The Relationship Between Professional Motivation Levels and Self-directed Learning Skills in Nursing Students

Hemşirelik Öğrencilerinin Mesleki Güdülenme Düzeyleri ile Kendi Kendine Öğrenme Becerileri Arasındaki İlişki

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ABSTRACT Objective: An individual's desire for effective learning, self-directed learning, and achieving professional success influences their level of motivation. The purpose of this study was to investigate the relationship between level of professional motivation and self-directed learning skills in nursing students. **Material and Methods:** This study was designed as cross-sectional type. The study was conducted with 567 nursing students in the Ankara University Faculty of Nursing between September 2017 and June 2018. Data were collected using a questionnaire consisting of a Student Information Form, the Motivation Sources and Problems Scale, and the Self-Directed Learning Skills Scale. After obtaining permission from instructors in the department of nursing, the study was carried out by the researchers at the beginning of classes. **Results:** The mean score of the Motivation Sources and Problems Scale of nursing students was 83.33±13.14 and the Self-learning Skills Scale mean score was 76.38±12.75. There were statistically significant, moderate positive correlations between the nursing students' mean Motivation Sources and Problems Scale and their mean Self-Directed Learning Skills Scale scores (r=0.626; p=0.001). **Conclusion:** It was determined that as the mean total professional motivation score of the nursing students increased, their self-directed learning skills increased.

Keywords: Motivation; self-directed learning;
nursing students

ÖZET Amaç: Bireylerin etkili öğrenme, kendi kendine öğrenme ve akademik/mesleki başarı elde etme isteği güdülenme düzeyini etkilemektedir. Bu araştırma, hemşirelik öğrencilerinin mesleki güdülenme düzeyi ile kendi kendine öğrenme becerileri arasındaki ilişkinin araştırılması amacıyla yapılmıştır. **Gereç ve Yöntemler:** Bu çalışma, kesitsel tipte tasarlanmıştır. Araştırma Eylül 2017 ve Haziran 2018 tarihleri arasında Ankara Üniversitesi Hemşirelik Fakültesi'ndeki 567 hemşirelik öğrencisi ile gerçekleştirilmiştir. Veriler, "Öğrenci Bilgi Formu", "Güdülenme Kaynakları ve Sorunları Ölçeği" ve "Kendi Kendine Öğrenme Becerileri Ölçeği" kullanılarak toplanmıştır. Araştırma, hemşirelik bölümü eğiticilerinden izin alınarak derslerin başlangıcında araştırmacılar tarafından yapılmıştır. **Bulgular:** Hemşirelik öğrencilerin Güdülenme Kaynakları ve Sorunları Ölçeği puan ortalamaları 83,33±13,14, Kendi Kendine Öğrenme Becerileri Ölçeği puan ortalamaları 76,38±12,75'tir. Hemşirelik öğrencilerinin Güdülenme Kaynakları ve Sorunları Ölçeği puan ortalamaları ile Kendi Kendine Öğrenme Becerileri Ölçeği puan ortalamaları arasında pozitif yönde iyi derecede bir korelasyon bulunmuştur (r=0,626; p=0,001). **Sonuç:** Hemşirelik öğrencilerinin mesleki güdülenme düzeyi toplam puan ortalamaları arttıkça, kendi kendine öğrenme becerilerinin de arttığı belirlenmiştir.

Anahtar Kelimeler: Güdülenme; kendi kendine öğrenme;
hemşirelik öğrencileri

There are various factors that actuate an individual to perform any action.[1,2] These factors that influence human behavior impel the individual toward a certain goal while at the same time creating a force that maintains the continuity and consistency of the activity. This driving force in human behavior is defined as motivation.[3-5] Motivation is a prerequisite of the active learning and self-development stages in humans, and there is an evolution and change in perspective from behaviorism to cognitivism regarding the relationship between motivation and learning.[2] An individual's desire for effective learning, self-directed

