Nursing Students Evaluate the Hidden Curriculum in Their Faculties: A Cross-Sectional Study

Hemşirelik Öğrencileri Fakültelerindeki Örtük Müfredatı Değerlendiriyor: Kesitsel Bir Çalışma

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ABSTRACT

Objective: The aim of this study is to determine how nursing students evaluate the hidden curriculum in their faculty.

Methods: The study has a descriptive and cross-sectional design. The population of the study consists of first, second, third, and fourth-year nursing students attending the fall and spring semesters of the 2021-2022 academic year at a university's nursing faculty. A total of 288 students participated in the study. The data were collected online by the "General Information Form", "Hidden Curriculum Evaluation Scale in Nursing Education". In the study, the data were evaluated with t test and one-way analysis of variance.

Results: In the study, the mean total score of the Hidden Curriculum Evaluation Scale in Nursing Education was determined to be 161.99 (±25.30). The mean scores for the sub-dimensions of the scale were 71.01 (±12.32) for school climate, 48.75 (±11.09) for professional attainments, and 42.23 (± 8.38) for student-teacher-school interaction. It was determined that students evaluated the hidden curriculum in their faculties at above a moderate level and that their perception of the hidden curriculum differed according to gender, age, grade level, career preferences and level of knowledge on the subject.

Conclusion: It is extremely important for institutions and educators to be aware of the hidden curriculum and to pay attention to the role of professional values, norms and behaviors.

Keywords: Hidden curriculum, nursing education, nursing student, professionalism

ÖZ

Amaç: Bu çalışmanın amacı, hemşirelik öğrencilerinin fakültelerindeki örtük müfredatı nasıl değerlendirdiklerini belirlemektir.

Yöntemler: Çalışma tanımlayıcı ve kesitsel bir tasarımdır. Çalışmanın evreni, 2021-2022 eğitim-öğretim yılı güz ve bahar dönemlerinde bir üniversitenin hemşirelik fakültesinde öğrenim gören 1., 2., 3. ve 4. sınıf hemşirelik öğrencilerinden oluşmaktadır. Çalışmaya 288 öğrenci katıldı. Veriler "Genel Bilgi Formu" ve "Hemşirelik Eğitiminde Örtük Program Değerlendirme Ölçeği" kullanılarak çevrim içi olarak toplandı. Çalışmada veriler t testi ve tek yönlü varyans analizi ile değerlendirildi.

Bulgular: Çalışmada, öğrencilerin Hemşirelik Eğitiminde Örtük Program Değerlendirme Ölçeği toplam puan ortalaması 161,99 (±25,30) olarak belirlenmiştir. Ölçeğin alt boyutlarına ait puan ortalamaları ise okul iklimi için 71,01 (±12,32), mesleki kazanımlar için 48,75 (±11,09) ve öğrenci-öğretmen-okul etkileşimi için 42,23 (±8,38) olarak saptanmıştır. Öğrencilerin fakültelerindeki örtük müfredatı orta düzeyin üzerinde değerlendirdikleri ve örtük müfredat algılarının cinsiyete, yaşa, sınıf düzeyine, kariyer tercihlerine ve konuyla ilgili bilgi düzeyine göre farklılık gösterdiği belirlenmiştir.

Sonuç: Kurumların ve eğitimcilerin örtük müfredatın farkında olmaları ve mesleki değerlerin, normların ve davranışların oluşumunda rolüne dikkat etmeleri son derece önemlidir.

Anahtar Kelimeler: Örtük program, hemşirelik eğitimi, hemşirelik öğrencisi, profesyonellik

INTRODUCTION

Education is an important process that directly affects the future lives of individuals. The aim of nursing education is to enable students to acquire the knowledge and skills necessary to fulfill their professional nursing roles and to assume social responsibilities.[1] The graduate profile of universities shows that, not all intended learning outcomes are achieved, and students may graduate with undesired learning outcomes. [2,3] These results reveal the need to focus on how and what students learn during their undergraduate education.

