Original Article

Comparing the attitude of doctors and nurses toward factor of collaborative relationships

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Abstract

Background and Objectives: Effective relationship and collaboration between doctors and nurses is considered the main factor in achieving positive medical results, which is the most important goal of the healthcare system. This study aims to compare attitude of doctors and nurses toward factors associated with doctor-nurse collaboration, including shared education and teamwork, caring as opposed to curing, physician's dominance, and nurses' autonomy. **Methods:** In this cross sectional, descriptive-comparative study, the Jefferson Scale of Attitudes toward Physician-Nurse Collaboration was used to assess doctor–nurse collaboration in four domains, including shared education and teamwork, caring as opposed to curing, physician's dominance, and nurses' autonomy. To this end, descriptive (mean, standard deviation) and inferential statistics including independent *t* test, Chi-square, and variance analysis were used. **Results:** According to the results obtained, compared to doctors, nurses showed a more positive attitude toward shared education and teamwork, caring as opposed to curing, and physicians' dominance, but there was no significant difference between the two groups in nurses' autonomy. **Conclusion:** With regard to doctor-nurse collaboration, it is essential that doctors and nurses be acculturated in the course of their academic education. Moreover, policies to change pattern of professional relationships from hierarchical to complementary can be effective in enhancing professional autonomy of nurses and reducing impaired professional interactions.

Keywords: Nurses autonomy, physicians' dominance, physician-nurse collaborative relationships, shared education and team work

Introduction

Scientific progress and technological application in medical treatment has increased responsibility of doctors, nurses, and other members of the medical team. This has removed the boundaries between various disciplines and mandates a growing need for teamwork and cooperation. Effective communication is essential for health professions in a setting that is technologically advancing. Doctor-nurse collaboration is considered the main factor in achieving positive medical results, which is the ultimate goal of the healthcare system.[1] Collaboration is a process for maintaining and developing professional relationships to maintain people's health, which involves mutual respect, trust, and joint decision-making.[2] Doctors and nurses should effectively and efficiently establish communication, and believe that neither can achieve the desirable goal alone; in other words, they should take necessary steps toward promoting teamwork.[3] Teamwork between doctors and nurses not only entails effective outcomes such as satisfaction of doctors, nurses, and other members of

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Received: 28-05-2019 **Revised:** 21-08-2019 **Accepted:** 08-09-2019

Access this article online

Quick Response Code:

Website: www.jfmpc.com

DOI: 10.4103/jfmpc.jfmpc_596_19

How to cite this article: Mahboube L, Talebi E, Porouhan P, Orak RJ, Farahani MA. Comparing the attitude of doctors and nurses toward factor of collaborative relationships. J Family Med Prim Care 2019;8:3263-7.

the medical team, it also has favorable consequences for patients, such as improved quality of care, reduced hospital stay, facilitating decision-making about patient discharge, and generally patient satisfaction.[4,5] In general, as a symbol of effective relationship, teamwork eliminates many of the doctor-nurse conflicts, which will lead to positive medical and care outcomes.[4]

Furthermore, more than 60% of medical errors are blamed on the ineffective relationships between medical team members.[6] Accordingly, previous studies have identified ineffective doctor-nurse relationships as the most important cause of mortality in intensive care units, and ineffective verbal communication between doctors and nurses as the cause of 37% of medical errors.[7]

For realization of teamwork, researchers recommend training of doctors and nurses during university education and their participation in training workshops.[1,4] Joint education of nursing and medical students increases the spirit of cooperation between them and the respect for each other's professional identity.

In the course of teamwork, nurses require doctors' recognition of their professional autonomy in decision-making and process of patient treatment.[5] Unfortunately, in most cases, nurses' professional autonomy is still not accepted by many doctors, and doctors assume greater authority and responsibility in patient treatment. In contrast, nurses are still considered marginal and unimportant members, and they are not consulted in decision-making, which leads to patients and their families distrusting the nurse, and ultimately makes nurses unimportant members of the medical team in view of patients and their families.[8] Doctors' belief in the marginal role of nurses is the opposite point to the attitude of nurses who spend long hours with patients, and on many occasions, due to unavailability or absence of doctors, their decisions have saved many lives. The constant presence of nurses at patients' bedside and the need for doctors to trust nurses and the belief in the complementary role of nurses in patient treatment exhibits the need for establishment of collaboration more than ever before. Teamwork becomes particularly important in patients that require long-term care, and makes doctors and nurses achieve desirable treatment outcomes by using each other's expertise.[9]

Moreover, in managerial terms, the direct effect of doctor-nurse relationship on increased nurses' job satisfaction and reduced turnover can be referred to, such that, doctors' ignoring professional autonomy of nurses is an important reason for job dissatisfaction and lack of motivation to remain in nursing.[10] Therefore, recognition of nurses' professional autonomy can be effective in eliminating the problem of nurse shortages and increasing their interest in the profession.

