

# Nursing Students' Experienced Ethical Problems in Clinical Practicum and Clinical Self-Regulated Learning Levels: A Cross-Sectional Study

## Hemşirelik Öğrencilerinin Klinik Uygulamada Yaşadıkları Etik Sorunlar ve Klinik Öz-Düzenlemeli Öğrenme Düzeyleri: Kesitsel Bir Çalışma

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**ABSTRACT** During the coronavirus disease-2019 (COVID-19) pandemic, clinical training, which is essential to nursing practice, has been largely delayed. The aim of this study is to identify the predictors of nursing students' experienced ethical problems in clinical practicum and self-regulated learning levels during the COVID-19 pandemic. The sample of this cross-sectional study consisted of 306 nursing students studying in the third and fourth grades of 2 universities located in the east of Türkiye. The data were collected by using a Student Introduction Form, the Scale of Ethical Problems in Clinical Teaching in Nursing, and the Self-Regulated Learning Scale for Clinical Nursing Practices form. The independent sample t-test, one-way ANOVA F test, Pearson correlation test, and multiple regression were used in the analysis of the data. It was determined that there was a positive and moderately significant relationship between the total mean score of the Scale of Ethical Problems in Clinical Teaching in Nursing and the Self-Regulated Learning Scale for Clinical Nursing Practices, total mean score ( $r=509$ ,  $p<0.001$ ). A regression model indicated that 4 predictors (clinical educator, health professionals, learning strategies, and self-regulated learning levels) explained 28% of the variance ( $R=0.516$ , Adjusted  $R^2=0.284$ ,  $F=13.255$ ,  $p<0.001$ ) in their ability to identify ethical problems in clinical practicum. In this study, it was determined that health professionals and self-regulated learning levels positively affected students' ability to identify ethical problems in the clinical practice setting. The level of clinical educator was found to negatively affected students' ability to identify ethical problems in the clinical practice setting.

**Keywords:** COVID-19; clinical practicum; ethics; nursing students; self-regulated learning

**ÖZET** Koronavirüs hastalığı-2019 [coronavirus disease-2019 (COVID-19)] pandemisi sırasında hemşirelik uygulamaları için gerekli olan klinik eğitim büyük ölçüde ertelenmiştir. Bu çalışmanın amacı, pandemi sürecinde hemşirelik öğrencilerinin klinik uygulamada yaşadıkları etik sorunlar ve klinik öz-düzenlemeli öğrenme düzeylerinin yordayıcılarını belirlemektir. Kesitsel tipteki bu araştırmanın örneklemini, Türkiye'nin doğusunda yer alan 2 üniversitenin 3 ve 4. sınıflarında öğrenim gören 306 hemşirelik öğrencisi oluşturdu. Veriler, Öğrenci Tanıtım Formu, Hemşirelikte Klinik Öğretimde Etik Sorunlar Ölçeği ve Klinik Hemşirelik Uygulamalarına Yönelik Öz Düzenlemeli Öğrenme Ölçeği ile toplandı. Verilerin analizinde bağımsız gruplarda t-testi, tek yönlü ANOVA F testi, Pearson korelasyon testi ve çoklu regresyon kullanıldı. Hemşirelikte Klinik Öğretimde Etik Sorunlar Ölçeği toplam puan ortalaması ile Klinik Hemşirelik Uygulamaları İçin Öz-Düzenli Öğrenme Ölçeği toplam puan ortalaması arasında pozitif yönde ve orta düzeyde anlamlı bir ilişki olduğu belirlendi ( $r=509$ ,  $p<0.001$ ). Bir regresyon modeli, 4 yordayıcının (klinik eğitimcisi, sağlık profesyonelleri, öğrenme stratejileri ve öz-düzenlemeli öğrenme düzeyleri) klinik uygulamada etik sorunları saptama yeteneklerindeki varyansın %28'ini açıkladığını göstermiştir ( $R=0.516$ , adjusted  $R^2=0.284$ ,  $F=13.255$ ,  $p<0.001$ ). Bu çalışmada, sağlık profesyonelleri ve öz-düzenlemeli öğrenme düzeylerinin, klinik uygulamada öğrencilerin etik sorunları saptama becerilerini olumlu yönde etkilediği saptandı. Klinik eğitmeni düzeyinin ise klinik uygulamada öğrencilerin etik sorunları saptama becerilerini olumsuz yönde etkilediği saptandı.