The hidden curriculum includes "organizational, institutional, and cultural patterns of values and behavior that shape how and what students learn outside of the formal and intended curriculum".[4] The knowledge, opinions, perceptions, attitudes, principles and values that students acquire outside of the objectives and activities specified in formal curriculum practices are the result of the hidden curriculum.[5] The formal curriculum describe theoretical frameworks that aim to develop best practice, while hidden curricula refer to practices that serve to sustain existing culture.[6] The formal curriculum includes structured academic content such as topics, courses, and specific learning outcomes. The hidden curriculum includes informal social processes such as role modeling, conversations and interactions between faculty members and students, more implicit forces of organizational life such as power and obedience, and many other factors such as the school atmosphere and the architectural layout of the school. [2,4] Since these factors differ across universities, the hidden curriculum differs according to each institution[7]. The hidden curriculum continues naturally within the school culture, affecting students in planned or unplanned ways. Students typically learn behaviors and values that shape their professional identities (such as empathy, communication, teamwork, and ethics) by observing, modeling, and interacting with their peers, faculty members, and institutional administrators.[4,8,9]. In the learning process of students, the perspectives, thoughts, and behaviors of administrators, teachers, and students may be more influential than the planned program itself. Karimi et al.[10] noted in his study that nursing students learn their professional identities through the hidden curriculum.[10] Therefore, students are significantly influenced by the hidden curriculum. [11-13]

Attitudes and behaviors such as professional ethics, professionalism, empathy skills, communication, and professional commitment are the most fundamental values in the provision of quality and safe care for nurses.[2,14,15] The teaching of professional nursing behaviors in accordance with the curricula influences the quality of nursing care provided.[16] Students can prepare for adult professional roles, internalize professional values and develop professional identity through the hidden curriculum.[4,14,17,18] It has been reported in the literature that the hidden curriculum could affect nursing students' professional behaviors and practices, their socialization, and the development of their professional values and cultural competencies both positively and negatively.[6,10,14,15,18-20] Therefore, recognizing and assessing the hidden curriculum is important for the development of nursing students' professional identities and ethical competencies. A well-developed professional identity with ethical competence contributes to the development of the nursing profession and the provision of higher quality health care.[6,14,21] Therefore, it is very important that the values related to ethics, professional commitment, communication and professionalism in the formal curriculum in undergraduate education are compatible with the hidden curriculum and that these values form the basis of the culture of the institution.

The hidden curriculum has a significant impact on students' learning outcomes and future professional practice.[12,14,20-22] The literature suggests that it is important to understand the nature of the values and messages communicated through the hidden curriculum, as students internalize the messages in the hidden curriculum more easily and consider them as more effective than the formal curriculum.[4,20,23,24] Akçakoca and Orgun[2] emphasized that educational institutions that want to improve the quality of their graduates should investigate their hidden curricula and identify the implications of education and manage them according to the objectives of the educational program.[2]

AIM

This study aimed to determine how nursing students studying in a nursing faculty evaluate the hidden curriculum in their faculties.

Research question
Accordingly, the research question of this study is:
- How do nursing students studying at a nursing faculty evaluate the hidden curriculum in their faculties?

METHODS

Study design
The study is descriptive and cross-sectional.

Setting and participants

The population of the study consisted of 1st, 2nd, 3rd and 4th grade students who were attending the fall and spring semesters of 2021-2022 academic year at faculty of nursing in a university. Nursing faculty is a 4-year undergraduate nursing college in Turkey that provides education in the Bachelor of Science in Nursing program. Data were collected from October 2021 to February of 2022. There are a total of 685 students studying in the nursing department. It was planned to include the entire population in the study without selecting a sample. There were no explicit exclusion criteria if a student met the inclusion criteria. Finally, data from 288 volunteer participants were analyzed. The post-hoc power obtained for the accessible sample size was calculated using the G-Power 3.1.9.7 package program. The power of the study was determined as 94% in the analysis conducted in the four-group sample with a margin of error of 0.05, a sample size of 288, and an effect size of 0.241, and it was determined that the sample size was sufficient.

Data Collection and Instruments

The data related to the dependent variable were collected online by the "General Information Form", "Hidden Curriculum Evaluation Scale in Nursing Education" (HCES-N)". The data collection tools of the research were created as an online questionnaire form on the internet. Online data collection forms were delivered to the research sample via announcing through e-mail, social media (Twitter, Instagram, WhatsApp, etc.) and the faculty website. The data collection form includes a preliminary information page in which the purpose of the study is explained, and the students confirm that they accept voluntary participation. The students who agreed to participate in the study selected the "I agree to participate in the study" option, then answered the questionnaire and scale including the "General Information Form" and the "Hidden Curriculum Evaluation Scale in Nursing Education". Among all participants who received low, medium and high scores from the scale, those voluntary students to participate received a questionnaire with 14 open-ended questions related to the scale via e-mail that aimed to learn the students' evaluations of the hidden curriculum in depth, in the data collection phase of the HCES-N.