Impaired doctor-nurse relationship has long existed covertly, but today, the problem is further exacerbated due to factors such as expansion of nurses' roles, nursing profession becoming academic, increased knowledge and ability to make decisions, and rejection of physicians' dominance in treatment and care.[11] The role of gender in professional relationships is one of the main causes of this problem, so that, traditionally, doctors were male and nurses were female; in other words, male doctors issued instructions needed for patient care, and female nurses implemented them, and so, in the matter of patient care, nurses were dominated by doctors.[1]

In Iran, poor social standing of nurses is a major challenge in nursing, which causes disillusionment, disappointment, and confusion regarding their social image and identity. Even now, many people picture nurses as doctors' assistants.[12] This leads to the difference in shared power between medical team members, thereby placing doctors at the helm in favor of their dominance over other team members.[13] The hierarchical system in doctor-nurse relationship suggests doctors' governance in the medical team, which causes tension in the doctor-nurse professional relationship.[14]

Despite its positive consequences, nurses increased knowledge *per se*, is considered one of the stressors between doctors and nurses because doctors could claim proficiency in patient treatment due to nurses' low knowledge in the past. However, with the advancement in the nursing science, nurses have been trying to handle care objectives, and not merely obey doctors' orders, which has caused conflicts with doctors.[1] In other words, caring is emphasized in nursing, but curing in medicine. However, caring and curing are so entwined that attention to one without the other is unacceptance. In other words, the difference in attitude toward treatment can be considered another major factor in impaired professional interaction.[15]

As doctors' and nurses' attitude has an important role in their professional collaboration, and the difference in their attitudes toward collaboration is the source of most conflicts between them,[16] this study was conducted with the aim to determine doctors' and nurses' attitudes toward four collaboration factors in public hospitals affiliated with Tehran University of Medical Sciences.

Method

Study samples

In this cross-sectional descriptive-comparative study, study population consisted of general practitioners, residents, specialty and subspecialty physicians, and all nurses with a Bachelor's degree or higher qualifications and work experience of longer than 6 months in 9 public hospitals affiliated with Tehran University of Medical Sciences. In the present study, public hospitals meant teaching hospitals with intensive care units, and internal, surgery, emergency, gynecology, and pediatrics departments.

The sample size needed in each group was calculated 160 people based on comparison of mean scores obtained by doctors and nurses groups in answering study questionnaire and according to sample size formula.[17] Stratified quota sampling was used

Table 1: Mean and standard deviation of scores of attitude toward collaboration in two groups

Group Factor	Nurse	Doctor	*P*
Shared education and team work	24.5±2.25	21.5±3	<0.001
Caring as opposed to curing	10.4±1.22	9.1±1.15	<0.01
Physicians' dominance	5.7±1.38	4.25±1.29	<0.01
Nurses autonomy	10.78±1.23	10.28±1.27	0.56
collaborative relationship	50.8±3.84	44.5±5.05	<0.001

proportional to the number of doctors and nurses in each hospital, in which, hospitals were considered as strata, so that required doctors and nurses were selected according by convenient sampling proportional to each stratum. Thus, the required sample size in doctors' and nurses' groups from each hospital was determined.

Data collection

In this study, a two-part questionnaire consisting of personal details and the Jefferson Scale of Attitudes toward Physician-Nurse Collaboration (JSAPNC) was used. JSAPNC was developed in early 1985 by Hojat & Herman and revised and modified several times by Hojat. The present 15-item version was compiled in 1999. Items 1, 3, 6, 9, 12, 14, and 15 measure doctors' and nurses' shared education and teamwork. Items 5, 11, and 13 assess people's attitude toward nurses' autonomy. Items 8 and 10 deal with attitude of doctors and nurses toward physicians' dominance, and items 2, 4, and 7 pertain to respondents' attitude toward care as opposed to cure. Scoring is based on the 4-point Likert scale from positive attitude, relatively positive, relatively negative, to negative.[18] Reliability of the tool was reported by Dougherty & Larson (2005) 0.85, and by Zakerimoghadam *et al.* (2015) as 0.73[8,19] through Cronbach's alpha.

