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Evaluation of communication skills of physicians working in a training and research hospital: A cross-sectional study

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Abstract

Communication; is a two-way process of reaching mutual understanding in which information is exchanged, produced and interpreted. The main component of the diagnosis and treatment process between patient and physician is communication. In this study, we aimed to evaluate the communication skills of physicians according to various variables. The cross-sectional and descriptive study was conducted with physicians working at Haydarpaşa Numune Training and Research Hospital (HNH TRH) between May and August 2012. A total of 156 physicians who completed the scales and personal information form and met the inclusion criteria constituted the sample of the study. A total of 156 physicians with a mean age of 31.73±5.88 years participated in the study. Seventy-nine (50.6%) of the physicians reported that they could not devote enough time to themselves and their families, 118 (75.6%) physicians reported that they had communication problems with their patients in the past year, and only 56 physicians (35.9%) found themselves productive in their jobs. Sixty-five physicians (41.7%) felt exhausted, 116 (74.4%) of them reported that the reason for the communication problems they had was lack of time. There was a weak positive correlation between age and overall assessment of communication skills ($p<0.05$). There was a positive and weak correlation between age and mental and emotional communication skills ($p<0.01$). Limited time and low economic income negatively affect communication skills. Lowering patient density in hospitals and giving sufficient importance to primary health care services are needed. Focusing on communication skills training in medical schools and continuing this education throughout professional life can have positive effects on the patient-physician relationship.

Keywords: Communication, communication skills, patient-physician relationship, general health

Introduction

Communication is a process by which information is exchanged, produced, and made sense of. It is characterized by a bidirectional flow of information. Communication is essential in all aspects of daily life, within the family, at work, and in educational setting. In an average communication, the importance of words, tone of voice, and body language is 10%, 30%, and 60%, respectively. Furthermore, the way the message is delivered is the main factor, which determines the outcome of communication [1]. Emotional maturity is also necessary for healthy human relationships and better communication in addition to adequate use of the body. Emotional maturity is defined as the individual's ability to understand one's own emotions and to regulate them in a way that can improve his/her life level and to empathize with others' emotions [2,3]. Today, communication has become a tool that individuals at all levels and in all professions should maintain technical knowledge thereof and adequately develop their skills [4].

Communication constitutes the basis of treatment relationship between the physician and their patient. Communication with the patient needs to be non-judgmental, respectful, and sincere so as to lay the groundwork for a successful treatment agreement. Good communication is associated with positive impact on the patient's satisfaction, compliance, and health status, as well as improving the physician's satisfaction with his/her job, allowing collection of more accurate information from patients, and reducing the likelihood of being sued for malpractice [5]. It is well-established that the quality of interpersonal relationships between the patients and physicians is crucial for the adequacy of clinical outcomes

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and that this is largely dependent on the skills of the physician [6].

Occasional issues may occur in the course of communication, which has an important place in determining the needs of the patient. The present study aimed to investigate the communication skills of physicians working at Haydarpaşa Numune Training and Research Hospital and to review their association with a set of variables.

Material and Methods

The study was designed as a cross-sectional and descriptive study. The present study aimed to determine the communication skill levels of physicians based on their particular characteristics, including age, length of professional practice, voluntary choice of profession, ability to spare time for themselves and their families, ability to engage in social activities, economic difficulties, and communication problems during the previous year. The study population consisted of 500 physicians working at Haydarpaşa Numune Training and Research Hospital (HNH EAH) between May and August 2012. The sample size was calculated by the Survey System Sample Size Calculator software, which prescribed that at least 141 individuals should have been included in the study to ensure 95% confidence level and 7% confidence interval. A total of 156 physicians who completed the scales and personal information form in complete and met the inclusion criteria constituted the study sample. Ethics committee approval of the study was obtained upon Ministry of Health, HNH EAH Clinical Research Ethics Committee decision, No. HNEAH-KAEK 2012/10.