Then, a survey form consisting of open-ended questions was sent to the e-mails of students with low, medium and high scores on the scale. These open-ended questions, created by selecting from the scale items, were asked to determine whether student opinions support the quantitative findings and to obtain students' opinions about the hidden curriculum. Nineteen volunteer students have responded to the survey sent to the students' emails.

General Information Form: This form was created by researchers through literature search in order to collect descriptive information of students[2,25] It consists of 6 questions about student nurses' grade, gender, age, general academic achievement, reason for choosing nursing profession and whether they have knowledge about the hidden curriculum or not.

Hidden Curriculum Evaluation Scale in Nursing Education (HCES-N): The scale for the evaluation of the hidden curriculum in nursing education by nursing students, was developed by Akçakoca & Orgun.[2] It is a five-point Likert type scale and consists of 43 items and 3 sub-dimensions. Each item in the scale is scored between 'always (5)' and 'never (1)'. The 13 items in the scale (items; 13, 18, 20, 34, 35, 36, 37, 38, 39, 40, 41, 42, 43) are reverse scored. The lowest score that can be obtained from the total scale is 43 and the highest score is 215. High scores on the scale are interpreted as the hidden curriculum of the institution is compatible with the official program and develops desired characteristics in students. In the scale, the "School climate" sub-dimension consisted of 21 items (items 1-21) and Cronbach's Alpha value was 0.913; the "Professional attainments" sub-dimension consisted of 12 items (items 22-33) and Cronbach's Alpha value was 0.888; the "Student-teacher-school interaction" sub-dimension consisted of 10 items (items 34-43) and Cronbach's Alpha value was 0.765. The Cronbach alpha reliability coefficient of the scale is 0.91. In this study, the Cronbach's alpha reliability coefficients of the scale were determined to be 0.94 for the total score, 0.87 for the school climate sub-dimension, 0.97 for the professional attainments sub-dimension and 0.91 for the student-teacher-school interaction sub-dimension.

Open-ended Question Form: It consists of 14 statements prepared by the researchers based on the scale items in order to examine students' opinions on the hidden curriculum. The statements in the form are given below. The students were instructed to complete the these given sentences.

1. *I think/do not think that the courses at school respond to the personal development needs of students. Because, …*
2. *I think/do not think that I am satisfied with the education I received at school. Because,…*
3. *I think/do not think that the education I received at school is sufficient for my profession. Because, …*
4. *I think/do not think that there is good cooperation and communication between teaching staff and students at the school. Because,…*

5. *I think/do not think that lecturers/instructors have a positive attitude towards the nursing profession? Because,…*

6. *I feel/do not feel that I am a part of the school during the education I receive at the school. Because,…*

7. *I think/do not think that the rules and regulations at school are applied fairly to everyone. Because,…*

8. *I think/do not think that the lecturers, their attitudes and behaviors are good role models for us. Because,…*

9. *I think/do not think that I have learned to respect the values, beliefs and opinions of people (patients, relatives, other health personnel, etc.) and to communicate well with them during my education at school. Because,…*

10. *I think/do not think that I have learned that professional ethical principles are important in nursing practice. Because,…*

11. *I think/do not think that nursing is a valuable and valid profession in society. Because,…*

12. *I think/do not think that there is gender discrimination in school/clinical practices. Because,…*

13. *I think/do not think that lecturers are more understanding and polite to students they find close to themselves. Because,…*

14. *I think/do not think that there is an oppressive attitude at school. Because,…*

Analysis of Data

Statistical analyses were performed using SPSS 21 version (IBM SPSS Corp., Armonk, NY, USA) statistical software. The differences in hidden curriculum according to participants' demographic characteristics were confirmed via an independent t-test, one-way analysis of variance, and Tukey HSD post hoc test.   Tests of normality of the main variables were performed using the Kolmogorov-Smirnov test and skewness and kurtosis tests. A value of *P<.05* was accepted as the level of significance in all statistical analyses.

Data on open-ended questions about participants' opinions on the hidden curriculum were analyzed using content analysis method, which requires a subjective textual interpretation of the content of the data to be made through a process of systematic classification.[26] The statements were then transcribed by the researchers and a raw data document was created in Microsoft word. The data were analyzed independently by two researchers. The responses "(I think/ do not think" answers) to the statements were presented quantitatively as frequency. The written answers given in the statements were carefully read by the researchers, similar answers were grouped under the same heading and after reaching a consensus,

they were grouped under three headings (school climate, professional attainments, student-teacher interaction) and presented under the frequencies of "I think/ do not think". The results are summarized in Table 3. Some statements of students' opinions are also included in the findings.

