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The Effects of Hospital Ethical Climate on Nurses' Perception of Physical Restraint

Abstract

Aim: The study was carried out to determine the effect of hospital ethical climate on nurses' perception of physical restraint.

Methods: This correlational study has been done on the nurses who use physical restraint method, and these nurses work at Public Hospital and University Hospital. 200 nurses have been surveyed on this research. The data were collected by using Personal Information Form, Hospital Ethical Climate Survey (HECS), and Levels of Knowledge Attitudes and Practices of Staff Regarding Physical Restraints Questionnaire.

Results: According to the findings of the research, it was determined that the HECS's hospital and doctors sub-dimensions affect the knowledge level and attitudes of nurses regarding physical restraint. It was determined that hospital sub-dimension affect nurses' practices regarding physical restraint.

Conclusion: In the study, it was determined that the ethical climate of nurses affected the perception of the nurses about the level of knowledge, the attitudes, and practices of the physical restraint.

Keywords: Nursing, Ethical climate, Physical restraint

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Introduction

It is important to identify the steps that will be followed in solving ethical problems encountered in patient care to provide quality and effective healthcare services. At the same time, it is necessary for healthcare institutions to define and maintain the correct behaviors among the staff to improve the quality of service and to increase the satisfaction of the service providers and clients in equal measures.[1,2] Developing a common perception about what is an ethically correct behavior and establishing institutionalized common values are associated with the existence of an ethical climate in the institution.[1] Ethical climate is defined as the shared general perceptions in regards to organizational values, practices, and work generated by the institution;[1,3] in other words, it includes the generalization and acceptance of the methods and solutions used in solving the ethical problems in an institution.[2,4,5] Ethical climate in healthcare institutions helps develop a perspective in regards to the problems faced by the staff or the behaviors that should be followed in the hospital in general; strictly speaking, ethical climate is not how individuals view and offer solutions when faced with ethical problems, but general observations and opinions about the institution.[1] At the same time, ethical climate is also defined as the perception of staff about the expected, desired, and supported behaviors and practices in health institutions such as hospitals, rehabilitation centers, and nursing homes.[2,3,6] The extent to which the perception of ethical climate in the institution is acceptable is related to the extent to which individuals perform the expected and desired behaviors and practices.

Many factors affect the ethical climate perception of health professionals working in hospitals. Health professionals' experiences regarding the previously encountered ethical problems, their status in the work environment, and the approaches of their colleagues to ethical problems can be cited among these factors.[1,5] Previous studies demonstrated that individuals who had negative perceptions about the ethical climate in the institution experienced decreased job commitment, decreased job performance, and decreased motivation;[2,3] faced ethical problems more frequently;[7] experienced increased turnover; and felt less trust in their managers.[1,8] Negative perceptions of healthcare professionals, especially nurses, regarding the ethical climate can lead to lower quality in patient care and treatment and to a decrease in patient satisfaction.[8]

Use of physical restraints in hospital patients is one of the ethical problems that nurses frequently encounter and where the hospital ethical climate becomes effective in decision-making.[1,9,10] Physical restraint is defined as using a device, material or equipment near to or attached

to a patient to limit free body movement.[9,11,12] The use of physical restraint in healthcare institutions is practiced by nurses since they are the healthcare staff who spend the most time with the patient. Studies on the use of physical restraint concluded that nurses used restraints on patients in order to ensure patient safety, to control the patient's behavior,[13,14] and to prevent agitated and confused patients from harming themselves and their environment.[15–17] However, some nurses may use physical restraint to facilitate the provision of care and treatments[11,12] and to control the patient when the number of staff is insufficient.[16,17] Today, although nurses prefer using physical restraint for the right reasons, the use of physical restraints can lead to ethical dilemmas such as harming the individual[9] and restricting autonomy[16] when it is not used correctly and effectively. The fact that certain standards and procedures regarding the use of physical restraints have not been effectively developed in hospitals has resulted in different practices in the use of restraints and generated failure to produce ethically appropriate and rapid solutions to the problems encountered in this regard.[18]

