*Original article:*

## Relationship between the Metaphor Perception and School Climate on the Profession of Nursing Students

*Özge Karakaya Suzan [1], Sinem Yalnızoğlu Çaka [2], Sümeyra Topal[3], Nesrin Akıncı Çötok [4], Nursan Çınar [5]*

**Abstract:**

*Aim*: The aim of this study was to determine the effects of the school climate on nursing senior students on the perception of metaphor for nursing. **Method:** Sample of the study was formed with volunteer students (n = 130) to participate in the study on the date of the data collection. In the evaluation of quantitative data, frequency, percentage, mean, independent sample t-test, and in the evaluation of qualitative data content analysis methods were used. The categories in which including the positive and negative metaphors in the study are constructed in five different ways (vital, object, struggle, abstraction, productivity). The primary metaphors are being been the mother, the angel, the medicine and the robot.When the metaphors were examined, a vital expression of vast majority has been seen as the nursing perception. **Result:** When the students' metaphor perceptions were compared with school climate scores, it was found that there was a significant relationship between them (t=2.259, p=.026). Metaphors have provided an indication of the produced individual perception on the nursing profession.**Conclusion:**Metaphors can be used as a powerful research tool to reveal to what extent students' school climate influences these metaphors.

**Keywords:** Metaphor; perception; school climate; nursing; university students

## Introduction

Metaphor is a powerful mental modeling mechanism for individuals to analyze and build their own world. Metaphors contribute to finding out how to perceive the concepts that are desired to be analyzed.[1] The metaphor analysis, which is used extensively abroad and to reveal the experiences and opinions of professional members,isused more widely in the field of educational sciences and rarely in the field of nursing science.[2] Metaphors give a deeper awareness of the soul of human by creating a new meaning. A nurse can creatively express her nursing imaginings thanks to her experiences and thoughts. The identification of metaphors provides an opportunity for nurses to better understand their skills, knowledge and attitudes and to express their thoughts and feelings.[3]

The concept of climate is expressed as a school climate in educational organizations although it is a subject that has been worked on in many different organizations.Researchers suggest that school climate will make a difference in the school's learning environment and student achievement. The school climate may have a positive impact on

1. Özge Karakaya Suzan, Faculty of Health Sciences, Department of Pediatric Nursing, University of Sakarya. Esentepe Campus 54187 Serdivan / SAKARYA / TURKEY.
2. Sinem Yalnızoğlu Çaka, Faculty of Health Sciences, Department of Pediatric Nursing, University of Sakarya. Esentepe Campus 54187 Serdivan / SAKARYA / TURKEY.
3. Sümeyra Topal, University of Kahramanmaraş Faculty of Health Sciences, Department of Pediatric Nursing, Kahramanmaraş.
4. Nesrin Akıncı Çötok, Faculty of Communication, Department of Journalism, University of Sakarya. . Esentepe Campus 54187 Serdivan / SAKARYA / TURKEY.
5. Nursan Çınar, Faculty of Health Sciences, Department of Pediatric Nursing, University of Sakarya. Esentepe Campus 54187 Serdivan / SAKARYA / TURKEY.

**Correspondence to:** Nursan ÇINAR (PhD- Prof.)Faculty of Health Sciences, Department of Pediatric Nursing, University of Sakarya. Esentepe Campus 54187 Serdivan / SAKARYA / TURKEY. Email: ndede@sakarya.edu.tr

learning as well as being a barrier in front of the learner.[4] Metaphors will contribute to understanding how the nursing profession is perceived by nurses, analyzing the profession better, identifying problems and improving the profession.[1] However, the impact of school climate will also guide the metaphorical perceptions of nursing students. Despite the studies regarding the perceptions and attitudes of the nursing profession with the roles, functions, duties, and responsibilities of nurses, there was no literature measuring the perceptions of nursing students. In this framework, this is a unique study that reveals the meta-perceptions of school climate of senior nursing students in the nursing department.

## Methods

### The aim of the research

This research was conducted to determine the impact of school climate on the perception of nursing metaphors by senior nursing students.

