

# Examining the Views of Operating Room Nurses and Physicians on the Relationship between Professional Values and Professional Communication

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## Research Article

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# Abstract

**Purpose:** Professional communication and professional values are two basic concepts in operating rooms and should be studied more closely in view of the nature of work, the high circulation of patients in operating rooms.

**Methods:** The present work is a descriptive-analytic study with a cross-sectional design. The sample was 603 operating room doctors and personnel selected from the public hospitals of Shiraz. The data collection instruments were the 41-item professional communication questionnaire and the 26-item professional values scale.

**Result:** Results shows the operating room nurses and doctors were found to perceive the status of professional communication and professional values to be satisfactory. About professional communications, the participants' perception of the domains of mutual respect and trust ( $p \leq 0.001$ ), teamwork ( $p \leq 0.001$ ), ethical competence ( $p \leq 0.017$ ), and workplace conflicts ( $p \leq 0.001$ ) was significant. About professional values, only the dimension of care ( $p \leq 0.016$ ) was perceived to be significant. Moreover, a significant positive relationship was found to exist between professional communication and professional values ( $p \leq 0.001$ ).

**conclusion:** Considering the significance of the concept of professional communication and its connection with professional values, it is recommended that operating room personnel and doctors receive systematic education about professional communication and the harms of destructive attitudes as part of their academic education and afterwards.

## Introduction

Proper professional communication is characterized by "showing respect for professional values and personal abilities, relying on one's colleagues' knowledge and experience, and seeking advice before making decisions." Establishment of proper professional communication in hospitals has always been a challenge in providing quality care to patients (1). To reach their common goal, i.e., restoring their patients to good health within a certain period, the members of healthcare teams (doctors and nurses) need to observe the principles of professional communications, including consulting each other and using each other's experiences, especially in operating rooms where patients are at the greatest risk and time is limited(2, 3). Studies show that poor communication—caused by arrogance, verbal conflicts, cultural differences, interpersonal issues, unprofessional communication, stress and work overload, paperwork, dishonesty, etc.—between members of healthcare teams in operating rooms can result in patient dissatisfaction and medical errors, e.g. retaining surgical items, operating on the wrong site, falling off beds, and increased fatality(4, 5). According to Lari (2019), a large number of medical errors at the expense of patients are due to ineffective relationships between doctors and nurses(2). Ineffective professional communication has consequences for healthcare teams too, including job dissatisfaction,

repeated absence from work, inability to concentrate, loss of self-confidence, reluctance to participate in teamwork, and even violence against the personnel(6, 7).

Because of the cramped atmosphere of operating rooms, the personnel's having close contact with each other for a long time in the same room, the high pressure of work, doctors' tendency to make decisions without consulting the other members of the surgery team, nurses' limited autonomy, and ethical inequalities in the medial personnel's income and work privileges, the incidence of the above-mentioned consequences is higher in operating rooms (2, 3, 8, 9).

In many hospitals, the relationship between doctors and the other personnel is not satisfactory, leading to implicit or explicit verbal conflicts and even physical fights which, inevitably, have adverse effects on the doctors, the personnel and, by extension, the patients. These clashes can undermine the personnel's respect for ethical principles and professional values which are the foundations of nursing and medical practice and often determine the quality of care(3, 5, 10, 11).

In medical professions, professional values include benevolence, equality, freedom, human dignity, justice, and honesty. Connected with professional activities, professional values provide healthcare teams with a framework for decision-making(12, 13). Professional values are adopted in interactive and acquisition-based processes which occur in professionals' relationships with others in various situations. These processes are influenced by a variety factors, including financial matters, past experiences, social groups and interactions in the workplace, personal characteristics, beliefs, and values, and especially the dominant cultural context(12, 14–16). Sometimes, the decisions made by doctors and nurses in bad professional communication led to disagreement and value conflicts which cause one of the sides to suspect the core values of justice, benevolence, and equality and consequently make less effort to promote professional values and, by extension, the quality of care because professional values are closely connected with an individual's personal beliefs and values and whatever is regarded as good for the members of the profession(13) .