Nurses seeking ethically appropriate solutions to the problems they encounter regarding the use of physical restraints are influenced by their previous experiences with restriction, the practices of the colleagues, the current procedures and the procedures used in their hospitals, their managers, and the current ethical climate perception within the institution about the practice.[19–21] As a result, it is believed that nurses experience an ethical dilemma while making decisions about the use of physical restraints since they believe they can create unexpected effects, restrict the autonym of the patient, and are not presented with specific standards for practice. At the same time, the attitude of the institution, physicians, and managers towards the use of restraints and the ethical perception existing in the institution related to the practice affect nurses' ability to make decisions about the use of physical restraints and utilize them as needed. In this context, the decisions made by nurses regarding the use of physical restraints that may affect the provision of qualified patient care, patient safety, and autonomy may lead to ethical dilemmas. It can be argued that ethical climate perception about the institution where nurses work is an important factor in managing the decision-making process appropriately. Based on this view, it is believed that examining the effect of the hospital ethical climate on nurses' physical restraint perceptions will contribute to the solution of practice-related problems and shed light on future studies.

Study Aim

This study was conducted to determine the effect of hospital ethical climate on nurses' perceptions of physical restraint.

Research Questions

1. What is the ethical climate perception of the nurses regarding the hospital where they work?
2. What are the nurses' knowledge levels, attitudes, and practices regarding the use of physical restraint?
3. Is there a relationship between the hospital ethical climate and nurses' knowledge, attitudes and practices regarding the use of physical restraint?
4. Does the hospital ethical climate have an effect on nurses' knowledge, attitudes, and practices regarding the use of physical restraint?

Method

Study Design

The study was conducted by using the correlational survey model.

Study Population and Sample

The study was planned to be carried out in three hospitals located in the city center of a province in the Western Black Sea Region, Turkey. However, since physical restraints were not used in one of the hospitals, the population of the study consisted of 300 nurses working in a university hospital and a state hospital and using physical restraints. As it was possible to reach the population easily, a sample was not selected in the study and the entire population was sampled. However, 57 nurses who used sick leave, maternity leave, annual leave, and marriage leave at the time of the study and 43 nurses who did not agree to participate in the study were not included in the sample. The study was carried out with 200 nurses representing 66.7% of the population.

Data Collection

Study data were collected in the period of January-April 2017 with the help of 6-item *Personal Information Form*, prepared by the researchers, to determine the descriptive characteristics of nurses (age, gender, etc.); *the Hospital Ethical Climate Survey (HECS*) to identify the perception of the ethical climate of the hospital where nurses work; and *Level of Knowledge Attitudes and Practices of Staff Regarding Physical Restraints Questionnaire* to determine nurses' knowledge levels, attitudes and practices regarding the use of physical restraint. Data collection forms were given to nurses who used physical restraints and volunteered to participate in the study. The forms filled by nurses were collected by the researchers. It took an average of 20 minutes for the nurses to complete the forms.

The HECS

The HECS was developed by Olson[22] (1995) to measure how hospital nurses perceive the ethical climate in their work environment. The scale with 26 items and five sub-dimensions has a Cronbach's alpha of 0.91. The scale was adapted into Turkish by Bahçecik and Öztürk[6] in 2003. This scale is used to define the ethical climate in healthcare institutions. The HECS Turkish version is a 5-point Likert-type measurement tool consisting of 26 items and 5 sub-scales based on relationships: relationships with peers (4 items), patients (4 items), managers (6 items), hospital/organization (6 items), and physicians (6 items). The items in the scale are assessed on a 5-point Likert-type scale ranging from "almost never true" (1) to "almost always true" (5). Cronbach's alpha value of the scale was determined as 0.89.[6] In this study, Cronbach's alpha coefficient was calculated as 0.94.