### Pattern of the research

The research has an enriched pattern of qualitative and quantitative methods used together.

### Participants

The research was carried out in March-April 2017 at the Faculty of Health Sciences of Sakarya University. All 4th grade students studying in the nursing department in the Spring Semester 2016-2017 constituted the population of the study, and those who volunteered to participate in the study (n=130) on the date of data collection after being informed by the researchers constituted the sample. The students who filled out the forms were included in the study (n = 126).

### Instruments and Procedure

The data collection form consists of three parts prepared by the researchers in line with the literature. The first part includes the questions (age, gender) about determining demographic information of student nurses. In the second part, the School Climate Scale was used to evaluate the school climate of the students. This scale was developed by Terzi (2015) and is a 5-point Likert-type scale consisting of a total of 17 items. The Cronbach Alpha coefficient for the scale was calculated as .90. In this study, the Cronbach Alpha coefficient was calculated as .97. The average of the arithmetic averages of the scales taken from the scale (from each dimension level or the sum of the scales) ranged from 1.00 to 2.60, school climate was a negative (closed) climate,

an average of between 2.61 and 3.40 was moderate (not too bad) climate, and thepoints between 3.41 and 5.00 indicate the presence of a positive (open) climate. In the third part, the question "What do you like to see on nurses as an image?" was asked to nurses who participated in the study to reveal their perceptions of the profession using the semi-structured questionnaire, and they were asked to complete of sentences "Nursing is similar to ..." and "because...". The data collection form was applied to the students under the supervision of the researchers after a preliminary notification indicating the aim and requirements of the study.

At the end of the study, 130 of the questionnaires distributed to 135 nurses returned . 5 surveys were not evaluated for various reasons (lack of clear understandings, incomplete, lack of explanation of the cause of generated metaphors etc.), 130 surveys were evaluated.

### Evaluation of Data

Quantitative Data were analyzed using the percent, mean and independent samples t test using the SPSS 22.0 (IBM, SPSS statistics 22, SPSS Inc. IBM Corp. Armonk, NY). In the analysis of qualitative data, the data were analyzed by taking the opinions of two instructors in the field. In the evaluation of the data obtained, content analysis method was used in accordance with the qualitative research pattern. Content analysis can be described as a systematic application in which certain words of a text are summarized by smaller content categories with certain rules-based coding as one of the most frequently used techniques in social sciences.[5] While analyzing the content, coding of data, finding of themes, arrangement of codes and themes, stages of identification and interpretation of findings were monitored. The metaphors that were similar to each other were grouped together within specific themes and concepts, and the metaphors generated by students on their professional perceptions were systematically categorized. The metaphors generated were collected together with the reasons under two categories (positive, negative). The categories were constructed in 5 different forms (vital, object, struggle, abstraction- value, productivity). This categorization helped students to discover the meanings of the metaphors they generated and to analyze the meaning-context relationship of the metaphor. In the study, the results were be evaluated at a confidence interval of 95%and at a significance level ofp <0.05.

**Ethical Considerations**

The institutional review board of the university approved the study (approval number: 34671234/044/). Permission and support were obtained from the university to conduct the study. Prior to the study, a letter detailing the aimsand procedural issues of the study was given to all participantsand their informed consent was obtained. The participants wereassured that participation was voluntary and that they had the rightto withdraw from the study at any time.

**Results**

It was seen that 83.8% of the students who were studying in the 4th grade of the nursing department and participated in the study were female, 16.2% of them were male and their average age was 22.30 ± 1.16. [Table : 1]

When the metaphors generated by the participants were examined in Table 1, it was seen that many metaphors were generated and some of these metaphors were positive while some of them were negative. When students' perception of metaphor was examined, it was found that 70.6% (n=89) had a positive opinion and 29.3% (n=37) had a negative opinion about nursing.

