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The Effect of the History of Nursing Course on Students' Knowledge of Nursing History and Critical Thinking Dispositions: A Quasi Experimental Study

Hemşirelik Tarihi Dersinin Öğrencilerin Hemşirelik Tarihi Bilgisine ve Eleştirel Düşünme Eğilimine Etkisi: Yarı Deneysel Bir Çalışma

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ABSTRACT

The history of nursing course promotes occupational commitment and helps students think strategically about their career paths and develop critical thinking dispositions. This paper investigated the effect of the history of nursing course on students' knowledge of nursing history and critical thinking dispositions. The study adopted a one-group pretest-posttest quasi-experimental design. The sample consisted of 77 third-year students from the nursing department of the faculty of health sciences of a university in the 2019-2020 academic years. All participants took the history of nursing course and volunteered to participate in the study. Data were collected using a demographic characteristics questionnaire, the Nursing History Information Questionnaire Form (NHIQF), and the California Critical Thinking Dispositions Inventory (CCTDI). Number, percentage, mean (minimum, maximum) were used for descriptive statistics. The data were analyzed using the Wilcoxon test, Mann-Whitney U test, Paired sample t-test, and One Way ANOVA test. Participants (67 women and ten men) had a mean age of 20.45 ± 0.86. They had a significantly higher mean posttest NHIQF score (18.19±2.8) than the pretest score (15.28±2.39) (p<0.05). There was no statistically significant difference between pretest (218.76±22.01) and posttest (219.71±21.82) CCTDI scores (p>0.05). Participants' posttest CCTDI scores differed by "parenting style," "conscious choice to pursue a career in nursing," and "loving the nursing profession" (p<0.05). Participants had significantly higher posttest NHIQF scores than pretest scores. They had higher posttest CCTDI "self-confidence" subscale scores than pretest scores. We recommend that academics use different methods to deliver lectures on the history of nursing.

Keywords: Nursing students, History, Knowledge, Critical thinking, Nursing education

ÖZET

Hemşirelik tarihi dersi öğrencilerin mesleğe bağlılığını pekiştirmede, geleceklere yön vermede ve eleştirel düşünme düzeylerini geliştirmede önemlidir. Bu araştırma hemşirelik tarihi dersinin öğrencilerin hemşirelik tarihi bilgisine ve eleştirel düşünme eğilimine etkisinin belirlenmesi amacıyla yapılmıştır. Araştırma ön test-son test tek grupta yarı deneysel bir çalışma olarak yapılmıştır. Arştırmanın örneklemini bir üniversitenin sağlık bilimleri fakültesi hemşirelik bölümünde, 2019-2020 öğretim yılında Hemşirelikte Tarih dersi alan, 3. sınıfta öğrenim gören ve araştırmaya katılmayı kabul eden 77 öğrenci oluşturmuştur. Veriler, Tanıtıcı özellikler formu, Hemşirelik tarihi bilgi soruları formu ve Kaliforniya Eleştirel Düşünme Eğilimleri Ölçeği kullanılarak toplanmıştır. Verilerin değerlendirilmesinde sayı, yüzdelik hesaplaması, ortalama ölçüleri (minimum, maksimum) Wilcoxon testleri, Mann-Whitney U testi, Paired sample t testi ve One Way ANOVA testi kullanılmıştır. Araştırmaya katılan öğrencilerin yaş ortalaması 20.45 ± 0.86 olup %87'si kadındır. Öğrencilerin tarih bilgi puan ortalaması ders öncesi 15.28±2.39, ders sonrası 18.19±2.81 olup puan ortalamaları arasındaki fark istatistiksel olarak anlamlı bulunmuştur (p<0.05). Öğrencilerin eleştirel düşünme puan ortalamaları ders öncesi 218.76±22.01, ders sonrası 219.71±21.82 olup puan ortalamaları arasındaki fark istatistiksel olarak anlamlı olmadığı belirlenmiştir (p>0.05). Öğrencilerin aile tutumu, mesleği isteyerek seçme durumu, mesleğini sevme durumu arasında eğitim sonrası eleştirel düşünme eğilimleri arasında istatistiksel olarak anlamlı farklılık olduğu belirlenmiştir (p<0.05). Araştırma sonucunda öğrencilerinin hemşirelik tarihi dersi aldıktan sonra tarih bilgi puanlarının ders öncesine göre anlamlı olarak arttığı belirlenmiştir. Bu çalışmada öğrencilerin tarih dersi sonrası Kaliforniya Eleştirel Düşünme Eğilimleri Ölçeğinin sadece kendine güven alt ölçeği puan ortalamaları arasındaki farkın anlamlı olduğu belirlenmiştir. Çalışma sonucunda hemşirelik tarihi derslerinin öğrencilere farklı öğretim yöntemleri kullanılarak anlatılması önerilmektedir.