Level of Knowledge Attitudes and Practices of Staff regarding Physical Restraints Questionnaire

Originally created by Janelli, Scherer, and Kuhn[23] (1994), Level of Knowledge Attitudes and Practices of Staff Regarding Physical Restraints Questionnaire was adapted by Suen[24] (1999) to evaluate the knowledge levels, attitudes and practices of staff (including nurses) in a nursing home on the use of physical restraints. Cronbach's alpha coefficients of the questionnaire that consists of three sections (knowledge-11 items, attitudes-12 items, and practice-14 items) are 0.65, 0.61, and 0.94, respectively.[24] The scale was adapted to Turkish by Kaya et al.[25] in 2008. The first section of the questionnaire consists of 11 items, including 10 correct and 1 incorrect item that measure nurses' knowledge about the use of physical restraints. The correct responses are given a score of 1 and incorrect responses a score of 0. The score that can be obtained from this section is between 0 and 11, and a high score indicates that a high level of knowledge. The second section is a 4-point Likert-type scale consisting of 12 items that measures nurses' attitudes towards the use of physical restraint. In scoring, the response "strongly agree" is scored 4, the response "agree" is scored 3, the response "disagree" is scored 2, and the response "strongly disagree" is scored 1. The score that can be obtained from this section is between 12 and 48, and high scores indicate positive

attitudes while low scores point to negative attitudes. The third section contains 14 items that evaluate nurses' practices regarding the use of physical restraint. The questionnaire is scored on a 3-point Likert-type scale with "always" (2 points), "sometimes" (2 points), or "never" (1 point). The score that can be obtained from this section is between 14 and 42. A high score from this section indicates excellent practice in the use of physical restraints, and a low score indicates the most undesirable practice. Cronbach's alpha values of the scale were determined as 0.88, 0.85, and 0.90 for knowledge, attitude, and practice, respectively.[25] In this study, Cronbach's alpha values of the scale were calculated as 0.78, 0.91, and 0.93 for knowledge, attitude, and practice, respectively.

Statistical Analysis

Data analysis was performed by using SPSS statistics 17.0 package program (SPSS Inc. Chicago, IL, USA) Released 2008. Number and percentage calculations were used in the evaluation of the descriptive data, and mean and standard deviation values were used to determine the nurses' perceptions in regards to hospital ethical climate and physical restraint. Kolmogorov–Smirnov (K-S) test was utilized to identify whether the data showed a normal distribution so that the statistics to be used in this study could be determined. As a result of this analysis, it was determined that the data for both scales showed normal distribution (for HECS; K-S = 0.69, P = .200; for Level of Knowledge Attitudes and Practices of Staff Regarding Physical Restraints Questionnaire, knowledge level: K-S = 0.87, P > .05; attitudes: K-S = 0.65, P > .05; practice: K-S = 0.72, P > .05). Based on this result, Pearson's correlation analysis was used to determine the relationship between the hospital ethical climate and nurses' knowledge levels, attitudes, and practices regarding the use of physical restraint. Multiple regression analysis was used to determine the effect of the hospital ethical climate on nurses' knowledge levels, attitudes, and practices on the use of physical restraints. Definitions regarding the strength of the correlation coefficient in the literature are stated as 0.00-0.25 as very weak, 0.26-0.49 as weak, 0.50-0.69 as moderate, 0.70-0.89 as strong, and 0.90-1.00 very strong.[26]

Ethical Considerations

Official written permission for the implementation of the study was received from the hospitals where the study was conducted. Written informed consent was taken from the participants. Permission was taken to use the HECS and the Level of Knowledge Attitudes and Practices of Staff Regarding Physical Restraints Questionnaire from the authors by e-mail and permission was obtained from the ethics committee (no. 2017/13 and dated 23.02.2017).

Results

Table 1 presents the findings on the descriptive characteristics of nurses. It was determined that the majority of the nurses were female (70.5%) and married (62.0%), the average age among nurses was 28.41 ± 11.8, more than half of the nurses (54.5%) were bachelor's degree, and the majority had a professional seniority of 6-10 years (29.5%) and worked in intensive care unit (38.5%) (Table 1).

Table 2 presents the participating nurses' perception of ethical climate in the hospitals they worked and their knowledge levels, attitudes, and practices regarding the use of physical restraints. According to Table 2, nurses' total HECS mean score was found to be 3.12 ± 0.68. Nurses had above the average positive perceptions about the ethical climate of the hospital they worked in. Examination of the mean scores for sub-scales showed that the nurses got the highest score from the peers sub-scale (4.27 ± 0.60) and the lowest score from the physicians sub-scale (2.51 ± 1.00) (Table 2). This result shows that nurses' perception of ethical climate regarding their peers was high and their perception of ethical climate towards physicians was at a moderate level.

