



## Original Article

## Iranian Nurses' attitudes Toward Nurse-Physician Collaboration and its Relationship with Job Satisfaction

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## ABSTRACT

**Introduction:** Although nurses and physicians are known to share the common goal of improving the quality of health care, there has traditionally been a relational gap between them. The aim of the present study was to investigate the attitude of Iranian nurses about physician-nurse collaboration and its relationship with their job satisfaction.**Methods:** In this cross-sectional study, a total of 232 nurses were recruited from three educational hospitals of Zanjan University of medical sciences. Three questionnaires were used in this study; (a) Demographic data questionnaire, (2) Jefferson Scale of Attitudes toward Physician-Nurse Collaboration (JSAPNC), and (3) Minnesota Satisfaction Questionnaire.**Results:** In this study, the mean age of the participants was 33.22 (6.13) years, 83.8% of nurses were female, 90.8% had a baccalaureate degree in nursing, and 82.5 % had rotational work shifts. The mean score of physician-nurse collaboration was found to be 48.07 (8.95) (ranged from 15 to 60), and the mean score of job satisfaction scale was 57.78 (14.67) (ranged from 20 to 100). There was a significant positive correlation between the attitudes toward physician-nurse collaboration and job satisfaction among the nurses ( $r=0.59$ ,  $P\leq 0.001$ ).**Conclusion:** The results indicated that the collaboration between nurses and physicians increases the job satisfaction of nurses working in clinical settings. Therefore, nurses and physicians should develop a new culture of collaboration with each other with the mutual goal of high quality patient care. Moreover, health care administrators should implement the strategies that strengthen the development of physician-nurse collaboration.**Citation:** Pakpour V, Ghafourifard M, Salimi S. Iranian nurses attitude about nurse-physician collaboration and its relationship with job satisfaction. *J Caring Sci* 2019; 8 (2):111-116. doi:10.15171/jcs.2019.016

## Introduction

The general policy in health care systems has recently changed and is continuing to evolve. Since health care professionals frequently have to deal with complex situations, a single discipline might not be capable of responding to all the challenges efficiently.<sup>1</sup> Medicine and nursing are two disciplines that have many overlapping roles with oft-confused responsibilities as well as the areas of functions.<sup>2</sup> Also, they share the same type of interest in the promotion of individuals' well-being.<sup>3</sup> According to the past studies inter-professional collaboration between physicians and nurses is a crucial approach to providing quality in health care.<sup>4</sup> Physician-nurse collaboration is described as "nurses and physicians cooperatively working together, sharing responsibilities for solving problems and making decisions to formulate and carry out plans for patient care".<sup>5</sup> Indeed, physician-nurse collaboration should occur in open collaboration, veracity, and mutual respect formwork.<sup>6,7</sup> Despite common goals between nurses and physicians for improving the quality of health care and relief to patients, there is the traditional economic and gender hierarchical relational gap between nurses and physicians whereby physicians have maintained dominance and the nurses have displayed deference.<sup>8</sup> In a previous study, it was discovered that only 13.4% of nurses were satisfied with physician-nurse collaboration.<sup>9</sup>

Recently, the importance of effective physician-nurse collaboration has been broadly documented in the

literature. The findings seem to be pointing to the existence of a significant negative correlation between patient death rates and physician-nurse collaboration,<sup>10</sup> as well as, a positive correlation between effective physician-nurse collaborative relationships and positive patient outcomes.<sup>11</sup> Studies have reported that poor physician-nurse cooperation could result in job dissatisfaction, a lack of autonomy, and higher possibility of intention to leave the job and poor health.<sup>12,13</sup>

According to Joint Commission on the Accreditation of Healthcare Organizations (JCAHO), the construction of collaborative relationships between physicians and nurses is vital to positive patient outcomes.<sup>14</sup> Moreover, other benefits include less fragmented care and less wasting of resources.<sup>15</sup> Effective collaboration is not only valuable to patients, it also benefits the professionals involved in the process. Moreover, constructive collaboration has been linked with a higher level of job satisfaction.<sup>16,17</sup> Chang et al., concluded that collaborative interdisciplinary relationships were one of the most important predictors of job satisfaction for all healthcare professionals.<sup>18</sup> In another study, Rafferty et al., surveyed 10022 nurses in England and found that nurses with higher interdisciplinary teamwork scores were significantly more likely to have lower burnout scores and were satisfied with their jobs and planned to stay in nursing.<sup>19</sup> Moreover, Zhang et al., found a positive relationship between nurse-physician collaboration and job satisfaction. They also reported the professional collaboration as a predictor of job satisfaction.<sup>20</sup> Job

satisfaction of nurses is more important to health care providers and patients. Also, nurses' job satisfaction has been associated with patient satisfaction<sup>21,22</sup> and a greater perceived quality of care. Instead, nurse dissatisfaction leads to the nursing shortage, longer patient waiting lists and nurse's burnout.<sup>23</sup>