learning (SDL), and achieving academic/professional success influences their level of motivation, and the individual behaves accordingly. Therefore, an individual's motivation level is examined in three dimensions: intrinsic, extrinsic, and negative motivation.[5,6] With intrinsic motivation, behavior is based on the individual's own desire to be successful.[7,8] A nursing student's desire to learn about the profession, their professional commitment, and their future career plan are examples of intrinsic motivation. Studies indicate that nursing students have sufficient interest, desire, or knowledge regarding the profession.[7-9] On the other hand, students' fear of making mistakes in the clinic and their dissatisfaction with the quality of education and practice during their studies (70%) hinder intrinsic motivation.[5,6,8] Extrinsic motivation originates from the individual's work/study environment. The need to meet their educational obligations stimulates extrinsic motivation among nursing students. Studies have demonstrated that nursing students' professional motivation is adversely affected by nursing education curricula involving short-term intensive theoretical instruction, absence of effective role models in the clinic, and stressors in the clinical environment (communication problems).[6,10] Negative motivation arises when individuals are unmotivated and believe that their behavior stems from factors beyond their control. Nursing students may attribute failure in professional courses and practice to stressors in the clinical environment and fear of making mistakes.[5,11] Thus, motivation is an important factor in effective learning. With sufficient motivation, the professional knowledge, skills, and responsibilities specific to nursing can be acquired during the nursing education process. The sufficiently motivated student is ready to learn, and this positively influences their perceptions of and success in the nursing profession.[6,12]

In nursing students' active learning process, acquiring SDL skills is as important as motivation. Nursing education requires staying up-to-date with the rapid advances in science and technology and raising professional nurses to respond to society's healthcare needs.[13-15] Thus, guiding the student toward SDL is important in nursing education. In SDL, the nursing student decides what, how, when, and where they should learn. The student has the power to determine what

tools will be used in learning, develop learning strategies and resources, and make the necessary choices. In this way, the skill of SDL allow students to motivate themselves and develop self-confidence, independence, and problem-solving skills.[15,16] However, despite the prominence of student autonomy in SDL, the learning process can be properly shaped with active rapport-building communication between educator and student. Studies have determined that students do not know enough about SDL and have difficulties, and that these problems cause them fear, stress, and lack of self-confidence.[14,17-19] Therefore, to facilitate successful education, it is important for educators to know how ready students are to assume the responsibility of SDL.[16] It has been reported that students effectively guided by educators adopt SDL behaviors more readily and easily.[15,20] The aim of this study was to investigate the relationship between the level of professional motivation and SDL skills in nursing students.

MATERIAL AND METHODS

STUDY DESIGN

This study was a cross-sectional study performed in the 2017-2018 academic year (September 2017-June 2018) with the voluntary participation of students in the Nursing Department of Ankara University Faculty of Nursing.

STUDY SAMPLE AND PARTICIPANT CHARACTERISTICS

The study population comprised 800 nursing students. No sampling method was used; all students who agreed to take part in the study were included. The study was completed with 567 students (representing 70% of the population). All students aged 18 years or older were included in the study.

DATA COLLECTION TOOLS

Data were collected using a questionnaire consisting of a Student Information Form, the Motivation Sources and Problems Scale (MSPS), and the Self-Directed Learning Skills Scale (SDLSS). Of these data collection tools, the Student Information Form included certain socio-demographic characteristics of the students (age, sex) and was prepared by the researchers based on a review of the literature.[1,4,16,18]

The MSPS was developed by Acat and Köşgeroğlu and is a 5-point Likert-type scale comprising 24 items in 3 sub-dimensions: intrinsic motivation (11 items), extrinsic motivation (5 items), and negative motivation (8 items).[2] Each item is scored from 1 to 5, with reverse scoring in the negative motivation sub-dimension. Sub-dimension scores are determined by calculating the arithmetic mean of the relevant item scores. Total score is between 24 and 120. Higher total scores reflect higher motivation levels.[2] The Self-directed Learning Instrument was developed by Cheng et al.[21] The validity and reliability study of the Turkish version of the scale was conducted by Yalçın and Mendi *(Yalçın M, Mendi B. [Assessment of the relationship between self-directed learning, information literacy and academic success of nursing students]. İstanbul Bilim Üniversitesi Sağlık Bilimleri Enstitüsü Hemşirelik Yüksek Lisans programı: Yayımlanmamış Yüksek Lisans tezi; 2016)*. It is also a 5-point Likert-type assessment tool consisting of 20 items. The total score of the SDLSS is between 20 and 100. Higher total score corresponds to higher level of SDLSS.

