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Communication Skills and Its Related Factors Among Medical Staff

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Abstract

Background: Communication skills are the main features in health care.
Objectives: The current study aimed at determining communication skills and its related factors among medical staff.
Methods: The current cross sectional study was conducted on 302 medical staff of hospitals (physicians, nurses, midwives, and paramedics) in 2014, Hamadan city, Iran. The subjects were randomly selected from each hospital proportional to population size. Demographic information and the Burton communication skills (verbal, listening, and feedback) were completed using questionnaires. For all of the communication skills, scores 6 to 14 were low, 15 to 22 moderate, and 23 to 30 were considered high. Collected data were analyzed with SPSS version 22 using descriptive tests, Kruskal-Wallis test, *t*-test, and regression analysis.
Results: Subjects gained 19.22, 17.50, and 19.20 average of communication skills including verbal, listening and feedback, respectively. Medical staff communication skills were at moderate level. There was a significant difference between the scores of feedback skills ($P = 0.001$) and verbal skills in different educational levels ($P = 0.018$). Also, the verbal and feedback skills in the group of midwives were more than those of the others ($P < 0.001$).
Conclusions: The levels of communication skills among medical staff were not high. Communication skills training should be done at the time of recruitment and for vocational retraining.

Keywords: Communication, Medical Staff, Hospitals

1. Background

Communication in a healthcare organization is a key to the quality of care, patient safety, and financial function (1). Communication, in the clearest definition, is the exchange of verbal and non-verbal messages between two or more people (2). The doctor-patient relationship plays an essential role in ordering the health care system and medical ethics, and since it is a form of communication, it requires ethical, philosophical, psychological, and sociological considerations (3).

Communication between doctors and patients plays a vital role in the development of a trusting doctor–patient relationship and in fact, one of the most important results of good communication is satisfactory care (4). Communication skills can be trained, and that is why medical schools worldwide implement programs to train such skills (5). In fact, a distorted doctor-patient relationship is an important barrier both to doctors and patients, and ultimately affects the quality of healthcare and ability of the patients to encounter their diseases. In deteriorated doctor-patient relationships, patients do not completely comply with doctor's orders, frequently change their doctor, stand anxious, may choose non-scientific forms of treatment, which considerably increase the direct and indirect medical costs (6).

In impressive communication, it is necessary to enrich the doctor-patient relationship and facilitate the teamwork with other health professionals (7). Communication skills are a set of individual's possible and real capabilities that result in behaviors that can similarly boost knowledge and contribute to achieving an admissible level of emotional relationship with patients and teammates, if employed appropriately (8). When enough time is not spent on effective communication with clients, the plentiful consequences occur. These outcomes enfold psychological and ethical aspects, and include physical aspects such as improvement of health index that influences the level of recovery (9). Communication training relied on the presumption that understanding the implications related to professional communication facilitates the education (10).

Many doctors are not trained to effectively commu-

nicate with their patients; therefore, it is important to consider the training of interaction and communication skills as an integrated part of medical education system (11). Brown et al. studied the communication skills of undergraduate health students. The results indicated that communication skills priority is patient-centered, which includes a sympathetic approach via intimate relationship (12).

Curtis et al. investigated the effects of communication skills on the quality of communication in assistants and nurses. Conclusions represented communicational intervention associated with a small increase in patients' depressive symptoms and it requires more communication skills assessment in patients (13). Although the health care service centers are well-appointed with advanced techniques, the emotional gap between physicians and patients is growing everyday (14). Since enough studies are not conducted on the medical staff, the importance of communication in medical sector, and patient's relationship with medical staff, the ideal goal of all educational hospitals is to improve the communication skills of the medical staff and find their strengths and weaknesses to improve the quality of care, and training the quality management staff.

2. Objectives

The current study aimed at determining communication skills and its related factors among medical staff in Hamadan hospitals.