Anahtar kelimeler: Hemşirelik öğrencileri, Tarih, Bilgi, Eleştirel düşünme, Hemşirelik eğitimi

1. INTRODUCTION

Nursing is a discipline of healthcare based on scientific knowledge and practical skills (Duruk, 2021). Healthcare is a fundamental human right. The quality of healthcare depends on nursing education. Nursing education aims to turn nursing students into capable nurses who know the history of their profession and have mastery over nursing skills (Palandöken et al., 2021). History is the examination of events from the past to the present (Egenes, 2017). All professions, including nursing, have undergone dramatic transformations throughout history. Therefore, knowing the history of a profession helps us understand its social power and cope with related problems. We need to see the change that nursing has undergone throughout history in order to better understand its current status (Gören and Yalım, 2016; McAllister et al., 2010; Yurttaş, 2021).

Nursing has always been riddled with role pressures, fragmentation, and dissatisfaction. Therefore, learning about the history of nursing can help students develop self-efficacy, autonomy, and professional identity



(McAllister et al., 2010). Students who know the history of nursing are also more likely to develop positive attitudes towards the profession and perform clinical care interventions accurately (Holme, 2015). The history of nursing can shed light on the present situation and allow us to identify current educational needs, application areas, and new roles. It can also provide nursing students with a detailed review of how and why the profession evolved throughout history and what consequences those changes have for how the profession is perceived and understood today (Craven et al., 2017). Although nursing education improves every day, it focuses very little on the history of the profession (Madsen, 2008; Patricia et al., 2010). However, the history of the profession should be an indispensable part of nursing education. Various undergraduate courses address the history of nursing within the scope of their curricula, but some nursing students must take the history of nursing course, which has been included in undergraduate curriculum to achieve two goals. The first one is to make sure that students learn to look at the profession from a historical perspective, understand how the past shapes the present, and develop a professional identity. The second one is to allow them to get a sense of the why and how of the profession and develop critical thinking skills and put them into practice to analyze events and people (Madsen, 2008). D'Antonio (2006) argues that nurses who know the history of nursing can develop the critical thinking skills they need to make difficult clinical decisions. Moreover, history courses help students develop analytical and critical thinking dispositions (Torun, 2019). Critical thinking skills are of paramount significance for professional development in applied professions, such as nursing.

Critical thinking is defined as a mental process by which one takes action after perceiving, analyzing, synthesizing, and evaluating information through observation, experience, and communication (Papathanasiou et al., 2014; Zhang and Chen, 2021). Critical thinking helps nurses make the best decisions in the face of clinical problems, establish autonomy and authority, and develop a professional identity (Dehghanzadeh and Jafaraghaee, 2018; McAllister et al., 2010; Moghimi et al., 2019). Critical thinking directly affects clinical care quality. Given advances in healthcare and technology, critical thinking is an indispensable part of optimal care and clinical decision-making. Critical thinking skills promote personal development and help nurses move their profession forward by upgrading nursing practices and improving the quality of public healthcare. Research shows that critical thinking plays a crucial role in professional development, autonomy, and empowerment (Alfaro, 2013; Dikmen and Usta, 2013; Lunney, 2013).

Kataoka-Yahiro and Saylor (1994), who stated that critical thinking has an important role in nurses' independent decision making, developed a critical thinking model consisting of five dimensions for nursing decisions. According to the model, these dimensions are professional knowledge, nursing experience, critical thinking competence, attitudes required for critical thinking, and critical thinking standards that form the basis of nursing (Kataoka-Yahiro & Saylor, 1994). The use of especially professional knowledge and nursing experience dimensions is facilitated by knowing the history of nursing, which helps to understand the development process of the profession (McAllister et al., 2010). Nurses who are informed about the history of their profession can better adapt to novel situations and find better solutions to practical, educational, administrative, and intellectual problems.