**Conceptual Categories**

**"Vital" expression.**

When metaphors generated by students were examined in Table 2, it was seen that the vast majority (32%) of vital expression were nursing perceptions. The category describes a clear perception in the context of revealing the nature and orientation of the profession. It was determined that the vital category was composed of 43 metaphors. When the most commonly used metaphors in this categoryare examined, the metaphors of mother, stone, and unrequited love stand out. When theanswers of the students who expressed as vital were examined, the following statements are interesting.

'He/she always helps patients like a child'

'Those who caught the diseasewant to have compassion like a mother's love'

**"Object" expression**

When the majority orders of the other categories related to the metaphors generatedwere examined, the nursing perception was 24% for the expression ofobject. The object expression is generally regarded as a preference for fulfilling the profession as it

should be, and not attributing any more meaning to it. It is seen that the object category was composed of 31 metaphors. When the most commonly used metaphors in this categoryare examined, there are the metaphors of internet, robot, and machine . When the answers of the students expressing objects were examined;

'Nurses shine to their surroundings like a candle'

There are expressions such as 'they are expected to be continuously active and dynamical and to work.

**"Abstraction (value)" expression**

The nursing perception was 23% for the expression of abstraction (value). It represents the perception of professional values of the nursing profession. The abstraction value category appears to consist of 28 metaphors. When the most commonly used metaphors in this categoryare examined, there are compassion, hero, and metaphors. When the answers of the students expressing their profession as abstraction (value) were examined;

'You may need to do more than you can for a normal person'

'Phrases such as 'its worth is unknown' are taken place'

**"Struggle" expression**

The nursing perception was 11% for the expression of struggle. Struggle expression reveals the difficulties of the profession and the labor consumed. The struggle category appears to be composed of 14 metaphors. When the most commonly used metaphors in this categoryare examined, there are boxing match, housewife and unfamiliar hero metaphors. When the answers of the students for the expression of "struggle" were examined;

'It is expected to reach many locations at the same time'

There are phrases such as you have to keep working no matter how much you run

**"Productivity" expression**

It is seen that the nursing perception related to the expression of productivity was 8%. It can be said that this result emphasizes the importance of the consequences of profession and indicates the satisfaction with the profession. It is seen that the productivity category was composed of 10 metaphors. When the most commonly used metaphors in this category were examined, there are bee, factory and art metaphors. When the answers of the students as

"Productivity" were examined;

'They keep records of the works they perform'

'There are phrases such as they provide the patients care, heal and discharge them'

It is seen that the average of students' school climate score was moderate by 3.03 ± 0.88. When Table 3 was examined, positive metaphor perception of students' school climate scores (3.15 ± 0.85) were found to be significantly higher than negative scores (2.75 ± 0.90) (t = 2.259, p = .026).

## Discussion

Some important features were impressive in this study in which the perceptions of nursing students regarding the nursing profession of school climates were examined. Many metaphors had been produced to explain professional perceptions. When metaphors are examined in general, metaphors revealing the nature and direction of the profession (mother, stone, unrequited love), metaphors fulfilling the profession's ideal (internet, robot, and machine), metaphors regarding profession as sacred and worth (compassion, hero, X), metaphors emphasizing the importance of the metaphors and the consequences of the profession (Bee, factory and art), metaphors that reveal the difficulties of the profession and the inability to receive a recompense for the work (boxing match, housewife, unfamiliar hero) were determined.

When the perceptions of metaphors regarding the professions of the students in the study were examined, it was seen that 72.3% had a favorable opinion about nursing. The "angel", "mother", "drug" were the prominent metaphors from the positive metaphors generated by the participants. The students who used positive metaphors considered themselves helpful, tolerant, compassionate, loving.Yilmaz et al. (2014) found that a large proportion (over 65%) of their workers perceive their profession positively and workwith pleasure.[6]In the study carried out by Yılmaz and Karadağ (2011) with 1st and 2nd grade male students in the nursing department, it was revealed that students perceived their jobs positively and worked with pleasure.[7]The study of (Yılmaz et al., 2011) and the results of this research are in parallel.

