

Relationship between Differentiation of Self and Attitude Towards Physician–Nurse Relationship in Hospitals (Isfahan/Iran)

Abstract

Background: Attitude towards physician–nurse relationship is fundamental to achieve health care quality. Such attitude maybe determined by some personality traits such as differentiation of self. Hence, the present study aimed to investigate the relationship between differentiation of self and attitude to professional physician–nurse relationship. **Materials and Methods:** This cross-sectional study was done in three hospitals in Isfahan in 2015. The study included all nurses and physicians. In total, 400 participants were recruited through convenience-sampling method. Data gathering instruments included a three-part questionnaire [demographic data sheet, Jefferson Scale of Attitudes toward Physician–Nurse Collaboration (JSAPNC) and differentiation of self-inventory (DSI)]. The data were analyzed through descriptive and inferential statistics [*t*-test, analysis of variance (ANOVA), and multiple linear regression) by the Statistical Package for the Social Sciences (SPSS) version 16 software. **Results:** The mean [standard deviation (SD)] of the scores of differentiation of self in physicians and nurses were 86.43 (9.62) and 159.28 (9.53), respectively. The results showed that the predicting model of attitudes towards physician–nurse relationship based on dimensions of differentiation of self both in nurses and physicians were significant. Moreover, the findings from linear regression analyses showed that predictor variables explained 0.18 and 0.14 of the variance of attitudes towards physician–nurse relationships in nurses and physicians, respectively. **Conclusions:** Considering the significant role of differentiation of self to predict attitudes towards physician–nurse relationship, it is worthwhile to suggest provision of training programs particularly in the nursing and medical students to enhance differentiation of self both in physicians and nurses to improve culture of interprofessional relationships and to achieve optimum professional relationships between doctors and nurses.

Keywords: Attitude, communication, Iran, physicians, nurses

Introduction

Today, relationship among professional staff is considered as an important and vital strategy due to materializing the objectives of the health system; one of the instances of its transformation through which people from various careers get together to access to common aims which is often the promotion of caring and treating services to the social cases.^[1] One of the most egregious of professional relationship within the health system is the relationship and connection among medical and nursing professional staff, which includes counter-interaction between physician and nurse in looking after a given patient due to reach one common treating goal for satisfying patients and solving their problems.^[2]

Despite the emphasis on the urgency and importance of relationship between the

physician and nurse,^[3,4] to access the goals set by health system, existing evidences indicate that in most cases there is a tension in professional communication between physician and nurse. For instance, the consequences of a study on nurses in perceiving physician–nurse relationships in 2011 suggested that inappropriate interaction between physician and nurse leads to stress, feeling depressed, losing concentration, decreasing cooperation, and reducing data transmitting among the nurses.^[5] Iranian researchers have reported the same results too. For example, the results of studies done by Rostami *et al.*^[6] and Irajpour *et al.*^[7] showed that nurses described their professional relationships with physicians awful, and in most cases found them unaware of nurses' tasks and professional functions. Similarly, Lakdizji *et al.* conducted a study among

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Access this article online

Website: www.ijnmrjournal.net

DOI: 10.4103/1735-9066.212982

Quick Response Code:



How to cite this article: Jafary S, Alavi M, Irajpour A, Mehrabi T. Relationship between differentiation of self and attitude towards physician–nurse relationship in hospitals (Isfahan/Iran). Iranian J Nursing Midwifery Res 2017;22:262-6.

Received: May, 2016. **Accepted:** December, 2016.

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250 nurses in 2011 and emphasized the problems with physician–nurse relationships.^[8]

According to the existing evidences, physicians' and nurses' attitude towards physician–nurse relationship is a significant factor determining their professional relationships.^[9,10] In addition, based on the results of some studies, this attitude is not appropriate, especially among physicians.^[11,12] Scholars and experts involve many social and professional factors in designating the attitude and professional relationships of nurses and physicians to the physician–nurse relationship, and others have stressed on the preparation of medical and nursing students via interprofessional education in the academic courses.^[13]

Despite the fact that, in the mentioned studies and other respective studies, different factors have been involved in determining the attitude of physicians and nurses towards interprofessional relationships; the role of individual and psychological factors has not been taken seriously. It has been emphasized that medical and nursing staff, despite professional affiliation, should be able to enjoy such psychological qualities including intellectual and emotional independence that they can easily share in the course of interactions with other professional groups.^[14] Differentiation of self is an important psychological feature affecting the behaviors and relationships among individuals that can explain the attitude and behaviors professional physicians and nurses; however, no study has studied this relationship. The concept of differentiation of self was first introduced by Morry Boen to express some problems of interpersonal relationships among family members, and was utilized by other researchers to analyze the mentioned relationships within the environments other than family. According to Boen, people with high differentiation of self have an egregious perception of partnership and collaboration. These people are able to bring up independently and can preserve their own peace and comfort within profound relationships; whereas, people with lower differentiation of self are intellectually dizzy in stressful situations, stay in ambiguity, and emerge with interpersonal distance in their relationships.^[15]

According to some experts, the level of differentiation of self plays an important role in professional behaviors of health system staff.^[16] Although it appears that differentiation of self can be one of the significant factors related to interprofessional relationships among physicians and nurses, no study has been found based on extant search and this idea has not been verified. Thus, the researchers of the current study have surveyed the relationship between differentiation of self among medical and nursing staff with their attitude towards physician–nurse relationship in some selected hospitals affiliated to Isfahan University of Medical Sciences (IUMS).