3. Methods

The current cross-sectional study was conducted on medical staff (physicians, nurses, midwives, and paramedics) in Hamadan training hospitals (Besat, Ekbatan, Fatemieh, Farshchian, and Beheshti). In the current study, random sampling method was employed. The samples were determined according to the number of hospitals and number of physicians, midwives, nurses, and paramedics in each hospital. Then the samples were selected by simple random sampling method from each hospital. Koukran formula (15) and Morgan table were used to calculate the sample size. The sample size was 314 subjects considering the possibility of loss. In Fatemieh Hospital, 51 samples (25 nurses, six physicians, 18 midwifes, and two paramedics), in Besat Hospital (27 nurses, 77 physicians, and 13 paramedics), in Behehshti Hospital (12 nurses, 36 physicians, and nine paramedics), in Farshchian Hospital (36 nurses, two physicians, and seven paramedics) and in Ekbatan Hospital (32 nurses, five physicians, and seven paramedics) were selected. After data collection, 12 questionnaires were excluded due to incompletion, therefore, 302 questionnaires were finally gathered (response rate: 96.1%). Inclusion criteria were the medical staff working at state hospitals affiliated to the Hamadan University of Medical Sciences; no history of mental illness, disability, and disabling illness in medical staff and exclusion criteria were unwillingness to participate in the study. The data collection tools consisted of demographic variables and Burton GE standard questionnaire (16) that is evaluating communicationskills in three levels of verbal, listening, and feedback by six questions for each skill through multi-item Likert scale (totally disagree, somewhat disagree, not sure, somewhat agree, completely agree).

In this questionnaire, questions 3, 4, 7, 12, 15 and 17 are related to verbal skills, questions 2, 6, 8, 10, 14 and 18 to listening skills, and questions 1, 5, 9, 11, 13 and 16 to feedback skills. To determine the level of verbal communication skill, scores 6 - 14 were considered low, 15 - 22 moderate, and 23 - 30 high verbal skill. To determine the level of listening communication skill, scores 6 - 14 were considered low, 15 - 22 moderate, and 23 - 30 high listening skill, also to determine the level of feedback communication skill, scores 6 - 14 were considered low, 15 - 22 moderate, and 23 - 30 high feedback skill. Reliability and validity of the questionnaire were measured in the studies by Barati et al. (17) and Baghiyani Moghadam et al. (18) with 0.75 and 0.70 alpha Cronbach, respectively. Also, content validity ratio (CVR) and content validity index (CVI) were reported 0.75 and 0.88, respectively (Safavi). The questionnaires were self-reported. It should be noted that planning, confidentiality of information, and also the objectives of the study were explained to the participants. They also enrolled in the study voluntarily and completed the questionnaires. The current study was approved by the Ethics Committee of Hamadan University of Medical Sciences (961023). The collected data were analyzed with SPSS version 22 and descriptive tests, Kruskal-Wallis test, *t*-test, and regression analysis were employed. The significance level was considered 0.05.

4. Results

Out of the 302 participants, 55.6% (168) were 30-39 years old; 71.5% (216) were female; 7.9% (24) (paramedics) had high school diploma; 66.9% (202) were married; 44.4% (134) were nurses; and 38.1% (115) of had 5 - 10 years' work experiences, Table 1 presents demographic characteristics of the participants.

Participants gained respectively 19.22, 17.5 and 19.20 average verbal, listening, and feedback skills, respectively, based on the scores achieved 6 - 30. It suggested that their

Table 1. The Demographic Characteristics of Participants

Variables	No. (%)
Age, y	
20 - 29	101 (33.4)
30 - 38	168 (55.6)
40 - 49	31 (10.3)
> 50	2 (0.7)
Gender	
Male	86 (28.5)
Female	216 (71.5)
Educational level	
High school diploma	24 (7.9)
Associate degree	29 (9.6)
Bachelor of science	172 (57)
Master of science	15 (5)
Ph.D.	62 (20.5)
Marital status	
Single	100 (33.1)
Married	202 (66.9)
Occupation	
Paramedic	37 (12.3)
Nurse	134 (44.4)
Midwife	19 (6.3)
Physician	112 (37)
Job experience	
1 - 5	94 (31.1)
6 - 10	115 (38.1)
11 - 15	61 (20.2)
> 15	32 (10.6)
Hospital	
Ekbatan	44 (14.6)
Beheshti	57 (18.9)
Farshchian	46 (15.2)
Fatemieh	46 (15.2)
Besat	109 (36.1)

communication skills level was moderate. In medical staff, only 19.9% had high verbal skills, 13.6 % high listening skills, and 16.9% high feedback skills. Table 2 presents descriptive data on communication skill levels.

There was a direct relationship between feedback skill with verbal ($P = 0.001$) and listening skill ($P < 0.001$). There was no significant relationship between verbal and listening skills ($P = 0.329$) (Table 3). The results of *t*-test showed that average skill of listening was higher in females than males and verbal and feedback skills were higher in males than females but the difference was not statistically significant ($P > 0.05$). The results of Kruskal-Wallis test showed that average feedback and verbal skills in the age group 40 - 49 years and average listening skills in the age group 30 - 39 years were more than those of the others ($P > 0.05$). Average verbal and feedback skills in midwives and average listening skills in paramedics were more than those of the other groups ($P > 0.05$).