According to Table 2, nurses' mean score from the level of knowledge sub-scale about the use of physical restraint was 7.14 ± 2.66 (min-max: 0-11), their mean score from the attitude sub-scale was 27.14 ± 6.89 (min-max: 13-46), and their mean score from the practice sub-scale was 30.77 ± 7.77 (min-max: 14-42) (Table 2). These results demonstrate that nurses' knowledge and practices regarding the use of physical restraint were good and their attitudes were positive.

Table 3 presents the results of the correlation analysis conducted to determine whether there was a relationship between the hospital

Table 1. Distribution of Nurses' Descriptive Characteristics

Characteristics	*n*	%
Gender		
Female	141	70.5
Male	59	29.5
Age		
20-24	25	12.5
25-29	64	32.0
30-34	48	24.0
35-39	44	22.0
40-44	19	9.5
Average age	28.41 ± 11.8 (min. 20 to max. 44)	
Marital status		
Married	124	62.0
Single	76	38.0
Educational background		
Senior high school	12	6.0
Associate degree	70	35.0
Bachelor	109	54.5
Graduate	9	4.5
Professional seniority (years)		
<1	11	5.5
1-5 years	17	8.5
6-10 years	59	29.5
11-15 years	50	25.0
16-20 years	36	18.0
≥21	27	13.5
Current place of employment		
Medical ward	60	30.0
Surgical ward	47	23.5
Intensive care unit	77	38.5
Emergency unit	16	8.0
Total	**200**	**100.0**

Table 2. Mean Scores for the HECS and Level of Knowledge Attitudes and Practices of Staff regarding Physical Restraints Questionnaire

Subscales of HECS	Mean ± SD
Peers	4.27 ± 0.60
Patients	3.83 ± 0.70
Managers	3.12 ± 0.92
Hospital	2.54 ± 1.04
Physicians	2.51 ± 1.00
Total HECS	**3.12 ± 0.68**
Subscales of Physical Restraints Questionnaire	**Mean ± SD**
Knowledge	7.14 ± 2.66
Attitude	27.14 ± 6.89
Practice	30.77 ± 7.77

ethical climate and the nurses' perceptions of physical restraint. The results of analysis pointed to a positive, significant, and weak relationship between nurses' level of knowledge about physical restraint and hospital ethical climate, patients, managers, hospital, and physicians sub-scales (between r = 0.215 and r = 0.478). Based on the correlation values, there was a positive, significant, and weak relationship between nurses' attitude towards physical restraint and patients, managers, hospital, and physicians sub-scales (between r = 0.178 and r = 0.456). According to the correlation values, a positive, significant, and weak relationship (between r = .179 and r = 0.386) was found between nurses' practices regarding physical restraint and patients, managers, and physicians sub-scales, while a positive, significant, and moderate relationship existed between nurses' practices regarding physical restraint and the hospital sub-scale (r = 0.561) (Table 3). *P < .05 **P < .01

According to the correlation values, there was no significant relationship between nurses' level of knowledge, attitudes, and practices regarding physical restraint and peers sub-scale (r – −0.039, −0.076, −0.097, respectively) (Table 3).

Table 4 displays the results of the regression analysis performed to determine the effect of the hospital ethical climate sub-scales on the knowledge level of nurses regarding physical restraint. Accordingly, peers, patients, managers, hospital, and physicians factors were found to be moderately and significantly related to nurses' level of knowledge regarding physical restraint (P < .001). Together, these factors explained 27.3% of the variance for the level of knowledge

Table 3. Correlation Analysis Results for the Relation between Hospital Ethical Climate and Nurses' Perceptions regarding Physical Restriction

Variables	Peers	Patients	Managers	Hospital	Physicians
Knowledge	−0.039	0.253**	0.215**	0.478**	0.435**
Attitude	−0.076	0.178*	0.234**	0.456**	0.412**
Practice	−0.097	0.179*	0.271**	0.561**	0.386**

*P < .05.
**P < .01.

