



ARAŞTIRMA / RESEARCH

Perceptions of intern physicians about nursing profession: a qualitative research

İntörn hekimlerin hemşirelik mesleği ile ilgili algıları: nitel bir araştırma

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Abstract

Purpose: The aim of this study was to determine how the concept of 'nursing' was perceived by intern doctors working at a medical faculty hospital.

Materials and Methods: This study used a qualitative approach. The study was conducted at a medical faculty with intern doctors using the word association test, and a conceptual analysis of the nursing profession was conducted. Study participants comprised 54 intern doctors (30 males and 24 females) who voluntarily participated in the study, and the saturation point was considered ($n=54$).

Results: Tags and frequency numbers of the themes were as follows: task conflict ($f=62$), negative perception burden ($f=128$) and professional nursing perception ($f=117$). The participants stated that nurses sometimes acted as physicians (occupational disorder). Nursing-related professional identity items included expressions such as altruism, devotion and self-sacrifice. The participants expressed a negative perception of nursing (e.g. sullenness and aggressiveness).

Conclusion: According to the results of the study, negative perception about nursing is dominant among the intern doctors. At the point of changing relations between colleagues, interprofessional education can be applied at the undergraduate level. Joint courses should be conducted under the name of doctor-nurse cooperation. However, the answers to some questions in clinical practice can help improve professional cooperation between nurses and physicians: Why cannot we turn negative perception into a positive one? And can interprofessional learning help?

Keywords: Education; interprofessional education; nursing; qualitative study

Öz

Amaç: Bu çalışmanın amacı Tıp fakültesi hastanesinde çalışan intörn hekimlerin "hemşirelik" mesleğini nasıl algılandığını belirlemektir.

Gereç ve Yöntem: Bu çalışmada nitel bir yaklaşım kullanılmıştır. Araştırma, kelime ilişkilendirme testi kullanılarak, tıp fakültesinde intörn hekimler ile yürütülmüş ve hemşirelik mesleğinin kavramsal analizi yapılmıştır. Çalışma katılımcıları çalışmaya gönüllü olarak katılan 54 intörn hekimden (30 erkek ve 24 kadın) oluşmuş ve veri saturasyonu ile örneklem büyüklüğü belirlenmiştir ($n = 54$).

Bulgular: Temaların etiketleri ve sıklık sayıları şu şekildedir: görev çatışması ($f = 62$), negatif algı yükü ($f = 128$) ve profesyonel hemşirelik algısı ($f = 117$). Katılımcılar, hemşirelerin bazen hekim gibi davrandıklarını (meslek hastalıkları) belirtti. Hemşirelikle ilgili profesyonel kimlik öğeleri, özgeçmişlik, bağlılık ve fedakarlık gibi ifadeleri içeriyordu. Katılımcılar olumsuz bir hemşirelik algısı (örneğin, somurtkanlık ve saldırganlık) dile getirdiler.

Sonuç: Çalışma sonuçlarına göre, intörn hekimler arasında hemşirelik ile ilgili olumsuz algı hakimdir. Profesyoneller arası ilişkileri değiştirme noktasında, lisans düzeyinde meslekler arası öğrenme uygulanabilir. Hekim-hemşire işbirliği adı altında ortak dersler yürütülmelidir. Bununla birlikte, klinik uygulamada bazı soruların yanıtları hekim ve hemşireler arasında profesyonel işbirliğini geliştirmeye yardımcı olabilir: Neden olumsuz algıyı olumlu bir düşünceye çeviremiyoruz? ve bu süreçte meslekler arası öğrenmenin yardımı olabilir mi?

Anahtar kelimeler: Eğitim, meslekler arası öğrenme, hemşirelik, nitel araştırma.

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INTRODUCTION

Health care requires collaboration among various health professionals. Among these professionals, physicians and nurses are two groups of professionals which collectively work for 24 h and communicate closely with one another. The current health care system has considerable challenges such as changing environmental conditions, staffing difficulties, interruptions in health spending, increased health demands and increased public expectations¹. Within this contextual structure, doctor–nurse interaction and co-operation among health service providers are important and considered complex issues².