The medical personnel directly influence patients' perspective on clinical centers and medical services—changes in professional values following strained relationships in medical environments can irreversibly damage patients' trust in confidentiality and justice (11). Due to overcrowding in the public hospitals of Shiraz, professional communication and professional values in the operating rooms are afflicted by many issues with serious consequences, including increase in medical errors, reduction in self-confidence, poor concentration, perception of inequality, increased workload, unnecessary paperwork, increased immigration, and deterioration in the quality of care. In addition, hospitals do not have any systematic instruments or programs to evaluate and improve professional communication and professional values(17, 18). Accordingly, the present study aims to identify the variables which correlate with professional communication and professional values as perceived by operating room doctors and personnel, to determine the status quo, to measure the compatibility of the criteria with the personnel' responsibilities, and to suggest solutions to improve professional communication and perception of professional values.

## Method

The present study is a descriptive-analytic work with a cross-sectional design in 2017. The study population consisted of 603 operating room doctors and personnel selected from 6 public hospitals in Shiraz using census sampling. The inclusion criteria were having an associate degree or bachelor's degree in surgical nursing, nursing, or anesthesiology for the operating room personnel and at least a Doctor of Medicine degree for the doctors, Satisfaction of people to participate in the study and in addition to having at least 3 months' experience of work in operating rooms. The data collection instruments were a demographics survey, the operating room personnel-doctor professional communication questionnaire developed by Torabizadeh et al., and Weis and Schank's professional values scale.

The demographics survey consisted of 5 items. The professional communication questionnaire is comprised of 41 items which address 6 dimensions. Scoring is based on a 5-point Likert scale ranging from never to always with the score range being between 93 and 153. The validity and reliability of the instrument are reported to be 0.92 and 0.88 respectively. A score of between 93 and 113 indicates poor relationship, between 113 and 133 indicates average relationship, and between 133 and 153 indicates good relationship (4). Weis and Schank's professional values scale are a standard survey with the score range of 26–130. The scale consists of 26 items which address five domains(19). In Iran, the reliability of the scale has been calculated to be 0.92 (20). In the present study, the sampling lasted for 3 months. The collected data were analyzed using SPSS v. 24, descriptive statistics, Pearson correlation, independent t-test, and one-way ANOVA.

## Findings

42.8% of the participants were male and 62% were married. The greatest frequency belonged to the age group 25–32 years. 43.4% of the participants were operating room personnel and 22.2% were doctors. Regarding work experience, the subjects who had 2 to 5 years' experience (33.4%) constituted the largest group (Table 1).

Table 1  
The study population's demographic characteristics

Variable		Frequency	Percentage
Gender	Female	345	57.2
	Male	258	42.8
Marital status	Single	229	38
	Married	374	62
Age group	24≥	59	9.8
	25–32	293	48.5
	33–40	156	25.9
	41–48	59	9.9
	49≤	34	5.6
Professional position	operating room personnel	261	43.4
	Anesthesia personnel	150	24.9
	Nurse	58	9.7
	Resident/specialist	108	17.9
	Fellowship/Subspecialist	26	4.3
Work experience	1≥	78	13
	2–5	198	33.4
	6–10	114	19.5
	11–15	87	15.1
	16–20	66	11.5
	20≤	43	7.5

The results showed the professional communication mean scores of the operating room personnel and doctors to be 135.51 and 136.54 respectively, both of which indicate satisfactory relationships. There was not a significant difference between the personnel's and the doctors' overall perceptions of professional communications. The participants' professional communication mean scores were found to be significant in the domains of mutual respect and trust, teamwork, workplace conflicts ( $p \leq 0.001$ ), and ethical competence ( $p \leq 0.017$ ). From the personnel's point of view, teamwork and workplace conflicts were relevant factors, while the doctors perceived mutual respect and trust and ethical competence to be relevant (Table 2).