**Anahtar Kelimeler:** COVID-19; klinik uygulama; etik; hemşirelik öğrencileri; öz-düzenlemeli öğrenme

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Peer review under responsibility of Türkiye Klinikleri Journal of Medical Ethics, Law and History.

**Received:** 22 Oct 2022

**Received in revised form:** 05 Jan 2023

**Accepted:** 05 Feb 2023

**Available online:** 23 Feb 2023

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The one of ethical problems experienced by nursing students in the clinical practicum process; is the inappropriate treatment experienced of students by lecturers and clinical nurses. This causes students to experience incompatibility between theory and practice due to the lack of professionalism in health.<sup>1-3</sup> Several factors affect learning satisfaction in nursing education: self-regulated learning, educators' presence, interaction, student participation, and self-efficacy.<sup>4</sup>

Zimmerman's theoretical framework describes self-regulated learning as a mental process in which nursing students have control over their learning processes, which aids in behaviour management and facilitates the cognitive, emotional, and motivational aspects of learning.<sup>5-8</sup> This model consists of 3 stages: foresight, performance, and self-reflection. Self-regulated learners effectively set goals during the foresight phase. Self-regulated learners plan strategies to achieve their goals. It manages its resources in the foresight phase. At the performance stage, they try to manage emotions, cognitions, and behaviours to achieve predicted goals. At the stage of self-assessment and self-reflection, whether they have achieved their goals, they change or adapt their goals or strategies for future learning.<sup>9-12</sup> Before clinical practice, educators should teach nursing students the self-regulated learning concepts of pre-reading, planning (preparation and training), time management and organization, engaging with academic skills, having a positive attitude, asking questions, participating in laboratories and training, and self-discipline.<sup>8</sup> However, for these methods to be used effectively, educators and nursing students must take turns being in charge of the learning process.<sup>13</sup>

The degree to which nursing students' ability to recognize ethical issues during their clinical practicum during the coronavirus disease-2019 (COVID-19) pandemic is mediated by their self-regulated learning is not well understood. There has not been much investigation of nursing students' moral sensitivity and ethical awareness during the COVID-19 pandemic. Cho and Jang found that moral sensitivity was the best predictor of motivated and self-regulated learning in the COVID-19 program through their examination of 195 nursing students.<sup>5</sup>

During the COVID-19 pandemic, clinical training, which is essential to nursing practice, has been largely delayed. The ability of nursing students to identify the daily and common ethical problems they experience in clinical practice will help them to better manage their clinical learning processes. Nursing students need to recognize the unique problems students face to develop ethical reasoning and competence in clinical settings, as in classroom-based work. Future competent healthcare workers will be created by students developing self-directed learning skills that enable them to take initiative. The study was conducted to determine the ethical problems and self-regulated learning levels experienced by nursing students during clinical nursing practices and to determine the relationship between them.

## MATERIAL AND METHODS

### DESIGN AND PARTICIPANTS

This is a cross-sectional study consisting of third and fourth-year nursing students (n=402) studying at 2 state universities in Türkiye and doing their internships. With a 5% margin of error and a 95% confidence interval, the study's sample size should consist of at least 197 students. The sample of the study consisted of 306 students selected by the quota sampling method. In quota sampling, participants are selected based on some specific characteristics chosen by the researcher.<sup>14</sup> The rate of participation in the research is 76.1%. Students who are third and fourth-year nursing students who took the "ethics in nursing" course, and took the internship application in the current period were included in the study. Students, who are first and second-year nursing students and did not take the "ethics in nursing" course, were excluded from the study.

### DATA COLLECTION TOOLS

Data were collected utilizing a Student Introduction Form, the Scale of Ethical Problems in Clinical Teaching in Nursing, and the Self-Regulated Learning Scale for Clinical Nursing Practices (SRLS-CNP).