The concepts of interaction and co-operation which have been described in the health literature since the 1990s state that professionals are willing to work in collaboration, and they must trust and respect each other as professionals³. Although vocational training and learning practices are becoming widespread, they are not accompanied by improved interaction and co-operation. In health service provision, the transition from individuality to team work is led by the development of special education for professionals belonging to the field of health sciences, and the changes experienced in this process are constantly under discussion^{4,5}. In the 2010 WHO Framework for Action on Interprofessional Education and Collaborative Practice, the World Health Organization emphasised the importance of vocational training for the development of skills needed as part of health manpower⁵.

Effective work relationships between physicians and nurses for safe and high-quality care can be enhanced by developing positive perceptions and collaborative attitudes between the two professions^{6,7}. One of the defining dimensions in this context is related to the perception of professions². The perception of nursing extends from senior manager perceptions to the complexity of identification with motherhood functions⁸.

Several stereotypes related to nursing exist in the literature. The perceptions related to nurses differ among countries, e.g. ‘subordinate of the doctor/in command’ or ‘the shadow of the doctor’⁹⁻¹³. Nurses have now become knowledge-based professionals with the development of global nursing protocols and guidelines⁹. However, this idea is contradictory

to the perception of professionalism and recognition in the community or within a team. A previous study that evaluated the views on professionalism reported that residents considered nurses ‘competent, sufficient, respected, accountable, committed, reliable, open to development and satisfactorily working together’ in the professional sense¹⁴. In this context, the perceptions of nursing of future medical students and medical faculty interns can be a guide for vocational education involving nursing and team approach. The research question was as follows: ‘How do medical faculty students perceive nursing as a profession?’

MATERIALS AND METHODS

In this study, a qualitative research model was used to present the intern doctors’ nursing-related perceptions in a realistic and holistic manner. Therefore in this study was adopted the interpretative approach that is interpreted in terms of the meanings that people place on them, that is taken into consideration in the context of the facts and events under investigation. Various data collection techniques can be used for qualitative research such as observation, interviews and texture analysis to improve the understanding of perceptions¹⁵. This study involved a conceptual analysis of nursing using word association test (WAT) of intern doctors.

Sample

The study participants comprised 54 intern doctors (30 males and 24 females) who voluntarily participated in the study, and the saturation point was considered. The participants were aged 23–24 years, and they were selected using the convenience sampling method (total: 92 intern doctors).

Procedure

In this study, unique data collection tool and technique were employed. WAT was used as a data collection tool, and nursing was defined as the key concept. WAT is a common method used in the field of psychology which has been used to reveal an individual’s private life. It facilitates the identification of the associative meaning of a stimulus word or relationship between two stimulus words. These associations reveal respondents’ verbal memories, thought processes, emotional states and personalities¹⁶. The concept of nursing was repeated

thrice to avoid the risk of a chained response, with the reason being that if the key concept is not repeated, participants may write the words that the concept he/she writes instead of the key concept in every concept writing. This may prevent the test from achieving its goal; hence, the concept of nursing was separately written thrice in the data collection tool. Unlike the study involving WAT-related method in the literature, the participants were asked to write 1–2 explanatory sentences about the words they wrote. An example of the page layout of the data collection tool is given below (Table 1).

Table 1. A sample of the page format of the data collection tool

Code Name of the Participant:	Participant No:
Age:	Main concept: Nursing
Sex:	
1. Nursing One word Sentence	
2. Nursing One word Sentence	
3. Nursing One word Sentence	

Within 30 s, the participants were asked to write the relevant concepts that they instantly thought of. The time period of 30 s during the application of the test was selected because it was determined as the most appropriate time period in pretests conducted in previous academic studies¹⁷⁻²⁰. Explanations were provided for WAT to those who participated in the study before the application.

