.

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Aesthetic Surgery Patient Profiles: Public Hospital Example[1]

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Abstract

Aim: The aim of the study was to reveal the profiles of patients who underwent aesthetic procedures with out-of-pocket payments (public sales tariffs) between 2020 and 2023 at a public hospital in Samsun.

Methods: This descriptive study included 525 patients who underwent aesthetic surgery with out-of-pocket payments between 2020 and 2023 in a public hospital in Samsun. In the present study,

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the sociodemographic characteristics of the patients and the aesthetic procedures they underwent were analyzed.

Results: In 2020-2023, 49,638 patients were admitted to the Plastic, Reconstructive and Aesthetic Surgery outpatient clinic. Surgical procedures were performed on 4,960 of these patients. Of the patients who underwent surgical procedures, 525 patients underwent invasive aesthetic procedures with out-of-pocket payments out of medical necessity. The mean age of the patients was 32.31±11.87 years, and 83.60% were female. 98% of patients are of Turkish origin. International patients came from Iraq, Azerbaijan and Germany. The most common aesthetic procedures performed were rhinoplasty, breast aesthetics and eyelid aesthetics. All the international patients had breast aesthetics.

Conclusion: According to the results of the present study, the majority of those who underwent aesthetic procedures were young women. The most common aesthetic procedures were rhinoplasty and breast surgery. According to these results, it may be recommended that women who undergo plastic surgery be investigated in a larger population.

Keywords: Aesthetic surgery, aesthetic tourism, public hospital, samsun

INTRODUCTION

Physical appearance is an important part of personal identity and self-perception. People's perceptions of beauty begin to take shape early in their lives (Aldosari et al., 2019). The three sociocultural factors that most influence this perception are friends, parents and social media. Individuals adopt the beauty ideals of society through these influences and compare their own appearance with these ideals (Walker et al., 2021). This process is called internalization and appearance comparison. Individuals accept society's idealized standards of beauty, strive to achieve these standards and compare themselves with others (Alcan & Çetin, 2021). This can lead to body image problems. Therefore, individuals who are not satisfied with their physical appearance are more likely to turn to plastic surgery (Gupta et al., 2020).

According to previous studies, the reasons for choosing plastic surgery include negative body image perception, body dysmorphic disorder (BDD), low self-esteem, desire to be liked, social appearance anxiety, ridicule, social rejection and social media (Çapar, 2023; Di Gesto et al., 2022; Gupta et al., 2020; Shome et al., 2020). This situation has increased dramatically, especially for women who are dissatisfied with their physical appearance. Data from the International Society of Aesthetic Plastic Surgery (2023) show that women are the ones who undergo the most aesthetic

procedures worldwide. The same data show that the most common surgeries performed on women in the face and neck area are eyelid (blepharoplasty) and rhinoplasty, breast augmentation in the chest area, and liposuction in the lower body (ISAPS, 2023). One reason why women have such a high rate of aesthetic procedures is the idea that a beautiful physical appearance is the basis of being feminine (Arab et al., 2019; Mattei et al., 2015).

Aesthetic surgical procedures are performed worldwide by the out-of-pocket payment method in the absence of medical necessity. In particular, individuals who want to undergo aesthetic surgery procedures make long trips to cheaper countries (Demir, 2024). Moreover, aesthetic healthcare is an unusual physician–patient relationship in which the patient is the sole consumer and there is no third party to pay (Adams, 2013). In this respect, aesthetic health services are highly affected by macroeconomic changes and become qualitatively different from other health services (Alderman & Chung, 2013). In addition, aesthetic health services have a demand-supply effect and can be driven by commercial interests. This makes the aesthetic health sector susceptible to economic pressures like other profit-oriented sectors. Demand can vary according to service prices, and this sector aims to generate high revenues with moderate demand. Even if the price of aesthetic services is reduced, the main objective is to maximize total revenues and profits (Atiyeh et al., 2020).