Table 2

The means, standard deviations, and significance levels of the doctors' and personnel's professional communication total scores according to dimension

Dimensions of professional communications	Doctors	Personnel	P-value
	Mean ± SD	Mean ± SD	
Mutual respect and trust	54.68 ± 7.27	51.56 ± 8.93	0.001
Teamwork	19.79 ± 4.54	21.60 ± 5.27	0.001
Ethical competence	21.27 ± 3.43	20.41 ± 4.24	0.017
Workplace atmosphere	17.05 ± 2.15	16.73 ± 2.47	0.177
Workplace conflicts	13.44 ± 2.50	15.22 ± 2.61	0.001
Inter-professional interactions	10.29 ± 1.80	10.26 ± 1.84	0.892
Total score	136.54 ± 12.78	135.51 ± 14.55	0.46

With regard to professional values, there was not a significant difference between the personnel's and the doctors' mean scores, except in the domain of care: the doctors perceived patient care as more important than the personnel did ( $p \leq 0.016$ ). Overall, the participants' mean scores show that both the operating personnel and doctors considered professional values to be very important (Table 3).

Table 3

The means, standard deviations, and significance levels of the doctors' and personnel's professional values total scores according to dimension

Dimensions of professional values	Doctors	Personnel	P-value
	Mean ± SD	Mean ± SD	
Caring	35.49 ± 4.77	34.15 ± 7.35	0.016
Activism	19.47 ± 3.02	19.23 ± 3.64	0.459
Trust	20.04 ± 3.00	20.00 ± 3.27	0.897
Professionalism	15.36 ± 2.56	15.67 ± 2.88	0.24
Justice	12.08 ± 1.93	11.95 ± 2.15	0.514
Total score	102.47 ± 13.52	101.02 ± 16.92	0.321

To examine the relationship between professional communication and professional values, the researchers used Pearson's correlation coefficient. The results showed that the correlation between the personnel's professional communication mean score and professional values mean score was 0.36. As for the doctors, the correlation was 0.318. These figures are statistically significant considering the sample size of 603 individuals ( $p \leq 0.001$ ), indicating that the better the status of professional

communication between the members of healthcare teams, the more importance they attach to professional values.

About whether demographic variables correlate with professional communication and professional values, the results showed that the doctors' marital status and work experience and the personnel's education did not affect their perceptions. However, the professional values mean scores of the two genders were significantly different ( $p \leq 0.016$ ): the women attached greater importance to professional values than the men did.

Among the operating room personnel, the professional communication means score ( $p \leq 0.001$ ) and professional values mean score ( $p \leq 0.004$ ) of those whose work experience was one year or less and those whose work experience was between 2 and 5 years were significant: the personnel who had one year or less experience of work considered professional values to be more important than the others did, while those with 2 to 5 years' work experience regarded professional values as less important.

The results showed a correlation between the doctors' educational level and their perception of professional communication and professional values. The doctors with higher education considered professional communication ( $p \leq 0.04$ ) and professional values ( $p \leq 0.03$ ) to be more important than the doctors with a lower educational level did.

## Discussion

The present study was conducted to investigate the relationship between professional values and professional communication as perceived by the operating room personnel and doctors at the public hospitals of Shiraz. 603 individuals participated in the study. The findings of the study showed that the operating room personnel and doctors perceived professional communication to be important, indicating that they considered professional communication to have a significant impact on the quality of care provided in the operating room. This attitude makes professionals feel obligated to have verbal and non-verbal communication with other professionals to minimize the rate of errors caused by inadequate communication. This finding is consistent with the results of the studies of Hailu and Norful (21, 22).

On the other hand, the participants' responses showed that stress and heavy workload account for ineffective relationships in operating rooms, which is in keeping with the study of Halim(23). Other contributory factors are assignment of too many responsibilities to one individual, too much reliance on paperwork for communication, and too much attention to the main purpose of professional communications, i.e., caring for patients, at the cost of the other aspects of professional communications, including consulting others, transferring experiences, professional training, and teamwork. According to Bellandi (2018), doctors and nurses spend a large amount of their time filling out forms in hospitals(24).