The researchers developed a "Student Introduction Form" that included questions on the students'

sociodemographic characteristics in accordance with pertinent, related studies.<sup>5,15-17</sup>

The Scale of Ethical Problems in Clinical Teaching in Nursing was developed for Turkish society by Kırşan (2019) in line with the literature. The scale can be used to assess the ethical issues that nursing students face during their clinical practicum because it is valid and reliable for this population. It consists of 2 sub-dimensions as “clinical educator” and “health professionals” and a total of 52 items. The scale allows for scores between 180 and 286 points as its minimum and maximum. Between 100 and 171 points are the needed minimum and maximum scores for the clinical educator sub-dimension. The needed minimum and maximum scores for the health professionals sub-dimension are between 103 and 173 points.<sup>16</sup> The Cronbach alpha coefficient of the scale was 0.960, and this was found to be 0.950 in this study.

The SRLS-CNP was developed by Iyama and Maeda (2017) to evaluate the self-regulated learning approaches used by nursing students in clinical practices.<sup>17</sup> The validity and reliability of the Turkish version of the SRLS-CNP were conducted by Şenol in 2018. Although the scale doesn't have a reverse item, the lowest and highest scores that can be acquired from it are between 16 and 80 points. A high score is directly proportional to the student's tendency to use self-regulated learning.<sup>18</sup> The Cronbach alpha coefficient of the scale was 0.890, and this was found to be 0.930 in this study.

#### DATA COLLECTION

Between October 2021-August 2022, data were gathered. When the students were in the hospital for their clinical practicum, the data were gathered there so as not to interfere with their internship. The students were made aware of the aim and scope of the study before data collection began. After selecting the students willing to take part in the study, the researchers gave them the forms. The researchers responded to the participants' inquiries and provided the relevant details. The forms were filled in in 25 minutes and delivered to the researchers. For the students who were absent that day, 25 minutes were given the before internship the next day.

#### ETHICAL CONSIDERATIONS

The study's ethical approval was acquired from Batman University Ethics Committee (date: January 07, 2022, no: 2022/01-06) to conduct the study. Each student who accepted to take part in the study signed a written consent form. The necessary permissions to use the Scale of Ethical Problems in Clinical Teaching in Nursing and the SRLS-CNP were obtained from the scale authors via e-mail. According to the Helsinki Declaration's principles, the current study was carried out.

#### DATA ANALYSIS

Using the SPSS for Windows 25.0 (SPSS version 25.0 Armonk, NY) program, the data were examined. To evaluate the data, descriptive statistical methods such as number, percentage, mean, and standard deviation were used. The Kolmogorov-Smirnov test was used to determine whether the data had a normal distribution. The independent sample t-test, one-way ANOVA F test, and corrected Bonferroni test was used for comparison of score values since the data did show normal distribution. The SRLS-CNP total score averages and the Ethical Problems in Clinical Teaching in Nursing Scale total score averages were compared using Pearson correlation analysis. The ratio of explaining the correlation was calculated using multiple regression analysis. When assessing the results, statistical significance was defined as  $p < 0.05$ .

#### RESULTS

The participants' mean age was 22.55 (SD: 1.82) years, with 88.2% the ages of 21-24. According to the results, 62.1% of the students were female, 56.8% were studying in the third grade and 69.9% were a place of residence in the city. Of 249 (81.3%) nursing students who went into last clinical practicum experience for 8-14 weeks. It was seen that 49.7% of them completed the last practicum clinic process in internal care units. It was found that 16% of the students participating in the study stated that they had problems with the clinical educators and 40.8% stated that they were exposed to mobbing by the clinical educators. It was determined that 34.6% of the students stated that they had problems with the health professionals in the clinic and 25.4% stated that they were

not valued by the health professionals (Table 1). Overall academic grade point average is 2.84 (SD: 0.47).

In this study, while the total score average of the Scale of Ethical Problems in Clinical Teaching in Nursing was 191.23 (13.64); the mean clinical edu-

cator sub-dimension score was 127.66 (27.52) and the health professionals sub-dimension scale mean score was 127.88 (16.52). The mean score of the SRLS-CNP was 51.02 (12.45); the Motivation sub-dimension scale means the score is 22.00 (5.77) and the learning strategies sub-dimension mean score is 29.02 (7.44) (Table 2).