Aesthetic health services constitute an area where patient preferences are at the forefront and are perceived as luxury goods. Individuals may perceive these services as buying a high-cost product; for example, they may perceive rhinoplasty surgery as a luxury, such as "buying a new nose" (Atiyeh et al., 2020; Perdikis et al., 2021). These services are among the discretionary expenditures of individuals and compete with other consumer goods and services. Patients are price sensitive and willing to choose a physician based on price, which provides bargaining power against plastic surgeons. As a result, aesthetic health services are affected by economic fluctuations (Perdikis et al., 2021). Since aesthetic health services are seen as shopping items, patients need to conduct comprehensive preliminary research before purchasing these services. This research usually includes the advantages and disadvantages of the service, the level of competence of the physician who will perform the intervention and the price of the service (Bay et al., 2024). By determining the cost as the main criterion, patients decide how to direct their resources. This price-oriented approach turns aesthetic healthcare into a competitive field and transforms the traditional

patient–physician relationship into a consumer-service provider model (Miroshnychenko et al., 2021). Therefore, patients may turn to public hospitals with competent physicians and lower costs to pay less. For this reason, the aim of this study was to reveal the profiles of patients who underwent aesthetic procedures with out-of-pocket payments (public sales tariff) between 2020 and 2023 at a public hospital in Samsun.

1. RESEARCH METHODOLOGY

The study is retrospective. The study included the data of 525 patients who applied to the Aesthetic, Plastic and Reconstructive Surgery Clinic of a public hospital in Samsun between 2020-2023 and underwent aesthetic surgery with out-of-pocket payment method (paid). In the study, the socio-demographic characteristics of the patients (age, gender, country of residence) and the aesthetic procedures they underwent were analyzed. For the research, permission was obtained from Samsun University Non-Interventional Clinical Research Ethics Committee with the decision number 2024/4/10 and date 14.02.2024. In addition, permission was obtained from the Chief Physician of the Hospital for the use of the data. The study data were transferred to the SPSS 26.00 program and analyzed using percentage, frequency and arithmetic mean.

2. ANALYSIS

While 5,506 patients were examined in the Plastic, Reconstructive and Aesthetic Surgery outpatient clinic in 2020, this number increased to 22,495 in 2023. Between 2020 and 2020, the total number of patients examined was 49,638, and the total number of inpatients (operated) was 4,960. Between 2020 and 2023, 10.58% (525) of patients who underwent surgery received out-of-pocket payments (public sales tariffs applied outside of medical necessity) (Figure 1).

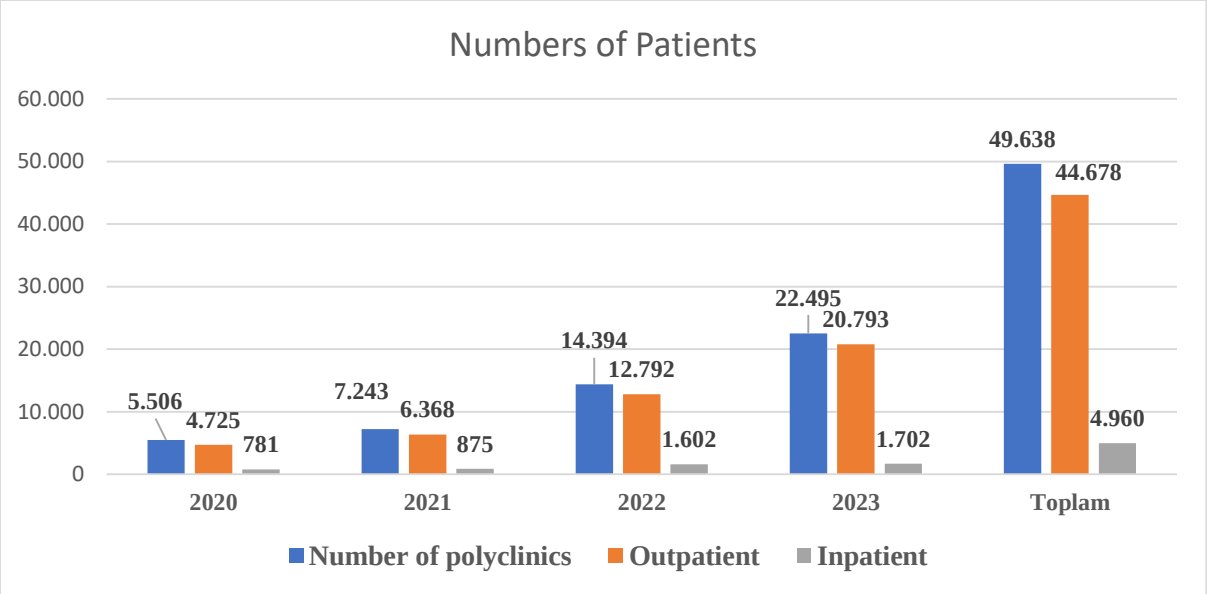

Figure 1: Number of Patients Examined between 2020 and 2023

Among the patients who underwent aesthetic surgery, 50.10% were between the ages of 18 and 29 (mean age 32.31±11.87; min.18, max.79), and 83.60% were female. The mean length of stay was 2.89±1.63 days. 98% of the patients were of Turkish origin (Table 1).