Nurses who know the history of nursing can learn from the past, undertake in-depth academic endeavors, construct their professional identities in response to the meanings they attach to professionalism, and overcome obstacles and find the strength to deal with the challenges of today and tomorrow (Holme, 2015). Although some studies address critical thinking dispositions in nursing students (Kanbay and Okanlı, 2017; Lee et al., 2013; Naber and Wyatt, 2014; Weatherspoon et al., 2013), there is no published research investigating the effect of the knowledge of the history of nursing on critical thinking dispositions in nursing students. Therefore, the study was conducted to investigate the effect of the history of nursing course on nursing students' critical thinking dispositions and knowledge of nursing history.

1.1. Research questions

- ✓ What pretest and posttest NHIQF scores do participants have?
- ✓ What pretest and posttest CCTDI scores do participants have?
- ✓ Do participants' NHIQF and CCTDI scores differ by demographic characteristics?

2. METHODS

2.1. Design

The study adopted a one-group pretest-posttest quasi-experimental design. The intervention was taking the history of nursing course. Data were collected using a demographic characteristics questionnaire (DCQ), the

Nursing History Information Questionnaire Form (NHIQF), and the California Critical Thinking Dispositions Inventory (CCTDI).

2.2. Samples and Settings

The study population consisted of 100 third-year fifth-semester students from the nursing department of the faculty of health sciences of a university in the 2019-2020 academic year. The sample consisted of 77 students who took the history of nursing course and volunteered to participate in the study. The participation rate was 77%. In the study, students who were absent from the course (5 students) and did not attend the post-test (18) were excluded from the sample.

Criteria for students to be included in the study:

- ✓ Volunteering to participate in the research.

Exclusion criteria:

- ✓ Not participating in the final test.

2.3. Measures

The data of the research were collected with Descriptive Features Form (DCQ), Nursing History Information Questionnaire Form (NHIQF), and California Critical Thinking Dispositions Inventory (CCTDI).

The demographic characteristics questionnaire was based on a literature review conducted by the researchers (Torun, 2019; Çelik et al., 2015; McAllister et al., 2010).

Nursing History Information Questionnaire Form: In the study, nursing history information questions prepared by Alkan (2019) by taking expert opinions were used with the permission of the authors (Alkan, 2019). The form consists of 26 (15 right and 11 wrong) statements. Participants are asked to mark the statements as "right" or "wrong." Right answers are scored "1," and wrong answers are scored "0." The total score ranges from 0 to 26.

California Critical Thinking Dispositions Inventory: The California Critical Thinking Dispositions Inventory was a product of the Delphi Project by the American Philosophical Association (1990). The inventory was adapted to Turkish as a scale by Kökdemir (2003). The CCTDI-TR consists of 51 items scored on a six-point Likert-type scale, ranging from 1 (strongly agree) to 6 (strongly disagree) (<240 = low; 240 to 300 = moderate; > 300 = high critical thinking dispositions). The CCTDI-TR has six subscales: analyticity, open-mindedness, inquisitiveness, self-confidence, truth-seeking, and systematicity. The CCTDI-TR has a Cronbach's alpha of 0.88 (Kökdemir, 2003). In the present study, the scale had a pretest and posttest Cronbach's alpha of 0.86 and 0.81, respectively.

2.4. Data Collection and Analysis

The data were collected between September and December 2019. Participants filled out the DCQ, NHIQF, and CCTDI (pretest) on the first day of the "History of Nursing, Deontology, and Ethics" course. It is a compulsory course offered by the undergraduate nursing program three hours a week in the fall semester of the third year. It covers the evolution of nursing from the Middle Ages to the present day in Turkey and the world and addresses issues related to laws, regulations, deontology, and ethics. The goal of the course is to teach students the history of nursing and help them understand its role in personal and professional life and develop critical thinking skills. The course was conducted by the first author in the study. It involves different teaching methods, such as theoretical lectures, case analyses, Q&A question-answer, and discussion sessions. After the topics were covered each week, group work was carried out. Participants filled out the NHIQF and CCTDI (posttest) at the end of the fall semester. The researchers assigned a code to the pretest and posttest forms of each participant. Data collection took 15-20 minutes.