The first conceptual category, "vital expression nursing perception", reveals the nature and orientation of the profession by 33%. The results revealing the nature and direction of the profession

were also seen in other studies. In the study ofTunç, Akansel and Özdemir, (2010) carried outwith 104 students in Uludağ University, they examined and found that most of the nursing students (69.8%) perceives nursing profession as "looking after the patients and helping them".[8] This result is interpreted as a desirable and positive outcome, suggesting that it is also important for students to use their nursing profession's care and supportive roles.

Another conceptual category, 'nursing perception that expresses abstraction' by 21%, indicates that the profession is sacred and worth. This data is in parallel with the studies carried out on the subject. In the study carried out by Kaya, Işık & Çalışkan, (2013) with 93 nurses, 14% of nurses considered nursing as a guide.[9]It is seen that productivity expression and nursing perception was 7%, and the results of the profession emphasize the importance of innovations and indicate occupational satisfaction. Arslan and Özata (2006) found that creativity (88.9%) was high in healthcare managers in a study conducted on Turkey's executive health personnel in 7 different provinces.[10]On the other hand, in the study of Akgöz, Özçakır and Kan (2005), it was revealed that 68.4% of the nurses who participated in the study hadlow occupational satisfaction.[11] In this subject research, it was seen that professional satisfaction was not at the desired level as similar to the study conducted in our country. It can be said that one of the reasons for it is that professional nursing practices are not common.

Metaphor which could be described as 36 negative was generated by 28% of the students. It is seen that the metaphors generated, such as "worker, slaves, servants, robots, machines" emphasize the difficulty of nursing profession and severeworking conditions. Metaphors such as "liquids in the physics, serum, app store, hour" were generated from the metaphor that emphasized the ambiguity of job descriptions and the preference of not assigning more meaning to the profession with the conceptual categorical "nursing perception". It is seen from the open-ended expressions that the nurses have negative perceptions about their professions.Nayeri, Nazari, Salsali & Ahmadi, (2005), in their study, emphasized that the most important reason for severeworking conditions is the inadequacy of nursing employment.[12] Studies also show that the lack of nurses causes lossof knowledge and motivation of nurses and also burnout and severe stress.[13,14] Recent studies have similarly shown an inverse relationship between nurse staff levels and patient stay durations.[15] In a survey of

Zurn et al. (2005) on London national health service staff, it was found that health workers were ranked fourth only on the wish list of 'more wage' requests when asked to recommend work life improvements.[16] 'More staff', 'better working conditions' and 'better working environment' were the most important ones.[17] Nurses' dissatisfaction with work intensity can be explained by the fact that individuals apply to a tertiary care hospital although they will able to receive services from primary and secondary health care institutions for their health problems. In this context, it is necessary to improve the working conditions and to reconsider the definition of the profession.

Another conceptual category, "nursing perceptions of struggle expression" by 10%, reveals the difficulties of the profession and the labor consumed. The results that show the difficulties of the profession and inability to take the money of consumed labor are also seen in other studies.[18,19,20,21]In their studies conducted with 89 nurses, Dikmen et al. (2014) determined the causes of intensive work load, working outside the job descriptions, the inadequacy of personnel and equipment, low wages and lack of organized power.[20] Tortumluoğlu, Daştan and Verep (2004) determined that health care workers were experiencing problems arising from their wages, personal rights, working environment and the society served.[18] These problems cause obstacles for nurses to perform their duties in practice, as well as the disruption of health services. In this context, it may be suggested to make improving arrangements in the health care system

Another step in which professional perception of nursing is formed is the school environment. Young people spend most of the day during which they are awake in the school rather than at home.[22] The "atmosphere" that varies from school to school affects everybody in the school.[23]Although the concept of climate is an issue studied in many different organizations, it is expressed as the school climate in educational organizations.[24] Researchers suggest that school climate will make a difference on learning environment of school, student achievement and profession.[25] Students who constituted the sample of the studyandwere studying in the last year of the nursing department were included in the internship program. Due to coming to end of undergraduate education and inclusion in the operation of the profession in the hospital environment within the scope of application, the study was conducted by

