

Research Article

**Motivation Levels and Affecting Factors In Students Enrolling In Surgical Diseases  
Nursing Course During The Pandemic**

**Pandemi Döneminde Cerrahi Hastalıklar Hemşireliği Kursuna Kayıt Olan  
Öğrencilerin Motivasyon Düzeyleri ve Etkileyen Faktörler**

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Geliş tarihi/Date of receipt: 13/01/2023

Kabul tarihi/Date of acceptance: 23/02/2024

**ABSTRACT**

**Introduction:** Motivation plays a key role in adaptation of nursing students to their education programs. Many factors affect motivation. One of those factors appearing recently is the COVID-19 pandemic. However, the effect of the pandemic on motivation levels of nursing students is unclear.

**Methods:** The study has a descriptive and cross-sectional design. The study was carried out in a nursing department at a university in Turkey. The study sample included 145 students enrolling in Surgical Diseases Nursing Course during the spring term of the 2020-2021 academic year. A sociodemographic data form and Motivation's Resources and Problems Scale were used for data collection.

**Results:** The mean scores of the students on Motivation's Resources and Problems Scale and its subscales intrinsic motivation, extrinsic motivation and negative motivation were 90.84±11.35, 43.59±6.67, 21.50±2.61 and 25.75±5.66 respectively. Intrinsic motivation and extrinsic motivation of the students had a positive relation with their perceived nursing profession during the pandemic.

**Conclusions:** Students' feeling afraid and worried during the caregiving process in the COVID-19 pandemic increased their motivation. Their perceptions about nursing during the pandemic also increased their motivation levels.

**Keywords:** Motivation, Nursing, Pandemic, Perioperative Nursing

**ÖZ**

**Giriş:** Motivasyon, hemşirelik öğrencilerinin eğitim programlarına uyumlarında anahtar rol oynamaktadır. Motivasyonu etkileyen birçok faktör vardır. Son zamanlarda ortaya çıkan bu faktörlerden biri de COVID-19 pandemisi. Ancak pandeminin hemşirelik öğrencilerinin motivasyon düzeylerine etkisi belirsizdir.

**Yöntem:** Araştırma tanımlayıcı ve kesitsel bir desene sahiptir. Araştırma Türkiye'de bir üniversitenin hemşirelik bölümünde gerçekleştirilmiştir. Araştırmanın örneklemini 2020-2021 eğitim-öğretim yılı bahar döneminde Cerrahi Hastalıklar Hemşireliği Dersine kayıt yaptıran 145 öğrenci oluşturmuştur. Verilerin toplanmasında sosyodemografik veri formu ve Motivasyon Kaynakları ve Sorunları Ölçeği kullanılmıştır.

**Bulgular:** Öğrencilerin Motivasyon Kaynakları ve Problemleri Ölçeği ve alt ölçeklerinden içsel motivasyon, dışsal motivasyon ve olumsuz motivasyon puan ortalamaları sırasıyla 90.84±11.35, 43.59±6.67, 21.50±2.61 ve 25.75±5.66'dır. Öğrencilerin içsel motivasyonları ve dışsal motivasyonları ile pandemi sürecinde algıladıkları hemşirelik mesleği arasında pozitif bir ilişki bulunmuştur.

**Sonuç:** Öğrencilerin COVID-19 pandemisinde bakım verme sürecinde korku ve endişe duymaları motivasyonlarını artırmıştır. Pandemi sürecinde hemşirelik algıları da motivasyon düzeylerini artırdı.