Table 1: Sociodemographic Characteristics

Variables	N	%
Age		
18-29	263	50,10
30-39	127	24,19
40-49	85	16,19
50-59	30	5,71
60 and above	20	3,81
Gender		
Men	86	16,40
Women	439	83,60
Nationality		
Turkey	515	98,00
Iraq	6	1,24
Azerbaijan	2	0,38
Germany	2	0,38
Day of Hospitalization [min–max; 1-12]		
	2,89-1,63	

A total of 525 aesthetic surgeries were performed via the out-of-pocket payment method between 2020 and 2023. Of these surgeries, 44.18% were rhinoplasties,21.2% were breast aesthetics and 13.9% were blepharoplasty (eyelid surgeries) (Figure 2).

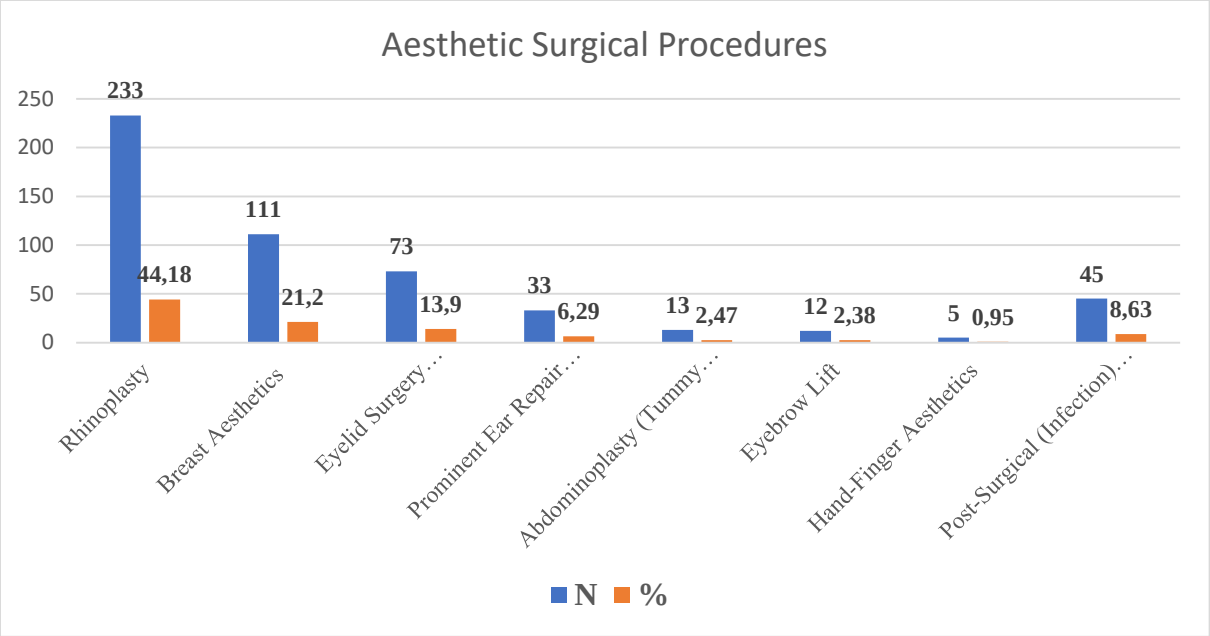

Figure 2: Aesthetic Surgeries Were Performed Between 2020 and 2023

When aesthetic procedures performed according to year were analyzed and 7 rhinoplasty surgeries were performed in 2020, 141 rhinoplasty surgeries were performed in 2023. In 2020, while there were 3 breast aesthetics, this number was 61 in 2023. While 44 blepharoplasty surgeries were performed in 2022, this number decreased to 20 in 2023 (Figure 3).