The data were analyzed using the Statistical Package For Social Sciences (SPSS for Windows, v. 18.0). Number, percentage, mean (minimum, maximum) were used for descriptive statistics. The data were analyzed using the Wilcoxon test, Mann-Whitney U test, Paired sample t-test, and One Way ANOVA test.

2.5. Ethical Considerations

The study was approved by a Non-Interventional Research Ethics Committee (Decision No: 2020.01.24). All students were informed of the research purpose and procedure, and verbal consent was obtained from those who agreed to participate.

3. RESULTS

Table 1 shows the participants' demographic characteristics. Participants (67 women and ten men) had a mean age of 20.45 ± 0.86 . The majority of the participants (87%) loved the nursing profession. Most participants (74%) had parents with accepting, reassuring, and democratic styles of parenting. Most participants (74%) read regularly. Less than half the participants (37.7%) sometimes kept up with scientific publications on nursing. More than half the participants (58.4%) sometimes participated in scientific activities on nursing. Almost all participants (97.4%) believed that critical thinking was important for the nursing profession. The majority of the participants (83.3%) had been informed of critical thinking before.

Table 1. Demographic Characteristics (n=77)

Demographic Characteristics	n	%
Age (years)	20.45 ± 0.86	Min: 19 Max: 24
Gender		
Woman	67	87.0
Man	10	13.0
Parenting Style		
Accepting, reassuring, and democratic	57	74.0
Overprotective	15	19.5
Authoritarian and rejecting	3	3.9
Lenient	2	2.6
A conscious choice to pursue a career in nursing		
Yes	57	74.0
No	20	26.0
Loving the nursing profession		
Yes	67	87.0
No	10	13.0
Reading habit		
Yes	57	74.0
No	20	26.0
Participating in scientific activities on nursing		
Always	2	2.6
Sometimes	45	58.4
Never	30	39.0
Keeping up with scientific publications on nursing		
Always	2	2.6
Sometimes	29	37.7
Never	46	59.7
Importance of critical thinking in the nursing profession		
Yes	75	97.4
No	2	2.6
Having been informed of critical thinking		
Yes	68	88.3
No	9	11.7

Table 2 shows the participants' NHIQF and CCTDI pretest and posttest scores. They had a significantly higher mean posttest NHIQF score (18.19 ± 2.8) than the pretest score (15.28 ± 2.39) ($p < 0.05$) ($p < 0.05$). There was no statistically significant difference between pretest (218.76 ± 22.01) and posttest (219.71 ± 21.82) CCTDI scores ($p > 0.05$). They had a significantly higher mean posttest NHIQF "self-confidence" subscale score (29.07 ± 4.24) than the pretest score (28.05 ± 4.22) ($p < 0.05$) (Table 2).

Table 2. NHIQF and CCTDI Pretest and Posttest Scores (n=77)

Scale	Pretest			Posttest			Statistical Evaluation	
	$\bar{X} \pm SD$	Min.	Max.	$\bar{X} \pm SD$	Min.	Max.		
NHIQF total score	15.28±2.39	9.00	21.00	18.19±2.81	12.00	24.00	Z=-5.798 p=0.000	
CCTDI total score	218.76±22.01	151.00	273.00	219.71±21.82	173.00	277.00	Z= -1.117 P= 0.264	
CCTDI Subscores	Analyticity	52.06±5.51	34.00	66.00	51.98±5.35	33.00	64.00	Z=-0.898 p=0.369
	Open-mindedness	53.31±7.44	29.00	71.00	53.09±8.28	32.00	72.00	Z= -0.359 P=0.720
	Inquisitiveness	34.35±5.46	19.00	46.00	34.70±4.86	24.00	48.00	Z=-1.031 p=0.303
	Self-confidence	28.05±4.22	12.00	39.00	29.07±4.24	18.00	38.00	Z= -2.498 p=0.012
	Truth-seeking	26.24±5.55	16.00	39.00	25.80±4.76	15.00	36.00	Z=-1.073 p=0.283
	Systematicity	24.74±3.91	13.00	35.00	25.05±3.99	15.00	36.00	Z= -.999 P=0.318

* Two-group dependent variable (Wilcoxon Test, Paired t-test) method was used.