STUDY PROCEDURE

After obtaining permission from instructors in the department of nursing, the study was carried out by the researchers at the beginning of classes. Data collection took approximately 15 minutes.

ETHICAL ASPECT OF THE RESEARCH

The necessary permissions were obtained from Ankara University Rectorate (No. 62535980-903.07.02-E.88180/2018) where the research was to be conducted and from the Scientific Research and Publication Ethics Committee of Toros University (No. 07/2018) in order for the research to be able to be conducted. The objective of the study and all activities to be implemented in the scope of the study were explained to all the participants. Written permission was obtained from the students for them to participate voluntarily in the study. It was specified to the students that they may leave the study whenever they want. Also, the scales used in the study are open access and shown in the references section, and this study was conducted in accordance with the principles of the Declaration of Helsinki.

STATISTICAL ANALYSIS

SPSS version 22.0 software (SPSS Inc., Chicago, IL) was used for data analyses. P values < 0.05 were considered statistically significant. The data were expressed in frequency, mean, and standard deviation. Independent samples t-test, analysis of variance (ANOVA), Tukey's test and Pearson correlation test were used in the analyses.

RESULTS

Of the nursing students included in our study, 52.2% were aged 21 years or under (mean age, 20.62±0.79 years), 85.7% were female, 29.6% were third-year students, and 62.3% had a grade point average (GPA) of 3 or higher (mean GPA, 3.03±0.15). Maternal and paternal education level was primary school or lower for more than half of the students (69.6% and 50.2%, respectively) and 79.5% of the students came from middle-income households. We also determined that 64.3% of the students chose the nursing profession on their own, 54.8% chose the profession for guaranteed job opportunities, 64.7% were satisfied with their department, 40.5% were indecisive about their future career goals. In addition, 75.5% did not have any health workers in their families, and 83.2% used the library 5 or fewer times per month (mean, 2.88±0.20).

The mean total MSPS score of nursing students was 83.33±13.14. Their MSPS subdimension scores were 39.56±9.37 for intrinsic motivation, 20.69±4.36 for extrinsic motivation, and 23.08±6.04 for negative motivation. The mean SDLSS score of nursing students was 76.38±12.75 (Table 1).

In this study, it was determined that first-year student had lower total MSPS and SDLSS scores than fourth-year students (Table 2; p=0.001). Also, in the present study, it was found that second-year students had lower total MSPS and SDLSS scores than fourth-year students (Table 2; p=0.001). Our study showed that third-year students had statistically significantly lower total MSPS and SDLSS scores compared to fourth-year students (Table 2; p=0.001). Students who said that they preferred the profession because they loved nursing had higher mean MSPS and SDLSS scores than those who cited that their univer-

TABLE 1: Nursing students' mean MSPS and SDLSS scores.

MSPS and SDLSS scores	Scale minimum-maximum values	Participants' minimum-maximum values	Mean±SD
MSPS Total Score	24-120	24-120	83.33±13.14
MSPS Sub-dimension Scores			
Intrinsic motivation	11-55	11-55	39.56±9.37
Extrinsic motivation	5-25	5-25	20.69±4.36
Negative motivation	8-40	8-40	23.08±6.04
SDLSS Total Score	20-100	20-100	76.38±12.75

MSPS: Motivation Sources and Problems Scale; SDLSS: Self-Directed Learning Skills Scale; SD: Standard deviation.

sity entrance exam as the basis of their choice of profession. It was determined that this difference was statistically significant (Table 2; p=0.001). Furthermore, students who were satisfied with the nursing department in which they were studying had significantly higher scores on total MSPS and SDLSS scores than those who were not satisfied, and the difference was statistically significant (Table 2; p=0.001). Mean MSPS and SDLSS scores were

found statistically significantly higher among students who had no health workers in their families compared to those who did (Table 2; p<0.05).