The relevant sentence(s) were believed to be as important as the words that the participants noted down regarding their perceptions of the concept of nursing because the sentence(s) concerned may be more complicated and complex than a single word. Therefore, situations such as whether a participant's script is scientific or not and includes misconceptions of different qualities play an important role in the evaluation process. An additional period was provided to the participants in this section. This study was conducted during the 2016–2017 spring term at the Medical Faculty, Manisa Celal Bayar University, Turkey. Data

collection was performed using face-to-face interviews with volunteer students. Three students refused to participate owing to their busy schedules and tiredness (two males and one female). The average duration for data collection was 3–4 min/subject. Data were collected at the clinic and faculty.

The research was approved by the author's university ethics review board (protocol no: 26.07.2017/20.478.486). Written permission was obtained from Faculty of Medicine. The participant numbers were used in the findings without using identifiable information. The abbreviation 'P' represents participant.

Statistical analysis

The participants' grades obtained from WAT were ranked from 1 to 54 to analyse words and written sentences to be prepared for analysis. The words that the participants associated with the concept of nursing were first alphabetically sorted; then, their frequencies were calculated. Next, the words and phrases that the participants wrote about the related nursing concept were subjected to content analysis. Content analysis is the study of the content that considers meanings, contexts and intentions in messages. The material for content analysis in qualitative research can include letters, short stories, newspaper content, radio or television messages. Given that content analysis can be used to virtually examine any piece of writing or recorded communication, it is used in a wide range of fields. The response words and their relationship with the stimulus words were evaluated according to the methods described in the literature²¹. The researchers identified three themes.

When calculating frequencies, frequency numbers in the data was higher because some participants rewrote the same word more than once (the same word was used 4–10 times at some instances). The number of frequencies was obtained by counting the number of times a word was used in a participant's sentences. In the analyses, not only the three words but also same words were evaluated in sentences if it was used to describe the main word. Word tables and frequencies were obtained based on the results of WAT. Frequency numbers showing repeated words for the concept of nursing were presented, and the themes were evaluated based on sex. The abbreviation 'f' represents frequency.

Validity

The study team comprised a family physician, medical training programme director, medical ethics specialist and nurse. Validity was addressed by having two researchers (the medical training programme director and medical ethics specialist) conduct data collection and having all authors work on data analyses^{22,23}. One of the researchers (A.Ç.) is certified for qualitative data analysis. The authors emphasised on honesty, accuracy and self-assertiveness in the interviews and data analysis. The COREQ checklist was used in the study report.

RESULTS

When the words and phrases written by the intern doctors for the nursing profession were qualitatively evaluated, three themes were determined (Figure 1). Tags and frequency numbers of the themes were task conflict ($f = 62$), negative perception burden ($f = 128$) and professional nursing perception ($f = 117$).

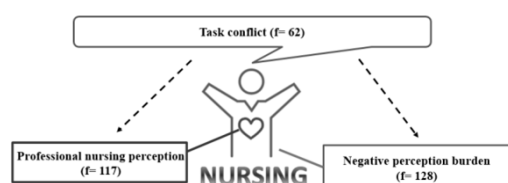


Figure 1. Through the perception of intern doctors: Qualitative study themes of the perspectives of the nursing profession.

Theme 1. Task conflict ($f = 62$): In this theme, wherein internal medicine was expressed 62 times, nurses were sometimes referred to as doctors or as nurses. Some hospital staff conduct certain operations that fall outside the scope of their duty, authority and responsibility and require technical knowledge, skill and care. Such situations can be termed task conflict. The intern doctors used appropriate expressions for this definition. Some quotes about this theme are as follows:

'... thinking that our reason for being in the clinic is not education, considering that we are working under them, they think that the title of doctor is different from the definition of intern' (P13, 24 years old, male).

'... like a teacher; in some cases it is obvious that they are experienced physicians, especially in the initial years of novice

... if you do not know an application or method, you can easily ask' (P10, 25 years old, male)

'Crushing interns; to get along well with lecturers, interns have their affairs' (P8, 24 years old, male)

'Helpful; the person who should help the doctor in all kinds of matters' (P29, 25 years old, male)

'Colleague; we have to perform compulsory job sharing while working ... We are obliged to load the obligations related to their job ...' (P3, 23 years old, male)

'... doctor-nurse seniority problem; at the hospital, while the nurse and physician's job descriptions are distinct, sometimes they cannot leave' (P22, 24 years old, female)