It was found that there was a strong and high correlation between the Scale of Ethical Problems in Clinical Teaching in Nursing and clinical educator and health professionals sub-dimensions point averages of the nursing students participating in the study ( $p<0.001$ ). The increase in the level of education of clinical educators and health professionals increases the level of a strong relationship between the ability of students to identify ethical problems in clinical teaching. It was determined that there was a positive and moderately significant relationship between the total sub-dimension mean scores of The Scale of Ethical Problems in Clinical Teaching in Nursing and the SRLS-CNP total sub-dimension mean scores ( $p<0.001$ ). The increase in the level of education of clinical educators and health professionals increases the level of a strong relationship between motivation and learning strategies. A positive and highly significant correlation was found between the total sub-dimension mean scores of SRLS-CNP ( $p<0.001$ ). It was thought that increasing in motivation and learning strategies levels of nursing students could contribute to increasing the high relationship between clinical self-regulated learning levels (Table 3).

It was determined that multiple regression analysis was performed in this study, when the unstandardized beta coefficient value, t value, and significance level of the independent variable are examined; their ability to identify ethical problems in clinical practicum seems to have a statistically significant effect on self-regulated learning levels ( $t=10.436$ ,  $p<0.001$ ). A regression model indicated that 4 predictors (clinical educator, health professionals, learning strategies, and self-regulated learning) explained 28% of the variance ( $R=0.516$ , adjusted  $R^2=0.284$ ,  $F=13.255$ ,  $p<0.001$ ) in their ability to identify ethical problems in clinical practicum. When the t-test results regarding the significance of the regression coefficient in the regression model are

Variables	Mean (SD)	n	%
Age (years)	22.55 (1.82)		
21-24		270	88.2
≥25		36	11.7
Gender			
Female		190	62.1
Male		116	37.9
Grade			
Third grade		174	56.8
Fourth grade		132	43.1
Place of residence			
City		214	69.9
Town		64	20.9
Village		28	9.2
Last clinical practicum experience			
1-7 weeks		22	7.1
8-14 weeks		249	81.3
≥15 weeks		60	19.6
The last practicum clinic			
Internal care units		152	49.7
Surgical care units		133	43.5
Intensive care units		21	6.9
Having any problems with the clinical educators			
Yes		49	16.0
No		257	83.9
The problems with the clinical educators*			
Mobbing		20	40.8
Underestimate and indifferent		10	20.4
Not clear on the duties, authorities, and responsibilities of the students		10	20.4
Educator was not sufficiently equipped		9	18.3
Having any problems with health professionals			
Yes		106	34.6
No		200	65.3
The problems with health professionals*			
Underestimate and indifferent		42	39.6
Lack of communication		25	23.5
Mobbing		17	16.1
Not clear on the duties, authorities, and responsibilities of the students		12	11.3
Doing paperwork		10	9.4

\*Open-ended questions, participants wrote more than one answer.

**TABLE 2:** Results regarding the distribution of student nurses' mean scale scores.

	Possible	Observed	Mean (SD)	Cronbach's alpha
	Minimum-maximum	Minimum-maximum		
<b>Scale of ethical problems in clinical teaching in nursing</b>				
Clinical educator	100-171	100.00-169.00	127.66 (27.52)	0.945
Health professionals	103-173	100.00-172.00	127.88 (16.52)	0.785
Total	180-286	180.00-281.00	191.23 (13.64)	0.954
<b>SRLS-CNP</b>				
Motivation	7-35	7.00-35.00	22.00 (5.77)	0.866
Learning strategies	9-45	9.00-45.00	29.02 (7.44)	0.914
Total	16-80	16.00-80.00	51.02 (12.45)	0.936

SRLS-CNP: Self-Regulated Learning Scale for Clinical Nursing Practices.

