



ORIGINAL ARTICLE

Examining the Career Development of Nursing Students: A Prospective Study

Hemşirelik Öğrencilerinin Kariyer Gelişiminin İncelenmesi: Prospektif Çalışma

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Abstract

Objective: This study was planned to monitor the development process of nursing students' career plans.

Method: The research was conducted with students who studied at the Near East University Faculty of Nursing between 2017 and 2020. The study was conducted prospectively, starting from the first-year of the students, with repeated measurements in the 2nd, 3rd, and 4th grades, by applying the personal information form and the Career Futures Inventory.

Results: When the career development of students is examined for four years, mean scores decreased in the 2nd grade, but improved in the following years and showed a significant increase in scores ($p<0.05$). The sub-dimension mean scores of the scale were also in line with the total scale mean scores.

Conclusion: The career planning motivation of the students is found to be good when they finish high school and start university. However, over time, it has been determined that career plans improve again as students adapt to school and courses.

Keywords: Baccalaureate nursing education, career choice, nursing students, students, vocational education

Öz

Amaç: Bu çalışma, hemşirelik öğrencilerinin kariyer planlarının gelişim sürecini izlemek amacıyla planlanmıştır.

Yöntem: Araştırma, 2017-2020 yılları arasında Yakın Doğu Üniversitesi Hemşirelik Fakültesi'nde öğrenim gören öğrencilerle yürütülmüştür. Çalışma, öğrencilerin birinci sınıftan başlayarak 2., 3. ve 4. sınıflarda tekrarlı ölçümlerle, kişisel bilgi formu ve Kariyer Geleceği Ölçeği uygulanarak prospektif olarak yürütülmüştür.

Bulgular: Öğrencilerin kariyer gelişimleri dört yıl boyunca incelendiğinde; 2. sınıfta ortalama puanların azaldığı, ancak sonraki yıllarda iyileşme gösterdiği ve puanlarda anlamlı bir artış gösterdiği görülmüştür ($p<0.05$). Ölçeğin alt boyut puan ortalamaları da toplam ölçek puan ortalamalarıyla uyumludur.

Sonuç: Öğrencilerin liseyi bitirip üniversiteye başladıklarında kariyer planlama motivasyonlarının iyi olduğu belirlenmiştir. Ancak zamanla okula ve derslere uyum sağladıkça kariyer planlarının tekrar iyileştiği belirlenmiştir.

Anahtar Kelimeler: Hemşirelik lisans eğitimi, kariyer seçimi, hemşirelik öğrencileri, öğrenciler, meslek eğitimi

Introduction

Occupational professionals who possess the knowledge, skills, and attitudes necessary to enhance public health, contribute to socio-cultural development, and address the ever-changing needs of society are trained through undergraduate nursing education (1). To receive education at the undergraduate level, it is necessary to have a specific

score in the university exams. In line with this system, students can choose areas where they can work and achieve satisfaction in their professional lives (2). Studies indicate that being successful in a profession increases in direct proportion to choosing the profession knowingly and willingly (3).

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Among the factors affecting the choice of the nursing profession are the student's ability; the socio-economic status of the family; interest status; communication skills; future plans; emotional-maturity levels; school achievements; family and social expectations; job opportunities; the respect felt; the socio-economic return; scholarship opportunities and employment opportunities; the popularity of the profession; as well as environmental influence and socio-economic impact (4). While gender was the determining factor among the reasons for preference in the past, it is changing today. While it was preferred only by women in previous years, it has been included in the occupational preferences of men in recent years (5). It is inevitable for students' career choices to have an impact on them as well as on their families.

With the start of the preferred vocational training, future expectations and plans begin. At this stage, the term career comes into play. A career is the professional progression of an individual, driven by the necessary knowledge, skills, talent, and motivation to fulfill his professional expectations and desires throughout life (6,7). Social and psychological factors affecting career development are the social background of a person, their relationship with their parents, the social and economic level of their family, the environment they are in, their values, beliefs, and attitudes, expectations, personality, and opinions about the future of work. The individual's professional orientation and career planning begin to develop and take shape during the education process (8,9).

During their nursing education, students make career plans to work in the field or pursue further studies. Success rates increase if students choose the nursing profession voluntarily and as their top university preference. However, they develop by being equipped with the necessary knowledge and skills (10). The socio-economic level of the students can be an important guide for postgraduate education or work. Economic anxiety, among other reasons, decrease job satisfaction and increase burnout in professions that require patience and devotion, such as nursing. In order to increase the success of individuals in their future career and indirectly in their social-psychological lives, students who receive education in the nursing profession should engage in career planning, as in all professions (11). It is reported

that studies on the subject aim to determine the career paths of students (6). No similar study has been found in our country. The study was planned to examine the career plans of our students, with the aim that it would contribute to the nursing profession and reduce the future anxiety of the students. The purpose of this study is to examine the role of the Career Futures Inventory (CFI), which includes optimism, self-efficacy, hope, and career adaptability (CA) of nursing students, with their educational status.