One of the domains of the professional communication questionnaire is teamwork, which includes support, cooperation, honesty, and satisfaction. The results of the present study show that the operating

room personnel attached more importance to the role of teamwork in professional communication than the doctors did, which is consistent with the study of Kwon (2020). Kwon reports that nurses have a higher opinion of teamwork than doctors do and have learned that teamwork helps reduce the frequency of medical errors, including burns, operating on the wrong site, retaining surgical items, and falls(25). On the contrary, the results of the study of Gabriele Prati (2014) show that doctors have a better understanding of the significance of teamwork and claim to be more involved in teamwork activities(26). It appears that the main reasons for the personnel's greater emphasis on teamwork are differences between individuals' professional perceptions and doctor-centeredness in Iran: from the doctors' point of view, since operations are performed by surgeons, teamwork in the operating room means being aware of the surgeons' needs and following the surgeons' instructions, not consulting others or transferring experiences(1, 27). In addition, since the healthcare system in Iran belongs to the public sector and the hospitals in the present study were educational organizations, the surgeons in these hospitals are frequently replaced by other surgeons, while the personnel's stay lasts for many years. Accordingly, the doctors are likely to disregard the significance of teamwork and the personnel's knowledge, which leads to the personnel's frustration, burnout, and failure to share their experiences. In effects, the experienced personnel's inability to transfer their experiences to new doctors is the outcome of past failures in professional communications. János Kollár (2016) refers to ineffective professional communication as a contributory factor in medical personnel's burnout(28). Thekla Holmes (2019) introduces good teamwork as a primary contributor to personnel's work satisfaction (27).

Another significant domain of the professional communication questionnaire is communication conflicts in the workplace, i.e., superiority, unprofessional and offensive behaviors, verbal abuse, and interpersonal issues. The results of the present study show that the operating room personnel considered conflicts as disruptive to professional communication more than the doctors did. According to the study of Laschinger (2014), doctors' mistreatment of nurses in the workplace adversely affects nurses' performance and undermines the quality of care and patients' trust in nurses (29). Based on the personnel's responses to the items on the questionnaire (direct expression of requests, unprofessional communications, etc.), it appears that operating personnel believe that, in the operating room, doctors and nurses experience two different kinds of professional communications: explicit (what happens when they meet each other) and implicit (their real impression of their professional communications). Nurses are not inclined to express their requests and issue openly and talk about their conflicts only in their implicit relationships, which can be due to fear of losing their jobs, not receiving support from their direct managers, and deficiencies in inter-professional communications. According to Narelle Borrott (2017), because of their higher self-confidence and the nature of their profession, doctors find it easier to openly discuss their workplace requests and conflicts (30). Replacement of the course of social skills with a course on professional communication in the medical and bachelor's degree curricula may help reduce the current issues (31).

Regarding ethical competence (religious differences, job status, cultural differences, leader-follower relationship, and pride), the results of the study show that the doctors perceived this dimension as more important than the personnel did. The traditional nature of medical education and the absence of any

training in professional communication in the past have inclined doctors to view operating room personnel as subordinates who should merely obey them. They do not have a proper understanding of nurses' status and consider the leader-follower relationship in their interactions with nurses to be acceptable. In other words, from the doctors' point of view, operating room personnel should obey doctors without question, which is in compliance with mutual respect, a domain regarded highly by doctors(32). The respondents (doctors and personnel) in the present study stated that religious and cultural differences were accepted in the workplace and there were not any conflicts in that area. As religious beliefs play an essential part in caring for patients, communicating with them, and maintaining their psychological health, it appears that absence of conflicts between doctors and personnel in religious matters can improve their professional communication(33).