Bhuian and Mengue defined job satisfaction as an attitude that individuals have about their jobs.<sup>24</sup> Cox found that effective team working had a significant positive influence on staff satisfaction.<sup>17</sup> In contrast, a current study in Canadian health care system showed that the shortage and high turnover of nurses may be exacerbated by a perceived lack of interprofessional collaboration between nurses and physicians,<sup>25</sup> which is strongly associated with intention to leave their job.<sup>13,25,23,26</sup> Inequality between nurse and physician ratings of collaboration has been reported in previous studies and collaboration between nurses and physicians could manifest itself differently in each country, depending on cultural adversities.<sup>27,28</sup> Therefore, an investigation of physician-nurse collaboration in different culture is recommended. Since the multidisciplinary collaboration is an important factor in the care of patients and there are a few studies in Iranian culture in terms of multidisciplinary work, this study aimed to investigate the attitude of Iranian nurses' about physician-nurse collaboration and its associations with their job satisfaction.

## Materials and methods

In this cross-sectional study all nurses who met the inclusion criteria (n=232) were selected by census sampling method, and were all working in three educational hospitals affiliated to Zanjan University of Medical Sciences, Zanjan. The inclusion criteria included having a baccalaureate or master degrees in nursing and at least 6 months' experience as a nurse at the ward in question. Following the approval by the Institutional Review Board of Zanjan University of Medical Sciences, Zanjan, Iran (IRB approval number: 11/90-425-01), the nurses were invited to participate in the study. They were provided with information on the aim and methods of the study. Moreover, informed written consents were obtained from all nurses who agreed to participate in the study. The participants were also assured that their contribution to the study was fully voluntary and they could leave the study whenever they wished. The data were collected by three questionnaires. The first was 'demographic questionnaire' which assessed the age of nurses, gender, marital status, level of education, ward, work shifts, years of experience in nursing, years of experience in the current area of work, and the name of the ward. The second questionnaire was a "Jefferson Scale of Attitudes toward Physician-Nurse Collaboration" (JSAPNC). JSAPNC is a 15-item questionnaire that investigates the attitude of the participants towards physician-nurse collaboration in four domains including: "shared education and team

work" (7 items), "caring as opposed to curing" (3 items), "nurse's autonomy" (3 items), and "physician's authority" (2 items). The scale has 4-point Likert responses which were directly coded as: (strongly disagree=1, disagree=2, agree=3, and strongly agree= 4). A higher total score in this questionnaire reflects a more positive attitude toward physician-nurse collaborative relationships. The JSAPNC can be completed in approximately five to ten minutes.<sup>29</sup> The third questionnaire was "Minnesota Satisfaction Questionnaire" (20-MSQ short version items). It is a brief self-report scale that has 5-point Likert response options, 'very satisfied', 'satisfied', 'do not know', 'dissatisfied', and 'very dissatisfied'. The questionnaire has three subscales of intrinsic satisfaction (8 items), extrinsic satisfaction (12 items), and General Job satisfaction (20 items). This scale can be completed in approximately 10 minutes. The higher the score, the higher the level of job satisfaction.<sup>30</sup>

In this study, the JSAPNC questionnaire was translated into Persian after the permission had been obtained from its original designer. Since the language of the designer of the questionnaire was Persian, the Persian version of the tool was again sent to him, and his comments were considered in the translation of the tool. The content validity of both questionnaires was reviewed by 12 faculty members of nursing and the necessary changes were made to the questionnaire based on their comments. The reliability of the questionnaires was also determined through having them filled by 20 nurses. The Cronbach's alpha of JSAPNC and MSQ was 0.87 and 0.94, respectively. In addition the reliability of the Persian version of MSQ has been 0.86, as reported by Nasrabadi *et al.*,<sup>31</sup> The collected data were analyzed, using SPSS ver. 13 software. The Pearson correlation test was used for the analysis. Inferential tests and descriptive analyses such as means and standard deviation were used for presenting the data. at statistical significance level 0.05.