The study data was collected by means of the "personal information form" and the "Communication Skills Inventory (CSI)". Personal information form was designed as a questionnaire, which consisted a total of 23 items with an aim to investigate the descriptive characteristics of physicians, including age, sex, marital status, branch, title, length of professional practice, voluntary choice of profession, satisfaction with the profession, satisfaction with the hospital where they work, economic difficulties, hobbies of interest, and whether they considered themselves productive in the profession. The inventory, finalized by Ersanlı and Balcı (1998), consists of 45 questions of 5-point Likert type [7]. The CSI inventory consists of three sub-domains with 15 items each, aiming to measure cognitive, emotional, and behavioral communication skills. It is possible to assess each sub-domain separately or the overall communication skill level of the individual can be assessed on the basis of total inventory score. The highest and the lowest sub-domain score is 75 and 15, respectively. Higher scores in a sub-domain are indicative of the respondent's comparatively better performance in that very subdomain in terms of communication skills. Higher total scores suggest that the respondent has high-level communication skills [7,8].

The Statistical Package for the Social Sciences (SPSS) version 15.0 software was used for the purposes of data analysis. The Kolmogorov-Smirnov test was used to test the normal distribution hypothesis of the parameters. One-way ANOVA test was used for intergroup comparison of quantitative data and Tukey HDS test was used to identify the group associated with the difference, in addition to descriptive statistical methods (mean, standard deviation, frequency). Student t test was used for two-group comparisons of parameters and Pearson correlation analysis was used to investigate the relationships between parameters. Cronbach's alpha coefficient was used to assess the internal consistency of the communication skills inventory. A p level of <0.05 was considered statistically significant.

This study was orally presented at the 12th National Congress of Family Medicine International Conference held in Kuşadası on May 15-19, 2013.

Results

A total of 156 physicians were included in the study with a mean age of 31.73±5.88 years (min: 24-max: 60). Demographic data and satisfaction status are given in Table 1.

50.6% of physicians reported that they were not able to spare enough time for themselves and their families, 20.5% of physicians engaged in social activities in a non-medicine institution, 75.6% had communication issues with their patients in the previous year, 59.6% reported communication issues with colleagues, 35.9% considered themselves productive in their profession, 41.7% felt burned-out, 19.9% received training on communication skills, 74.4% pointed out the time constraints as most prevalent cause of communication problems (Table 2).

There was a positive, weak, yet statistically significant relationship between age and communication skills total scores ($p<0.05$) (Table 3).

There was a positive, weak, yet statistically significant relationship between age and mental and emotional communication skills score ($p<0.01$) (Figure 1).

There was no statistically significant difference between the mean scores from the mental, emotional, behavioral and total communication skills of physicians by sex, marital status, and specialty branches.

There was no statistically significant difference between the mean scores of mental, behavioral and total communication skills of physicians by title. The mean scores from emotional communication skills of specialist physicians were statistically significantly higher compared to that of the resident physicians ($p<0.05$).

There was no statistically significant difference between the mean scores of mental, behavioral and total communication skills of physicians by the length of professional practice. There was a statistically significant difference between the mean scores of physicians' emotional communication skills by the length of professional practice ($p<0.05$). Emotional communication skills scores of physicians with a tenure of more than 10 years were statistically significantly higher ($p<0.05$) compared to the emotional communication skills scores of physicians with that of

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1-3 years (p:0.027) and 4-6 years (p:0.034).

There was no statistically significant difference between the mean scores of mental, behavioral and total communication skills of physicians by economic difficulty status. There was a statistically significant difference between the mean scores of physicians' emotional communication skills by economic difficulty status ($p<0.05$). The emotional communication skills scores of physicians with economic difficulties were significantly lower compared to that of the physicians without economic difficulties (p:0.018; $p<0.05$).

There was no statistically significant difference between the mean scores of mental, emotional, behavioral and total communication skills by the physicians' ability to allocate adequate time for themselves and their families.