There were no significant differences in the nursing students' MSPS and SDLSS scores according to their age, sex, parental education or income level, who decided they would pursue the nursing profession, their future career goals, GPA, or library usage habits (p>0.05).

TABLE 2: Comparison of MSPS and SDLSS score outcomes according to some characteristics of the nursing students.

Some characteristics	n	MSPS	SDLSS
Year of study			
First[a]	142	82.25±12.40	76.35±12.03
Second[b]	147	82.69±12.50	76.63±15.50
Third[c]	168	82.89±11.95	75.39±12.44
Fourth[d]	110	85.38±15.33	77.58±9.74
		F*=3.386; p=0.001	F*=2.491; p=0.001
		a-d, b-d, c-d	a-d, b-d, c-d
Basis for choosing the profession			
University entrance exam score[a]	147	81.43±13.84	75.85±10.89
Guaranteed work[b]	311	83.45±11.60	76.48±12.43
Love of the profession[c]	109	88.60±11.61	76.81±15.73
		F*=5.741; p=0.001	F*=7.089; p=0.000
		c-a	c-a
Satisfaction with department			
Satisfied	367	87.58±9.90	77.89±11.99
Not satisfied	200	75.52±14.71	73.60±13.64
		t=11.610; p=0.001	t=3.882; p=0.012
Health workers in family			
Yes	139	80.70±11.88	74.45±12.28
No	428	83.21±16.41	79.38±12.76
		t=-1.302; p=0.006	t=3.295; p=0.007

*Analysis of variance (p<0.05)+Tukey's test; MSPS: Motivation Sources and Problems Scale; SDLSS: Self-Directed Learning Skills Scale.

TABLE 3: Relationship between MSPS and SDLSS scores.

MSPS	SDLSS
Intrinsic motivation	r=0.664
	p=0.001
Extrinsic motivation	r=0.572
	p=0.001
Negative motivation	r=-0.084
	p=0.046
Total MSPS	r=0.626
	p=0.001

MSPS: Motivation Sources and Problems Scale; SDLSS: Self-Directed Learning Skills Scale.

There were statistically significant, moderate positive correlations between the nursing students' mean MSPS, intrinsic, and extrinsic motivation sub-dimension scores and their mean SDLSS scores (r=0.626, p= 0.001; r=0.664, p=0.001; r=0.572, p=0.001, respectively). A barely significant and weak negative correlation was observed between the students' mean negative motivation sub-dimension score and their SDLSS scores (r=-0.084, p=0.046). According to these data, higher mean MSPS, intrinsic, and extrinsic motivation sub-dimension scores and lower mean negative motivation sub-dimension score were associated with higher SDL skills level (Table 3).

DISCUSSION

Determining whether students' needs for professional motivation and SDL skills are being met during nursing education is crucial for developing learning strategies for professional competencies, improving the learning environment, and identifying solutions.[12] Our results indicated that the nursing students in the present study had high levels of professional motivation, intrinsic/extrinsic motivation, and SDL skills. Cerit and Coşkun, and Korkmaz and Ipekci also reported high professional motivation levels among nursing students.[1,7] In addition, studies by Dogan et al. and Özbek et al. also showed that students had strong SDL skills.[18,19] These findings suggest that high levels of motivation among nursing students impact their desire to acquire new knowledge/skills, their personal and professional development, their ef-forts to increase their professional qualifications, and their self-confidence and performance, thereby enhancing their SDL skills.