**TABLE 3:** Correlation between scales sub-dimensions and total scores.

Scales	Clinical educator r, p value	Healthcare professional r, p value	Scale of ethical problems in clinical teaching in nursing r, p value	Motivation r, p value	Learning strategies r, p value	SRLS-CNP r, p value
Clinical educator	-	0.775, <0.001*	0.892, <0.001*	0.406, <0.001*	0.461, <0.001*	0.464, <0.001*
Healthcare professional	0.775, <0.001*	-	0.970, <0.001*	0.427, <0.001*	0.505, <0.001*	0.500, <0.001*
Scale of ethical problems in clinical teaching in nursing	0.892, <0.001*	0.970, <0.001*	-	0.438, <0.001*	0.512, <0.001*	0.509, <0.001*
Motivation	0.406, <0.001*	0.427, <0.001*	0.438, <0.001*	-	0.727, <0.001*	0.904, <0.001*
Learning strategies	0.461, <0.001*	0.505, <0.001*	0.512, <0.001*	0.727, <0.001*	-	0.935, <0.001*
SRLS-CNP	0.464, <0.001*	0.500, <0.001*	0.509, <0.001*	0.904, <0.001*	0.935, <0.001*	-

\*r= Pearson correlation test; SRLS-CNP: Self-Regulated Learning Scale for Clinical Nursing Practices.

**TABLE 4:** Multiple regression analysis of the ability to identify ethical problems in clinical teaching of nursing students.

Model	The scale of ethical problems in clinical teaching in nursing				
	B	$\beta$	t	p value	VIF
Clinical educator	-0.107	-0.215	-3.646	<0.001	1.191
Health professionals	0.100	0.121	2.081	0.038	1.151
SRLS-CNP	-0.442	-0.219	10.436	<0.001	2.740
Motivation	-0.145	-0.061	-0.712	0.477	2.523
Learning strategies	-0.370	-0.202	-2.353	<0.001	2.518

R=0.516; Adjusted R<sup>2</sup>=0.284; F=13.255; p=0.000; SRLS-CNP: Self-Regulated Learning Scale for Clinical Nursing Practices.

examined; it can be stated that the increasing in the health professionals (t=2.081; p<0.05) and self-regulated learning (t=10.436, p<0.001) levels statistically increase the student's ability to identify ethical problems in clinical practicum. However, it could be stated that increasing the education level of the clinical educator (t=-3.646, p<0.001) statistically decreases their ability to identify ethical problems in clinical practicum (Table 4).

## DISCUSSION

The results of this study have several implications for nursing students, clinical educators, and health professionals. It was determined that 39.6% of the students were underestimated and indifferent by the health professionals and 20.4% of the students were underestimated and indifferent by the clinical educators (Table 1). The study conducted by Arslan and



Dinç found that unethical for clinical educators to humiliate nursing students in front of patients or staff during a teaching in clinical settings.<sup>19</sup> Disrespectful statements by nurses towards student nurses can cause moral distress in student nurses. Such experiences cause a decrease in motivation among students.<sup>20</sup> The teacher-student relationship is a power relationship based on students' dependence on teachers' professional knowledge, skills, and authority by its nature. Clinical educators and health professionals are required to adopt a respectful attitude so that they can influence students both professionally and personally, and increase students' motivation to learn. 20.4% of the students stated that their duties, authorities, and responsibilities in the clinic were not clear and 18.3% of them stated that the educator was not sufficiently equipped (Table 1). In addition, as regards problems experienced by health professionals in this study, 11.3% of the students stated that their duties, authorities, and responsibilities in the clinic were not clear and 9.4% of them stated that the paperwork was loaded on them (Table 1). The themes of lack of authority, insufficient support, and lack of support and supervision emerged in the qualitative studies conducted with nursing students.<sup>2,21</sup> The research results were found to be compatible with these qualitative studies. Adequate support by clinical educators and health professionals can facilitate students' learning, improve their motivation, develop positive attitudes towards the profession.

Prioritizing the expectations of administrative duties, such as paperwork, may leave students feeling distracted from patient-centered care. Students may think that patient preferences and values are ignored. Moreover, they may think that ethical principles are ignored and they may bring up those patients who are exposed to poor care practices.<sup>22</sup> Therefore, nursing students, health leaders, and clinical educators should come together and clarify the duties, authorities, and responsibilities of the students in the clinic and put them in writing. The fact that duties, authorities, and responsibilities of the students in clinical settings are not clear and this creates problems and causes arbitrary practices.