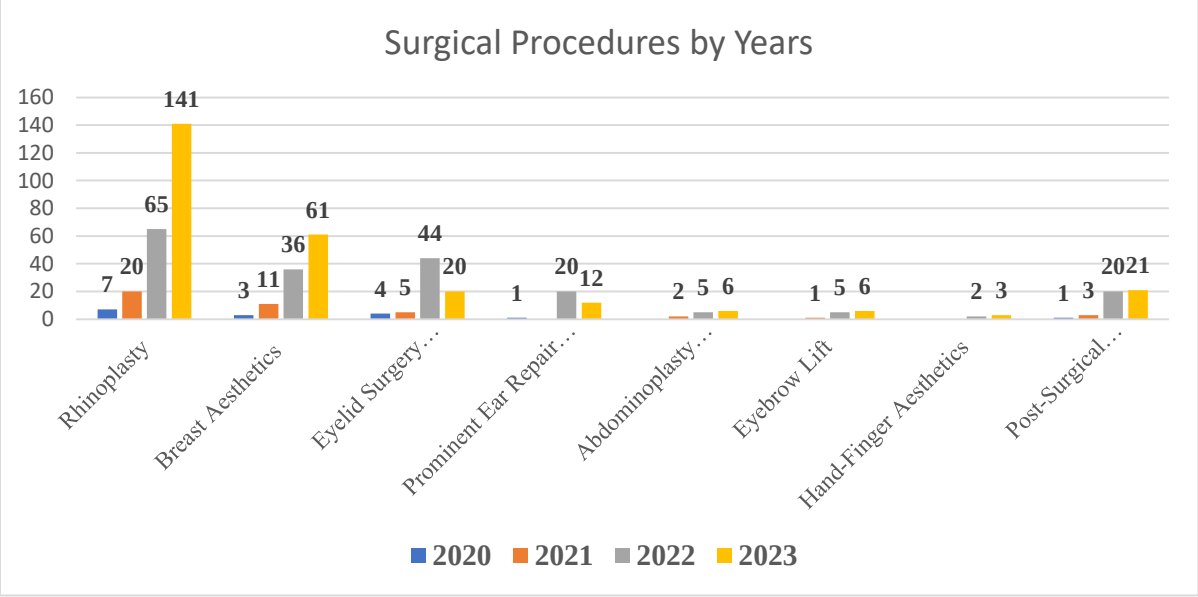

Figure 3: Aesthetic Surgeries Performed by Year

When the aesthetic surgical procedures performed according to sex were examined, women preferred rhinoplasty and breast aesthetics, while men preferred rhinoplasty and prominent ear repair (otoplasty) (Table 2).

Table 2. Aesthetic Surgical Procedures by Sex

Aesthetic Surgical Procedures	Women	Men
Rhinoplasty	187	46
Breast Aesthetics	111	
Eyelid Surgery [Blepharoplasty]	64	9
Prominent Ear Repair [Otoplasty]	17	16
Abdominoplasty [Tummy Tuck]	13	
Eyebrow Lift	10	2
Hand-Finger Aesthetics	2	3
Post-Surgical [Infection] aesthetics	41	4

3. DISCUSSION

Aesthetic surgery is intended to provide psychological and social benefits beyond improving physical appearance. These procedures can improve the psychological state of patients after surgery, increase self-confidence and improve quality of life (Barlas et al., 2015). Studies have shown that interest in aesthetic health services is associated with factors such as body dysmorphic disorders, body image problems, low self-esteem, ridicule and social exclusion or the influence of social media. These factors affect individuals' preferences for aesthetic services, and there is an important relationship between aesthetic health services and mental health (Alcan & Çetin, 2021; Demir & Özpınar, 2024; Eldaly & Mashaly, 2022; Valentine et al., 2024).

The average age of the patients who underwent aesthetic surgery was $\bar{X}$=32.31±11.87 years, and 83.60% of the patients were women. In the study conducted by Çapar (2023), in which the self-esteem of women who had undergone aesthetic procedures was evaluated, the mean age of women was determined to be $\bar{X}$= 32.57±6.21 years (Çapar, 2023). According to the data of the International Aesthetic Plastic Surgery Association (2023), most aesthetic procedures in the world involve women. According to the same data, the age range of women is 18-34 years (ISAPS, 2023). In a study conducted by Henry et al. (2021) with those who preferred Turkey for aesthetic procedures, it was found that all of the participants were women, and the average age was 35.1 years (Henry et al., 2021). In a study conducted by Campbell et al. (2019) on patients visiting Colombia for aesthetic procedures, 90% of the patients were female, and the age range was 22-50 years (Campbell et al., 2019). In a study by Genç et al. (2023) investigating the reasons for the

preference for aesthetic surgery by women who had aesthetic procedures, it was determined that 28% of women had aesthetic procedures due to body dissatisfaction (Genç et al., 2023). In a study conducted by Okumuş (2020), 58.6% of women thought that aesthetic procedures could be performed whenever needed (Okumuş, 2020). Taken together, these results suggest that young women prefer plastic surgery more than men. In addition, these results can be interpreted as protection, repair and improvement of physical appearance being more important for women.