'Those who escape from their duties; they have a habit of allocating their work to interns which they have to do' (P25, 24 years old, female)

'Nurses are the most important helpers of doctors' (P50, 24 years old, female)

Besides the participants' abovementioned statements indicating the complexity of the task, that can be evaluated positively and negatively, the following statement summarises this theme:

'Forget your profession and consider yourself a doctor; despise the intern and to get along well with the senior teacher' (P42, 24 years old, female)

Theme 2. Negative perception burden ($f = 128$):

Under this theme, that was cited 128 times by the intern doctors, negative perceptions about nursing were used (e.g. sullenness, aggressiveness and dislike). The examples of negative perceptions of nursing included

'Dissatisfied; does not like her work ...' (P22, 23 years old, female)

'... the nurses who speak with the cadence of the imperative set up an unnecessary level and a repulsive attitude towards us' (P31, 24 years old, female)

'Lack of self-confidence; to enter the psychological state of weakness, the person is sure that the only step that she can crush is the interns' (P11, 23 years old, female)

'Aggressive; they tend to be very tense and to scream; the tone of their voice always increases when you ask for help' (P40, 24 years old, female)

'Gossip; nurses pull the doctor and interns in the room' (P29, 25 years old, male)

'... they usually communicate with patients in a tired and

weary way' (P47, 27 years old, male)

Theme 3. Professional nursing perception (f=117): This theme, that was cited 117 times by the intern doctors, comprised these nursing-related professional identity items: altruism, devotion and self-sacrifice. Professional identity of an individual can be defined by how a student perceives other professions and by the stereotypes that emerge during professional identity formation, which can influence interprofessional co-operation in clinical settings²⁴. The theme tag has been selected in the literature for its professional nurse qualifications for communication, professional satisfaction, leadership, responsibility, flexibility, creativity, professional practice, compassion, ability, competence, confidence, courage, self-awareness, conscience, commitment and professional knowledge^{25,26}. Some quotes on this theme are as follows:

'... there is a lot of workload, I can say a health care worker who has the most contact with patients, so there is one thing that requires patience' (P31, 24 years old, female)

'Saviour; our companion at our workplace, our saviour friends, alleviating patient concentration in intense working conditions ...' (P16, 22 years old, female)

'Devotion; nursing is a profession that should be considered most self-sacrificing at hospitals. Nurses should be compassionate as they establish the closest relationship with patients' (P4, 25 years old, male)

'Sacred; night crying, feverish patients are first noticed by them,' said a 25-year-old male who also wrote that the nursing profession brought the word *'aggressiveness'* to his mind.

'Staff to assist in any kind of intervention and treatment' (P6, 23 years old, female)

'Helpfulness; helping patients to deal with their problems' (P39, 23 years old, female)

'Sacrifice, because they work very hard' (P12, 24 years old, male)

'Guidance; they help us when we cannot' (P27, 25 years old, male)

DISCUSSION

Understanding the perceptions of professionals about other professions is necessary to develop co-operation and improve the quality of health care

delivery⁷. Doctor–nurse co-operation is an important aspect of high-quality patient care and health-related outcomes⁵. This study, which was conducted at a university hospital, revealed that the perceptions of the members of a health care team about each other should be known. The study results revealed mixed perceptions regarding nurses' duties with substantial resilience among nurses who completed certain tasks which are typically regarded as the responsibility of doctors; thus, conflicts between professions in the health care team remain.

The theme of task conflict is a structure which shapes the other two themes. Given that intern doctors sometimes have a professional sense of nursing, their negative perceptions of nursing involving anger may be considered a product of this conflict.