Students who practice unethical behaviour in the nursing field risk jeopardizing their education and

training, aggravating unethical behaviour, carelessness, and unreliable patient relationships, as well as lowering the standard of nursing care and endangering patient safety.<sup>23</sup> In this research, the average score of the nursing students on the Scale of Ethical Problems in Clinical Teaching in Nursing was found to be  $191.23 \pm 13.64$ . It can be shown that nursing students' ability to identify ethical issues during clinical practicums is not at the intended level and is low given that the lowest score that can be acquired from the scale of ethical difficulties in a nursing clinical practicum is 180. It can be said that the nursing students participating in the study could not identify the ethical problems they experienced in clinical practicum. In this context, it can be thought that there is a gap between the ethical theory taught in university education and the ethics of clinical reality. The studies conducted before the COVID-19 pandemic in the literature were examined, and it was determined that the level of detecting ethical problems in clinical practice of nursing students was moderate.<sup>2,3,22,23</sup> According to Cho and Jang's study from 2022, nursing students had a high level of moral sensitivity during the COVID-19 pandemic.<sup>5</sup> The Cho and Jang study's participants had an average age of 24.04 (5.54); in this study is 22.55 (1.82). According to this study, nursing students' capacity to recognize ethical problems encountered during clinical practicum grows as the average age rises.

An important factor contributing to the quality of clinical education is the teaching performance of trainers and health professionals. The clinical educator sub-dimension mean score of the students participating in the study was  $127.66 \pm 27.52$  and the health professional sub-dimension scale mean score was  $127.88 \pm 16.52$ . The minimum score to be obtained from the clinical trainer sub-dimension should be 100 and the minimum score to be obtained from the health professional sub-dimension should be 103. In this study, it was determined that the range of scores to be taken from the sub-dimensions of the scale was not at the desired level and it was low. The students participating in the study found the clinical practicum performance of clinical educator and health professionals to be low in identifying the source of ethical problems. In Türkiye, there are 18,670 nursing grad-

uates for every 100,000 people, and the number of patients per nurse is 431.<sup>24</sup> The total number of teaching staff working in the nursing departments by the Higher Education Institution in Türkiye in 2021 is 334, and the number of students studying in the nursing department is 23,230. The number of students per educator is 69.5.<sup>25</sup> It is thought that the emergence of this result is due to the workload of both clinical trainers and health professionals. In this situation, we believe that it is up to the students to decide how to acquire ethical problems in clinical practice, what they will learn, and what learning limitations they may have. Students do not get enough support from clinical educators and health professionals, and due to the lack of support, students feel powerless and fall behind the learning.

The total score average of the SRLS-CNP of the students participating in this study was  $51.02 \pm 12.45$ . It is accepted that the lowest score to be taken from the scale is 16 and the highest score is 80, and they can evaluate the self-regulated learning approaches they use in clinical nursing practices. In the study, it was determined that the self-regulated learning levels of nursing students regarding clinical nursing practices were at a moderate level. According to the results of Cho and Jang study, which are consistent with those of this study, nursing students' levels of self-regulated learning regarding clinical nursing practices during the COVID-19 pandemic were moderate.<sup>5</sup> The studies conducted before the COVID-19 pandemic in the literature were examined, it was found that the self-regulated learning levels of nursing students for clinical practice were good.<sup>4,6-13,15,26</sup> The fact that this research was carried out during the COVID-19 pandemic may be the cause of the discrepancy between the results in the literature and the current study results. Several substitute clinical training techniques, including real-time online simulations using Zoom or YouTube (PayPal employee, California, ABD) streaming, have been adopted by academic institutions communities, and hospitals because nursing requires clinical training, which has been significantly hampered by the COVID-19 pandemic.<sup>5</sup> Given that students can choose their learning environment, and learning progress, it may be a significant factor in distance learning.<sup>5</sup>