Ethical Approval

The study protocol was approved by the Ethics Committee of Ankara University (Decision Date: 25/10/2021, Number: 16/178), and institutional permission was granted. Informed consent was obtained from all students participating in the study. The research conforms to the provisions of the Declaration of Helsinki (as revised in Brazil 2013).

RESULTS

Most participants were women (85.8%) and aged between 21-22 years (46.5%), most students rated their academic achievement as good (56.9%), and the majority of students chose their profession willingly (35.8%). Among the participant students, 70.5% stated that they had no knowledge about the hidden curriculum. Sociodemographic data of the students are presented in Table 1.

Hidden curriculum differed significantly according to sociodemographic characteristics. Accordingly, being female showed a difference in the scale total score (t= 5.495*; P<.001*), school climate (t= 5.395; *P<*.001) and professional attainments (t= 5.150; *P<*.001) sub-dimensions, age variable showed a difference in the scale total score (F= 2.592; *P=.037*) and school climate sub-dimension (F= 2.577; *P=.038*), grade level showed a difference in scale total score (F= 4.888; *P=.002*), school climate (F= 6.091; *P<*.001) and student-teacher-school interaction (F= 4.844; *P=.003*) sub-dimensions, academic achievement showed difference only in the sub-dimension of school climate (F= 3.194; *P=.024*), and the variable of choosing the nursing profession showed difference in all sub-dimensions except for the student-teacher-school interaction sub-dimension and scale total score (F= 0.975; *P=.405*) (*P<.05*). All these findings are presented in Table 1.

The scores of the students regarding the Hidden Curriculum Evaluation Scale in Nursing Education (HCES-N) and its sub-dimensions are given in Table 2. The students' hidden curriculum evaluation scale in nursing education (161.99± 25.30) and the school climate (71.01±12.32) sub-dimension scores were found to be at moderate level, while scores for the professional attainments (48.75±11.09) and student-teacher-school interaction (42.23±8.38) sub-dimensions were found to be at a higher level.

Table 1. Differences in HCES-N and Sub-dimensions According to Sociodemographic Characteristics (n=288)

Characteristics	n (%)	HCES-N Total Mean± Sd†	School climate Mean± Sd†	Professional attainments Mean± Sd†	Student-teacher-school interaction Mean± Sd†
Gender					
Female	247 (85.8)	165.17±23.01	72.53±11.44	50.06±10.22	42.57±8.37
Male	41 (14.2)	142.82±29.97	61.82±13.57	40.82±12.88	40.17±8.23
t (P)		*5,495(<.001)*	*5.395(<.001)*	*5.150(<.001)*	*1.707(.089)*
Age (years)					
18-19 (1)	12 (4.2)	179.50±23.57	79.50±11.26	53.91±6.99	46.08±7.03
19-20 (2)	125 (43.4)	164.56±23.54	72.08±11.60	49.37±10.98	43.09±8.49
21-22 (3)	134 (46.5)	158.80±26.55	69.68±12.86	47.98±11.47	41.13±8.23
23-24 (4)	13 (4.5)	155.76±24.05	66.30±11.29	46.07±10.53	43.38±5.51
25 age and over	4 (1.4)	156.25±24.11	71.50±12.44	48.00±12.35	36.75±15.34
F(P)		*2.592(.037)*	*2.577(.038)*	*1.104(.355)*	*2.059(.086)*
Posthoc Tukey HSD		*1-3(.050)*	*1-2 (.045)*		
			1-3 (.008)		
			1-4(.007)		
Academic level					
1.class (1)	62 (21.5)	173.19±24.02	76.48±11.86	50.37±10.19	45.33±6.95
2.class (2)	70 (24.3)	157.37±25.61	68.90±12.00	46.64±12.28	41.82±9.69
3.class (3)	123 (42.7)	160.91±24.14	70.41±11.74	48.73±11.04	41.76±7.78
4.class (4)	33 (11.5)	156.66±26.94	67.42±13.26	50.24±9.96	39.00±8.57
F(P)		*4.888(.002)*	*6.091(<.001)*	*1.489(.218)*	*4.844(.003)*
Posthoc-TukeyHSD		*1-2 (.004)*	*1-2 (.002)*		*1-2(.070)*
		1-3 (.020)	*1-3 (.007)*		*1-3 (.028)*
		1-4(.021)	*1-4 (.003)*		*1-4 (.002)*
Academic Achievement					
Perfect (1)	49 (17.0)	161.44±25.80	70.89±13.56	49.42±12.12	41.12±8.75
Good (2)	164 (56.9)	164.17±23.87	72.21±11.32	49.73±10.56	42.21±8.38
Medium (3)	68 (23.6)	158.92±27.72	69.41±13.22	46.54±11.24	42.97±8.44
Bad (4)	7 (2.4)	144.57±25.47	59.00±11.28	42.28±11.75	43.28±4.92
F(P)		*1.867(.135)*	*3.194(.024)*	*2.209(.087)*	*0.497(.685)*
Posthoc Tukey HSD			*2-4 (.027)*		
Nursing Profession Selection					
Voluntarily (1)	103 (35.8)	166.77±22.00	72.85±10.64	51.29±9.89	42.63±7.00
Incidentally (2)	28 (9.7)	148.89±28.03	64.21±12.39	43.78±11.17	40.89±9.31
On suggestion (3)	80 (27.8)	161.58±26.35	71.96±13.49	48.33±12.02	41.28±10.12
Other (4)	77 (26.7)	160.77±25.91	70.02±12.42	47.58±10.93	43.16±7.70
F(P)		*3.908(.009)*	*4.052(.008)*	*4.118(.007)*	*0.975(.405)*
Posthoc Tukey HSD		*1-2(.005)*	*1-2 (.005)*	*1-2 (.008)*	
			1-3(.020)		
Hidden Curriculum Information					
Yes (1)	19 (6.6)	169.26±24.36	77.78±12.55	52.42±8.30	39.05±12.66
Partly (2)	66 (22.9)	168.86±23.08	73.80±11.68	51.06±9.16	44.00±7.31
No (3)	203 (70.5)	159.07±25.62	69.46±12.19	47.65±11.72	41.95±8.13
F(P)		*4.678(.010)*	*6.385(.002)*	*3.519(.031)*	*2.986(.052)*
Posthoc Tukey HSD		*2-3 (.017)*	*1-3 (.012)*	*2-3 (.030)*	
			2-3 (.032)		

