

**RESEARCH  
ARTICLE**

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## An Empirical Study on Determining the Communication and Empathy Skill Levels of Healthcare Professionals

### ABSTRACT

**Objective:** This study was conducted to determine the communication skills and empathy levels of healthcare professionals working in a public hospital in Ankara and to determine the relationship between them.

**Methods:** This study, which is based on the field research method, is carried out in order to determine the communication skills and empathy levels of healthcare professionals working in a public hospital in Ankara, and to reveal the relationship between communication skills and empathy level. The data in the study, which was designed as a descriptive field study, was collected by face-to-face questionnaire technique from 385 healthcare workers in Ankara city center between February and March 2021.

**Results:** Research findings show that the participants have moderate communication skills and empathy. Communication skills and empathy levels of healthcare professionals do not differ according to their gender. As the weekly working time increases, communication skills and empathy levels decrease. There is a positive and significant relationship between communication skill level and empathy.

**Conclusions:** The results of the research indicate that the level of empathy is a positive determinant of communication skills, in other words, as the empathy level increases, the communication skill level increases.

**Keywords:** Communication Skills, Empathy, Healthcare Professionals.

## Sağlık Çalışanlarının İletişim ve Empati Beceri Düzeylerinin Belirlenmesi Üzerine Ampirik Bir Çalışma

### ÖZET

**Amaç:** Bu çalışma, Ankara'da yer alan bir kamu hastanesinde hizmet veren sağlık çalışanlarının iletişim becerileri ve empati düzeylerini tespit etmek ve aralarındaki ilişkiyi belirlemek için yapılmıştır.

**Gereç ve Yöntem:** Saha araştırması yönteminin esas alındığı bu çalışmada, Ankara merkezindeki bir kamu hastanesinde görevli sağlık çalışanlarının iletişim becerileri ve empati düzeylerini belirlemek, iletişim becerileri ve empati düzeyi arasındaki ilişkiyi ortaya koymak amacıyla yapılmıştır. Betimleyici bir alan araştırması olarak tasarlanan çalışmada veriler, Şubat-Mart 2021 tarihleri arasında Ankara merkezdeki 385 sağlık çalışanından yüz yüze anket tekniği ile toplanmıştır.

**Bulgular:** Araştırma bulguları katılımcıların orta düzeyde iletişim becerileri ve empati durumuna sahip olduklarını göstermektedir. Sağlık çalışanlarının cinsiyetine göre iletişim beceri ve empati düzeyi farklılaşmamaktadır. Haftalık çalışma süresi arttıkça iletişim beceri ve empati düzeyi düşmektedir. İletişim beceri düzeyi ile empati durumu arasında pozitif yönde anlamlı ilişki bulunmaktadır.

**Sonuç:** Araştırma sonuçları, empati düzeyinin iletişim becerilerinin pozitif yönde anlamlı belirleyicisi olduğuna, bir başka anlatımla, empati düzeyi arttıkça, iletişim beceri düzeyinde de bir artış yaşandığına işaret etmektedir.

**Anahtar Kelimeler:** İletişim Becerileri, Empati, Sağlık Çalışanı.

## INTRODUCTION

While the fast developments in technology consist a help to communications, on the other hand, the complexities of a globalizing world can sometimes make technology a hindrance to starting communication. Thus, today's communication has made the mastering of communication technologies and skills a requirement. Because the human being is a social entity on his/her own, his/her need for communication never ceases (1). The human tries to communicate from the first beginnings of his/her life. The fundamentals of communication is an interaction between individuals that is based on trading emotions and thoughts (2). Further, communication is a symbolic process that includes the reproduction, maintenance and transformation of a reality (3). In a context of healthcare communication, healthcare related individuals and/or groups communicate with their respective targets and include the transaction of information, views and emotions between healthcare professionals and patients and their relatives(4). Without doubt, an effective and quality healthcare service is related directly to the communication skills of healthcare professionals. Because all healthcare professionals work in a context of face-to-face communication, possessing strong communication skills is of much importance (5). Naturally, communication skills are important for all positions in human life, but they acquire an added importance while tending to the sick individual. These skills are a professional requirement for all healthcare staff and must be used in every interaction with the patient (6).