From a historical perspective, nurses are regarded as physicians' handmaidens³. A study conducted by medical students determined that 35.4% of the participants described the nurses as 'people who are interested in all the problems of the patient', and 23.4% of them considered nurses as 'physician assistants'²⁷. In a study conducted at a university hospital in Turkey involving 17 physicians and 83 interns, 47% of the physicians were found to have a negative professional image of nursing. In the same study, 41.2% of the interns saw the centre of nursing activities as fulfilling the operations of the physician. This ratio was 12.5% for general practitioners and 38.8% for specialist physicians²⁸. In parallel with this finding, interns reported less (29.4%) confidence in nurses regarding medical treatment and care of the patients compared with general practitioners and specialists (50% and 44.4%, respectively). Approximately 66.3% of the participants of a study conducted on the first day of nursing school without taking any courses expressed the statement, 'nurses are assistants of doctors', and this perception could be an acceptable reflection of society²⁹. An intern doctor who regards a nurse as an assistant of physicians during his training as a practitioner (i.e. someone who thinks of nurses as a right arm who takes orders and unconditionally fulfils demands) is expected to maintain this idea even after graduation. The 'nurses are assistants of doctors' perception could be a reflection of the society³⁰.

Competitiveness and criticism among nurses and physicians are considered the obstacles to effective work relationships³. Interestingly, Paulo Fierre

analysed the oppressed group behaviour of negative perceptions such as nervousness and weakness among nurses. A 23-year-old female participant similarly expressed such behaviours (*Lack of self-confidence; to enter the psychological state of weakness ...*). Iacono (2003) reported the factors that affect nurses' decision to pursue their profession such as feelings that they are less valuable and respected than they deserve. Herein, as a determinant, daily relationships with physicians were emphasised.

The 10 words with negative and positive stereotypes in the 'health care stereotype scale' in the literature were also observed in this study (i.e. caring, practical, dedicated, arrogant, decisive, do-gooders, detached, hard workers, good communicators and team players)^{24,31}. However, a study that evaluated views of residents about professionalism reported that nurse saw as 'competent, sufficient, reliable, open to development and satisfactory working colleagues together' in the professional sense³².

In a qualitative research conducted to determine the perception of nurses by health personnel working at emergency services in Australia, nurses were found to influence the training opportunities of young medical staff. The majority of participants believed that the role of nurses was limited, some believed that the role was well defined and others believed that the role was poorly defined. Approximately, 36.1% of the emergency service managers agreed to the expression 'nurses can take interns' positions at emergency departments'. The 'nurse' role and disaggregation/overlapping of medical roles' label was used as a theme in this study (separation/overlap of nurse' role and medical roles). Some interviewees commented on the role of nurses and the possibility of medical roles replacing each other. In a small section, the theme was 'perceived value of nurse' role'; short responses indicating a positive perception were reported. Such responses included the following expressions: '*They are excellent*', '*A great asset*' and '*An important and effective role*'³³. In a sample of six doctors, the results of a semi-structured interview with young doctors regarding the perception of expert nurse role perception at cardiology clinics revealed that the ongoing issues of role ambiguity, anticipation and limitations remain a concern in the clinical setting³⁴.

In a study conducted by Crawford et al. (2016) involving last-year undergraduate students from seven different undergraduate degrees (dentistry, dietetics, medicine, nursing, occupational therapy,

pharmacy and physiotherapy) reported that students from other professions perceive nursing differently through interprofessional education, and they do not only learn about the profession but also fail to explain the roles of nurses³⁵. A short learning intervention among professions focusing on communication was performed using medical (n = 23) and nursing (n = 79) students by Liaw et al. (2014) who showed that positive attitudes towards physician–nurse co-operation and stereotypes can be achieved⁶. An interprofessional education programme was evaluated by Carpenter (1995) whose study comprised 39 participants, including senior medical students and fourth-year undergraduate nursing students; positive results were obtained. Participants reported that their understanding of the knowledge, skills, roles and duties of the other profession improved after the programme. The programme was positively evaluated by both groups²⁴. In another study, interprofessional simulation-based education for nursing medical students reduced negative stereotypes about other professions⁷.

Nurses are internationally perceived as an integral part of the health workforce. Although some qualitative interpretations of our study support this view, some interpretations point to few hurdles in positive evaluation of the roles of nurses. However, the data collection method used in this study did not involve in-depth data and their analysis. This study has certain limitations. This qualitative research could affect the generalizability of the findings. Further, this study did not examine the gradual changes in attitudes and how these could be translated into actual behaviours in an actual clinical setting.