*P<.05; †Sd: Standard deviation; t: Independent groups t test; ANOVA: Analysis of variance; HCES-N: Hidden Curriculum Evaluation Scale in Nursing Education

Table 2. Descriptive statistics of students' HCES-N and sub-dimensions (n=288)

	Mean± SD	Minimum	Maximum
School climate	71.01±12.32	21.00	105.00
Professional attainments	48.75±11.09	12.00	60.00
Student-teacher-school interaction	42.23±8.38	10.00	50.00
HCES-N total	161.99± 25.30	43.00	215.00

SD: Standard deviation; HCES-N: Hidden Curriculum Evaluation Scale in Nursing

Table 3 shows the students' opinions on the hidden curriculum. This study enabled the students to express their evaluations about the hidden curriculum according to their own views, which in turn provided a deeper understanding for this topic. The important topics/concepts that emerged through the opinions of the students were grouped according to the sub-dimensions of the scale, namely school climate, professional attainments and student-teacher-school interaction, and it was observed that positive opinions were given in all topics. However, in statements such as "meeting individual needs, being satisfied with the education received" in the school climate topic, students frequently expressed the inadequacy of the practical courses and the dissatisfaction they experienced due to this. The students' statements are given in Table 3.

Table 3. Students' Opinions on the Hidden Curriculum

Subheadings	Items	Students' opinions and frequency	
		I think	I do not think
School Climate	1. I think/do not think that the courses at school respond to the personal development needs of students. *	8 *"Knowing health and psychology courses teaches personal development socially and scientifically. Social, cultural and scientific activities are quite sufficient for a student"*	12 *"There is only theoretical knowledge, practical training is insufficient. The number of students is too high and needs are not met. We are not evaluated individually."*
	2. I think I am satisfied/not satisfied with the education I received at school. *	12 *"I can understand and feel the improvement in myself compared to before, the lessons are given the necessary importance"*	8 *"practical training is quite inadequate, course materials are inadequate, inelaborate training, no feedback is given, laboratory practices are inadequate"*
	3. I think/do not think that the education I received at school is professionally adequate. *	14 *"but 9 of them say the practice is inadequate."*	11 *"especially practical training is insufficient."*
	4. I think/do not think that there is good cooperation and communication between teaching staff and students at the school.	12 *"there is the communication at the level it should be, our questions are not left unanswered"*	7 *"lack of physical space and materials, lack of communication, lack of activities"*
	5. I think/do not think that the approach of the lecturers/educators towards the nursing profession is positive.	19 *"they value the profession, it sets a good example for us, it is a structure that values students, there is encouragement for the profession, they love their profession, it is very good, they emphasize that our profession is very important, they adopt professional approaches"*	-
	6. I feel/do not feel that I am a part of the school during the education I receive at the school.	11 *"I love my teachers, I love my friends"*	8 *"Since we coincide with the online education process, there is no joint work"*
	7. I think/do not think that the rules and regulations at school are applied fairly to everyone.	17 *"rules and expectations are explained in advance, I have not encountered any negative situation"*	2 *"even if I apply for something I need, it is not accepted"*