Generally, also symbols and signs can be used alongside spoken and written words, for the communication of thoughts, views and information. The process of communication starts with the conveying of a first message or information by a sender –a speaker or writer- to the receiver –the audience or reader- through an instrument or channel. The process continues with the sender coding the message –interpreting it-, making a feedback (7). Thus, communication is “an ongoing process where meaning is induced in the minds of the involved persons by the two directional flow of verbal and nonverbal messages” (8). Considered that most of the problems that are encountered in close interaction result from ineffective communications, the importance of acquiring communication skills is obvious. While communication is prevalent throughout everyday life, effective and reliable communication is not to be taken as granted. Effective and reliable communication is possible when the involved persons share a mutual sense of understanding and respect, and the affirmation that they are understanding and are understood. While there is research that stresses the innate and intuitional aspects of communication, many studies show that

most aspects of communication are acquirable by learning and training (9).

According to Grover, fundamental communication skills are, listening, asking open ended questions, asking closed questions, explaining, interpreting, using facilitatives, evaluating non-verbal expressions, and silence. **Listening** is a part of being sensitive to the other person and requires an interest to the other person. It includes participatory skills, maintaining eye contact, striving to solve or interpret the message. **Asking open ended questions**; is the key to an effective conversation. These are questions that cannot be answered with a simple “yes”, “no” or a short sentence. At routine conversations, closed ended questions are most effective when they are weaved with open ended questions or interpretations. They should not be used as the main conversation technique. **Asking closed questions**; while open ended questions are good for getting additional information, getting to the truth requires closed question and they are obligatory in emergencies. **Explaining** questions are another kind of open ended question. The aim is to open up the conversation and encourage the partners to give further details of previously shared information and get the most of the interaction. **Interpretation**; the person gets the message and transforms it by interpreting, helps detailing the cognitive meaning for the co-workers. **Using facilitators**; facilitators are expressions, questions or actions that encourage colleagues or other individuals to continue to share information. Behaviors like nodding, smiling and questions like “how come?”, “if it's convenient”, “and then?” are examples for communication facilitating actions. **Evaluating non-verbal expression**; is among the most important skills to develop. It is described as “the content level of a message”. Examples are, facial expressions, eye movements, gestures and postures, and personal space. **Silence**; another skill for enhancing the communication is the usage of silence. Short, silent stops of a couple of seconds or longer with accompanying eye contact or a small nod can encourage a speaker to continue (8).

Good communication skills help build respectful, efficient relations between healthcare workers and patients, their relatives, and coworkers and also improve personal leadership qualities, solving conflicts and also in helping to motivate others. They are essential for helping patients to understand their health situations, their problems and their treatment plans. Persons with effective communication skills can also manage unforeseen professional situations better (10). Perfection in communication skills and inter-personal skills are a universal requirement for healthcare workers who work in a multi-faceted work environment. This requirement is a direct result of patient expectations

and forms the prerequisite for the work in an increasingly complex hospital environment (11). In recent years, the aim for improving service quality and patient satisfaction has increased the emphasis on the learning and training of communication. Findings over the negative impact of ineffective and insufficient communication on patients are accumulating with each day. Conversation styles and behaviors of healthcare workers determine the degree of the benefits that patients gain from the communication. Considered that the quality of communication between the doctor and his/her patient affects all related processes, the importance of the issue is obvious (12).

Our ability for understanding others and relating to them is partially a function of empathy. The speed and accuracy of our inferences that we make about the feelings, objectives, attitudes, motives, beliefs, intents and behaviors of others determine to a great extent the contributions we make to a given social situation and also determine the valuation that others make about us. Thus, empathic comprehension is an important determinant of our communication proficiency but also it is a personal characteristic that is helpful in feeling out your way of action or convincing others to adhere to a particular way of action (13). Empathy is for humans a most important quality and for healthcare empathic behavior is fundamental. A patient-centered therapy requires empathic healthcare practitioners (14).