## Results

228 questionnaires were completed and returned—a response rate of 98.2%. The demographic data and other work-related variables are shown in Table 1. Table 2 shows the scores of Jefferson scale of attitudes toward physician-nurse collaboration subscales according to the nurses' attitude. The mean scores of nurse-physician collaboration was found to be 48.07 (SD= 8.95) on the scale ranging from 15 to 60, and the mean of job satisfaction score was found to be 57.78 (SD= 14.67) on the scale ranging from 20 to 100. The analysis of the subscales revealed that the mean score of intrinsic and extrinsic satisfaction were 37.55 (8.40) and 15.66 (4.91), respectively. To determine whether there was an association between the level of nurse-physician collaboration and job calculated. The result of this analysis showed a significant positive correlation between the attitudes toward physician-nurse collaboration and job satisfaction among the nurses ( $r=0.59$ ,  $P\leq 0.001$ ) (Table 3).

**Table 1.** Sample characteristics of participants (N= 228)

Characteristic	N (%)
<b>Gender</b>	
Male	37 ( 16.2)
Female	191 (83.6)
<b>Marital status</b>	
Single	36 (15.8)
Married	188 (82.5)
Divorced	4 (1.8)
<b>Level of education</b>	
Graduate	207 (90.8)
Postgraduate	21 (9.2)
<b>Job title</b>	
Head nurse	19 (8.3)
Staff	29 (12.7)
Practice nurse	180 (78.9)
<b>Type of working ward</b>	
Internal	120 (52.6)
Surgical	64 (28.1)
Orthopedic	30 (13.2)
Intensive care	11 (4.8)
<b>Shift worked</b>	
Days	37 (16.2)
Evenings	2 (0.9)
Nights	1 (0.3)
Rotating	188 (82.5)
<b>Years of experience in the nursing</b>	
6 months-2 years	23 (10.1)
3-5 years	47 (20.6)
6-10 years	69 (30.3)
11-15 years	55 (24.1)
≥15 years	34 (14.9)
<b>Years of experience in the ward</b>	
6 months-2 years	103 (45.2)
3-5 years	79 (34.6)
6-10 years	38 (16.7)
11-15 years	6 (2.6)
≥15 years	2 (0.9)

**Table 2.** Scores of Jefferson scale of attitudes toward physician- nurse collaboration and job satisfaction subscales (N= 228)

Subscale	Mean (SD)
<b>attitudes toward physician- nurse collaboration</b>	
Shared education and team work (7 items)	23.14 (5.25)
Caring as opposed to curing (3 items)	10 ( 3.66)
Nurse's autonomy (3 items)	9.64 (1.81)
Physician's dominance (2 items)	5.3 (1.88)
Total score (15-60)	48.07 (8.95)
<b>Job satisfaction</b>	
Intrinsic satisfaction (6 items)	37.55 (8.40)
Extrinsic satisfaction (12 items)	15.66 (4.91)
Job satisfaction (20 items)	57.78 ( 14.67)

**Table 3.** Association of physician-nurse collaboration scores with job satisfaction among nurses (N= 228)

Subscale	Intrinsic satisfaction r, P	Extrinsic satisfaction r, P	Job satisfaction total score r, P
Shared education and team work	0.04, 0.49	-0.06, 0.315	0.07, 0.25
Caring as opposed to curing	0.10, 0.11	0.10, 0.13	0.19, 0.003**
Nurse's autonomy (3 items)	0.06, 0.35	0.03, 0.63	0.19, 0.003**
Physician's dominance	-0.02, 0.67	0.001, 0.98	0.06, 0.35
JSAFNC total score	0.005, 0.94	-0.04, 0.49	0.59, ≤0.001**

Results of Pearson's correlation co-efficient

\*\*P&lt; 0.05

## Discussion

The findings of this study indicated that nurses' attitude toward physician-nurse collaboration was positive. The findings are consistent with other studies in Iran,<sup>32</sup> Egypt<sup>8</sup> and Mexico,<sup>33</sup> which indicate the worldwide significance of the subject of physician-nurse collaboration. Over the past few years there has been ongoing interest in physician -nurse collaborative practice as this type of working relationship is viewed as a potential solution to problems existing in health care organizations.<sup>31</sup> Moreover, Physician-nurse collaboration is an essential factor for safe patient care.<sup>34</sup>