considering that the school climate would realistically affect the perception of the metaphor on occupation. It is seen that the average of school climate score of the students is $3.03 \pm 0.88$. This finding has shown that students are moderately satisfied with all education and training services and facilities. In the study of Egelioğlu, Arslan and Bakan (2011), it was determined that the satisfaction level of students according to the classes where they received education was low in the first and second grades while it increased in the third and fourth grades.[26] In a study carried out by Baykal and Sökmen (2005), while investigating the level of satisfaction between first and fourth nursing students, nursing students were found to be dissatisfied for 4 years long. The lowest satisfaction group was the first class and the highest group was the third and fourth classes.[27]In another survey, unlike the results of the study, it was determined that the student satisfaction decreased,except for the second grade, as the class increased, and that the fourth class had the lowest satisfaction level.[28] In the study of Şahin, Zoraloğlu and Şahin (2010), the level of satisfaction of the first class nursing students with their life in the department where they were educated was found to be higher than the satisfaction level of the senior students.[29]According to these results, it can be said that our students are more satisfied with the education service compared to other nursing and midwifery schools.

The main aim of this study was to try to reveal the effect of school climate on nursing perceptions of nursing students. Furthermore, metaphor perceptions were detected and it was aimed to raise awarenesson this issue.

## Conclusions

This study is important because it is the first study showing the perceptions of nursing students about the profession by metaphor and the effect of school climate on these perceptions. The most important result of the study is that the metaphors of the students who find the school climate better are also composed of positive perceptions. Based on the findings obtained from this study, metaphors can be used as a powerful research tool for nursing students to understand, reveal and explain the cognitive images of the profession.

## Acknowledgements

Education," a conference held at Budapest, Hungary, May 2017. The full manuscript of the study is not under consideration for publication elsewhere.

**Declaration of Conflicting Interests**

The authors declared no potential conflicts of interest with respect to the research, authorship, and/or publication of this article.

**Authors' contribution:**

Data gathering and idea owner of this study: Ozge Karakaya Suzan, Nursan Cinar

Study design: Nursan Cinar, Nesrin Akın Çotok,

Data gathering: Ozge Karakaya Suzan, Sumeyra Topal, Sinem Yalnızoglu Caka

Writing and submitting manuscript: Ozge Karakaya Suzan, Nesrin Akıncı Cotok, Sinem Yalnızoglu Caka

Editing and approval of final draft: Nursan Cinar, Ozge Karakaya Suzan, Sinem Yalnızoglu Caka, Sumeyra Topal

**Table 1.** Metaphoric categories (N:126)

| Positive metaphor | Number of people | Negative metaphor | Number of people |
|---|---|---|---|
| Productivity | 10 | Object | 19 |
| Vital | 40 | Vital | 3 |
| Object | 12 | Struggle | 14 |
| Abstraction (value) | 27 | Abstraction (value) | 1 |
| **Total** | 89 | **Total** | 37 |

**Table 2.** Metaphores generated by participants (N:126)

| Categories | Metaphor | Number Of Metaphor |
|---|---|---|
| **Vital** | Food, Drug, Flower, Sky, Heart, Family, Mother, Ant, Sun, Bridge, Antiseptic, Air, Water, Soil, Stone, Pomegranate, Life, Blood circulation, Seed, Healing, Milk, First aid kit, Broccoli, Meals, Unrequited love, Carer | 43 |

| Categories | Metaphor | Number Of Metaphor |
|---|---|---|
| **Object** | Cookbook, Candle, Picture, ECG, Mirror, Staples, Clock, Bemix, Internet, Book, Front wheel, Robot, Machine, Health worker, Dynamite, Shoe, Blank note-book, Slave Physics liquids, Drug, Needle, Injector Serum, App store | 31 |
| **Productivity** | Factory, Bee, Art, Writing, Lamp, Marathon, Light, Big sea | 10 |
| **Abstraction (value)** | Conscience, Angel, Third-hand, Charity, Patience, Affection, Seeing the facts, Love, Volunteering, Brother, Hero, Compassion, Black hole | 28 |
| **Struggle** | Box match, Housewife, Unfamiliar hero, Worker, Garbage collector, Patient carer, Being an intermediate staff, Frustrating, impasse, Horse race, Fearful dream | 14 |