**Anahtar kelimeler:** Cerrahi Hemşireliği, Hemşirelik, Motivasyon, Pandemi

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**Atıf/Citation:** Karamanoğlu Yavuz A, Gök F, Yeşilyaprak T. (2024). Motivation Levels and Affecting Factors in Students Enrolling in Surgical Diseases Nursing Course During the Pandemic. *Journal of Nursing Science*, 7 (1), 1-9. doi:10.54189/hbd.1233636

## INTRODUCTION

The most important factor playing a role in adaptation of nursing students to education programs is motivation (Gün & Denat, 2020; Nilsson & Warrén Stomberg, 2008; Tas & Köktürk Dalcalı, 2021). It is one of the fundamental elements of education and defined as energy which triggers and helps to maintain studying behavior of students (Nilsson et al., 2008; Rafii et al., 2019). Motivation can be either intrinsic or extrinsic. Intrinsic motivation is an internal drive that a person has while learning. In other words, individuals are willing to learn, enjoy learning and give positive feedback about the learning process. Extrinsic motivation is an external drive that reinforces behavior. It can be a reward or punishment. Students with extrinsic motivation display the expected behavior to obtain a reward or to avoid a punishment (Nilsson et al., 2008; Ryan & Deci, 2000).

Students with high motivation levels focus on their tasks, future, and responsibilities. They are ready to take risks and less likely to display the behavior of avoidance. Motivation is also associated with learning outcomes in nursing students. Their critical thinking skills, acquisition of new skills, ability to offer a high-quality nursing care and professionalism depend on their motivation levels (Bengtsson & Ohlsson, 2010; Kim & Yun, 2015; Rose, 2011). Therefore, gaining insight into the type and level of motivation in nursing students can guide educators in structuring nursing education (Gambino, 2010).

Motivation is the most important predictor of success in nursing students (Aktas & Karabulut, 2016). Reaching goals in the nursing profession and recording information in the long-term memory are associated with intrinsic and extrinsic motivation levels of nursing students. Motivation is affected by many factors like personal, familial, educational, and occupational features (Rafii et al., 2019). Internal factors related to intrinsic motivation such as enthusiasm for learning, love for the profession, the feeling of development and satisfaction with achievements motivate individuals (Korkmaz & Ipekci, 2016). Extrinsic motivation includes financial issues, social support, program stressors, external demands, time management and health problems. Resolving these matters increases extrinsic motivation of students (Gambino, 2010; Rognstad et al., 2004; Volkert et al., 2018; Walker et al., 2016).

Recently, the COVID-19 pandemic has been added to the factors affecting motivation. The pandemic has led to financial problems, changes in the education system and disruptions in daily life (De Gagne et al., 2021). Nursing students stayed away from the clinical environment for some time and faced some changes in their education systems and academic uncertainty (De Gagne et al., 2021; Sperling, 2021). Therefore, the aim of the present study was to reveal motivation levels and affecting factors in nursing students continuing to receive education during the pandemic. The results of the study can contribute to the relevant literature.

## METHODS

### Design

This study is descriptive and cross-sectional.

### Participants and Procedure

The study population included 183 nursing students studying in the faculty of health sciences at a university in Turkey and taking the course of Surgical Diseases Nursing in the spring term of the 2020-2021 academic year. No sampling method was used. All the students accepting to participate in the study were included in the study (n=145; 79.5%). Data collection tools were made available to the participants through online tools (Google Forms, WhatsApp, and email).

## Measures

Data about sociodemographic, academic, and pandemic features of the students were collected with a sociodemographic data form consisting of 33 questions (Gambino, 2010; Rognstad et al., 2004; Volkert et al., 2018; Walker et al., 2016). The form was composed of questions about sociodemographic features like age, gender, type of high school, type of family, parental occupation and financial status, academic features like the place of clinical education about surgical diseases nursing, willingness to choose nursing and satisfaction with the career choice and pandemic features like commitment to nursing, the place of residence and people in close contact with the participants during the pandemic, participants' or their relatives' receiving the diagnosis of COVID-19 and offering care to patients with COVID-19.