The mental and behavioral communication skills scores of physicians with a hobby were statistically significantly higher compared to that of physicians without a hobby ($p<0.05$). The emotional and total communication skills scores of physicians with a hobby were statistically significantly higher compared to that of physicians without a hobby ($p<0.01$).

There was no statistically significant difference between the mean scores of mental, emotional, behavioral and total communication skills of physicians by whether they had communication issues with their patients and colleagues during the previous year, whether they considered themselves productive in the profession, and whether they felt exhausted ($p>0.05$).

The mean scores of mental, behavioral and total communication skills of physician with training on communication skills, were statistically significantly higher compared to that of physicians without training ($p<0.01$) (Figure 2).

The mean communication skills score (in all domains) of physicians, who thought that their communication skills improved over years, was significantly higher compared to the patients who thought the contrary (mental; p: 0.025, emotional; p: 0.006, behavioral; p: 0.014, total; p: 0.003) (Figure 3).

The mean scores of emotional, behavioral and total communication skills of physicians, who defined the cause of communication issues as bilateral tension were significantly lower compared to the physicians, who thought otherwise ($p<0.05$; $p<0.01$).

Table 1. A distribution of demographic information and satisfaction status of physicians

		n	%
Sex	**Female**	80	51.3
	Male	76	48.7
Marital status	**Married**	73	46.8
	Single	83	53.2
Branch	**Internal**	98	62.8
	Surgery	58	37.2
Title	**Residency**	112	71.8
	Specialist	44	28.2
Length of professional practice	**1-3 years**	64	41.0
	4-6 years	47	30.1
	7-10 years	19	12.2
	More than 10 years	26	16.7
Voluntary choice of profession	**Yes**	140	89.7
	No	16	10.3
Satisfaction with the profession	**Yes**	71	45.5
	No	24	15.4
	Partially	61	39.1
Wishes to continue the profession life-long	**Yes**	77	49.4
	No	79	50.6
Satisfaction with the hospital	**Yes**	27	17.3
	No	46	29.5
	Partially	83	53.2
Economic difficulty	**Yes**	48	30.8
	No	34	21.8
	Partially	74	47.4

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Table 2. A distribution of social/professional characteristics of physicians

	N	%
Sufficient time spared for oneself and family		
Yes	21	13.5
No	79	50.6
Hobby		
Yes	84	53.8
No	72	46.2
Engaging in social activities in a non-medicine institution		
Yes	32	20.5
No	124	79.5
Communication issues with patients in the previous year		
Yes	118	75.6
No	38	24.4
Communication issues with colleagues		
Yes	93	59.6
No	63	40.4
Considers oneself productive in the profession		
Yes	56	35.9
No	18	11.5
Partially	82	52.6
Feeling exhausted		
Yes	65	41.7
No	35	22.4
Partially	56	35.9
Received training on communication skills		
Yes	31	19.9
No	125	80.1
Need for training on communication skills		
Yes	140	89.7
No	16	10.3
Thinks that communication skills have improved over years		
Yes	110	70.5
No	18	11.5
Partially	28	17.9
Cause of communication issues		
Patients' reluctance	23	14.7
Mismatch in verbal and nonverbal communication	72	46.2
Tension on both sides	61	39.1
Physical environment	58	37.2
Time constraints	116	74.4
Prejudice	61	39.1
Attitude of supporting staff	28	17.9
Social status of the patient	71	45.5
Problems experienced by the patient before reaching out the doctor	79	50.6