Empathy in its most basic form, is the human ability to imagine placing yourself into the shoes of another person or to "feel his/her distress" (14). In other words, empathy is a person's ability to accurately perceive and understand the emotions of another person. Empathy is a multi-dimensional concept that includes emotional, cognitive, behavioral, moral and communicative components. The outcome of empathic communication for healthcare workers is the ability to form good interpersonal relations with co-workers and the management. Empathy is the ability to feel how others feel (8). In other words, empathy is a process where someone tries to mirror the viewpoint of another person in order to gain a glimpse into their thoughts and feelings. As a result, by placing us into the shoes of another person, empathy promises to look into his/her mind (15).

Increasing awareness to the advantages of mastering communication skills in the business world have aroused interest into this field and scholarly research has increased as well. The related literature encompasses most studies about healthcare workers (16, 17, 18, 19, 20, 5), university students (21,22), teacher trainees (23) and business people (24).

Our study aims to evaluate the communication skills and empathy levels of healthcare workers by various variables. This paper tried to find out the particular communication skills

and empathy levels and their mutual relations of healthcare workers in public hospitals located in Ankara.

Based on the above literature, the hypotheses formed in line with the purpose of the study are shown below:

**H<sub>1</sub>:** There is a statistically significant relationship between communication skills and empathy levels according to the unit they work in.

**H<sub>2</sub>:** Communication skills and empathy levels differ significantly according to the weekly working hours.

**H<sub>3</sub>:** Communication skills differ significantly by gender.

**H<sub>4</sub>:** The level of empathy differs significantly by gender.

**H<sub>5</sub>:** There is a positive and significant relationship between the communication skills and empathy tendency levels of the participants.

## MATERIAL AND METHODS

A descriptive survey has been designed to assess the communication skills and empathy levels of healthcare workers working in Ankara.

**Selection of the Sample and the Implementation of the Survey:** The sample consisted of healthcare workers of 19 years and older, who were working in public hospitals in Ankara. Data was collected by conducting a face to face questionnaire from 385 random participants of which 41.3% were men (N=159) and 58.7% were women, thus allowing a gender comparison.

Age distribution in the sample was 19 youngest, oldest 63 years, the average of the sample was 32 years.

74,3% of the participants were university graduates, 15.3% were high school, 8.3% postgraduate, 8% middle school and 1.3% were of elementary school education.

**Data Collection Tools:** The questionnaire consisted of 46 questions in 4 sections. The utilized scales are given below:

**Communication Skills Evaluation Scale:** As adapted by Korkut, Owen and Demirbaş-Çelik (25), it is a 5 scale Likert-type scale, including 25-statements and developed for the evaluation of communication skills of adults. While early studies had used a 4 points scale, later studies standardized a 5 point scale beginning with "never" (1) rising up to "always" (5). The scale does not include reverse items, high points means that the participants in question evaluated his/her communication skills positively (26). Korkut Owen and Demirbaş-Çelik have found in their study, for the reliability of the scale, the Cronbach alpha coefficient as 0.94 (25). Our study's Cronbach Alpha reliability index has been found as 0.90.

**The Toronto Empathy Scale;** The Toronto Empathy Questionnaire (TEQ), is a 5-scale Likert-type scale that has been developed to evaluate the empathy levels of individuals, with a self-

declaration style, one dimensional, 16 items (8 items are counted negative, 8 items are counted positive). During the development of the Toronto Empathy Questionnaire, the researchers aimed to evaluate empathy as an emotional process, contrary to existing other questionnaires. The Toronto Empathy Questionnaire has been developed by Spreng and others (2009) and adapted to Turkish by Totan and colleagues, and includes reverse coding. The reverse coded items are: 1-3-5-7-8-9-11-12. Higher points indicate higher levels of empathy. The scale is one dimensional (27). The reliability of the scale has been found as Cronbach's Alpha index 0.83.