Data about motivation levels of the students were collected with Motivation's Resources and Problems Scale (MRPS). The scale was developed, and its validity and reliability were tested by Acat and Köşgeroğlu in 2006 (Acat & Köşgeroğlu, 2006). Cronbach's alpha for the scale was reported to be 0.82. It has three subscales, i.e., intrinsic motivation, extrinsic motivation, and negative motivation. It is a five-point Likert scale composed of 24 items. Of all the items, 11 are about intrinsic motivation (items 1, 2, 3, 4, 6, 7, 8, 9, 10, 23 and 24), five are about extrinsic motivation (items 13, 14, 15, 17 and 20) and eight are about negative motivation (items 5, 11, 12, 16, 18, 19, 21 and 22). The mean of the total scores on the three subscales indicates the level of motivation to learn about nursing (Acat & Köşgeroğlu, 2006).

## Data Collection and Ethical Consideration

Data were gathered between June and July in 2021. The data collection tools were shared with all the students in the study population through online tools (Google Forms, WhatsApp and email). The students wanting to take part in the study filled in the tools. Informed consent was included on the first page of the data collection form. The student who approved the informed consent went to the questionnaire and answered the questions. Students were asked to choose pseudonyms to prevent duplication while collecting data. Students arranged their nicknames as the initial letter of their name, the last three digits of their school number, and the initial letter of their last name, respectively.

## Ethical Considerations

Before initiation of the study, permission was obtained from the researchers who developed MRPS through email. Ethical approval was obtained from the Ethical Committee of Non-Interventional Research at the Pamukkale University (approval date: 23 May 2021; approval number: E.66969) and official permission was also taken from the university to conduct the study.

## Data Analysis

Obtained data were analyzed with the Statistical Package Program for Social Sciences for Windows, Version 25.0 (IBM Corp., Armonk, NY, USA). Descriptive data were expressed in numbers and percentages. The motivation level of the students was evaluated by using mean and standard deviation. Normality of the data used to determine the relation between the dependent variable and independent variables was tested. In determining the normal distribution, the skewness and kurtosis value range of 2 was accepted as normal distribution. The skewness and kurtosis ranging from +2 to -2 were considered normal. ANOVA and *t*-test were utilized to analyze motivation levels of the participants in terms of sociodemographic, academic, and pandemic features. The degree of the relations found to be significant was analyzed with linear regression analysis. Statistical significance was set at  $p < 0.05$  for all the tests performed.

## RESULTS

## Descriptive Characteristics of the Students

The mean age of the students was 21.024±1.62 years. Of all the students, 86.2% were female, 72.4% were graduates of Anatolian High Schools (i.e., state high schools where the medium of instruction is English), 82.1% had a nuclear family and 38.6% had parents who were blue-collar. The students do their internship in internal medicine departments for surgery course due to the high number of students. To receive clinical education about surgical diseases nursing, of all the students, 9.7% attended general surgery clinics, 16.6% cardiovascular surgery clinics, 14.5% orthopedics and traumatology clinics, 11.7% urology clinics, 9.7% cardiology clinics, 11.0% nephrology clinics and 6.9% oncology clinics. Also, 71.4% of the students voluntarily selected nursing as a profession and 45.5% wanted to become a nurse to help people (Table 1).

Table 1. Descriptive Characteristics of the Students

Descriptive characteristics	Mean ± Stand. Deviation (X ±SS)	
	Number (n)	Percent (%)
<b>Age (years)</b>	<b>21.024±1.62</b>	
<b>Gender</b>		
Female	125	86.2
Male	20	13.8
<b>Type of high school</b>		
Anatolian high school	105	72.4
Vocational health school*	17	11.7
Science high school**	15	10.3
Others	8	5.5
<b>Type of Family</b>		
Nuclear	119	82.1
Extended	25	17.2
Separated	1	0.7
<b>Parental occupation</b>		
Worker	56	38.6
Having one's own business	56	38.6
Official	23	15.9
Unemployed	10	6.9
<b>Perceived financial status</b>		
Moderate	113	77.9
Good	18	12.4
Poor	14	9.7
<b>Clinics for clinical education on Surgical Diseases Nursing</b>		
General Surgery	27	18.6
Cardiovascular surgery	24	16.6
Orthopedics and Traumatology	21	14.5
Intensive Care Units	20	13.8
Urology	17	11.7
Cardiology	14	9.7
Nephrology	16	11.0
Oncology	10	6.9
<b>Willingness to select nursing as a profession</b>		
Yes	104	71.4
No	41	28.3
<b>Who selected nursing as a profession</b>		
Themselves	107	73.8
Parents	34	23.4
Advisors	3	2.1
Other	1	0.7
<b>Reason for selection of nursing as a profession</b>		
To avoid the university entrance exam	53	36.6
To help people	66	45.5
To receive a score on the exam sufficient to study nursing	26	17.9
<b>Satisfaction with studying in the nursing department</b>		
Yes	134	92.4
No	11	7.6