Table 4. Regression Analysis Results for Knowledge Level

Variables	*B*	*SE*	*β*	*t*	*P*	95% Confidence Interval
Peers	−0.031	0.029	−0.079	−1.064	.289	[−0.089, 0.027]
Patients	0.047	0.028	0.136	1.664	.098	[−0.009, 0.103]
Managers	−0.043	0.022	−0.166	−1.975	.050	[−0.087, 0.000]
Hospital	0.087	0.022	0.371	3.969	<.001	[0.044, 0.130]
Physicians	0.052	0.022	0.217	2.413	.017*	[0.010, 0.095]

F = 14.607, P < .001, R = .523, R^2 = .273
*P < .05

regarding physical restraint. According to the adjusted regression coefficients (β), it was determined that the hospital sub-scale (β = .371) affected nurses' level of knowledge regarding physical restraint the most while the peers sub-scale (β = −.079) affected it the least. The t-test results regarding the significance of the regression analysis showed that hospitals and physicians sub-scales had a significant effect on the level of knowledge about physical restraint. It was determined that factors such as peers, patients, and managers did not have a significant effect on the level of knowledge about physical restraint (Table 4).

Table 5 presents the results of the regression analysis conducted to identify the effect of the hospital ethical climate sub-scales on nurses' attitudes towards physical restraint. Together, the following factors (peers, patients, managers, hospital, and physicians) were found to be significantly correlated with nurses' attitudes towards the use of physical restraint (P < .001). Together, these factors explained 23.7% of nurses' attitudes towards the use of physical restraint. According to the adjusted regression coefficients (β), it was determined that the attitudes of nurses towards physical restraint were affected by the hospital sub-scale (β = .353) the most and by the patients sub-scale (β = .040) the least. The t-test results regarding the significance of the regression analysis showed that the hospital and physicians sub-scales significantly affected nurses' attitudes towards the use of physical restraint, but the peers, patients, and managers' sub-scales had no significant effect (Table 5).

Table 5. Regression Analysis Results for Attitude

Variables	*B*	*SE*	*β*	*t*	*P*	95% Confidence Interval
Peers	−0.088	0.071	−0.095	−1.244	.215	[−0.229, 0.052]
Patients	0.032	0.068	0.040	0.476	.635	[−0.102, 0.167]
Managers	−0.043	0.053	−0.070	−0.813	.417	[−0.148, 0.062]
Hospital	0.195	0.053	0.353	3.684	<.001	[0.090, 0.299]
Physicians	0.107	0.052	0.189	2.050	.042*	[0.004, 0.210]

F = 12.026, P < .001, R = .486, R^2 = .237
*P < .05

Table 6. Regression Analysis Results for Practice

Variables	*B*	*SE*	*β*	*t*	*P*	95% Confidence Interval
Peers	−0.112	0.065	−0.124	−1.733	.085	[−0.240, 0.016]
Patients	0.009	0.062	0.011	0.145	.885	[−0.113, 0.131]
Managers	−0.027	0.048	−0.045	−0.561	.575	[−0.123, 0.068]
Hospital	0.322	0.048	0.600	6.693	<.001	[0.227, 0.417]
Physicians	-0.008	0.048	-0.015	−0.172	.864	[−0.102, 0.086]

$F = 19.342$, $P < .001$, $R = .577$, $R^2 = .333$

Table 6 presents the regression analysis results showing the effect of hospital ethical climate sub-scales on nurses' practices regarding physical restraint. Accordingly, peers, patients, managers, hospitals, and physicians together were found to be significantly associated with nurses' physical restraint practices of ($P < .001$). Together, these factors explained 33.3% of nurses' practices regarding the use of physical restraint. According to the adjusted regression coefficients (β), it was determined that nurses' practices regarding the use of physical restraint were affected by the hospital sub-scale ($\beta = .600$) the most and by the patients sub-scale ($\beta = .011$) the least. The *t*-test results regarding the significance of regression analysis demonstrated that only the hospital sub-scale significantly affected nurses' practices regarding the use of physical restraint, but the peers, patients, managers, and physicians sub-scales had no significant effect (Table 6).