**The Tests Used in the Data Analysis:** The survey was conducted between 24.02-12.03.2021 by face to face interviews. The questionnaires were analyzed by statistical software. The points that were obtained by The Communication Skills and Empathy scales were found showing a normal distribution by the Kolmogorov-Smirnov test, thus parametric test were chosen for the data analysis. The demographics of the healthcare workers were shown by *Frequency Analysis*. To find out whether the communication skills levels and the empathy

inclination levels would differ in relation to gender, *Independent Sample T-Test* was used, to determine the differences in relation to weekly work hours, *One-way analysis of variance (ANOVA)* was used. *Linear Regression Analysis* was used on the findings of the empathic tendency to predict communication skills. The level and direction of the relationship between communication skill levels and empathic situation was explored by *Correlation Analysis*.

## RESULTS

**Findings and Interpretation:** This caption evaluates first the communication skills level, the empathic tendency situation and the descriptive statistics results of communication skills; then, the relationships between communication skills and empathy tendency situation are investigated thoroughly.

**Communication Skills Level:** The points given by the participants for the communication skills scale, gave totals ranging from 53 to 125 points. The communication skills level average of the participants' is  $\bar{X}=101.84$ . The Standard Deviation of the distribution was found as 11.42.

**Table 1.** Communication Skills Level Differences by Gender

	Gender	N	$\bar{X}$	t-value	Sig.
Communication Skills Level	Women	226	102.16	0.66	.504
	Men	159	101.37		

Communication Skills Levels of the participants did not show any meaningful difference in relation to gender ( $t= 0.66$ ;  $p> .05$ ). Participant women ( $\bar{X}= 102.16$ ) and men ( $\bar{X}= 101.37$ ) obtained close communication skills points. These results show that Hypothesis 3 is rejected. Korkut, Owen and Demirbaş-Çelik (29), in their study found

meaningful differences between men's and women's communication skills scale totals, namely in the dimensions of effective listening and non-verbal communication and adherence to communication principles which made them conclude that women showed better communication skills.

**Table 2.** Differences in the Communication Skills Level in relation to Weekly Work Hours and the Work Unit

	Weekly Work Hours	N	SD	$\bar{X}$	F	Sig.
Communication Skills Level	40-45	286	11.12	102.6	5.66	.004
	46-50	68	11.87	101.3		
	51-56	31	11.52	95.5		
	Work Unit	N	SD	$\bar{X}$	F	Sig.
Communication Skills Level	Surgical Service	37	11.9	104.0	4.28	.014
	Internal Diseases Service	45	11.62	97.4		
	Other Service Units	303	11.19	102.2		

On the other hand, the communication skills levels show meaningful differences in relation to weekly work hours ( $F= 5.66$ ;  $p< .05$ ). As we investigate the 5% Tukey Test results, the differences occur between those who work 51-56 hours a week and those who work 40-45 and also 46-50 hours a week. Those who work 51-56 hours a week show a lower level ( $\bar{X} = 95.5$ ) of communication skills than those who work 40-45 hours a week ( $\bar{X} = 102.6$ ), and those who work 46-50 hours a week ( $\bar{X} = 101.3$ ). Obviously, communication skills levels fall with increasing work hours. A parallel study that was conducted by

Akgün, Şahin and colleagues (16), found that the communication skill levels of nurses decreased with increasing work hours. Meaningful differences in communication levels occurred also in relation to the work units ( $F= 4.28$ ;  $p< .05$ ). 5% score of the Tukey Test show differences between the wards of Internal Diseases, Surgical Service and also the other units.

The healthcare workers in the Internal Diseases Service show lower communication skills levels ( $\bar{X} = 97.4$ ) than those working in the Surgical Service ( $\bar{X} = 104.0$ ), and also from those working in other units ( $\bar{X} = 101.3$ ).

On the other hand, Akgün, Şahin and friends in their study, did not find any meaningful differences between the communication skills levels of nurses working in different wards (16). The obtained results indicate that Hypothesis 1 was confirmed.

**Empathy Level:** The totals of the empathy scale were ranged from 32 to 65. The communication skills average was  $\bar{X}$  = 50.85. The

Standard deviation for distribution found as 8.32. Participants' Empathy levels did not show any meaningful differences in relation to gender ( $t=1.67$ ;  $p>.05$ ). Women ( $\bar{X}$  = 51.45) and men ( $\bar{X}$  = 50.01) showed close values of Empathy level scores. The results show that Hypothesis 4, which predicts that empathy level differs significantly according to gender, was rejected.