Permission to use JSAPNC was obtained from designers. Then, the English version of the scale was translated into Persian by two independent translators, and the two were merged into a single translation, which was compared with the original version. This Persian version was translated back into English, and was confirmed by the designers. To assess validity, the final retranslated version, together with the original JSAPNC were made available to 10 faculty members of School of Nursing and Midwifery of Tehran University of Medical Sciences and Health Services, and was used after implementing their views. External reliability of JSAPNC was confirmed using test-retest method. To this end, the final questionnaire was issued to 15 doctors and 15 nurses to complete twice with two weeks interval. Answers to questions on the two occasions were compared, and their agreement determined external reliability. Spearman's correlation coefficient was found 0.701 for answers provided by nurses and 0.919 for answers by doctors, which suggested acceptable agreement between answers by the two groups. The internal consistency was confirmed with Cronbach's alpha 0.85.

Doctors and nurses completed the questionnaires in a self-reporting format. They were allowed 48 hours to complete and return the questionnaire to the researcher or his colleagues. Collected data were analyzed in SPSS-14 using descriptive statistics including tables of frequency distribution, figures, and central indices such as mean, and dispersion indices such as standard deviation, and also statistical tests including independent *t* test, Chi-square, and variance analysis at significance level 0.05.

Results

Response rate was 100%. Nurses' and doctors' mean age was 34.1 and 31.1 years. In terms of distribution of gender, 88.8% of nurses and 40% of doctors were female. In terms of education, 95% of nurses had BSC qualifications, and 5% had MSc, while among doctors, 35% were general practitioners, about 61% specialists and residents, and 4% subspecialists. About 81% of nurses and 11% of doctors were employed on formal or contract basis. In terms of marital status, 72% of nurses and 44% of doctors were married. About 34% of nurses and 69% of doctors had less than 5 years' work experience. Mean work history was about 10 years in nurses, and about 5 years in doctors.

The Table 1 show results of doctors' and nurses' attitude toward doctor-nurse collaboration.

The results obtained showed a significant difference between mean score of doctors' and nurses' attitude toward collaboration ($P < 0.001$). The above table indicates a significant difference between doctors and nurses in all factors of collaboration, with the exception of nurses' autonomy. Therefore, it can be said that the two groups have the same attitude toward nurses' autonomy ($P = 0.56$).

Discussion

Comparing attitudes of doctors and nurses in public hospitals affiliated with Tehran University of Medical Sciences toward doctor-nurse collaboration showed a significant difference in mean attitude scores between doctors (44.5 ± 5.05) and nurses (50.8 ± 3.84) ($P < 0.001$). In other words, nurses are more in favor of collaboration than doctors. The present study results agree with those obtained by Sterchi regarding attitudes of doctors and nurses. In his study, Sterchi found a significant difference in mean attitude scores between doctors (50.29 ± 4.71) and nurses (54.01 ± 3.59).[20] The results obtained in Thomson study are also in agreement with those in above studies. Thomson also showed a significant difference in mean attitude scores between doctors (47.6) and nurses (52.7) ($P < 0$).[21] In a study by Hojat, comparing attitudes of doctors and nurses toward collaboration in America, Israel, Italy, and Mexico, the results showed that nurses were more interested in collaboration than doctors in all of these countries.[18] According to comparison of results, and given that doctors have greater authority for treatment in Iran as compared to nurses that have little authority (for various reasons such as

lack of appropriate professional standing), the present study results were to be expected.

The present study results further showed a significant difference in attitudes of doctors and nurses toward joint education and teamwork, such that nurses had a more positive attitude in this respect. This result agrees with that found in Hojat study.[18] A study by Sterchi revealed that the mean score of attitude toward teamwork and joint training of doctors and nurses was more positive in nurses than in doctors ($P < 0$).[20] Similarly, Thomson study also indicated a more positive attitude in nurses (26.1) than in doctors (22.8).[21]

The scientific and structural changes in the healthcare system compel doctors and nurses to have stronger relationships, so that they can provide optimal patient care. However, the results of studies conducted in Iran show that doctors and nurses have not received training for teamwork, collaboration or effective communication with each other.[14] Yet, teamwork is crucial in healthcare system, and can change expectations of doctors and nurses about professional relationship because nursing and medicine are dependent on each other for caring and curing, and teamwork relies on effective communication.[22] But, doctor-centered system in Iran[12] disrupts the basis of teamwork and causes conflict among members of the care team.