Our comparison of mean MSPS and SDLSS scores based on the nursing students' year of study showed that fourth-year students had higher professional motivation and SDL skills than students in the lower classes. This is consistent with some earlier reports.[3,6,14,16,22] This result suggests that as fourth-year students gain professional knowledge and skills, become more familiar with and increasingly like and identify with the profession, and have greater interest in the nursing profession, it favorably affects their professional motivation and SDL skills. In contrast, Köksal and Yurttas, Gün and Denat, Karabulut et al. reported that third- and fourth-year students showed lower SDL skills than first- and second-year students.[6,9,16] This suggests that first-year students may have chosen the profession willingly and started their studies with high motivation, while fourth-year students may have been reluctant and uninterested in learning new things due to exam preparations.

When we evaluated mean MSPS and SDLSS scores based on the students' reasons for choosing the nursing profession, we found that students who chose the profession willingly and loved nursing had high professional motivation and SDL skills. Previous studies demonstrated that when students choose their profession based on their own desires and abilities, they have high levels of professional motivation, are successful and happy, gain positive perceptions of the profession, have greater desire to learn, and can effectively determine their learning needs and sources and develop learning strategies.[3,15,19,22,23] These results suggest that professional motivation and SDL are important factors in developing a positive perception of the profession, increasing professional commitment, and improving the public image of the profession.

In the present study, students who reported being satisfied with the nursing department in which they were studying had high levels of professional motivation and SDL. Our results are similar to those reported in some other studies in the literature.[7,12,16] Students' level of satisfaction with the nursing profession is associated with their professional knowledge, skill, and

motivation.[7,14] In particular, being satisfied with the profession during student life leads to greater success in professional life through increased desire to learn, dedicating more time to study, and staying up-to-date with and contributing to advances in the field.[24]

In our study, not having a health worker in the family was associated with higher mean MSPS and SDLSS scores. This is consistent with results reported by Celik et al.[5] These findings suggest that nursing students with healthcare professionals in their family have prior knowledge of the advantages and disadvantages of the profession, which impacts the development of their professional motivation and SDL skills.

Our results also showed that nursing students with higher professional motivation and intrinsic/extrinsic motivation levels and lower negative motivation level had stronger SDL skills. Professional motivation is important for nursing students to be successful and feel satisfied both during their professional education and in the workplace. Students with sufficient motivation are receptive and ready to learn.[6,8,17] The presence in the educational environment of positive factors that inspire learning will spark students' interest and desire for SDL.

LIMITATIONS OF THE STUDY

The study has performed at a department of university and on a relatively small sample. This study has not been made the method of sample selection. Also, researchers have conducted a cross-sectional study, and the results of this study, by researchers have evaluated according to the nursing students' statements. It is therefore not possible to generalize the results of this study. A larger number of comparative studies are required to assign the relationship between the nursing students' level of professional motivation and their level of SDL skills. Researchers only have used information form and scales to evaluate the level of professional motivation of nursing students' and their level of SDL skills. However, The SDLS scale is a measurement tool used to develop a curriculum aimed at enhancing students' SDL abilities. Also, it is thought that it will be a source for prospective studies in associated with level of professional mo-

tivation of nursing students and their level of SDL skills.

CONCLUSION

In this study, nursing students reported high levels of professional motivation, intrinsic/extrinsic motivation, and SDL skills. Higher professional motivation and intrinsic/extrinsic motivation levels and lower negative motivation levels were associated with stronger SDL skills. Variables such as the students' year of study, their reason for choosing the nursing profession, satisfaction with their department, and presence of a health worker in their family were found to statistically significantly influence of their professional motivation and SDL skills.

PRACTICE IMPLICATIONS

Nursing interventions should be developed to enhance the orientation of professional motivation and SDL skills of nursing students. In both undergraduate and postgraduate nursing education should encourage students' active participation in a learning process based on behaviors that develop professional motivation and SDL skills (clinical logs, contracts, problem-based packages, distance learning packages, learning activities that focus on practicing communication, peer learning, time and study environment management, group work, conferences, seminars).

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