As for the dimension of respect and mutual trust (respect for others' opinions, mutual trust, and courtesy), the results of the present study show that the doctors perceived this dimension to be more important than the personnel did, which finding is consistent with the study of Esmailpour-Bandboni (2017). This study, which investigates doctors' perception of their professional communication with nurses in Iran, reports that, in clinical procedures, doctors often trust nurses' reports and rely on their insight in diagnoses and treatments. Doctors consider specialized knowledge, professional skill, and the ability to manage critical conditions as facilitators in professional communication and prefer to work with informed nurses(34, 35) (36). It was also found that, regardless of their personality traits, doctors with higher education have a higher opinion of the value of professional communication and values, while, regardless of their personality traits, personnel with higher education are more likely to find themselves in conflicts.

In operating rooms, professional values are as important as professional communications. In the present study, the operating room personnel and doctors were found to perceive professional values to have an essential part in their professions, which findings is consistent with the studies of Poorchangizi (2019) (37), Torabizadeh et al. (38), and Domenico Montemurro (2013)(39). Professional values are accepted and established criteria in medical sciences and doctors and nurses hold approximately similar views on them. According to Torabizadeh (2018), professional values are perceived similarly across different disciplines. However, doctors attach more significance to the caring dimension of professional values than nurses do, which is owing to the nature of their field and their responsibility for operations (24). Also, compared to men, women perceived professional values to be more important, which is consistent with the study of Torabizadeh (38).

As core principles which determine the quality of care in operating rooms, professional values are closely related to professional communications: operating room personnel and doctors believe that better professional communication correlate with higher observance of professional values in operating rooms. Among the dimensions of professional values, caring for patients (reduction in errors and improvement in the quality of care), trust between the personnel and patients, and justice and professionalism (sharing professional experiences) improve when the status of professional communication is satisfactory. Moreover, proper professional communication in operating rooms can help the personnel improve their knowledge and skills and have a better understanding of professional values (40–42). However, barriers

to professional communications, including hierarchies, paperwork, disregard for teamwork, lack of a valid framework for dealing with communication issues, inequalities in the pay system of Iran, the dominance of a leader-follower relationship, unprofessional behaviors, and lack of education in professional communication in clinical environments, are undermining the significance of professional values for practitioners(28, 43).

Professional values have a complex nature, especially in the domains of justice and caring, and changes in these areas expose patients to hazards in ways over which they have no control. Even if they do not harm patients initially, poor professional communication scan inclines the personnel to attach less significance to professional values and change their attitude from being committed to benefitting patients to not causing harm to patients. The results of the present study show that operating room personnel's commitment to professional values has diminished over time. According to Eriksson (2020), operating room nurses do not receive the respect which they deserve, which is often due to such issues as gaps between opinions and practice, occupational burnout, and lack of support in the workplace(44).

## **Conclusion**

The results of the present study show that professional communication and professional values are related. However, most hospitals do not have any effective, systematic instruments and programs to evaluate and improve either area. It is recommended that hospitals develop systematic programs to train the personnel and assess their performance in professional communication and values, free of any inter-disciplinary bias. Also, considering the essential role of these dimensions of professional practice, it is suggested that medical and paramedical students receive education in inter-professional communication in simulated conditions so that they will be able to establish better professional communication in real clinical environments.

## **Declarations**

## **Conflict to interest**

None

## **Acknowledgement**

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## **Availability of data and materials**

The datasets used and/or analyzed during the current study are available from the corresponding author upon reasonable request.

## Ethical approval

The present article was extracted from a master's degree thesis registered at Shiraz University of Medical Sciences under the ethics code of 1396-01-08-14356. At the beginning of the demographic form, the participant was informed that completing this form means consent to participate in the study. The authors do not have any conflict of interest to declare.

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## Consent for publication

Not Applicable.

## Contributions

The contribution of the authors to the research were: Research design by Z M, K T, T B; data collection by T B, H YD; research execution by T B, K T, Z M, H YD; data analysis by T B; draft manuscript by S Y; documentation by T B, KT, SY, ZM, H YD, S D-D; and primary responsible for the final content by TB. All authors have read and approved the final manuscript.

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