It was found that the Scale of Ethical Problems in Clinical Teaching in Nursing total mean score and the SRLS-CNP total mean score had a positive and moderately significant association. In this study, 4 factors were found to be effective in their ability to identify ethical problems in clinical practicum. The 4 (clinical educator, health professionals, learning strategies, and self-regulated learning) predictors explained 28% of the variance in their ability to identify ethical problems in clinical practicum. This study showed that the students could not get enough support from the clinical educator and health professionals to determine the source of the ethical problem. Based on multiple regression analysis, the findings of Cho and Jang study demonstrated that moral sensitivity was the strongest determinant of self-regulated learning, and motivation.<sup>5</sup> The variance was 21% explained by these variables.<sup>5</sup>

## CONCLUSION

In this study, the level of being able to detect the ability to identify ethical problems in clinical practicum experienced by nursing students was low. It was determined that the sub-dimensions of health professionals and clinical educators were low. The study found that nursing students' levels of self-regulated learning about clinical nursing practices were at a moderate level. It was determined that the student's learning strategy sub-dimension mean score was higher than the motivation sub-dimension.

Four (clinical educator, healthcare professional, learning strategies, and self-regulated learning) predictors explained 28% of the variance in their ability to identify ethical problems in clinical practicum. The status of the clinical educator negatively affects the student's ability to identify ethical problems in clinical practicum. It could be stated that the students did not receive sufficient support from their clinical educators in determining the source of the ethical problem. It has been concluded that health professionals and self-regulated learning have a positive effect on student's ability to identify ethical problems in clinical practicum. In this context, in-service training should be increased to improve the competencies of health professionals and clinical

educators for their ethical sensitivity. This study suggests conducting qualitative research to deeply understand the factors associated with student's ability to identify ethical problems in clinical practicum.

### Source of Finance

During this study, no financial or spiritual support was received neither from any pharmaceutical company that has a direct connection with the research subject, nor from a company that provides or produces medical instruments and materials which may negatively affect the evaluation process of this study.

### Conflict of Interest

No conflicts of interest between the authors and / or family members of the scientific and medical committee members or members of the potential conflicts of interest, counseling, expertise, working conditions, share holding and similar situations in any firm.

### Authorship Contributions

**Idea/Concept:** Hediye Utli, Mahmut Dinç, Ahmet Bütün; **Design:** Hediye Utli, Mahmut Dinç, Ahmet Bütün; **Control/Supervision:** Hediye Utli; **Data Collection and/or Processing:** Mahmut Dinç; **Analysis and/or Interpretation:** Hediye Utli; **Literature Review:** Hediye Utli; **Writing the Article:** Hediye Utli; **Critical Review:** Ahmet Bütün.