Table 3. Correlations between age and communication skills scores

	Age	
	r	**P**
Communication skills total score	0.194	0.015*
Mental communication skills	0.213	0.008**
Emotional communication skills	0.224	0.005**
Behavioral communication skills	0.080	0.318

r: Pearson correlation analysis, *p<0.05, **p<0.01

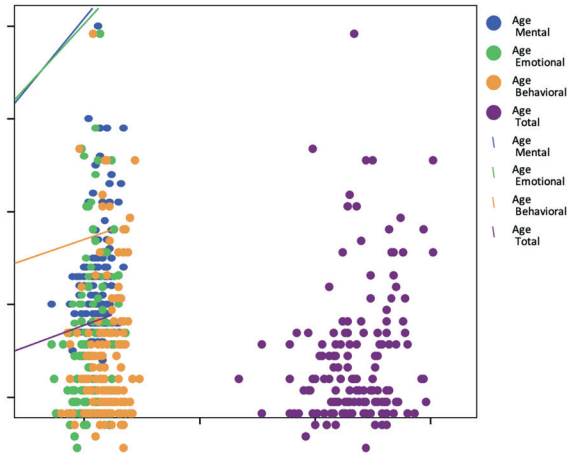

Figure 1. An assessment of communication skills by age

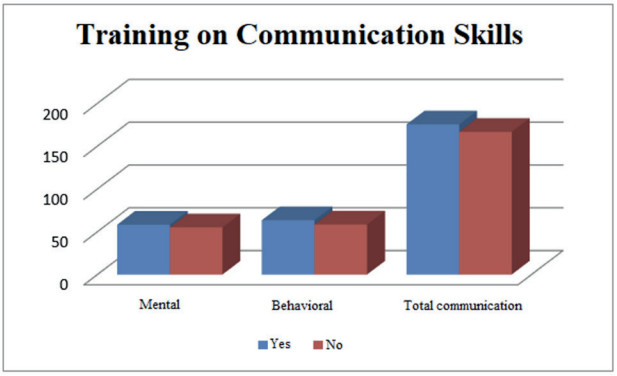

Figure 2. The mental, behavioral and total communication skills scores of physicians with training on communication skills

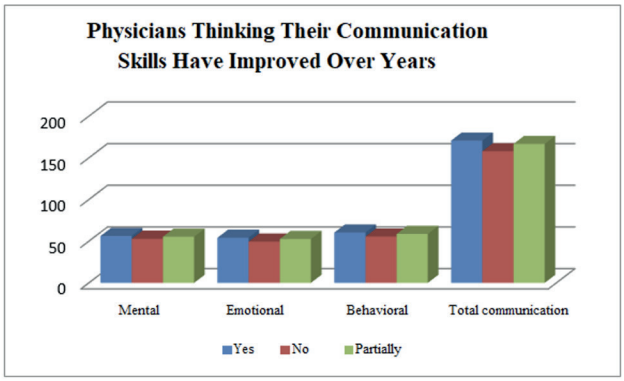

Figure 3. The communication skills scores of physicians, who think that their communication skills have improved over years

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Discussion

The effectiveness of treating the patient is considered to have been related to the ability to communicate in the profession of medical practice. Adequate communication during the medical history collection, examination, diagnosis, and treatment processes of the patients is associated with increased rate of success [9]. For an effective diagnosis-treatment process, physician and patient dialogues should be developed into an environment of mutual trust and appropriate sincerity [10]. An adequately designed and implemented family medicine system is the cornerstone of communication. The patient should be appropriately guided through the diagnosis-treatment journey by the physician beginning from the first presentation. Accordingly, patient-physician communication can progress towards a positive direction from the onset and the workload of secondary and tertiary hospitals can be decreased. The issue of inadequate time spent with the patient can be solved at this stage. The patients tend to resort to alternative methods without sufficient examination time. The foremost method is to try to get information from online resources. This may result in confusion and lead to unethical results [11].

The results of the present study are indicative of the importance of physician-patient communication and the factors affecting this situation in detail. Adequate communication is not only associated with increased accuracy of diagnosis and treatment, but also with increased likelihood of the patient's understanding, trust, and compliance with the doctor's recommendations [12]. A study conducted by Freemon et al. reported that doctor-patient interaction had a positive impact with regard to the patients' compliance with the doctor's recommendations [13]. Ruberton's study suggested that physicians adopting a modest attitude had a very positive effect on communication [14].