**Table 3.** Comparison of school climate scale scores according to students' metaphorical perceptions (N:126)

| Variables | Metaphor Perception | | t |
|---|---|---|---|
| | **Positive** | **Negative** | |
| **School Climate Scale (Mean±SD)** | 3.15±0.85 | 2.75±0.90 | 2.259 |

**t: Independent samples t test *p<.05**

## References:

1. Kale, E., & Çiçek, Ü. (2015) Hemşirelerin Kendi Mesleklerine İlişkin Metafor Algıları. [Metaphor Perceptions of Nurses About Their Own Profession]. *Sağlık ve Hemşirelik Yönetimi Dergisi*, **3**(2), 142-143. http://www.journalagent.com/z4/download_fulltext.asp?pdir=shyd&plng=eng&un=SHYD-84803

2. Coşkun, Y. D., & Demirel, M. Üniversite Öğrencilerinin Yaşam Boyu Öğrenme Eğilimleri. [Lıfelong Learnıng Tendencıes Of Unıversıty Students]. *Hacettepe University Journal of Education,* 2012;**42**:108-120. http://dergipark.ulakbim.gov.tr/hunefd/article/download/5000048222/5000045542

3. Sharoff, L. The power of metaphors: Images of holistic nurses. *Holistic nursing practice*, 2009;**23**(5),267-275. http://journals.lww.com/hnpjournal/Abstract/2009/09000/The_Power_of_Metaphors__Images_of_Holistic_Nurses.3.aspx

4. Terzi, A. R. BAÜ, N. E. F. Üniversite Öğrencilerine Yönelik Okul İklimi Ölçeğinin Geliştirilmesi, *Eğitim Ve Öğretim Araştırmaları Dergisi*, 2015;**4**(12), 111-112. https://www.researchgate.net/profile/Ali_Terzi2/publication/279749005_NVERSTE_RENCLERNE_YNELK_OKUL_KLM_LENN_GELTRLMES/links/559908d508ae21086d237b8b.pdf

5. Kaya, H., Işik, B., & Çalişkan, F. Metaphors used by in-service training nurses for in-service training nurses in Turkey. *Journal of advanced nursing*, 2013;**69**(2), 404-414. http://onlinelibrary.wiley.com/doi/10.1111/j.1365-2648.2012.06019.x/full

6. Büyüköztürk, Ş., *Bilimsel Araştırma Yöntemleri* [Scientific research methods], Ankara: PEGEM Akademi Yayınları 2010.

7. Yılmaz, F. T., Şen, H. T. ve Demirkaya, F. Hemşirelerin ve ebelerin mesleklerini algılama biçimleri ve gelecekten beklentileri. [Job Perception Patterns of Nurses and Midwives and Their Expectations for The Future]. *Sağlık ve Hemşirelik Yönetimi Dergisi*, 2014;**3**(1):130-139. http://www.journalagent.com/z4/download_fulltext.asp?pdir=shyd&plng=tur&un=SHYD-43434

8. Yılmaz, M., & Karadağ, G. Erkek öğrenci hemşireler hemşirelik mesleğini nasıl algılıyor?.[How Do Male Nurses Perceive Nursing Profession?]. *Maltepe Üniversitesi Hemşirelik Bilim ve Sanatı Dergisi*, 2011;**4**(1). http://hemsirelik.maltepe.edu.tr/dergiler/nisan/21-28.pdf

9. Tunç, G., Akansel, N. ve Özdemir, A. Hemşirelik ve sağlık memurluğu öğrencilerinin meslek seçimlerini etkileyen faktörler. [Factors Affecting Career Choices Of Nursing And Health Officer Program Students]. *Maltepe Üniversitesi Hemşirelik Bilim ve Sanat Dergisi*, 2010;**3**(1): 24-31. http://hemsirelik.maltepe.edu.tr/dergiler/cilt3sayi1/24-31.pdf