Table 3. Students' Opinions on the Hidden Curriculum (Continued)

Subheadings	Items	Students' opinions and frequency	
		I think	**I do not think**
	8. I think/do not think that the attitudes and behaviors of the lecturers are good role models for us.	17 *"their professional competence, professional approach and love for the profession make them role models."*	2 *"in general, there is an oppressive side to their behavior, there is a lesson-oriented approach"*
Professional attainments	9. I think/do not think that I have learned to respect the values, beliefs and opinions of people (patients, relatives, other health personnel, etc.) and to communicate well with them during my education at school.	18 *"the education I received at school and interacting with different people increased my communication skills and empathy."*	1 *"I learned from the social environment, not from the education I received at school."*
	10. I think/do not think that I have learned that professional ethical principles are important in nursing practice.	18 *"this profession is very sensitive, human health is at stake, health is a very serious field, our work is with people, it is part of our education"*	1 *"This is neglected in clinical settings"*
	11. I think/do not think that nursing is a valuable and valid profession in society.	14 *"because health is a priority and a necessity for everyone, and the nurse has an important position in the protection and promotion of health"*	5 *"because I think that the society is not aware of professional obligations and responsibilities, there is a negative evaluation from the environment, our social image is unfortunately still not at the desired levels"*
Student-teacher-school interaction	12. I think/do not think that there is gender discrimination in school/clinical practices.	3 *"nurses are more lenient towards male students in clinical practice"*	16 *"because there is an individual-oriented approach, I have never seen such a practice"*
	13. I think/do not think that lecturers are more understanding and polite to students they find close to themselves.	7 *"some of our teachers favor students, they talk to them more actively, those who like to attract attention and show their knowledge have always been more popular"*	12 *"their approach is the same towards everyone, I have never seen such an attitude"*
	14. I think/do not think that there is an oppressive attitude at school.	3 *"our ideas are not listened to, different behaviors are not accepted"*	15 *"there are only rules to follow, there is a calm and understanding educational environment"*

*Multiple responses were received.

DISCUSSION

This study was conducted to reveal how students evaluate the hidden curriculum in nursing education. The nursing students who participated in the study stated that the hidden curriculum in their faculties met the compliance of the formal programs and the desired characteristics in learning at above a moderate level. In educational environments, it is stated that the hidden curriculum of the institution and the educational programs should be compatible and at a high level. The high level of this compatibility is a positive factor affecting the professional competence of students.[4,18,20,27] In this study, the fact that the hidden curriculum in the faculties of the students was not found to be at a high level suggests that there are areas that need to be improved in the compatibility of the hidden curriculum with the education programs in faculties. The students' negative answers to the questions related to school climate such as physical structure and inadequacy of clinical practice may have caused students not to perceive the hidden curriculum at a high level. Besides, the fact that the majority of the students in the study stated that they had no knowledge about the hidden curriculum supports this situation. It can be said that students who have knowledge about the hidden curriculum have more positive perceptions of the hidden curriculum. [10,14,28] Similar studies have indicated that nursing students'

perceptions of the hidden curriculum are at a moderate level [29,30] or above a moderate level.[28]

The quality of education received in faculties that are responsible for training professional nurses is a factor that directly affects both the professional satisfaction of nurse candidates and the quality of health services. Therefore, if institutions purposes to improve the quality of its graduates, it should be able to reveal and improve the hidden curriculum of the institution and the factors (such as faculty members' attitude, student interaction, educational environment, institutional culture, academic support) affecting it.[2] Similarly, the nursing students who participated in the study stated the hidden curriculum in their faculties it was determined that school climate was met at a moderate level, while professional attainments and student-teacher-school interaction were met at a higher level. The studies also show that nursing students score at a moderate and above a moderate level on the sub-dimensions of the scale. [28-30] School climate is a concept that includes physical, social and academic dimensions.[31] When the answers given by the students to the open-ended questions are analyzed, the majority of them mentioned the inadequacy of the physical structure and educational materials related to the school climate. It was also observed that students emphasized that the courses did not meet their personal development needs and that their practical training was insufficient. Almost half of the students stated that they did not feel like they were a part of the school due to the fact that their education processes in the last two years coincided with the pandemic (courses were conducted via distance education) and there were no joint activities. These results are important for students to adopt a positive school climate and develop a sense of belonging to their schools. Because, meeting on a common ground, taking responsibility, ensuring student participation and mutual interaction are important elements in the development of the sense of belonging.