**Table 3.** Empathy Levels Differences in Relation to Gender

	Gender	N	$\bar{X}$	t-value	Sig.
Empathy Levels	Women	226	51.45	1.67	.094
	Men	159	50.01		

**Table 4.** Empathy Level Differences in Relation to Weekly Working Hours

	Weekly Working Hours	N	SD	$\bar{X}$	F	Sig.
Empathy Levels	40-45	286	7.94	52.02	12.93	.000
	46-50	68	8.53	48.36		
	51-56	31	8.25	45.54		

Differences in the weekly working hours showed also meaningful differences in the empathy levels ( $F=12.93$ ;  $p<.000$ ). A Tukey Test of 5% meaningfulness results showed that difference occurred between those who worked 51-56 hours a week and those 40-45 hours and those who worked 46-50 hours a week. Those working 51-56 hours a week showed a lower empathy level ( $\bar{X}$  = 45.54) compared to those working 40-45 hours a week ( $\bar{X}$  = 52.02) and those working 46-50 hours a week ( $\bar{X}$

= 48.36). It is obvious that with increasing work hours, empathy level averages fell. The obtained results indicate that Hypothesis 1 was confirmed.

**The Empathy Situation as the Determinant of Communication Skills Levels:** In this part of the study, the explanatory power of the empathy situation of healthcare workers for their communication skills level was explored by Linear Regression Analysis as shown on Table 5.

**Table 5.** Linear Regression Analysis showing Effect of Empathy Level on Communication Skills Level

	B	Beta ( $\beta$ )	t	Sig.
(Constant) Communication Skills Level (Index)	73.085		22.18	.000
Empathy Level (Index)	.565	.412	8.84	.000

$R^2 = .170$ ; Adjusted  $R^2 = .167$ ;  $F = 78.25$ ;  $df = 1$ ;  $p = .000$

As the result of the empathy level taken as an independent variable into the model, the regression index was found as 565. The Empathy level explains for 16.7% of the communication skills total variance. To find out whether

communication skills levels would predict empathy levels,  $\beta$  and  $t$  values analysis showed ( $\beta = .412$ ;  $p < .001$ ) that indeed empathy levels predicted positively and meaningful the communication skills scores.

**Table 6.** Relationship between Empathy Level and Communication Skills

Empathy Level	Communication Skills Level
	.412**

Note: \*\* Correlation is significant at the 0.01 level (2-tailed).

To explain the strength and direction of the relationship between empathy level and communication skills, the results of a Correlation Analysis were studied which indicated a medium-level positive meaningful relationship ( $r = .412$ ;  $p < .01$ ). With other words, with rising empathy level, communication skills levels also increased. These results show that Hypothesis 5 is confirmed.

## DISCUSSION

Empathy plays a particularly important role in interpersonal relations as a facilitating ability that

helps individuals establishing effective communication. While communication skills are important throughout all stations of life, they increase in importance when tending to a sick individual. These skills are required for all members of the healthcare team and should be prevalent throughout all encounters with the patient (6). With another words, as for the whole of society and at all stages of life, communication in healthcare professions is the essence of the processes that aim to reestablish balance in

destabilized systems. Healthcare workers (doctors, nurses, midwives, and etc.) are using communication techniques in determining problems, solving problems, coping with stress, and at training for healthcare. From this aspect, communication skills represent a very important professional value.

Descriptive statistical findings indicate medium-level communication skills and empathy for healthcare workers in average. The study found that the average of the total scores for communication and empathy skills of healthcare workers was at medium-level. The study also found that with increasing weekly work hours, the average communication and empathy skills score decreased. Similar findings were presented by research in the literature (16, 18).

As we look into the relationship of gender with communication and empathy skills levels, our findings presented close scores which shows no meaningful differences between men and women. These results do not corroborate with some similar studies in the literature that reveal a meaningful relationship between gender and communication skills-empathy tendency (28, 5). Similarly, Korkut, Owen and Demirbaş-Çelik's study indicated in the total score for communication skill scale, men and women showed meaningful differences in the dimensions of effective listening and nonverbal communication and adherence to communication principles. The related study results indicate a difference in favor of women (29).