Material and Method

Study Design

The research was conducted with students studying at the nursing faculty of Near East University in Nicosia, the capital of the Turkish Republic of Northern Cyprus, between 2017 and 2020.

The study was conducted prospectively, beginning in the students' first-year, by applying repeated measurements in the 2nd, 3rd, and 4th grades, with the personal information form and the CFI. In the repeated measurements made every year for the examination of career developments, there have been numerical differences as a result of lack of participation, being abroad, transferring, and not being reached due to coronavirus disease-2019 (COVID-19). The students' participation in the research, by year, is given in Figure 1.

Participants

The study population consisted of all first-year nursing students enrolled in the nursing faculty of a university during the 2017-2018 academic year (n=168). No sample size calculation was performed, as the aim was to reach the entire population. The final sample included 157 students (n=157) who voluntarily agreed to participate and fully completed the surveys and scales. Changes in the sample over the years due to attrition and other factors are illustrated in Figure 1.

Ethical Considerations

To conduct the research, consent was obtained from the Near East University Scientific Research Evaluation Ethics Committee (no.: 2017/47-409, date: 25.05.2017), the dean of the relevant faculty, the author who conducted the scale development and validity-reliability study, and the students who agreed to participate in the study.

Data Collection

The questionnaire used in the research includes the personal information form, and CFI. CFI is an adequate assessment and evaluation tool that allows for the measurement of the relationship between university-level individuals' characteristics such as optimism, self-efficacy, hope, and CA in the context of career choice. The scale consists of three sub-dimensions called CA, career optimism, and perceived knowledge of labor markets, with a total of 25 items. The scale is a 5-point Likert-type scale, ranging from 1 (strongly

Main Points

According to the results of the study;

- The environment has an effect on nursing students' choice of profession.
- High motivation about career planning in high school education and the effectiveness of this situation when they start to study nursing.
- The students experienced a decrease in their career development motivation due to the difficulty of the field courses. However, it was concluded that career motivations increased as adaptation to school and educational life improved.

disagree) to 5 (strongly agree). The psychometric properties of the Turkish version of the scale were analyzed by Kalafat (8) in 2012. According to the internal consistency analysis results of the scale, the Cronbach alpha value was calculated as 0.88.

Data Collection Process

The data collection process was conducted during the final exams of each academic year's spring semester. This timing was chosen to facilitate data gathering by ensure a collective setting, similar to the exam environment. In the 2017-2018 and 2018-2019 academic years, data were collected using printed forms through face-to-face administration in the classroom. However, due to the onset of the COVID-19 pandemic, data collection in the 2019-2020 and 2020-2021 academic years was conducted online via Google Forms to comply with social distancing measures. The forms were administered in both hard copy and online formats, depending on the academic year. Students were informed about the purpose of the study, provided informed consent, and then asked to complete the forms, which took approximately 15-20 minutes. The online forms were accessed through the university's digital platform during the scheduled exam periods.

Statistical Analysis

The analysis of the data obtained as a result of the study was performed using the SPSS (version 22, IBM Corp., Armonk, NY, USA). Number and percentage were used for categorical data; mean and standard deviation were used for repeated data. In the evaluation of students according to years, scale score averages, standard deviation values,

and repeated measures One-Way Analysis of Variance (ANOVA) were considered. While applying the ANOVA test, the decision to use the Welch test was made after assessing data homogeneity. The Tamhane test was used as a post-hoc test.

Results

The mean age of the students participating in the research was 23.6 ± 4.1 , and 62.4% of them were female students. More than half of the students participating in the study had graduated from high school (60.5%), 67.5% of them had an income equal to their expenses, 71.9% of them had a nuclear family and 26.8% of them had two siblings. It was determined that 38.9% of the students had lived for a long time in a district and 38.2% of them stated that they still live in a district.

The education levels of the students' families were examined. According to these data, it was determined that 38.1% of the participating students' mothers were secondary school graduates, and 43.9% of their fathers were primary school graduates. In addition, in the examination of their parents' professions, it was determined that 71.9% of their mothers were housewives and 29.3% were self-employed. When asked about influences on their choice of profession, it was determined that 65.6% of the students had nurse acquaintances, and 10.2% of these acquaintances were friends. 58.5% of the participants stated that their environment affected their choice. It was determined that 97.5% of the participants had scholarships and 57.5% of them had scholarships covering 75%.