There are different evaluations by a limited number of quantitative studies conducted with nursing students in the literature.[5,29] This may be due to the differences in the socio-cultural structure of the faculties. Because, many variables such as the behaviors, approaches, beliefs, value judgments of educators and administrators, school climate, academic and social life, discipline and functioning of the school affect the hidden curriculum.[4,5] Since these variables differ across universities, the hidden curriculum may vary according to each institution. It is natural to have these differences, the important thing is to help students, who will have a nursing profession, to graduate from their

faculties as professional nurses in accordance with their professional roles. In this context, revealing the hidden curriculum is important for improving professionalism.[14,18] The majority of the students stated that they received ethical principles, which are important elements of professional acquisitions, at an adequate level during the education process and that the educators exhibited professional attitude. It is thought that the role model behaviors of the educators in the adoption of professional achievements positively affect the professional achievements of the students. Although most of the students considered the education and professional acquisitions they received at school to be sufficient, they stated that they felt inadequate especially in clinical practice and that they did not have the chance to observe the subjects taught theoretically or apply them in the laboratory. It is thought that this result may be related to the fact that especially 2nd, 3rd, and 4th grade students could not participate in clinical practices for sufficient time due to the pandemic.

It is known that the hidden curriculum is as effective as the planned program in the formation of professional characteristics. Joynt et al.[32] highlighted a discrepancy between the knowledge imparted by the formal curriculum and the perceptions shaped by the hidden curriculum. They suggested that strategies should be developed to effectively manage the hidden curriculum.[32] Therefore, the nursing education process should be considered as a whole and should not only focus on a planned formal program. In this study, most of the students stated that the education they received at school increased their communication and empathy skills, and that ethical principles are a part of nursing education. However, one student reported that ethical principles were neglected in clinics. It is stated that professional values learned at school may change under the influence of many factors in professional life.[22] In this study, the hidden curriculum was evaluated only on a school basis. However, clinical observations and the behaviors of health professionals whom they identify as role models are also important in the formation of students' professional values.[21,33] If theoretical knowledge is not clearly reflected in clinical practice, this creates an incompatibility between what is taught and what is observed, which may negatively affect the professional preparation of nursing students.[21,34]

In this study, it was found that female students' perceptions of hidden curriculum in the total scale score and in the sub-dimensions of school climate and professional achievements were significantly higher than

male students. In a study in the literature, it was reported that female students' perceptions of only professional gains were higher than male students. [29] Another study found that there was a relationship between both the total scale score and the student-teacher-school interaction sub-dimension and gender.[28] Studies in the literature showing that male students have lower professional attitudes and behaviors [25,35,36] support the results of this study. The patriarchal structure of the society, the social perception that nursing is a female profession[37] and the majority of the educators being women may have affected male students' perceptions of professionalism. In particular, the fact that the hidden curriculum is effective in the development of moral and ethical values,[11,38] suggests that this result is a finding that educators should take precautions.

The study found that students aged 18-19 had significantly higher total scale scores and perceptions of the hidden curriculum in the school climate sub-dimension compared to other age groups. This suggests that younger nursing students, particularly those aged 18-19, tend to have a more positive perception of the hidden curriculum. The limited educational experiences of younger students may indicate that they possess a less critical perspective. Additionally, differences in sample sizes between the groups may also influence this situation.