According to the data of the International Aesthetic Plastic Surgery Association (2023), 832% of those who underwent aesthetic procedures between 1997 and 2018 increased by 41.3% between 2018 and 2022, reaching 14,986,982. In 2022, the most common aesthetic surgical procedures performed by women worldwide were breast augmentation and lift, liposuction, eyelid aesthetics (blepharoplasty) and abdominoplasty (tummy tuck); however, in men, liposuction, eyelid aesthetics (blepharoplasty), gynecomastia (Gynecomastia) and facial rejuvenation (Fat Grafting – Face) were performed (Campbell et al., 2019; ISAPS, 2023). According to the results, both women and men underwent rhinoplasty surgery the most. While breast reduction-twisting ranked second in women, prominent ear repair (otoplasty) ranked second in men. In the study conducted by Pereira et al. [2018], it was determined that the most common aesthetic surgery procedure was breast surgery (25%) and liposuction (21%) [(Scarano Pereira et al., 2022)]. In a study conducted by Okumuş (2020), it was determined that the most common aesthetic surgery was rhinoplasty (40.2%), followed by breast surgery (12%) and liposuction (9.4%) (Okumuş, 2020). According to the study by Campbell et al. (2019), women mostly underwent liposuction, breast surgery and Brazilian but lift, while men underwent liposuction, eyelid surgery and rhinoplasty surgery (Campbell et al., 2019). Based on these results, women generally have more aesthetic procedures both in the areas reflecting their feminine characteristics and in the visual areas, while men have more aesthetic procedures in the facial area. This situation supports the statement that women's beautiful physical appearance is the basis of being feminine.

Another result of the study was that the number of aesthetic surgeries performed, especially after surgical infection, was 8.53%. The five countries with the most aesthetic procedures in the world are the United States, Brazil, Japan, Mexico and Turkey. In addition, Türkiye(28.7%) ranks 4th after Mexico (33.8%), Colombia (30.9%)and Thailand (29.0%) among the most preferred countries by foreign patients who want to have aesthetic procedures (Demir, 2024; Temizkan & Temizkan, 2020). Studies have shown that the greatest complication observed after aesthetic

procedures is infection, and after these infections, an additional fee of $1500-3000 exits the patients' pockets. The same studies indicate that this rate is greater in patients returning to their countries after aesthetic procedures are performed in Türkiye, Mexico, Colombia and the Dominican Republic (Gilardi et al., 2023; Hummel et al., 2023; Klein et al., 2016; Rafeh et al., 2022; Thacoor et al., 2019). Based on these results, Turkey is one of the most preferred destinations in the world in terms of aesthetic tourism and plastic surgery. In fact, Turkey has been among the top ten destinations in the world in terms of medical tourism in the last 20 years (Bostan, 2016; Çapar, 2019; Demir et al., 2020; Farrukh et al., 2022). For this reason, it is very important to prevent infections by developing new measures for sterilization and disinfection according to the studies in the literature and the results of this study in terms of both the country and hospital image.

4. CONCLUSIONS

Psychological, demographic, social and cultural factors play important roles in increasing interest in plastic surgery. Mass media such as fashion and beauty magazines, social media, television, advertisements and the film industry create idealized body images and influence society through these images. The desire to reach the images created by the media in this way leads people to surgical or nonsurgical aesthetic procedures. The fact that procedures such as breast surgery, liposuction and rhinoplasty stand out among popular aesthetic operations shows the strong influence of the media on the perception of the ideal body. As a result of this perception, women in particular turn to these surgeries, and this situation is an additional economic burden. Especially in the private sector, aesthetic procedures are performed at high prices, leading individuals to different searches. For this reason, individuals prefer public hospitals where aesthetic procedures are performed. In public hospitals, these procedures are carried out under the supervision of the Ministry of Health over the public sales tariff. Moreover, considering the recent economic situation in Turkey, this situation can be seen as an opportunity for public hospitals with sufficient numbers of specialists and health professionals. Moreover, Türkiye, which stands out for its low cost in medical tourism, can come to the forefront with more of these procedures in public hospitals and adequate promotion and marketing activities. Despite these findings, additional academic studies on the desire to be liked and social appearance anxiety created in young individuals, especially through social media, should be conducted, and awareness training for young members of society should be organized according to these results.

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