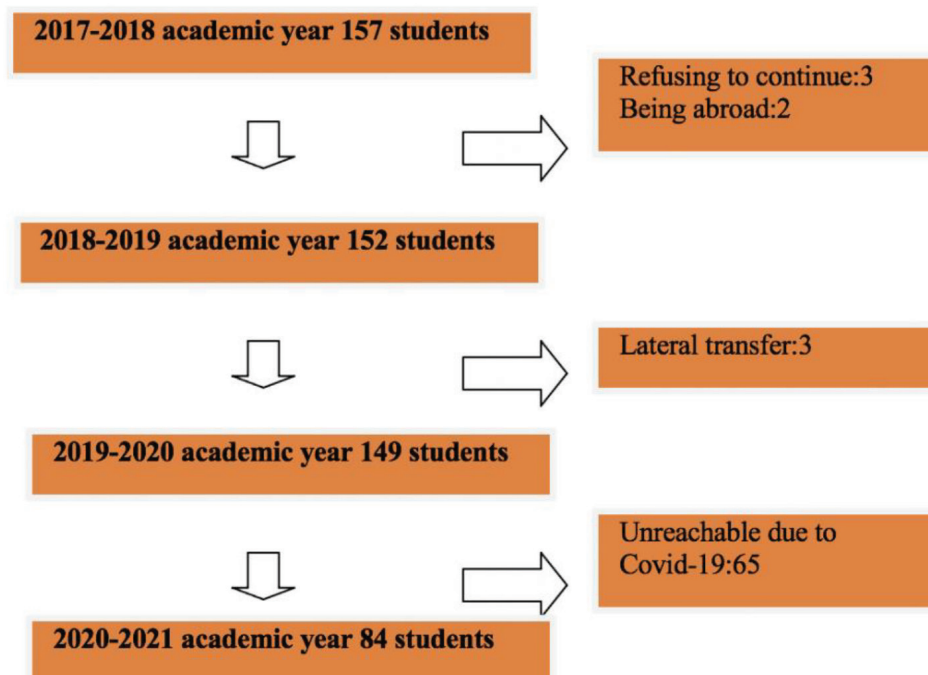


Figure 1.
Inclusion Flowchart of Students

It was determined that 81.5% of the participating students chose the nursing profession voluntarily, 89.5% were satisfied with the choice of the profession, and 83.3% found the profession suitable for themselves. 87.6% of the students stated that they want to continue their profession after graduation. 53.2% of the students stated that they like the social image of the profession, 69% stated that they like the social opportunities, and 69.8% found the economic opportunities at a medium level. 51.9% of the participants stated that they were worried about finding a job, and 68% of them stated that they wanted to work in a state hospital. When the students' post-graduation attendance status is questioned, 78.4% of them want to continue their education (Table 1).

Table 2 gives the distribution of nursing students' CFI mean scores by grades. As the average score of the CFI increases, career planning is observed to develop positively. CFI was evaluated in detail according to sub-dimensions, while examining the development of these sub-dimensions according to classes. The 1st grade mean scores of the students, in total and in all sub-dimensions, were higher than those of the 2nd grade. As the grades increased after the 2nd grade in the following periods, it was determined that the CFI mean scores of the students showed an improvement on a regular basis (Graph 1).

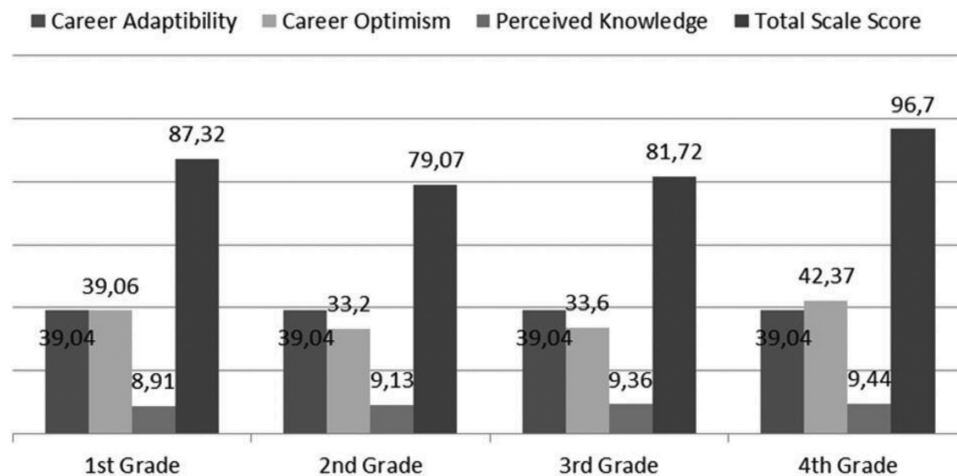
Table 3 shows the changes in the 4-year career development scale score averages of nursing students. The ANOVA test was applied to repeated measurements. The normal distribution of the variances was checked, and since it did not fit, the Welch test was chosen. In post-hoc analyses, the calculations were conducted using Tamhane's test. In Table 3, students' progress in total mean scores of the CFI scale is compared from the 1st to the 4th grade is compared. The analysis results showed that the difference between the mean scores of the students according to their classes was