Discussion

Based on the results of this study, the nurses were found to believe that the hospital they worked in had an ethical climate above the average. Examination of the studies conducted on the subject shows that similar results were obtained in other studies as well.[27–34] For example, the study of Ghorbani et al.[33] comparing the ethical climate perceptions of nurses working in private and state hospitals determined that the nurses reported having an above average ethical climate although they had a more positive perception than the nurses in this study. Similarly, in their study which examined the effect of nurses' perception of ethical leadership and ethical climate on job satisfaction, Özden et al.[27] found that nurses' perception of ethical leadership and ethical climate was above average. Nurses' perception of hospital ethical climate is an important indicator for the provision of nursing services based on moral sensitivity, ethical standards, trust, and honesty.[28] The ethical climate structure of the hospital where nurses work and an understanding of ethical climate in their hospital are important for nurses to display ethical behaviors while performing their practices.[28] Therefore, it is necessary to provide an ethical working environment in hospitals where nurses work so that quality patient care can be provided, patient satisfaction can be increased, and ethical problems and medical errors can be reduced.[32,35,36] In conclusion, nurses' positive ethical climate perception of their hospitals is important in conducting patient care practices within the framework of ethical principles and approaches, developing institutional commitment, ensuring safe patient care, carrying out health services with a team approach away from conflicts and supporting professional approaches. In this respect, it can be argued that above average nurse perceptions in regards to ethical hospital climate will have positive reflections on health care services, patient satisfaction, and corporate respectability.

The study determined that nurses got the highest score from the peers sub-scale in HECS. Examination of the relevant studies in the literature shows that while some studies obtained results that support our finding,[28,30,34,37] some other studies concluded that nurses achieved the highest score in the managers' sub-scale.[1,32,33] The perception of the ethical climate about the peers that nurses work with is important in terms of the qualified delivery of patient care services. This sub-scale questions the nurses' opinions about working in harmony with each other, whether their peers' care and practices are ethically appropriate, and whether they trust their colleagues' knowledge in solving patient care problems. Nurses' perception of ethical climate regarding their hospitals is affected by their work experiences, positions, and teammates.[1,36] At the same time, positive relationships between nurses and their colleagues affect the solution of ethical problems and ethical decision making.[30] It is known that nurses are affected by the practices of their peers, especially in ethical dilemmas regarding patient care and treatment.[21] Therefore, it can be argued that the attitudes and behaviors displayed by peers in regards to the existing ethical climate are effective in nurses' positive ethical climate perceptions about their institutions. The fact that nurses received high scores from the peers' sub-scale of ethical climate survey in this study may suggest that nurses practiced in solidarity with their colleagues and trusted their professional knowledge and practices, and that they strived to provide safe patient care with a team collaboration and using a critical approach based on mutual respect.

It was determined in the study that the nurses received the lowest scores at the moderate level from the physicians sub-scale in HECS. Examination of the relevant studies in the literature shows that while nurses got the lowest score in the physicians sub-scale in other studies, their scores were higher than the results obtained in this study.[1,30,33,37] For example, similar to this study, the study conducted by Karagözoğlu et al.[1] to determine the hospital ethical climate perception of nurses working in the intensive care unit concluded that nurses had a lower ethical climate perception in the physicians sub-scale. However, when comparison of mean scores shows that the ethical climate perception of nurses regarding the physicians sub-scale was more positive than the ethical climate perception of nurses regarding the physicians sub-scale in this study. The study conducted by Lemmenes et al.[30] to examine nurses' ethical climate perception found that nurses' perception of ethical climate was lower in physicians sub-scale. Nurses' perception of ethical climate about the physicians they work with is important in determining how much they can participate in their decisions regarding patient care and treatment and how much their opinions are supported by physicians. It can be argued that the moderate nurse perceptions in regards to hospital ethical climate/physicians sub-scale shows that they do not see themselves competent enough in the team and their opinions and decisions about patient care are ignored.[1] This finding may be associated with physicians' perceptions about themselves as more competent and knowledgeable about the patient and with their distrust about the practices and treatment of nurses. As a matter of fact, physicians are considered to be in a stronger position in health institutions included in the health system and can make more autonomous decisions.[1,38] The fact that nurses are not supported in patient-related decisions and that physicians regard themselves as decision makers in the team can have negative effects on nurses' institutional commitment. In order to offer sound and efficient patient care and treatment, individuals working in the hospital environment must be in harmony and interact with each other.