According to the total scale and the sub-dimensions of school climate and student-teacher-school interaction, 1st grade students' perceptions of hidden curriculum were significantly higher than 4th grade students' perceptions of hidden curriculum. This situation can be interpreted as the 1st grade students' perceptions of the hidden curriculum were more positive. Orgun et al.[5] , unlike the results of this study, found that 4th grade nursing students' perceptions of hidden curriculum were higher.[5] In fact, the literature suggests that the perception of school climate may become more positive as students become accustomed to the school and its culture.[29] The effect of this difference may have been due to the fact that at the time of the study, students received their education through distance education under pandemic conditions. As a result, during the pandemic, students were away from their faculties, school climate and educator interaction. In addition, nursing education is carried out in both classroom and clinical settings. Students may be influenced by the faculty members, nurses who support clinical education, administrators and student nurses whom they take as role models,[4,33] during their education. These effects may be positive or negative on their professional behaviors, attitudes in professional practices, perceptions of the profession and professional socialization.[2,6,10,18,19] For this reason, the influence of the culture of the environment in

which students are trained in the clinic is also important, besides the influence of the faculty lecturers they take courses from. The majority of the students stated that the professional competencies, professional approaches and love for the profession of the lecturers were effective in making them role models. Students are more inclined to learn by modeling what they experience or observe from their educators. In general, this is a very effective learning method, but a concern arises when the modeled actions run counter to the intended learning goals and negatively impact students' development.[12] Sharing the faculty cultures and expectations of the educators in cooperation with the administration where students conduct practice and reinforcing this interaction with planned trainings can be significantly effective for nursing students. Understanding the importance and effects of the hidden curriculum by educators is of great importance in terms of structuring and supporting learning-teaching processes and controlling the elements that may cause negative inputs for students.[39]

In this study, it was determined that there was a significant difference in the school climate sub-dimension with respect to the academic achievement variable. It is observed that the school climate perception of the students who evaluate their academic achievement as poor is lower than the students who evaluate their academic achievement as good and excellent. School climate is an important concept that affects students' learning levels as well as their social and emotional development. The necessary rules, values and exemplary behaviors for students to be successful are transferred to students through the hidden curriculum.[21,27,40] In the literature, it was found that there was a significant positive relationship between school climate and academic achievement. [29,41,42] Accordingly, it can be said that students who evaluate their academic achievement as poor have more negative perceptions of hidden curriculum. In addition, students who perceive the school climate as good have a positive sense of belonging to the school [43]. Students' sense of belonging to the school can encourage them to perform at their maximum to achieve the desired academic performance.[44]

The total scale, school climate, and professional attainments sub-dimensions score of the students who chose the nursing profession willingly were found to be significantly higher than the students who chose the nursing profession by chance and suggestion. While Kıskaç et al.[28], Yanmış and Özcan[29] and obtained similar findings in their studies, Şimşek et al.[30] found no relationship in their research.[28-30] Choosing a profession willingly may have an impact on the student's awareness of the profession and its

values, and on the development of a sense of belonging to the school. Min et al.[45] found that students' satisfaction levels have an impact on their professional attitudes.[45] As a result, it is expected that a student with a positive attitude about his/her profession would also have positive perceptions about the educational institution[5]. In this study, it was observed that while the majority of the students expressed nursing as a valuable and valid profession, some of them stated that the society was not aware of professional obligations and responsibilities, that the environment had negative evaluations, and that its social image was still not at the desired level. It could be said that the university where the study was implemented has cultural diversity because it is located in a central location and has students from many different regions. This result is thought to be due to the cultural differences of the students.

Limitations

Nursing education is a process that takes place in classroom and clinical settings. Students gain ethical competence and form their professional identity by observing knowledge, socialization and model behavior in educational environments. In this context, the content of the hidden curriculum should be evaluated according to all groups such as peers, educators, clinical nurses in the clinical settings where the education takes place, with whom the student interacts throughout nursing education. One of the limitations of the study is that the evaluation was made only at the school level and according to the perceptions of the students. The second limitation of the study is that it is limited by nursing students in one institution, hence it includes the opinions of nursing students in only one university.

As a result of the study, it was found that nursing students' general and school climate perceptions of the hidden curriculum of their faculties were at a moderate to above moderate level, while their perceptions of professional attainments and student-teacher-school interaction were at higher level. This result shows that the hidden curriculum of the faculty is compatible with the formal curriculum and is effective at an above-average in providing students with the desired characteristics. It was also concluded that being female, the younger, choosing the profession willingly, being in the first grade, and awareness of the hidden curriculum increased the perception of the hidden curriculum.

If an institution providing nursing education purposes to improve the quality of its graduates, it should be able to reveal and improve the hidden curriculum of the institution

and the factors affecting it.[2] It is crucial that institutions and educators harness the potential of the hidden curriculum to positively influence students' professional identity development and patient care. In this context, it is recommended that institutions and educators be aware of their own hidden curricula and pay attention to the role of the hidden curriculum in the formation of professional values, norms and behaviors. Besides, the fact that the hidden curriculum differs according to gender, age and career preferences shows that more research is needed in these areas.

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