In a study conducted by Vuori et al. reported that patients attached importance to the technical competence of the doctor, but this was not associated with their preference for the same doctor again, and that the doctor's interest and approach towards the patient were important for patients to prefer the same doctor again [15].

Young adults, who would enter the middle age period, when friendship and love relationships gain importance, demonstrate stronger mutual communication, if they have acquired a healthy identity and a practice a profession that fits to their personal traits [16]. In the present study, there was a positive and statistically significant relationship between age and total communication skills score ($p<0.05$). There was a positive and statistically significant relationship between age and mental and emotional communication skills score ($p<0.01$). These results were indicative of the fact that communication skills increased with increasing age.

On average, doctors practicing at public sector healthcare institutions examine 70-100 patients a day. Accordingly, the time that the physician can allocate to an individual patient may be limited to only 3-4 minutes. Whereas, in hospitals across Europe, the number of patients per physician is 25-30/day. As the number increases, the physician will most likely experience difficulty in diagnosis leading to an increased rate of error [17,18].

The fact that people practice the profession of their choice, can improve their productivity by increasing their motivation towards their practice. In the present study, there was no statistically significant difference between the mean scores of mental, emotional, behavioral and total communication skills of physicians, who had voluntarily chosen their profession and those who had reluctantly chosen their profession by their satisfaction with their profession and whether they wanted to continue their profession throughout their lives ($p>0.05$). One of the other results of the present study was that sensory communication skills increased with the increase in length of professional practice. Physicians, who were practicing for prolonged periods were in a period of maturity in their professional and life experience. Therefore, that could be considered to have had a better communication skill level.

Physicians with training on communication skills can demonstrate a more effective approach in that regard. The results of the present study supported the foregoing hypothesis in a statistically significant way. Consistently, previous studies in different branches reported that physicians with training could communicate with the patients in a shorter time and in a more relaxing manner in mutual interviews [19,20].

Healthcare personnel with effective communication skills can bring the ability to produce healthier solutions to problems [21,22]. Positive relationships with patients and adequate information can increase the provision of quality service. An effective communication among healthcare professionals can ensure sharing appropriate information in a timely manner by teamwork and collaboration. Hierarchical differences, uncertainty, and power struggles can lead to conflicts in terms of communication. As a result, harmony among the staff, patient safety, and the quality of care may be jeopardized [23]. A study by Rutishauser investigated communication with young people and suggested that the doctor-patient relationship should be developed in an appropriate way and that this could be achieved through solo interviews and a sense of trust [24]. Tate reported that communication was like behavior and that people communicated in order to establish effective relationships in business and private life. In case the doctors communicate effectively with their patients and colleagues, they would pay less attention to personal issues and more attention to people. Therefore, the main driver is to ensure effective communication [25].

Conclusion

When physician is older in age, is a specialist, has a hobby, can allocate sufficient time to the patient, and has received training in communication skills positively affects communication in the physician-patient relationship. Furthermore, time constraints during the patient-physician relationship and lower economic

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income have an adverse effect on communication skills. One of the most critical problems in mutual communication is considered the time constraints. Relevant efforts should be put in place to mitigate the problem of patient overcrowding in hospitals and primary healthcare institutions should be attached adequate importance. In conclusion; emphasizing training on communication skills at medical faculties and providing continuous trainings throughout the professional life may provide positive gains in physician-patient relationship.

Conflict of Interests

The authors declare that there is no conflict of interest in the study.

Financial Disclosure

The authors declare that they have received no financial support for the study.

Ethical Approval

Ethics committee approval of the study was obtained upon Ministry of Health, Haydarpaşa Numune Training and Research Hospital Clinical Research Ethics Committee decision, No. HNEAH-KAEK 2012/10.