According to the results, the mean scores of nurses' attitude toward the physician-nurse collaboration in four subscales were different, with the highest and lowest mean scores belonging to "shared education and team work" and "physician's dominance" subscales, respectively. The higher scores in "shared education and team work" as the most important aspect of physician-nurse collaboration indicate that shared education should be included in the curricula of both medical and nursing disciplines. It helps these professionals to become more familiar with each professional role. In this regard, previous studies have emphasized the importance of education in improving collaborations between health care professionals.<sup>35</sup> In a study by Mohammadi & Hagigi, the results showed a positive significant correlation between communication skills and the physician-nurse relationship.<sup>32</sup> The previous studies also indicated the insufficient communication skills are one of the main barriers to communication between physicians and nurses.<sup>36</sup> Moreover, Boyle and Kochinda stated that the educational gap between nurses and physicians can also be an obstacle to collaborative practice.<sup>37</sup> Also, MacDonald and Katz found that limited knowledge about the nurse role in patient care adversely affected physicians' ability to envision collaborative practice.<sup>38</sup>

Also, Hojat et al., proposed that collaborative education between nursing and medical students has a pivotal role in developing collaborative relationships in clinical setting.<sup>33</sup> "Caring as opposed to curing" was the

second highest score which indicates its importance. According to the changing dynamics of the nursing education, high scores of this domain reflects that nurses are capable of providing education and counseling to patients and they should be involved in policies that affect their working conditions. Mohammadi & Hagigi reported similar findings. They found that the collaboration of physicians and nurses in medical decision making was in a moderate level. They attributed these results to the lack of a team work approach in medical care systems.<sup>32</sup>

"Nurse's autonomy" was the third mean score. It reflects the fact that nurses have a positive attitude towards accepting responsibility and decision making in clinical settings. In a previous study, autonomy was found to be positively correlated with nursing professional development.<sup>39</sup> According to the results, the lowest mean score belonged to "physician's dominance" subscale. Although recent studies have underlined the benefits of mutual respect and collaboration, such as lower nurse's burnout and decreased turnover,<sup>40</sup> the relationship between physicians and nurses has unfortunately been an unequal one, characterized by the dominance of physicians, with the nurses assuming a lower position and dependence on the physician.<sup>41</sup> In Johnson and Kring's study, the majority of nurses responded that physicians do not understand the significance of a nurse's professional role and responsibility.<sup>4</sup> In this study the mean score of job satisfaction was 57.78 on the scale of 20 to 100 and it is considered as moderate. These findings are consistent with the results of other studies.<sup>42</sup> Our study showed a significant positive correlation between the attitudes toward physician-nurse collaboration and job satisfaction among the nurses. It is notable that nurses require more positive, respectful collaborations with physicians to provide quality patient care and to achieve higher level of job satisfaction. Increasing the chances for nurses and physicians to work together with each other also increases the interactive relationship atmosphere.<sup>440</sup> Moreover, interdisciplinary collaboration among health care providers with different skills and knowledge bases may result in innovative and constructive solutions in clinical settings.<sup>43</sup> Therefore, health care professionals must avoid making assumptions about other professionals and should take their time to learn about the other's perspective.<sup>42</sup> Also, integrated structure and processes (collaboration) that allow nurses and physicians to resolve their conflicts are likely to increase nurse satisfaction, recruitment, and retention in their job.<sup>44,45</sup> In contrast, poor nurse-physician collaboration appears to be a crucial factor accounting for nurses' distress.<sup>46</sup> Also, ineffective or non-existent collaborative interaction leads to decreased empowerment,<sup>47</sup> increased burnout,<sup>48</sup> decreased job satisfaction,<sup>45,47</sup> and increased turnover among nurses.<sup>49</sup> This study has some limitations. First, its participants included only nurses from three teaching hospitals in Zanjan. Thus, the generalizability of the results to nurses from different

cultural backgrounds might be limited. Second, we measured only the nurses' viewpoint. Therefore, other studies are recommended to investigate the physicians' viewpoints.

## Conclusion

Since physician-nurse collaboration affects patient outcomes significantly, the healthcare profession needs to get to work on increasing collaboration among physicians and nurses. Without doing so, a vision of quality in healthcare cannot and will not be realized. The findings seem to underscore the importance of interdisciplinary collaboration as an approach to improve the constructive relationships between nurses and physicians. Therefore, nurses and physicians must develop a new culture of collaboration which merges the unique strengths of each discipline with the mutual goal of quality patient care.

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## Ethical issues

None to be declared.

## Conflict of interest

The authors have no conflicts of interest to declare.

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