\* High school that offers vocational education about nursing, midwifery etc.

\*\* High school that offers education about science and where the medium of instruction is English

### Pandemic-Related Features of the Students

Out of all the students, 51.7% were living in a city, 92.4% were staying with their families and 55.9% were staying with individuals at high risk of COVID-19. Also, 75.9% of the students were not working. Regarding information about the pandemic, 17.9% of the students received a course about COVID-19 and 17.2% of the students offered care to patients with COVID-19 during their clinical education about surgical diseases nursing. In addition, of all the students, 66.2% was afraid of being infected with COVID-19, 52.4% were worried about staying away from clinical education, 62.1% were worried about transmitting COVID-19 to patients and 46.9% were afraid of failure to sufficiently benefit from clinical education due to their worries about contracting COVID-19. Concerning professionalism, 66.2% reported having increased commitment to nursing, 95.2% reported better understanding the importance of nursing, 95.9% were proud of health professionals' achievements, 92.4% were happy to become a health professional and 90.3% reported that social prestige of nursing increased their respect for the profession and their willingness to become a nurse (Table 2).

**Table 2.** Pandemic-Related Features of the Students

	Number (n)	Percent (%)
<b>Place of residence during the pandemic</b>		
City	75	51.7
Village	36	24.8
Town	34	23.4
<b>Who the students lived with during the pandemic</b>		
Family	134	92.4
Friend	8	5.5
Alone	3	2.1
<b>Presence of someone at risk of COVID-19 at home</b>		
Yes	81	55.9
No	64	44.1
<b>Presence of someone with COVID-19 around</b>		
Yes	88	60.7
No	57	39.3
<b>Working during the pandemic</b>		
Yes	35	24.1
No	110	75.9
<b>Attending a seminar/course on the pandemic</b>		
Yes	26	17.9
No	119	82.1
<b>The source of information about the pandemic</b>		
TV	34	23.4
Internet	105	72.4
Peers	6	4.1
<b>Offering care to patients with COVID-19 during clinical education about surgical diseases nursing</b>		
Yes	25	17.2
No	120	82.8
<b>Being infected with COVID-19 during clinical education</b>		
Yes	30	20.7
No	115	79.3
<b>Fear of the pandemic during clinical education</b>		
Fear of contracting COVID-19	96	66.2
Worry about missing clinical education due to possible COVID-19	76	52.4
Worry about transmitting COVID-19 to patients	90	62.1
Afraid to fail to benefit from clinical education due to worry about COVID-19 positivity	68	46.9
<b>The effect of the pandemic on perceptions about nursing</b>		
I became more adherent to nursing	96	66.2
I better understood the importance of nursing	138	95.2
I was proud of health professionals' achievements despite being afraid	139	95.9
I'm happy to become a health professional	134	92.4
Improved social prestige of health professionals increased my respect for my profession and my willingness to become a nurse	131	90.3

**The Relation Between Motivation Levels of the Students and Affecting Factors during the Pandemic**

The mean scores on MRPS and its subscales intrinsic motivation, extrinsic motivation and negative motivation were 90.84±11.35, 43.59±6.67, 21.50±2.61 and 25.75±5.66 respectively (Table 3). A significant relation was found between the mean score of the students on intrinsic motivation and their gender (p=0.019), the type of high school they graduated from (p=0.010), voluntary selection of nursing as a profession (p=0.001) and the effect of the pandemic on the perceived profession (p<0.005).