The most important finding of this study is the affirmation of a meaningful positive relationship between the communication skills and empathy skills of healthcare workers. So, communication skills level rises with the rise in empathy level. The findings prove that in the event of the participants in our study, healthcare workers'

communication skills improve with increasing sensibility such as been affected from the misfortunes of others, from disrespectful behaviors to others, or understanding the sadness of others without being said. Regression Analysis results indicated that empathy levels contributed meaningful and positively onto communication skills levels scores.

As a result, while aiming to reveal the relationship between communication skills and empathy level, this study has particular limitations. First, this study has been conducted on healthcare professionals working in a public hospital in Ankara. The implementation of the study coincided with the outbreak of COVID-19 pandemic which increased the importance of healthcare workers and increased the demand for research with a focus on healthcare workers. Future research may target various regions and professions. They may explore the relations of communication skills with different variables. They may include various negative attributes like communication anxiety, stress, depression alongside positive attributes like self-respect, happiness, life satisfaction.

Suggestions may include, in parallel with research results, in order to improve communication and empathy levels of healthcare workers, attendance to in-service training, courses and seminars should be supported, attendance to social and cultural activities should be encouraged, and opportunities for further academic development for healthcare workers of all levels should be increased.

**Contributions of the authors:** N.Ö.: Contributing the study subject, reviewing the existing literature, conducting the study, statistical design and analysis, authoring the paper. E.K.: Contributing the study subject, planning, conducting the study, supervising the authoring. A.G.: planning, gathering the data.

## REFERENCES

1. Ersanlı K, Balcı S. İletişim Becerileri Envanterinin Geliştirilmesi: Geçerlilik ve Güvenirlilik Çalışması. *Türk Psikolojik ve Danışmanlık Dergisi*. 1998; 2(10):7-12.
2. Tayfun R. Etkili İletişim ve Beden Dili. Ankara: Nobel Akademik Yayıncılık Eğitim Danışmanlık Tic. Ltd. Şti; 2014.
3. Martin J, Nakayama T. *Intercultural Communicator in Contexts*. New York: McGraw-Hill; (2010).
4. Okay A. Sağlık İletişimi. İstanbul: Derin Yayın; 2016.
5. Özkan Ş, Aba G, Çelik Y. Destek Personellerinin İletişim Becerileri ve Empati Düzeylerinin Belirlenmesi: Kamu hastanelerinde bir Uygulama. *OPUS-Uluslararası Toplum Araştırmaları Dergisi*. 2019;13(19): 1430-46.
6. Pazar B, Demiralp M, Erer İ. The communication skills and the empathictendency levels of nursing students: a crosssectional study. *Contemporary Nurse*. 2017; 53( 3): 368–377.
7. Iksan ZH, Zakaria E, Mohd Meerah TS, Osman K, Choon Lian DK, Diyana Mahmud SN, Krish P. Communication skills among university students. *Social and Behavioral Sciences* 59. 2012; 71 – 76.
8. Grover SM. *Shaping Effective Communication Skills and Therapeutic Relationships at Work*. *Aaohn Journal*.2005;53(4): 177–182.
9. Korkut Owen F, Bugay A. İletişim Becerileri Ölçeği'nin Geliştirilmesi: Geçerlik ve Güvenirlik Çalışması. *Mersin Üniversitesi Eğitim Fakültesi Dergisi*.2014;10(2):51- 64.
10. Skarbaliënė A, Skarbalius E, Gedrimė L. Effective communication in the healthcare settings: are the graduates ready for it? *Journal of Contemporary Management Issues*. 2019; 24:137- 147.