10. Kaya, H., Işik B., & Çalişkan F. Metaphors used by in-service training nurses for in-service training nurses in Turkey. *Journal of advanced nursing*2013;**69**(2): 404-414. http://onlinelibrary.wiley.com/doi/10.1111/j.1365-2648.2012.06019.x/full

11. Aslan, Ş., & Özata, M. Sağlık Yöneticilerinde Duygusal Zekâ Boyutlarının Cooper Sawaf Haritasıyla Araştırılması. [An Investigation of The Dimensions of Emotional Intelligence In Health Sector Administrators With Cooper Sawaf Map ]. *Hacettepe Sağlık İdaresi Dergisi*, 2006;**9**(2), 197-222. http://dergipark.ulakbim.gov.tr/hacettepesid/article/download/5000046419/5000043601

12. Akgöz S, Özçakır A, Kan İ, Tombul K, Altınsoy Y, Sivrioğlu Y. Uludağ üniversitesi sağlık uygulama ve araştırma merkezi'nde çalışan hemşirelerin mesleki doyumları. [Professional satisfaction of nurses working at Uludağ University health practice and research center]. *Türkiye Klinikleri Journal of Medical Ethics* 2005;**13**:86-96. http://www.turkiyeklinikleri.com/article/en-uludag-universitesi-saglik-uygulama-ve-arastirma-merkezinde-calisan-hemsirelerin-mesleki-doyumlari-42047.html

13. Nayeri, N. D., Nazari, A. A., Salsali, M., & Ahmadi, F. Iranian staff nurses'views of their productivity and human resource factors improving and impeding it: a qualitative study. *Human Resources for Health*, 2005;**3**(1), 9. https://human-resources-health.biomedcentral.com/articles/10.1186/1478-4491-3-9

14. Kotzer, A.M., Arellana, K. "Defining an Evidence-Based Work Environment for Nursing in The USA", *Journal of Clinical Nursing*, 2008;**17**:1652–1659. http://onlinelibrary.wiley.com/doi/10.1111/j.1365-2702.2007.02148.x/full

15. Tschannen, D. & Kalisch, B. J. (2009). The effect of variationsin nurse staffing on patient length of stay in the acute caresetting. *Western Journal of Nursing Research*, 31, 153–170. http://journals.sagepub.com/doi/abs/10.1177/0193945908321701

16. Zurn, P., Dolea, C., Stilwell, B., 2005. Nurse Retention and Recruitment: Developing a Motivated Workforce. International Council of Nurses, Geneva. https://www.cambridge.org/core/journals/european-review/article/1-reconfiguring-the-national-constellation/AC8FC33AB0F3844A7B98199DBFFB6586

17. Pearson, R.G., Dawson, T.P. Liu, C. "Modelling species

distributions in. Britain: a hierachical integration of climate and landcover data", *Ecography*2004;**27**: 285-298. http://onlinelibrary.wiley.com/doi/10.1111/j.0906-7590.2004.03740.x/full

18. Tortumluoğlu, G., Daştan A. ve Verep, S. Erzurum ilinde bir grup sağlık personelinin mesleki sorun, bu sorunlara yönelik çözüm önerileri ve mesleki beklentilerinin saptanması. [The professional problem of a group of health personnel in Erzurum province, the proposal of solutions for these problems and the determination of professional expectations]. *Uluslararası İnsan Bilimleri Dergisi*, 2004;**12**(1): 1-14. https://scholar.google.com.tr/scholar?cluster=5882895885998326022&hl=tr&as_sdt=2005&sciodt=0,5

19. Dikmen, Y., Yönder, M., Yorgun, S., Usta, Y. Y., Umur, S., & Aytekin, A. Hemşirelerin Profesyonel Tutumları İle Bunu Etkileyen Faktörlerin İncelenmesi. [Investigation of nurses' professional attitudes and factors ınfluencing these attitudes]. Anadolu Hemşirelik ve Sağlık Bilimleri Dergisi, 2014;**17**:3 http://dergipark.gov.tr/ataunihem/issue/2666/34515