significant ($p < 0.005$). In the statistical measurements made to find the group that distinguished between the classes, the difference between the mean scores they received in the 4th grade and those in the 3rd and 1st grades was found to be significant. Again, it was determined that the mean scores of the students in the 3rd grade were significantly higher than the scores in the 2nd grade ($p < 0.05$).

Discussion

Career planning includes an individual's plans for both their private and professional lives. First of all, it is necessary to evaluate his abilities, interests, weaknesses, and strengths, and to recognize his career areas for the individual to create this plan. Then, he should determine his career goals, examine the career opportunities suitable for those goals, and put into practice the plan he has prepared to achieve them. However, for the individual to realize his career plans, he must be able to cope with the changes in the job market and the problems that will arise in his professional life, adapting and maintaining his emotional well-being while doing this (12). In line with this information and in accordance with the purpose of the study, the CFI and 4-year developments of the students were examined to determine the career plans of the students. In addition to the career developments of the students, some demographic and occupational preferences were also included in the evaluation.

The students' acquaintance with nurses in their immediate environment and the effect of this environment on their choice of profession were both found to contribute highly. In a study conducted in Turkey, in which nursing students examined the factors affecting their choice of profession, it was reported that the scale score averages of those who were close to nurses were higher and more effective (13). Similar studies in the literature show consistency with the results of the research (14). According to the results of the study, the level of satisfaction with the choice of the profession was found to be high. Again, in another study conducted in



Graph 1.
Distribution of Career Futures Inventory and sub-dimension mean scores by class

Turkey, those who chose the profession willingly and those who felt ready for the profession were found to have higher scores on the scale (15). In addition, this finding suggests that nursing students are increasingly willing, and this will increase the success rate in the profession. Similarly, studies have shown that students choose the nursing profession willingly (15,16).

In this study, the majority of the students stated that they found the profession suitable for them. In a study, differences in students' ability to find a suitable profession are influenced by gender, the average score obtained from ÖSYM job security, and financial return (17). The majority of

students plan to start their careers after graduation. Nursing graduate students tend to start their careers right away because they mostly come from middle-income families. Similar study results are found in the literature (18). Another study identified various factors affecting nursing students' career choices in Morocco. While the desire to contribute to society and have a positive impact on individuals' lives was determined to be the primary motivating factor, economic concerns also played an important role. It was also determined that the level of education of parents was a factor that affected students' decisions (16). It is thought that the reason for the decrease in scale scores of 2nd year students in career choice, in which many factors play a

Table 1.
Students' Views on the Nursing Profession (n:157)

	n	%
Choose the profession willingly		
Yes	128	81.5
No	29	18.5
Satisfied with choosing the profession		
Yes	136	89.5
No	16	10.5
Found the profession suitable for oneself		
Yes	130	83.3
No	26	16.7
Status of working as a nurse after graduation		
Yes	135	87.6
No	19	12.4
Social image status of the profession		
Low	24	15.6
Moderate	83	53.2
High	48	31.2
Adequacy of the social opportunities of the profession		
Low	25	16.5
Moderate	105	69
High	22	14.5
Adequacy of the economic possibilities of the profession		
Low	31	19.8
Moderate	109	69.8
High	16	11.4
Anxiety about finding a job		
Yes	80	51.9
No	74	48.1
Institution where you want to work after graduation		
Private hospital	13	9
Private polyclinic	6	4.2
Public hospital	98	68
University hospital	25	17.4
Community health center	2	1.4
Continuing postgraduate education		
Yes	120	78.4
No	36	21.6
Postgraduate degree in which you want to continue after graduation		
Master	80	66.6
Doctoral	40	43.4

role, is the increase in course load this year, the inability to contribute to society at the desired level with the start of clinical practice, and the perception of inadequacy.