A negative perception about the nursing profession is prevalent in vocational education in health education society. In long-term business environments, task conflict and ambiguity can cause several negative situations. Changing the relationships among professionals is possible with vocational education at the undergraduate level. The co-educational environment of multiple health workers can focus on doctor–nurse communication and can change the stereotypical professional perceptions that exist between medical and nursing students. This learning experience has substantial potential to be presented at the undergraduate level in student education to support collaborative patient-centred care and to prepare future health

care teams. Employees are expected to have up-to-date knowledge on vocational training to progress as professionals in terms of practices and gain information about their duties, authorities and responsibilities. In addition, each team member belonging to a different profession should be informed about the duties, authorities and responsibilities of other professionals.

However, the following three questions remain:

1. Why does the vocational education in the health education community lack the ability to reduce negative perception and cannot make these perceptions positive?
2. What is the effect of the social nursing perception on the negative perception burden related to physician–nurse relationship?
3. How do professional stereotypes evolve through academic learning experiences and how can they be changed?

Conflicts persist among researchers' results, and several questions need to be answered.

Yazar Katkıları: Çalışma konsepti/Tasarımı: AÇ, SR, HE, SA; Veri toplama: SR, HE, SR; Veri analizi ve yorumlama: AÇ, HE, SA; Yazı taslağı: AÇ, SR, HE; İçerğin eleştirel incelenmesi: AÇ, SR, HE; Son onay ve sorumluluk: AÇ, SR, HE, SA; Teknik ve malzeme desteği: -; Süpervizyon: AÇ, SR, HE, SA; Fon sağlama (mevcut ise): yok.

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REFERENCES

1. McGowan Y, Humphries N, Burke H, Conry M, Morgan K. Through doctors' eyes: A qualitative study of hospital doctor perspectives on their working conditions. *Br J Health Psychol*. 2013;18:874-91.
2. Ridd M, Shaw A, Lewis G, Salisbury C. The patient–doctor relationship: A synthesis of the qualitative literature on patients' perspectives. *Br J Gen Pract*. 2009;59:116-33.
3. Pavlovich-Davis S, Forman H, Simek PP. The nurse–physician relationship; can it be saved? *J Nurs Adm*. 1998;28:17-20.
4. Onan A, Turan S, Elcin M, Simsek N, Deniz KZ. A test adaptation of the modified readiness for Inter-professional Learning Scale in Turkish. *Indian Journal of Pharmaceutical Education and Research*. 2017;51:207-15.
5. Herath C, Zhou Y, Gan Y, Nakandawire N, Gong Y, Lu Z. A comparative study of interprofessional education in global health care: A systematic review. *Medicine (Baltimore)*. 2017;96:7336-43.
6. Liaw SY, Siau C, Zhou WT, Lau TC. Interprofessional simulation-based education program: A promising approach for changing stereotypes and improving attitudes toward nurse–physician collaboration. *Appl Nurs Res*. 2014;27:258-60.
7. Lockeman KS, Appelbaum NP, Dow AW, Orr S, Huff TA, Hogan CJ, Queen BA. The effect of an interprofessional simulation-based education program on perceptions and stereotypes of nursing and medical students: A quasi-experimental study. *Nurse Educ Today*. 2017;58:32-7.
8. Glerean N, Hupli M, Talman K, Haavisto E. Young peoples' perceptions of the nursing profession: An integrative review. *Nurse Educ Today*. 2017;57:95-102.
9. Ten Hoeve Y, Jansen G, Roodbol P. The nursing profession: public image, self-concept and professional identity. A discussion paper. *J Adv Nurs*. 2014;70:295-309.
10. Huffstutler SY, Stevenson SS, Mullins IL, Hackett DA, Lambert AW. The public's image of nursing as described to baccalaureate prenursing students. *J Prof Nurs*. 1998;14:7-13.
11. Takase M, Kershaw E, Burt L. Nurse–environment misfit and nursing practice. *J Adv Nurs*. 2001;35:819-26.
12. de Araujo Sartorio N, Pavone Zoboli ELC. Images of a 'good nurse' presented by teaching staff. *Nurs Ethics*. 2010;17:687-94.
13. Kemmer LF, Silva MJP. Nurses' visibility according to the perceptions of the communication professionals. *Rev Lat Am Enfermagem*. 2007;15:191-8.
14. Kalisch BJ, Begeny S, Neumann S. The image of the nurse on the internet. *Nurs Outlook*. 2007;55:182-8.
15. Sutton J, Zubin A. Qualitative research: Data collection, analysis, and management. *Can J Hosp Pharm*. 2015;68:226-31.
16. Deese J. Form class and determinants of association. *J Verbal Learning Verbal Behav*. 1962;1:79-84.
17. Keskin E, Örgün E, Akbulut BA. Analysis of gastronomy concept through the word association test. *Journal of Tourism and Gastronomy Studies*. 2017;5:255-67.
18. Akis A, Kaya B. Determination of the cognitive fourth students 'cognitive structures on the concept of drought. *International Journal of Geography and Geography Education (IGGE)*. 2018;38:58-68.