**Table 3.** The Distribution of the Mean Scores and Its Subscales

MRPS and Subscales	The Mean Motivation Scores	
	Mean ± Stand. Deviation (X ±SS)	Minimum and Maximum Score (Min. -Maks.)
Intrinsic motivation	43.59±6.67	19-55
Extrinsic Motivation	21.50±2.61	10-25
Negative Motivation	25.75±5.66	12-40
<b>MRPS</b>	<b>90.84±11.35</b>	<b>55-120</b>

Also, the mean score on extrinsic motivation had a significant relation with perceptions about nursing during the pandemic (p<0.005) (Table 4). There was a significant difference between the mean score on MRPS and voluntary selection of nursing as a profession (p=0.001), the reason for selection of nursing (p=0.001) and perceptions about nursing during the pandemic (p<0.005) (Table 4).

**Table 4.** Factors Affecting Motivation

	Intrinsic Motivation	Extrinsic Motivation	Negative Motivation	MRPS
Gender	t=2.378 p=0.019	t=1.299 p=0.196	t=0.767 p=0.969	t=1.664 p=0.098
Type of high school	F=3.921 p=0.010	F=0.801 p=0.495	F=0.250 p=0.861	F=1.229 p=0.301
Occupations of parents	F=0.765 p=0.467	F=0.167 p=0.846	F=0.044 p=0.957	F=0.333 p=0.717
Perceived financial status	F=0.917 p=0.402	F=0.834 p=0.437	F=3.163 p=0.045	F=1.587 p=0.208
Voluntary selection of the profession	t=5.530 p=0.001	t=1.534 p=0.127	t=0.124 p=0.902	t=3.505 p=0.001
Reasons for selecting the profession	F=16.479 p=0.001	F=2.300 p=0.104	F=3.172 p=0.045	F=11.676 p=0.001
Presence of a patient with COVID-19 around	t=1.178 p=0.241	t=1.886 p=0.061	t=-1.630 p=0.105	t=0.313 p=0.755
Working during the pandemic	t=-0.196 p=0.845	t=0.268 p=0.789	t=0.263 p=0.793	t=-0.04 p=0.964
Contracting COVID-19 during clinical education	t=-0.945 p=0.346	t=-1.826 p=0.070	t=-0.489 p=0.625	t=-1.220 p=0.224
Increased commitment to the profession during the pandemic	t=4.072 p=0.0001	t=0.917 p=0.360	t=2.096 p=0.038	t=3.668 p=0.0001
Better understanding the importance of the profession	t=3.904 p=0.001	t=0.967 p=0.335	t=2.526 p=0.013	t=3.817 p=0.001
Feeling proud of health professionals' achievements despite being afraid during the pandemic	t=6.213 p=0.001	t=4.999 p=0.001	t=2.047 p=0.042	t=5.927 p=0.001
Increased respect for and willingness to practice the profession thanks to improved social prestige of health professionals	t=4.196 p=0.001	t=1.849 p=0.067	t=1.725 p=0.087	t=3.775 p=0.001
Increased task motivation due to information given to the public and need for health professionals during the pandemic	t=5.551 p=0.001	t=1.024 p=0.307	t=3.462 p=0.001	t=5.312 p=0.001

\*t=Student t test; F= One-Way ANOVA.

The effects of voluntary selection of nursing as a profession and perceptions about nursing during the pandemic on motivation levels were outlined in Table 5. Voluntary selection of the profession and perceptions about the profession explained 31% of motivation levels ( $R=0.559$ ,  $R^2=0.312$ ,  $F=12.627$ ,  $p=0.001$ ,  $DW=1.949$ ).