## REFERENCES

- Kırşan M, Akın Korhan E. Hemşirelik öğrencilerinin klinik öğretimde yaşadıkları etik sorun deneyimleri [The ethical problem experiences of nursing students in clinical education: review]. *Türkiye Klinikleri J Med Ethics*. 2017;25(1):20-7. [Crossref]
- Mehdipour Rabori R, Dehghan M, Nematollahi M. Nursing students' ethical challenges in the clinical settings: a mixed-methods study. *Nurs Ethics*. 2019;26(7-8):1983-91. [Crossref] [PubMed]
- Zhang F, Zhao L, Zeng Y, Xu K, Wen X. A comparison of inquiry-oriented teaching and lecture-based approach in nursing ethics education. *Nurse Educ Today*. 2019;79:86-91. [Crossref] [PubMed]
- Yoo L, Jung D. Teaching presence, self-regulated learning and learning satisfaction on distance learning for students in a nursing education program. *Int J Environ Res Public Health*. 2022;19(7):4160. [Crossref] [PubMed] [PMC]
- Cho S, Jang SJ. Nursing students' motivational and self-regulated learning during the COVID-19 pandemic: a cross-sectional study. *Nurs Health Sci*. 2022;24(3):699-707. [Crossref] [PubMed] [PMC]
- Dogu O, Karadas A, Eskin Bacaksiz F. The relationships between self-regulated learning in clinical nursing practice and self-efficacy: a cross-sectional study among nursing students. *Perspect Psychiatr Care*. 2022;58(4):2107-15. [Crossref] [PubMed]
- Hwang Y, Oh J. The relationship between self-directed learning and problem-solving ability: the mediating role of academic self-efficacy and self-regulated learning among nursing students. *Int J Environ Res Public Health*. 2021;18(4):1738. [Crossref] [PubMed] [PMC]
- Kurt E, Eskimez Z. Examining self-regulated learning of nursing students in clinical practice: a descriptive and cross-sectional study. *Nurse Educ Today*. 2022;109:105242. [Crossref] [PubMed]
- Irvine S, Brooks I, Lau R, McKenna L. Self-regulated learning instructional support for students enrolled in an accelerated nursing program. *Collegian*. 2020;27(4):402-9. [Crossref]
- Kim SH. The mediating effect of self-regulated learning on the relationships among emotional intelligence, collaboration, and clinical performance in Korean nursing students. *J Nurs Res*. 2022;30(3):e212. [Crossref] [PubMed]
- Sanaie N, Vasli P, Sedighi L, Sadeghi B. Comparing the effect of lecture and Jigsaw teaching strategies on the nursing students' self-regulated learning and academic motivation: a quasi-experimental study. *Nurse Educ Today*. 2019;79:35-40. [Crossref] [PubMed]
- Zhang JY, Liu YJ, Shu T, Xiang M, Feng ZC. Factors associated with medical students' self-regulated learning and its relationship with clinical performance: a cross-sectional study. *BMC Med Educ*. 2022;22(1):128. [Crossref] [PubMed] [PMC]
- Robb MK. Self-regulated learning: examining the baccalaureate millennial nursing student's approach. *Nurs Educ Perspect*. 2016;37(3):162-4. [Crossref] [PubMed]
- Yadav SK, Singh S, Gupta R. Sampling methods. *Biomedical Statistics: A Beginner's Guide*. 1st ed. Singapore: Springer Singapore; 2019. p.71-83. [Crossref] [PMC]
- Chen JH, Björkman A, Zou JH, Engström M. Self-regulated learning ability, metacognitive ability, and general self-efficacy in a sample of nursing students: a cross-sectional and correlational study. *Nurse Educ Pract*. 2019;37:15-21. [Crossref] [PubMed]
- Yükseköğretim Kurulu Başkanlığı Tez Merkezi [Internet]. [Cited: March 20, 2022]. Available from: [Link]
- Iyama S, Maeda H. Development of the self-regulated learning scale in clinical nursing practice for nursing students: consideration of its reliability and validity. *Jpn J Nurs Sci*. 2018;15(3):226-36. [Crossref] [PubMed]
- Yükseköğretim Kurulu Başkanlığı Tez Merkezi [Internet]. [Cited: March 20, 2022]. Available from: [Link]
- Arslan S, Dinç L. Nursing students' perceptions of faculty members' ethical/unethical attitudes. *Nurs Ethics*. 2017;24(7):789-801. [Crossref] [PubMed]
- Tsuruwaka M. Consulted ethical problems of clinical nursing practice: perspective of faculty members in Japan. *BMC Nurs*. 2017;16:23. [Crossref] [PubMed] [PMC]
- Sinclair J, Papps E, Marshall B. Nursing students' experiences of ethical issues in clinical practice: a New Zealand study. *Nurse Educ Pract*. 2016;17:1-7. [Crossref] [PubMed]
- Palese A, Gonella S, Destrebecq A, Mansutti I, Terzoni S, Morsanutto M, et al. Opportunity to discuss ethical issues during clinical learning experience. *Nurs Ethics*. 2019;26(6):1665-79. [Crossref] [PubMed]
- Alnajjar PhD HA, Abou Hashish PhD EA. Academic ethical awareness and moral sensitivity of undergraduate nursing students: assessment and influencing factors. *SAGE Open Nurs*. 2021;7:23779608211026715. [Crossref] [PubMed] [PMC]
- Organisation for Economic Co-operation and Development [Internet]. © Organisation for Economic. [Cited: September 1, 2022]. Nursing graduates. 2020. Available from: [Link]
- Yükseköğretim Bilgi Yönetim Sistemi [Internet]. [Cited: March 20, 2022]. The number of students and teaching staff by education units. Available from: [Link]
- Diğın F, İşcan Ataşen G. Determining the self-regulated learning status of nursing students regarding clinical nursing practices. *Humanist Perspect*. 2021;3(2):420-32. [Crossref]