Nursing students stated that they found the social image and the social and economic opportunities of the profession to be at a moderate level. In a study examining the views of nursing students about the profession, the students had a negative social perspective in the 1st grade, and they stated that they had a moderate perspective by the time they reached the 4th grade (19). The nursing profession is seen as auxiliary staff with limited possibilities and intense work pressure in society (20). Due to the existence of similar views, it is thought that students are affected by society.

Research findings determined that more than half of the students have anxiety about finding a job. According to the data from a survey tool, it was reported that 90.1% of the nurses stated that they were worried about being

appointed (21). Similar study findings are found in the literature (22). It is thought that the students, especially those with equal income from the lower group, feed this anxiety more. The thought of these students to avoid being an economic burden to their families and to support them as soon as possible plays an important role in their decision-making.

The majority of students want to continue postgraduate education after graduation. According to the findings of a study conducted in Turkey, 73% of their nurse students want to continue their education after graduation (23). When the literature on the subject is examined, the technological developments of the current century, the increase in life expectancy from birth, and the aging of society increase the need for qualified health personnel due to global health problems. In this case, a compulsory orientation, especially for nurses, is needed to be more equipped (24).

Within the scope of the research, the examination of the students' career plans over four years revealed that the students' career planning has shown significant improvement since the second grade. As students' adaptation to university life increased, their average scores, specifically regarding their career plans, improved to the desired level. In the study they conducted with individuals who graduated from vocational school in Morocco and are in transition to business life, they showed that individuals with high success beliefs, career goals, and high levels of optimism reach or are close to reaching their career goals (16). The career plans of the students, which give positive results, are shaped by compulsory choices from the very beginning due to the wishes of their families and the ease of finding a job. Students chart a path, and plan for their careers for four years. In addition, it is reported that the inclusion of a guidance and career planning module in the Ministry of National Education's curriculum before university is effective. Moreover, with the development of technology, the increase in access to information and the use of social media have an impact on these results (2,8).

Study Limitations

This study has several limitations. First, it was conducted at a single center, which may limit the generalizability of the findings. Due to the COVID-19 pandemic, difficulties in reaching and following up with participants led to a loss of data, particularly in later years. Furthermore, as the latter phases of data collection were conducted online, students

Table 2.
Distribution of Career Futures Inventory Average Scores by Class

Scale sub-dimension	$\bar{X} \pm SD$
1st grade	
Career adaptability	39.04±9.28
Career optimism	39.06±8.05
Perceived knowledge	8.91±3.34
Total	87.32±6.96
2nd grade	
Career adaptability	36.73±9.28
Career optimism	33.2±3.81
Perceived knowledge	9.13±2.35
Total	79.07±10.48
3rd grade	
Career adaptability	38.82±6.12
Career optimism	33.6±2.65
Perceived knowledge	9.36±2.21
Total	81.72±7.65
4th grade	
Career adaptability	44.88±5.18
Career optimism	42.37±6.41
Perceived knowledge	9.44±1.73
Total	96.7±10.62
x=scale score averages, SD=standard deviation	

Table 3.
The Relationship Between the Career Futures Inventory Mean Scores of the Students by Class

Students' classes	n	CFI scale total x±ss	F/Welch	p	Tamhane
1 st grade	157	87.32±6.96	1.76	0.001	3>2 4>3 4>1
2 nd grade	152	79.07±10.48			
3 rd grade	149	81.72±7.65			
4 th grade	84	96.7±10.62			
CFI=career futures inventory, x=scale score averages, SD=standard deviation					

may have had concerns regarding the confidentiality of their responses. Additionally, the repeated use of the same measurement tools over time may have introduced recall bias.

Conclusion

Based on the results of the study, it is thought that it would be beneficial to provide training on career adaptation and career planning from the beginning of university life. It is recommended to establish career development guidance units, particularly since it will contribute to job satisfaction in terms of post-graduate professional life or education.

Ethics

Ethics Committee Approval: Ethics committee approval was obtained from the Near East University Scientific Research Evaluation Ethics Committee (no.: 2017/47-409, date: 25.05.2017).

Informed Consent: Consent was obtained from students who agreed to participate in the study.

Footnotes

Author Contributions: Conception – B.T.D.; Design – B.T.D., E.B., N.A.; Data Collection and/or Processing – B.T.D., E.B., N.A.; Analysis and/or Interpretation – E.B., N.A.; Literature Review – B.T.D., E.B., N.A.; Writing – B.T.D., E.B., N.A.

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