The results of Kruskal-Wallis test showed that the average feedback and verbal skills in a group with more than 15 years of experience ($P < 0.001$) and average listening skills in a group with 6 - 10 years of experience ($P = 0.043$) were more than those of the other groups. Also, there was significant difference between the scores of feedback skills (0.001) and verbal skills (0.018) in different educational levels. Table 4 shows the relationship between Staff communication skills and demographic characteristics.

5. Discussion

Effective communication skills in healthcare professionals are widely admitted and confirmed as a core clinical capability. The outcomes of insufficient communication are well identified with costfor patients, families, professionals, and healthcare organizations. They contain reduced adoption with treatments, higher psychological morbidity, inaccurate or delayed diagnoses, increased complaints and lawsuits (19). The emphasis on effective patient-provider communication is most recently driven by the need for patients to presume more care for them, help to control the cost of health care, and create the need for patients to understand more complex health information (20). Therefore, the current study aimed at determining communication skill and its related factors among medical staff in teaching hospitals. One of current study aims was to determine correlation between medical staff demographic and communication skills. The results of study indicated that feedback skills declined by increasing the degree. The results of the study by Gholami et al. showed that with increasing nurse's education, communication skills increased; therefore, results of this study were not consistent with those of the current study (21). Moreover, work experience was directly related to feedback skill and this result was consistent with study by Barati et al. (17). But, Safavi et al. (22) showed that with increasing work experience, all levels of communication skill including feedback, verbal, and listening increased. Therefore their study results were not consistent with those of the current study.

The results also showed that the average listening skills was higher in females than males, and also the average feedback skills was higher in males than females. The findings of the current study corresponded with those of the study by Hamidi and Barati (5). Also, the current study result indicated that verbal skill was different in subjects with different work experience. The results of current study showed that there was significant difference be-

Table 2. The Distribution of Verbal, Listening, and Feedback Communication Skill Levels

Items	Communication Skill Level (Mean ± SD)	Score Range	Low (%)	Moderate (%)	High (%)
Verbal	19.22 ± 3.87	6 - 30	40 (13.2)	202 (66.9)	60 (19.9)
Listening	17.50 ± 3.34	6 - 30	63 (20.9)	198 (65.6)	41 (13.6)
Feedback	19.20 ± 3.32	6 - 30	18 (6)	233 (77.2)	51 (16.9)

Table 3. Correlation Between Levels of Medical staff's Communication Skills

Variable	Feedback	Verbal	Listening
Feedback	-	0.18	0.48
		0.001	< 0.001
Verbal	0.48	-	0.05
	< 0.001		0.329
Listening	0.18	0.05	-
	0.001	0.329	

tween the scores of feedback skills and verbal skills in different educational levels. The finding of the current study corresponded with the study by Barati et al. (23).

Regarding the increase of verbal skills due to work experience, it is hypothesized that increasing age, maturity, and work experience of employees can affect verbal skills. Also, lower level of communication in high school diploma compared to the undergraduate and postgraduate degrees may be due to the absence of courses in the curriculum at the high school level, since in some undergraduate majors, such as nursing and health (associate degree and undergraduate) education the communication courses are included (23).

The current study also meant to determine communication skills among medical staff. Results of the current study showed that average verbal and feedback skills in midwives and average listening skills in paramedics were more than those of the other groups.

It seems that the audiences of the midwives are females and since there is better verbal communication in females than males, this group of medical staff are more easily inclined to verbal communication; and also due to the low occupational categories of the paramedics team in the hospital, the medical staff are more inclined to listening to verbal communication.

The current study also meant to determine correlation between communication skills. Results of the current study showed that verbal skills and listening skills were related to feedback skills. The finding of this section corresponded with those of the study by Barati et al. (23). Obviously, one of the most important factors in effective communication is appropriate feedback. In fact, the lack of feedback can be viewed as a failure to communicate effectively. In 2014, Kourkouta and Papathanasiou studied communications in nursing career. In this study it was indicated that a good communication between nurses and patients is essential to achieve a successful outcome of care for each patient and allocate time for the establishment of nurse-patient relationship (24).