**Table 5.** The Relations Between Motivation and Affecting Factors

Variables	B	p
Voluntary selection of the profession	-0.281	0.001
The effect of the pandemic on perceptions about the profession	0.346	0.001
R	0.559	
R <sup>2</sup>	0.312	
F	12.627	
P	0.0001	
DW	1.949	

\*R=Regression coefficient, \*R<sup>2</sup> = Adjusted regression coefficient, \*B= Beta; \*DW=Durbin-Watson

## DISCUSSION

The results of the present study revealed the effect of the pandemic on motivation levels of nursing students receiving the course Surgical Diseases Nursing. Offering care to patients with infection, accepting risks and maintaining patient care during the pandemic are related to motivation levels of health professionals (Sperling, 2021). Motivation is classified by Ryan and Deci into two: intrinsic and extrinsic (Haftador et al., 2021; Ryan & Deci, 2000). Consistent with evidence in the literature (Aktas & Karabulut, 2016; El-Gilany & Abusaad, 2013; Gün & Denat, 2020; Sarmasoglu & Görgülü, 2014; Smedley, 2016). the present study showed that the nursing students had high intrinsic motivation. The presence of high intrinsic motivation helps to overcome difficulties and reduces maladjustment (Haftador et al., 2021). According to intrinsic motivation, performing a task is related to willingness to select and internalize that task (Ryan & Deci, 2000; Yardimci et al., 2017). It is stated in the literature that nurses and nursing students working during the pandemics did not regret becoming a nurse despite difficulties they experience, generally selected nursing due to their personal interest in it, showed commitment to their profession and had high intrinsic motivation (Duprez et al., 2021; Gómez-Urquiza et al., 2019; Sperling, 2021). Similarly, most of the nursing students in the present study willingly chose the nursing profession and were happy with being a nursing student. The main reason why they wanted to become a nurse was their willingness to help others in need. These findings show that the value placed on nursing by individuals and society and commitment to nursing have become clearer. These two factors might have increased intrinsic motivation of nursing students (Gómez-Urquiza et al., 2019).

Unlike intrinsic motivation, extrinsic motivation involves threats and rewards from the external environment (Haftador et al., 2021). COVID-19 is a factor of extrinsic motivation for nursing students. In the present study, the nursing students provided care for patients with COVID -19, experienced the feeling of fear about contracting COVID-19 and anxiety about transmitting the disease to patients. It has also been reported in the literature that nursing students have the feelings of fear, anxiety, sadness, and uncertainty (Casafont et al., 2021; Duprez et al., 2021; Heilferty et al., 2021). These findings support the idea that COVID-19 is perceived as a threat by nursing students.

In a study by Rafii et al. (2019), acceptance of the factors creating extrinsic motivation and transformation of them into intrinsic motivation were found to improve individuals' performance at work. The current study also showed that the students' perceptions about their profession were positively affected despite their experiences of fear and anxiety. The students reported that the pandemic caused them to better understand the value of nursing, increased their commitment to the profession and respect for it in society. These findings point out to a significant increase in both intrinsic and extrinsic motivation of nursing students. It can be suggested that nursing students can change extrinsic motivation to intrinsic

motivation. Consistent with the findings of the present study, Duprez et al. (2021) showed that nursing students had increased commitment to nursing despite the feelings of anxiety while receiving clinical education in COVID-19 clinics. McGeehin Heilferty et al. (2021) reported that nursing students felt afraid while offering care to patients with COVID-19, but that their perceptions about nursing turned into positive during the pandemic. It is important to determine students' motivation and affecting factors during crises like pandemics to evaluate their academic performance and professional commitment.

### Limitations

This study has two limitations. The first one is that the study was only performed with nursing students in the faculty of health sciences at a state university. The other limitation is that data were gathered online.

### CONCLUSIONS

The nursing students became more committed to their profession although they experienced fear and anxiety while giving care during the pandemic. They had high intrinsic and extrinsic motivation. Their changing perceptions about nursing during the pandemic increased their motivation. It is important to examine motivation levels in students during crises like pandemics in terms of evaluation of their academic performance, perceptions about their profession and professional commitment.