19. Polat G. Determination of the environmental cognitive structures of the 9th grade 9th grade students using the Word Correlation Test technique. Necatibey Faculty of Education Journal of Electronic Science and Mathematics Education. 2015;7:97-120.
20. Bahar M, Johnstone AH, Sutcliffe RG. Investigation of students' cognitive structure in elementary genetics through word association tests. J Biol Educ. 1999;33:134-41.
21. Saldana J. The coding Manual For Qualitative Researchers, 2nd ed. Thousand Oaks, MA, Sage, 2010.
22. Cutcliffe JR, McKenna HP. Establishing the credibility of qualitative research findings: The plot thickens. J Adv Nurs. 1999;30:374-80.
23. Leung L. Validity, reliability, and generalizability in qualitative research. J Family Med Prim Care. 2015;4:324-7.
24. Carpenter J. Interprofessional education for medical and nursing students: Evaluation of a programme. Med Educ. 1995;29:265-72.
25. Arthur D. Measuring the professional self-concept of nurses: A critical review. J Adv Nurs. 1992;17:712-9.
26. Ohlen J, Segesten K. The professional identity of the nurse: Concept analysis and development. Journal of Advanced Nursing. 1998;28:720-7.
27. Karadakovan A. An examination of medical faculty students' thoughts on the nursing and health team. IV. National Nursing Education Symposium. "International participation" Book. 10-12 September 1997, Cyprus, Çevik Printing, p.82-6.
28. Şahin N, Şirin A. Hekimlerin hemşirelik mesleğine bakış açılarının ve hemşirelik mesleğine ilişkin sorunların incelenmesi. Ege Üniversitesi Hemşirelik Yüksek Okulu Dergisi.1995;11:1-9.
29. Özpancar N, Aydın N, Akansel N. 2008. Hemşirelik 1. sınıf öğrencilerinin hemşirelik mesleği ile ilgili görüşlerinin belirlenmesi. C.Ü. Hemşirelik Yüksekokulu Dergisi. 2008;12:9-17.
30. Iacono M. Conflict, communication, and collaboration: Improving interactions between nurses and physicians. J Perianesth Nurs. 2003;18:42-6.
31. Kale E, Çiçek U. Hemşirelerin kendi mesleklerine ilişkin metafor algıları. Sağlık ve Hemşirelik Yöntem Dergisi. 2015;2:142-51.
32. Özkaraca R. Hekim ve hemşirelerin işbirliğine ilişkin tutumları ve birbirlerini profesyonellik açısından değerlendirmeleri (Master tezi). Ankara, Hacettepe Üniversitesi, 2009.
33. Weiland TJ, Mackinlay C, Jelinek GA. Perceptions of nurse practitioners by emergency department doctors in Australia. Int J Emerg Med. 2010;3:271-8.
34. Callaghan S. Junior doctors' perceptions of the specialist nurse role in acute cardiology. Br J Cardiac Nurs. 2015;10:487-93.
35. Crawford RM, Gallagher P, Harding T, McKinlay EM, Pullon SR. Interprofessional undergraduate students talk about nurses and nursing: A qualitative study. Nurse Educ Today. 2016;39:7-11.