Table 3 shows the distribution of CCTDI and NHIQF scores by some descriptive characteristics. Participants with lenient parents had significantly higher posttest CCTDI scores than others ($p < 0.05$). Participants who

consciously chose to pursue careers in nursing had significantly higher pretest and posttest CCTDI scores than those who did not ($p<0.05$). Participants who loved the nursing profession had significantly higher posttest CCTDI scores than those who did not ($p<0.05$).

Table 3. Distribution of CCTDI and NHIQF Scores by Some Descriptive Characteristics (n=77)

Descriptive Characteristics	CCTDI Pretest	CCTDI Posttest	NHIQF Pretest	NHIQF Posttest
Parenting style				
Accepting, reassuring, and democratic	220.43±21.27	221.12±21.54	15.28±2.22	18.35±2.90
Overprotective	217.26±25.32	218.60±20.52	15.80±2.73	17.73±2.76
Authoritarian and rejecting	195.66±12.58	187.00±3.60	12.66±3.51	18.00±3.00
Lenient	217.00±19.79	237.00±18.38	15.50±2.12	17.50±0.70
Statistical evaluation	F=1.251 p=0.298	F=2.972 p=0.037	F=1.458 p=0.233	F=.231 p=0.875
A conscious choice to pursue a career in nursing				
Yes	221.73±22.91	222.91±21.44	15.36±2.45	18.10±2.91
No	210.30±17.00	210.60±20.78	15.05±2.25	18.45±2.54
Statistical evaluation	t=2.040 p=0.045	t=2.227 p=00.029	t=0.509 p=0.612	t=-0.469 p=0.641
Loving the nursing profession				
Yes	219.43±21.58	221.61±21.14	15.32±2.53	18.28±2.83
No	214.30±25.49	207.00±23.17	15.00±1.15	17.60±2.75
Statistical evaluation	t=0.685 p=0.495	t=2.014 p=0.048	t=0.686 p=0.499	t=0.714 p=0.477

4. DISCUSSION

Critical thinking is essential for nurses. Research shows that nurses who are knowledgeable about the history of nursing have higher critical thinking skills (D'Antonio, 2006; Holme, 2015). Such nurses are better at using critical thinking skills to put their professional knowledge and experience into practice, adapting to novel situations, and making practical, educational, administrative, and intellectual decisions. This paper looked into the impact of the history of nursing course on students' knowledge of nursing history and critical thinking dispositions and discussed the results with references to the literature.

Participants had significantly higher posttest NHIQF scores than the pretest scores (Table 2), indicating that the history of nursing course improved their knowledge of the history of nursing. This result suggests that the history of nursing course should be integrated into undergraduate nursing programs to make sure that nursing students learn about how their profession has evolved throughout history. As put by McAllister et al. (2010) and Madsen (2008), courses on the history of nursing turn students into equipped professionals who can understand the development of nursing, explore the impact of the past on the present, and cope with problems. Alkan (2019) reported that nurses (n=402) had low NHIQF scores. Palandöken et al. (2021) conducted a phenomenological study with first-year nursing students and found that those who learned about the history of nursing were more likely to approach the profession from an innovative perspective and develop professional commitment. Scientific knowledge and the history of the profession go hand in hand to transform students into nurses with a firm professional identity. Nurses who know the history of their profession can make the right choices and plans for the future of the profession (McAllister et al., 2010; Palandöken et al., 2021). Only a handful of undergraduate courses cover the history of nursing from the earliest times to the present day. Besides, the number of class hours allocated for teaching the history of nursing are often too few (McAllister et al., 2010; Palandöken et al., 2021). McAllister et al. (2010) examined the curricula of 36 universities in Australia and concluded that the undergraduate education on the history of nursing was far from enough. Torun (2019) determined that only four out of ten nursing education institutions in Turkey offered courses on the history of nursing. Students who know the history of nursing are more likely to develop themselves professionally and do their best to fulfill the requirements of their profession (Palandöken et al., 2021).