**Araştırmannın Etik Yönü/Ethics Committee Approval:** Before initiation of the study, permission was obtained from the researchers who developed MRPS through email. Ethical approval was obtained from the Ethical Committee of Non-Interventional Research at the Pamukkale University (approval date: 23 May 2021; approval number: E.66969) and official permission was also taken from the university to conduct the study.

**Hakem/Peer-review:** The external referee is independent.

**Yazar Katkıları/Author Contributions:** Idea and design: FG, AYK; Data collecting: FG, AYK, TY; Data analysis and interpretation: TY; Article writing: FG, AYK, TY; Critical review: FG, AYK, TY.

**Çıkar Çatışması/Conflict of Interest:** The authors declare no conflict of interest.

**Finansal Destek/Financial Disclosure:** The authors declared that they did not receive financial support for the study.

**Relevance for clinical practice:** This study focuses on the motivation level and affecting factors of nursing students during the COVID-19 period. Determining the factors affecting the motivation of nursing students during the pandemic period is important in coping with the crisis and increasing the commitment to the profession.

### REFERENCES

- Acat MB, Köşgeroğlu N. (2006). Motivation's resources and problems scale. *Alpha Psychiatry*, 7, 207–210.
- Aktas YY, Karabulut N. (2016). A Survey on Turkish nursing students' perception of clinical learning environment and its association with academic motivation and clinical decision making. *Nurse Education Today*, 36, 124–128. doi:10.1016/J.NEDT.2015.08.015
- Bengtsson M, Ohlsson B. (2010). The nursing and medical students motivation to attain knowledge. *Nurse Education Today*, 30(2), 150–156. doi:10.1016/J.NEDT.2009.07.005
- Casafont C, Fabrellas N, Rivera P, Olivé-Ferrer MC, Querol E, Venturas M, et al. (2021). Experiences of nursing students as healthcare aid during the COVID-19 pandemic in Spain: A phenomenological research study. *Nurse Education Today*, 97, 1–7. doi:10.1016/J.NEDT.2020.104711
- De Gagne JC, Cho E, Park HK, Nam JD, Jung D. (2021). A qualitative analysis of nursing students' tweets during the COVID-19 pandemic. *Nursing & Health Sciences*, 23(1), 273–278. doi:10.1111/NHS.12809