The study concluded that nurses had a sound level of knowledge on the use of physical restraint. Examination of the relevant studies in the

literature shows similar findings. For instance, the study conducted by Çelik et al.[17] and Paslı Gürdoğan et al.[39] with intensive care nurses also determined that the knowledge of nurses on the use of physical restraints was at a good level, similar to the findings of this study. The study of Kaya et al.[25] concluded that the knowledge of nurses on the use of physical restraint was quite good. Good level of knowledge in regards to the use of physical restraint is important to show for what purpose nurses use physical restraint and their knowledge about restraint follow-up and recording procedures. A nurse using physical restraint should be aware of the alternative methods that should be tried before deciding to apply restraint, should know about the care of the patient under restraint and the complications that may develop when the physical restraint used for the patient does not fit its purpose and the complications that may develop when the necessary control methods are not utilized.[9,13,15–17] In this study, the finding that nurses had a good level of knowledge about physical restraint is important because it shows that physical restraint can be used with more awareness, that the application will not be used in a way that may put patient safety at risk and that the basic elements to be considered during the practice are known.

The study conceded that nurses had a positive attitude towards the use of physical restraint. Examination of the relevant studies in the literature shows that, similar to our research finding, Çelik et al.,[17] found in their study that nurses had a positive attitude towards the use of physical restraint and while the nurses in the study conducted by Kaya et al.[25] showed a more positive attitude than the nurses in this study. Nurses' attitude towards the use of physical restraint is important in terms of demonstrating their attitudes towards the patient in the use of restraint, their approach to patient rights regarding the restraint, and how these are reflected in practice. Nurses' attitude in the use of physical restraint is important as it affects the quality of nursing care as well as the results of the practice of restraint.[17] Nurses' positive attitudes when using physical restraint shows that they are able to understand the feelings and wishes of the patient about the restraint and that they are able to empathize and to know that the patient has the right to refuse the use of restraint. On the other hand, the positive perception of nurses ensures practicing nursing care at a professional level and can prevent complications and negative consequences that may be caused by the use of restraint.[17]

In the study, it was determined that nurse practices regarding physical restraint were at a good level. When the findings of the research were compared with the results of other studies in the literature, it was seen that the results were similar to each other.[17,25,38–40] Today, many guidelines prepared for the use of physical restraint recommended reducing the use of restraint and using it as a last resort, if possible.[38] However, the study of Choi and Song[41] determined that 54% of the nurses did not know alternative methods and the study of Karagözoğlu and Özden[9] concluded 49.4% of the nurses did not use alternative methods. Möhler and Mayer's[42] study found that nurses, who had a dilemma about applying physical restraint to the patient, generally ended up making a decision to use the restraint. Yet, ensuring that nurses make appropriate decisions regarding the use of physical restraint without risking patient safety, trying alternative methods first, knowing that physical restraint is applied upon the request of the physician, performing checks on time and recording them are crucial for a good practice. However, it is also important to establish institutional policies and guidelines that will guide nurses in regards to sound practice. As a matter of fact, the literature reports that nurses have a dilemma about making decisions, initiating, and keeping records for the use of restraint due to the insufficient procedures and guidelines in healthcare institutions.[9,43] The Regulation on the Amendment of the Nursing Regulation published in the Official Gazette dated 19.04.2011 states that both the doctor and the nurse can practice physical restraint.[44] However, the health quality standards determined by the Ministry of Health, Health Quality, Accreditation and Employee Rights Department state that physical restraint should be requested by the physician and the treatment plan should include records regarding its beginning, control, and termination.[45] In this context, it is important for nurses to manage the process appropriately in order to avoid dilemmas and to form a legal basis for the practice.[9] The results that nurse practices regarding physical restraint were at a good level in this study may indicate that nurses are aware of their duties and responsibilities regarding physical restraint practices, and this awareness will constitute an important step in providing desired results and providing quality service in regards to the practice.