In terms of nurses' autonomy, the present study results showed no significant difference between attitude scores of doctors and nurses. Such a result was predictable, considering that the Nursing Council has taken steps to increase professional authority and autonomy of nurses since its establishment in 2002, in order to enhance the quality of nursing care.[14] Moreover, nurses enjoying advanced academic knowledge at high education levels such as MSc and PhD, as well as extensive academic and practical skills, have led to improvement in the nursing profession's unique body of knowledge. Accordingly, it can be asserted that nurses have been relatively successful in promoting their own professional autonomy.[11]

In his study, Hojat showed that nurses had a more positive attitude than doctors in terms of nurses' autonomy in four countries (America, Israel, Italy, and Mexico).[18] Similarly, Thomson study also showed a more positive attitude in nurses (11.3) compared to doctors (10.4).[21] Likewise, Sterchi study showed that mean attitude score of nurses' autonomy was higher in nurses (11.69) than in doctors (11.18).[20] In other words, these three studies have shown that nurses have greater interest than doctors in professional autonomy and authority in the process of patient care.

In relation to physicians' dominance, the present study results suggested that nurses had a more negative attitude than doctors toward physicians' dominance in matters of patient curing and caring. Doctors are more in favor of their own governance in patient care than nurses, given the pyramid system of professional interactions in the healthcare system in Iran, which laces doctors on top of the pyramid.[14] In his study in Mexico and Italy that followed the pyramid model in their professional relationships, Hojat also found similar results.[18]

Thomson showed that mean score of attitude for physicians' dominance was higher in nurses (5.1) compared to doctors (4.6).[21] The results obtained by Sterchi also showed higher mean score of attitude in nurses (5.6) compared to doctors for this factor (4.8).[20]

Comparing the results from these three studies with those of the present study shows that nurses have a more negative attitude toward physicians' dominance compared to doctors. In other words, nurses do not approve of doctors' rule and superiority in relation to decision-making about patients because currently nurses have high academic qualifications, and have professional standards like doctors, and therefore their role is not limited to just performing doctors' orders. Moreover, the sense of authority is associated with people's performance in professional duties, and no profession can provide quality services unless its members feel the power and authority over their own actions. A feeling of powerlessness leads to loss of motivation and ability to perform duties properly. In contrast, employees that feel empowered have greater job satisfaction, creativity and productivity.[23] Since senior managers in the healthcare system in Iran are doctors, at the macro level, nurses merely perform doctors' orders, which doubles physicians' dominance over nurses at both macro level of management and micro level of patient-nurse relationship.

Regarding caring as opposed to curing, the present study results showed significantly higher mean attitude score in nurses compared to that in doctors. In agreement with the resent study results, Sterchi, Thomson, and Hojat also reported that nurses had better attitude toward the above factor compared to doctors.[18,20,21] The difference in attitude toward curing can be considered an important factor in impaired professional interactions, such that, caring is emphasized in nursing, and curing in medicine. Yet, care and cure are so entwined that considering one without the other is unacceptable.[15]

Limitations

Since samples were selected from public hospitals, the results obtained cannot be generalized to private hospitals affiliated with Tehran University of Medical Sciences or private and public hospitals in other cities. Despite researcher's effort to minimize the effect of confounding variables such as psychological status and workplace stresses, these variables may still have affected the results.

Conclusion

Considering the significant difference between attitudes of doctors and nurses in most factors associated with doctor-nurse collaboration; it is essential that policy-makers and managers provide the context needed for collaboration between doctors and nurses. Acculturation of the effective relationship and partnership between these two important members of the medical team should begin during university education and continue into their workplace. Considering the importance of collaboration

between doctors and nurses, and its effect on various aspects of job satisfaction and patient care, holding joint retraining courses with emphasis on the doctor-nurse interactions can be effective in changing the pattern of professional interactions between them. Training doctors and nurses according to the complementary model of professional interactions can improve professional communications, and also renew professional identity of nurses. This is an appropriate solution for increasing motivation to show professional capability and autonomy of nursing.

Acknowledgements

This article was part of the corresponding author's thesis, which was supported by the Pardis-International Tehran University of Medical Sciences and Health Services. Researchers wish to express their thanks to all nurses, doctors, and employees of the public hospitals affiliated with Tehran University for their cooperation in this study, and also all those that helped in realization of the objectives of this study.

Financial support and sponsorship

Nil.

Conflicts of interest

There are no conflicts of interest.

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