- Duprez V, Vermote B, Van Hecke A, Verhaeghe R, Vansteenkiste M, Malfait S. (2021). Are internship experiences during a pandemic related to students' commitment to nursing education? A cross-sectional study. *Nurse Education Today*, 107, 1–8. doi:10.1016/J.NEDT.2021.105124
- El-Gilany AH, Abusaad FES. (2013). Self-directed learning readiness and learning styles among Saudi undergraduate nursing students. *Nurse Education Today*, 33(9), 1040–1044. doi:10.1016/J.NEDT.2012.05.003
- Gambino KM. (2010). Motivation for entry, occupational commitment and intent to remain: a survey regarding Registered Nurse retention. *Journal of Advanced Nursing*, 66(11), 2532–2541. doi:10.1111/J.1365-2648.2010.05426.X
- Gómez-Urquiza JL, Gómez-Salgado J, Albendín-García L, Correa-Rodríguez M, González-Jiménez E, Cañadas-De la Fuente GA. (2019). The impact on nursing students' opinions and motivation of using a “Nursing Escape Room” as a teaching game: A descriptive study. *Nurse Education Today*, 72, 73–76. doi:10.1016/J.NEDT.2018.10.018
- Gün T, Denat Y. (2020). Nursing students' motivation and learning strategies: Hemşirelik öğrencilerinin güdülenme ve öğrenme stratejileri. *Journal of Human Sciences*, 17(1), 32–48. doi:10.14687/jhs.v17i1.5784
- Haftador AM, Shirazi F, Mohebbi Z. (2021). Online class or flipped-jigsaw learning? Which one promotes academic motivation during the COVID-19 pandemic? *BMC Medical Education*, 21(1), 1–8. doi:10.1186/S12909-021-02929-9/TABLES/2
- Heilferty CMG, Phillips LJ, Mathios R. (2021). Letters from the pandemic: Nursing student narratives of change, challenges and thriving at the outset of COVID-19. *Journal of Advanced Nursing*, 77(8), 3436–3445. doi:10.1111/JAN.14862
- Kim MS, Yun SY. (2015). A Study on the nursing student with academic self-efficacy, motivation and career aspiration. *Indian Journal of Science and Technology*, 8(Supplementary 1), 1–5. doi:10.17485/IJST/2015/V8IS1/58764
- Korkmaz AC, Ipekci NN. (2015). Motivation in nursing education: Intrinsic and extrinsic motivation resources of students. *Sağlık ve Hemşirelik Yönetimi Dergisi*, 2(3), 121-131. doi:10.5222/SHYD.2015.121
- Nilsson KEL, Warrén Stomberg MI. (2008). Nursing students motivation toward their studies – a survey study. *BMC Nursing*, 7(1), 6–10. doi:10.1186/1472-6955-7-6
- Rafii F, Saeedi M, Parvizy S. (2019). Academic motivation in nursing students: A hybrid concept analysis. *Iranian Journal of Nursing and Midwifery Research*, 24(5), 315. doi:10.4103/IJNMR.IJNMR\_177\_18
- Rognstad MK, Nortvedt P, Aasland O. (2004). Helping motives in late modern society: values and attitudes among nursing students. *Nursing Ethics*, 11(3), 227–239. doi:10.1191/0969733004NE691OA
- Rose S. (2011). Academic success of nursing students: Does motivation matter? *Teaching and Learning in Nursing*, 6(4), 181–184. doi:10.1016/J.TELN.2011.05.004
- Ryan RM, Deci EL. (2000). Self-determination theory and the facilitation of intrinsic motivation, social development, and well-being. *American Psychologist*, 55(1), 68–78. doi:10.1037/0003-066X.55.1.68
- Sarmasoglu S, Görgülü S. (2014). Hemşirelik öğrencilerinin kendi kendine öğrenmeye hazıroluş düzeyleri. *Hacettepe Üniversitesi Hemşirelik Fakültesi*, 1(3), 13–25.
- Smedley A. (2016). The self-directed learning readiness of first year bachelor of nursing students: *Journal of Research in Nursing*, 12(4), 373–385. doi:10.1177/1744987107077532
- Sperling D. (2021). Ethical dilemmas, perceived risk, and motivation among nurses during the COVID-19 pandemic. *Nursing Ethics*, 28(1), 9–22. doi:10.1177/0969733020956376
- Tas S, Köktürk Dalcalı B. (2021). Covid-19 pandemisi döneminde hemşirelik öğrencilerinde mesleki güdülenme. *Acıbadem Üniversitesi Sağlık Bilimleri Dergisi*, 12(2), 418–424. doi:10.31067/ACUSAGLIK.851946
- Volkert D, Candela L, Bernacki M. (2018). Student motivation, stressors, and intent to leave nursing doctoral study: A national study using path analysis. *Nurse Education Today*, 61, 210–215. doi:10.1016/J.NEDT.2017.11.033
- Walker S, Rossi D, Anastasi J, Gray-Ganter G, Tennent R. (2016). Indicators of undergraduate nursing students' satisfaction with their learning journey: An integrative review. *Nurse Education Today*, 43, 40–48. doi:10.1016/J.NEDT.2016.04.011
- Yardimci F, Bektaş M, Özkütük N, Muslu GK, Gerçeker GÖ, Başbakkal Z. (2017). A study of the relationship between the study process, motivation resources, and motivation problems of nursing students in different educational systems. *Nurse Education Today*, 48(1), 13–18. doi:10.1016/J.NEDT.2016.09.017