11. Hobgood C, Riviello R, Jouriles N, Hamilton G. Assessment of Communication and Interpersonal Skills Competencies. *Acad Emerg Med.* 2002; 9(11):1257- 1268.
12. Özçakır A. Tıp Eğitiminde İletişim ve Klinik Beceriler Dersi Verilmeli mi?: İntern Öğrenci Görüşleri. *Türkiye Klinikleri Tıp Bilimleri Dergisi.*2002; 22(2): 185- 189.
13. Valente F. Empathy and Communication: A Model of Empathy development *Journal of New Media and Mass Communication.* 2016; 3(1):1-24.
14. Ratka A. Empathy and the Development of Affective Skills. *American Journal of Pharmaceutical Education.* 2018; 82 (10):1140- 1143.
15. Chen GM. A Review of the Concept of Intercultural Sensitivity. Paper presented at the biennial convention of Pacific and Asian Communication Association, January, Honolulu, Hawaii. Eric:1997;1-14.
16. Şahin Akgün Z, Özdemir Kardaş F. Hemşirelerin İletişim ve Empati Beceri Düzeylerinin Belirlenmesi. *Jaren* 2015;1(1):1-7.
17. Elkin N, Karadağlı F, Barut AY. Sağlık Bilimleri Yüksekokulu Öğrencilerinin İletişim Becerileri Düzeyleri ve İlişkili Değişkenlerin Belirlenmesi. *Mersin Üniversitesi Sağlık Bilimleri Dergisi.*2016;9(2):70-83.
18. Kumcağız H, Yılmaz M, Balcı Çelik S, Aydın Avcı İ. Hemşirelerin iletişim becerileri: Samsun ili örneği. *Dicle Tıp Dergisi.*2011; 38 (1): 49-56.
19. Roter D, Rosenbaum J, Negri B de, Renaud D, DiPrete-Brown L, Hernandez O. The effects of a continuing medical education programme in interpersonal communication skills on doctor practice and patient satisfaction in Trinidad and Tobago. *Medical Education.* 1998;32(2):181-189.
20. Sellick KJ. Nurses'and the skills interpersonal behaviours development of helping. *International Journal of Nursing Studies.*1991; 28(19): 3-11.
21. Şahin Görmüş A, Aydın S, Ergin G. İşletme Bölümü Öğrencilerinin İletişim Becerilerinin Cinsiyet Rollerine Bağlamında İncelenmesi. *Sosyal Bilimler Dergisi.* 2013; XV(1):109- 128.
22. Tepeköylü Ö, Soytürk M, Çamlıyer H. Beden Eğitimi Ve Spor Yüksekokulu (Besyo) Öğrencilerinin İletişim Becerisi Algılarının Bazı Değişkenler Açısından İncelenmesi. *Spormetre Beden Eğitimi ve Spor Bilimleri Dergisi.* 2009; VII (3): 115-124.
23. Milli MS, Yağcı U. Öğretmen adaylarının iletişim becerilerinin incelenmesi. *Abant İzzet Baysal Üniversitesi Eğitim Fakültesi Dergisi.* 2017;17 (1): 286-298.
24. McEwen T. Communication Training in Corporate Settings: Lessons and Opportunities for the Academe. *American Journal of Business.*1997;12(1): 49-58.
25. Korkut Owen F, Demirbaş- Çelik N. Yetişkinlerde kişilik özelliklerine göre iletişim. 18-21 Ekim 2017 tarihlerinde gerçekleştirilen I. Uluslararası Akademik Çalışmalar Kongresi'nde sözlü sunulan bildiri. 2017. <https://www.inescongress.com>.
26. Korkut F. Yetişkinlere Yönelik İletişim Becerileri Eğitimi. *Hacettepe Üniversitesi Eğitim Fakültesi Dergisi* 2005; 28: 143- 149.
27. Totan T, Doğan T, Sapmaz F. The Toronto Empathy Questionnaire: Evaluation of psychometric properties among Turkish university students. *Eğitim Araştırmaları-Eurasian Journal of Educational Research.*2012; 46: 179- 198.
28. Akgün R, Çetin H. Üniversite Öğrencilerinin İletişim Becerilerinin ve Empati Düzeylerinin Belirlenmesi. *Manas Sosyal Araştırmalar Dergisi.*2018;7(3):103-117.
29. Korkut Owen F, Demirbaş Çelik N. Yetişkinlerin cinsiyetlerine, yaşlarına ve kişilik özelliklerine göre iletişim becerilerinin incelenmesi. *International Journal of Human Sciences* 2018;15(4): 2305-2321.