20. Naveed, I., Hussain, A., Sarfraz, M., Afghan, S., & Waqar, S. H. Assessment of Job Satisfaction among Nurses working in Children Hospital, Pakistan Institute of Medical Sciences, Islamabad. *Pakistan Journal of Medical Research*, 2016;**55**(4), 116. http://search.proquest.com/openview/999d96fce340682da55faed74c24d9f2/1?pqorigsite=gscholar&cbl=636375

21. Alharbi, J., Wilson, R., Woods, C., & Usher, K. The factors influencing burnout and job satisfaction among critical care nurses: a study of Saudi critical care nurses. Journal of nursing management, 2016;**24**(6), 708-717. http://onlinelibrary.wiley.com/doi/10.1111/jonm.12386/full

22. Ekşi, F. (2006). Rehber öğretmenlerin okul iklimi algıları ile kaygı düzeyleri arasındaki ilişki üzerine bir araştırma. [A study on the relationship between school teachers' perceptions of school climate and anxiety levels]. Yayımlanmamış yüksek lisans tezi, Marmara Üniversitesi, İstanbul.

23. Nalçacı, A., & Bektaş, F. Okul İklimi İle Öğrenci Başarısı Arasındaki İlişki. [The Relatıonshıp Between School Clımate And Student Achıevement].

International Journal Of Eurasia Social Sciences, 2013;(**13**). http://dergipark.ulakbim.gov.tr/ijoess/article/view/5000039447

24. Yılmaz, K. & Altınkurt, Y. Örgütsel iklim ölçeğinin Türkçeye uyarlanması: geçerlik ve güvenirlik çalışması. [ Adaptation of Organizational Climate Scale into Turkish: The Validity and Reliability Study]. *Trakya Üniversitesi Eğitim Fakültesi Dergisi*, 2013;**3**(1), 1-11. http://dergipark.ulakbim.gov.tr/trkefd/article/view/5000081077

25. Balcı, A. (2007). *Etkili okul ve okul geliştirme: Kuram, uygulama ve araştırma* [Effective school and school development: theory, practice and research]. Ankara: Pegem Akademi Yayınları.

26. Egelioğlu N, Arslan S, Bakan G. Hemşirelik Öğrencilerinin Memnuniyet Durumlarının Akademik Başarıları Üzerine Etkisi. [The Effect of Satisfaction Status of Nursing Students on Their Academic Achievement]. *Hemşirelikte Araştırma Geliştirme Dergisi*, 2011;(**1**):14-24. http://hemarge.org.tr/ckfinder/userfiles/files/2011/2011-vol13-sayi1-127.pdf

27. Baykal Ü., Sökmen S. (2005). Hemşirelik Yüksekokulu Öğrencilerinin 1. İle 4. Sınıf Arasındaki Doyum Düzeyleri. [ Satisfaction Levels Between 1st and 4th Year of Nursing Students ]: Hastane Yönetimi, Temmuz-Ağustos- Eylül;56-61.

28. Ulusoy H, Arslan Ç, Öztürk N, Bekar M. Hemşirelik Öğrencilerinin Eğitimleriyle İlgili Memnuniyet Düzeylerinin Saptanması.[ Determination of Satisfaction Level of Nursing Students about Their Education]. *Maltepe Üniversitesi Hemşirelik Bilim ve Sanatı Dergisi*2010;**3**(2):15-24. https://hemsirelik.maltepe.edu.tr/dergiler/cilt3sayi7/pdf/15-24.pdf

29. Şahin İ, Zoraloğlu Y. R, Şahin Fırat N. Üniversite Öğrencilerinin Yaşam Amaçları, Eğitsel Hedefleri, Üniversite Öğreniminden Beklentileri Ve Memnuniyet Durumları. [University Students' Aims in Life, Educational Goals, Expectations from the University and their State of Satisfaction]. *Kuram ve Uygulamada Eğitim Yönetimi* [Educational Administration: Theory and Practice]. 2011;**17**(3): 429-452. http://kuey.net/index.php/kuey/article/view/923