Participants had higher posttest CCTDI scores than the pretest scores, but the total score was "low" (Table 2). Studies also report low critical thinking levels in nursing students (Hunter et al., 2014; Kim et al., 2014; Paul, 2014; Zhang and Lambert, 2008). Participants had significantly higher posttest CCTDI "self-confidence" subscale scores than the pretest scores (Table 2). It is pleasing that participants had higher self-confidence scores after taking the history of nursing course because it shows that the course boosts their self-confidence. Nurses must have self-confidence in their own decisions in clinical settings. Our participants' critical thinking dispositions were lower than expected, probably due to three reasons: (1) history is a vast subject, (2) classrooms are overcrowded, and (3) the course is only three hours of class per week. Besides, it takes students a long time to develop critical thinking skills. The process goes on even after graduation and is affected by

numerous factors. Chan (2013) asserts that educators, the education system, and the environment affect the development of critical thinking skills. Students are supposed to have fully developed critical thinking dispositions after they graduate. One of the goals of undergraduate nursing education should be to help students develop critical thinking skills. History classes also allow students to develop critical and versatile thinking skills (Demircioğlu and Tokdemir, 2008; Torun, 2019). Nurses who know the history of their profession are likely to have higher levels of critical thinking dispositions and a more robust understanding of past knowledge and experiences when making complex clinical decisions. Therefore, nursing curricula should definitely address the history of nursing (D'Antonio, 2006; Holme, 2015). D'Antonio points out that history can help nurses develop the critical thinking skills they need to make complex clinical decisions. Nursing students who learn about the history of their profession can develop critical thinking skills and professional commitment and take the initiative to invest in their careers on their own (McAllister et al. 2010, Nelson, 2002; Palandöken et al., 2021; Roberts, 2006). Critical thinking is an important concept in nursing and a high-level and long-term educational goal. Therefore, nursing curricula should be designed in a way that they help students acquire critical thinking dispositions throughout their undergraduate years (Azizi-Fini et al., 2015)

Participants who consciously chose to pursue careers in nursing had significantly higher pretest and posttest CCTDI scores than those who did not. Participants who loved the nursing profession had significantly higher posttest CCTDI scores than those who did not (Table 3). These results suggest that nursing students with positive feelings about the nursing profession are more motivated to develop critical thinking dispositions. On the other hand, Çelik et al. (2015) did not detect any significant difference in CCTDI scores between nursing students who consciously chose to pursue careers in nursing and those who did not (n=323).

Participants with lenient parents had significantly higher posttest CCTDI scores than others ($p < 0.05$). In line with this result, considering that it is a long process for students to acquire critical thinking, we can say that it contributes and affects the development of critical thinking skills, in which family structure is also important. Similarly, İskender and Karadağ (2015) found that fourth-year nursing students (n=553) with lenient parents had significantly higher posttest CCTDI scores than others.

All courses should integrate activities tailored to critical thinking. Undergraduate education should teach nursing students the history of their profession and encourage them to think critically in order to ensure patient safety and quality care in the future. Therefore, educators should revise undergraduate nursing curricula to that end.

4.1. Limitation

The use of a classical method in the teaching method in this study may be a limitation in the development of critical thinking. It is restricted to third-year students studying at a university in Turkey and enrolled in nursing education.

5. CONCLUSION

Participants had higher NHIQF scores after they took the history of nursing course. They also had higher CCTDI total score and "self-confidence" and "systematicity" subscale scores after taking the history of nursing course. However, the only significant difference was between the pretest and posttest "self-confidence" subscale scores. Participants who consciously chose to pursue careers in nursing had significantly higher pretest and posttest CCTDI scores than those who did not. Participants who loved the nursing profession had significantly higher posttest CCTDI scores than those who did not. Participants with lenient parents had significantly higher posttest CCTDI scores than others. Instructors should use different methods to deliver nursing history classes to help nursing students develop critical thinking skills. Clinical practices should also be designed in a way to encourage students to develop critical thinking skills.

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