In the study, it was determined that HECS hospital and physicians subscales affected nurses' knowledge level and attitudes towards physical restraint positively and significantly. Nurses' perceptions of physical restraint are affected by their state of decision-making about the use of physical restraint and their level of knowledge about the use of restraint.[46] The ethical climate perceptions of nurses regarding both the hospital they work in and the physicians they work with are important for using physical restraint appropriately, distinguishing the situations where restraint is indeed repaired, respecting and trusting the team members and the decisions. Nurses' awareness, knowledge levels and attitudes regarding the use of physical restraint and patient follow-up are an important element in ensuring patient safety because the level of knowledge and attitude are important as they affect the quality of care and the results of restraint practice.[17,25] In addition, displaying a positive attitude is necessary for nurses in order to observe patient rights and empathize with this practice that restricts patient autonomy. In order to prevent complications in the practice of physical restraint, nurses refer to the information and practices provided by their institution to increase their theoretical knowledge and to find solutions to the problems encountered.[25] When reference resources such as relevant documents and guides about the practice are provided by the institution, nurses will feel safe during the practice and provide safe patient care.[20,27] In addition, nurses' exchange of ideas, sharing decisions and maintaining mutual professional respect within the framework of a team approach with physicians and other health professionals are effective in the formation of ethical climate perception towards physicians. In this context, nurses' positive perception of ethical climate regarding the attitudes and practices of physicians is important in increasing their knowledge and developing positive attitudes towards the restraint practice.

According to the results of the study, only the HECS hospital sub-scale positively and significantly affected nurse practices regarding physical restraint. The perception of ethical climate regarding the institution they work for affects health professionals, especially the nurses' practices, job performance and their institutional commitment.[1,2,6] Hospital ethical climate perception provides a solution-based and instructional approach to nurses, especially in issues that nurses experience ethical dilemmas, such as protecting the patient and taking action for the benefit of the patient.[47,48] In addition, nurses' positive ethical climate perception about their hospitals ensures that care and treatment are given at the desired level, and the practices are correct and effective.[1,3,4] A study determined that the ethical climate structure of the clinic where nurses worked was effective in the use of physical restraints in addition to the patient's behavior and the physician's approach.[49] Therefore, the attitude reflected in the hospital is important in shaping nurse ethical climate perceptions. This study concluded that positive ethical climate perceptions about their hospitals positively affected nurse practices

regarding the use of physical restraint. It can be argued that this result is important since it shows that health care services provided by nurses can be provided in a more qualified and safe manner in accordance with patient rights by respecting patient autonomy and they can reflect positively on patient satisfaction.

Conclusion

As a result of the study, it was determined that nurses' ethical climate perception in regards to their hospitals was above average and that nurses' ethical climate perception about their peers was the highest while the ethical climate perception about physicians was the lowest in the HECS sub-scales. It was found that the knowledge and practices of the nurses regarding the use of physical restraint were good and their attitudes were positive. It was identified that the hospital sub-scale significantly affected nurses' knowledge levels, attitudes and practices regarding the use of physical restraint, while the physicians sub-scale had a significant effect on nurses' knowledge level and attitudes towards physical restraint. According to the results of the research, it was observed that nurses' ethical climate perception regarding the hospitals they worked in was effective on their knowledge levels, attitudes and practices regarding the use of physical restraints.

In this direction, it is recommended to create an ethical climate that will guide nurses in the use of physical restraints and allow safe and satisfaction-based practices in healthcare institutions. In addition, considering the importance of teamwork and the importance of the attitude of the health professionals in this team for the qualified delivery of health services; it can be argued that an ethical climate should be established in order to support teamwork, respect professional knowledge and practices, and maintain patient treatment and care practices while preserving these dynamics.

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Informed Consent: Verbal consent was obtained from the nurses who participated in the study.

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