References

1. Baltas Z. Saglik Psikolojisi. 1st edition. Remzi Kitabevi, İstanbul, 2000;125.
2. Dilekman M, Başcı, Z, Bektaş F. Eğitim fakültesi öğrencilerinin iletişim becerisi. Atatürk Üniversitesi Sosyal Bilimler Enstitüsü Dergisi 2008;12:223-31.
3. Xin Z. Challenges and barriers in intercultural communication between patients with immigration backgrounds and health professionals: a systematic literature review. Health Commun. 2023;38:824-33.
4. Balcı S. Danışma becerileri eğitiminin üniversite öğrencilerinin iletişim beceri düzeyine etkisi. Ph.D. thesis, Ondokuz Mayıs University, Samsun 1996.
5. Jeanette E, Paul S. Current diagnosis-treatment in family medicine. (Kut A, Eminsoy MG.; translation eds). 2nd edition. Güneş kitabevi, İstanbul, 2011;641.
6. Dereboy Ç, Harlak H, Gürel S, et al. Teaching empathy in medical education. Türk Psikiyatri Dergisi. 2005;16:83-9.
7. Ersanlı K, Balcı S. Developing a communication skills inventory: its vadility and reliability. Turkish Psychological Counseling and Guidance Journal. 1998;10:7-12.
8. Korkut F. İletişim becerilerini değerlendirme ölçeğinin geliştirilmesi geçerlik ve güvenirlik çalışmaları. Turkish Psychological Counseling and Guidance Journal. 1996;7:18-24.
9. Honavar SG. Patient-physician relationship-Communication is the key. Indian J Ophthalmol. 2018;66:1527-8.
10. O'Rourke K. Trust and the physician-patient relationship. Am J Kidney Dis. 1993;21:684-5.
11. Tan SS, Goonawardene N. Internet health information seeking and the patient-physicianrelationship: a systematic review. J Med Internet Res. 2017;19:e9.
12. Falvo D, Tippy P. Communicating information to patients. Patient satisfaction and adherence as associated with resident skill. J Fam Pract. 1988;26:643-7.
13. Freemon B, Negrete VF, Davis M, et al. Gaps in doctor-patient communicaiton: doctor-patient interaction analyis. Pediatric Research. 1971;5:298-311.
14. Ruberton PM, Huynh HP, Miller TA, et al. The relationship between physician humility, physician-patient communication, and patient health. Patient Educ Couns. 2016;99:1138-45.
15. Vuori H, Aaku T, Aine E, et al. Doctor-patient relationship in the light of patients experiences. Soc Sci Med. 1972;6:723-30.
16. Ersanlı K. Davranışlarımız gelişim ve öğrenme. 1st edition. Eser Yayınevi, Samsun, 2005;205.
17. Workload analysis of physicians. http://www.istabip.org.tr/hf/012005/hf012005.asp access date 09.09.2011
18. Crotty BH, Tamrat Y, Mostaghimi A, et al. Patient to physician messaging: volume nearly tripled as more patients joined system, but per capita rate plateaued. Health Aff (Millwood). 2014;33:1817-22.
19. Dacre J, Richardson J, Noble L, et al. Communication skills training in postgraduate medicine: the development of a new course. Postgrad Med J. 2004;80:711-5.
20. Merckaert I, Libert Y, Ravazi D, et al. How to optimize physicians' communication skills in cancer care: result of a randomized study assesing the usefullness of posttraining consalidation workshops. J Clin Oncol. 2003;21:3141-9.
21. McNeill C, Shattell M, Rossen E, Bartlett R. Relationship skills building with older adults. J Nurs Educ. 2008;6:269-71.
22. Sandikci KB, Üstü Y, Sandikci MM, et al. Attitudes and behaviors of physicians in dealing with difficult patientsand relatives: a cross-sectional study in two training and research hospitals. Turk J Med Sci. 2017;47:222-33.
23. Nadzam DM. Nurses role in communication and patient safety. J Nurs Care Quality. 2009;24:184-8.
24. Rutishauser C. Communicating with young people. Paediatr Respir Rev. 2003;4:319-24.
25. Tate WC. Talk the talk. Nurs Stand. 2006;20:72.