In 2012, Clayton et al. appraised the communication skills training intervention regarding the trust and skills of doctors. The results of this study showed that all participants stated that teaching them to communicate with the patient was effective and recommended the training course to the medical staff (25). Regarding the doctors' close relationship with the patients especially in critical periods of time, the nurses have an important role in changing the patient's perception towards the disease and monitoring it with making efficient and effective connections (21).

The current study had some limitations: Firstly, simple random selection of medical staff among hospitals in the quotas for each hospital due to unwillingness of some of the medical staff can be stated as one of the limitations of the study. Secondly, self-reporting is not a suitable way to study communicational behaviors; therefore, objective observation of behavior can be the best estimate of communication behaviors.

5.1. Conclusions

Communication skills at all levels of verbal, listening, and feedback among medical staff was moderate and it seemed that communication skills had a direct relationship with their experience; furthermore, since the health system needs active participation between recipients and health service providers, appropriate and truthful communication, respect for personal and professional values, and sensitivity to differences are necessary for optimal care of the patient.

Supplementary Material

Supplementary material(s) is available here [To read supplementary materials, please refer to the journal website and open PDF/HTML].

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Table 4. The Relationship Between Communication Skills and Demographic Characteristics

Variables	Verbal		Listening		Feedback	
	Mean ± SD	P Value	Mean ± SD	P Value	Mean ± SD	P Value
Age, y		0.216		0.189		0.413
20 - 29	19.4 ± 0.3		16.9 ± 0.3		19.3 ± 0.3	
30 - 38	18.9 ± 0.3		17.8 ± 0.3		18.9 ± 0.2	
40 - 49	20.94 ± 0.7		17.4 ± 0.5		20.1 ± 0.7	
> 50	0 ±		16 ± 7		19 ± 7	
Gender		0.082		0.379		0.219
Male	19.8 ± 0.4		17.1 ± 0.4		19.5 ± 0.4	
Female	18.9 ±		17.6 ± 0.2		19 ± 0.2	
Educational level		0.018		0.067		0.001
High school diploma	19.6 ± 0.8		18.3 ± 0.9		20.8 ± 0.8	
Associate degree	18.3 ± 0.7		16.3 ± 0.5		17.7 ± 0.7	
Bachelor of science	18.7 ± 0.3		17.7 ± 0.2		18.7 ± 0.2	
Master of science	20.1 ± 0.6		19 ± 1.0		20.4 ± 0.8	
Ph.D	20.4 ± 0.4		16.8 ± 0.5		20.1 ± 0.4	
Marital status		0.973		0.389		0.998
Single	19.2 ± 0.3		17.2 ± 0.4		19.2 ± 0.3	
Married	19.1 ± 0.2		17.5 ± 0.2		19.2 ± 0.2	
Occupation		0.067		0.341		0.423
Paramedic	18.7 ± 0.7		18 ± 0.6		19.5 ± 0.7	
Nurse	18.7 ± 0.3		17.7 ± 0.3		19 ± 0.2	
Midwife	20.7 ± 0.8		17.8 ± 0.8		20 ± 0.5	
Physician	19.6 ± 0.3		17 ± 0.3		19.2 ± 0.3	
Job experience		< 0.001		0.234		< 0.001
1 - 5	19.8 ± 0.3		17 ± 0.4		19.3 ± 0.3	
6 - 10	18.6 ± 0.3		18 ± 0.3		18.6 ± 0.3	
11 - 15	18.8 ± 0.5		17 ± 0.4		18.9 ± 0.4	
> 15	21.2 ± 0.5		17.7 ± 0.7		21.3 ± 0.6	
Hospital		< 0.001		0.043		< 0.001
Ekbatan	20.7 ± 0.4		16.0 ± 0.5		20.6 ± 0.4	
Beheshti	17.1 ± 0.5		17.5 ± 0.4		17.6 ± 0.2	
Farshchian	18.8 ± 0.6		18.1 ± 0.6		18.5 ± 0.5	
Fatemieh	18.5 ± 0.5		18.4 ± 0.4		19.1 ± 0.4	
Besat	20.1 ± 0.3		17.3 ± 0.3		19.7 ± 0.3	

Footnotes

Authors' Contribution: Study concept and design: Babak Moeini, Hamid Abasi, and Marzieh Otogara. Analysis and interpretation of data: Hamid Abasi, Marzieh Otogara and Mahdi Akbarzadeh. Drafting of the manuscript: Hamid Abasi. Critical revision of the manuscript for important intellectual content: Babak Moeini, Hamid Abasi, Marzieh Otogara and Mahdi Akbarzadeh. Statistical analysis: Mahdi Akbarzadeh.

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