Materials and Methods

The present study is a cross-sectional descriptive study carried out in 2015. Statistical population included all physicians and nurses working in three medical centers affiliated to IUMS. The selected centers were Alzahara Center, Noor and Aliasghar Center, and Ayatollah Kashani Center located in different parts of Isfahan and has the most number of medical and nursing staff. Two hundred physicians and 200 nurses working in the mentioned centers participated in this study. The required sample size of each center was calculated with the view of approximate proportion of employees in each mentioned center at the time of study such that 55% of the employees (including physicians and nurses) from Alzahra Center, 25% from Noor and Aliasghar Center, and 20% from Ayatollah Kashani Center participated in the study. Moreover, the physicians and nurses recruited as two separate groups of participants and therefore the sample size was calculated separately for each group.

Participants of the study were recruited according to convenience sampling method in a way that after determining the necessary sample size of each center and providing the list of the names of physicians and nurses working in each studied units, they were invited to participate. The inclusion criteria comprise having bachelor or master degrees for the nurses without regarding the kind of employment in the selected medical centers, the interest in the study and lack of a great stressful event at least 8 weeks before the study.

Data gathering device consisted of a three-part questionnaire, of which the first part included demographic data of the samples (i.e., age, gender, profession, education level), the second part included differentiation of self-inventory (DSI), and the last part comprised the Jefferson Scale of Attitudes toward Physician-Nurse Collaboration (JSAPNC). The DSI consisted of 45 statements and four subscales including emotional reactivity (ER), I position (IP), emotional cut-off (EC), and fusion with others (FO). Scoring of the items was based upon 6-point Likert scale ranging from not at all true of me (1) to very true of me (6). The score of each scale is achieved by the range of relevant statement scores and the total score is also gained by calculating the range of whole scores, which covers ranges from 1 to 6 and the higher score indicates higher differentiation of self. The reliability of this scale was supported by Yousefi, Etemadi and Bahrami *et al.* who reported Cronbach's Alpha for ER, ID, EC and FO sub-scales as 0.89, 0.91, 0.81 and 0.86, respectively,^[17] and its face and content validity was independently approved by 5 faculty members of IUMS too; and no change was made in the Persian edition of this device. The JSAPNC also consisted of 15 statements and 6-point Likert scale ranging from score 1 for “completely disagree” answer to score 4 for “completely agree” answer. The range of achievable score is various from 15 to 60, of

which higher score signifies nurses’ more positive attitude to the professional relationship of physicians and nurses. The reliability of this scale was earned by Jasmi *et al.*^[18] (Cronbach’s alpha = 0.86, and its face and content validity was approved by independent survey of 5 faculty members of the IUMS.

The method of conducting research was as follows: After the approval of the proposal in IUMS and gaining essential licenses, the researcher went to all mentioned centers and met each of physicians and nurses who agreed with participate in the study while arranging with the officials of all wards and clinical subsets of each center. Then necessary explanations were presented regarding the purposes of the study, volunteer participation, and anonymous questionnaire were assured, informed consent was earned, and volunteers were invited to participate in the study. Afterwards, having arranged and made appointments, each of them was given the questionnaire in each studied units and were filled in the presence of the researcher; any probable question was replied.

The collected data were entered into the Statistical Package for the Social Sciences (SPSS) version 16 software and were analyzed using descriptive [mean, standard deviation (SD), and frequencies], and inferential [independent *t*-test, analysis of variance (ANOVA), and multiple-linear regression) statistics.

Ethical considerations

The study was approved by the IUMS research committee (code 394299). The participation in the study was voluntarily and informed.

Results

Of 400 distributed questionnaires, all were returned and analyzed (response rate of 100%). The mean (SD) age of the participants was 30.99 (6.68). The relative frequency of gender was 35.8 (143 people) males and 64.2 (257 people) females. Fifty percent (200 people) were physicians and 50% (200 people) were females. Forty six percent (184 nurses) had bachelor degree and 3.8% (15 nurses) had master degree; 30.8% (123 people) were general practitioner and 19.5% (78 people) were medical specialist. Descriptive data relevant to total mean score and subscales of differentiation of self and also the attitude towards physician-nurse relationship among physicians and nurses have been shown in Table 1.

The findings of the study suggested that nurses enjoy higher score of attitude to physician–nurse relationships than physicians ($t = 5.76$, $df = 377$, $P < 0.001$). In this study, it is hypothesized that this significant difference in attitude to physician–nurse relationship is related to the difference of differentiation of self among physicians and nurses. Supporting this hypothesis, the findings suggested that mean score of differentiation of self in two groups

of physicians and nurses have a significant difference with each other such that physicians have higher average score of differentiation of self than the nurses. To gain deeper insight into this significant difference of attitude to physician–nurse relationship and also determine the relative significance of each dimensions of differentiation of self in predicting this attitude among physicians and nurses, multiple-regression analysis have been independently conducted among them.

In Table 2, the consequences relating to determining the share of each dimension of differentiation of self in expressing the attitude towards physician–nurse relationship among nurses have been offered. They show that the attitude towards physician–nurse relationship among nurses based on quadruple dimensions of their differentiation of self is significant. In other words, it can be predicted based upon quadruple dimensions of their differentiation of self ($f_{4,195} = 10.32$, $P < 0.001$). Overall, predicting variables including emotional reactivity, I position, emotional cut-off, and fusion with others explained 17.5% of variance related to nurses’ attitude towards physician–nurse relationship ($R^2 = 0.17$). Furthermore, subscales of emotional cut-off ($P = 0.013$) and fusion with others ($P = 0.005$) significantly predict nurses’ attitude towards physician–nurse relationships, of which the latter is more important.

Dealing with the share of each predicting variable in expressing the attitude towards physician–nurse relationship, the results suggested that they expressed 0.14

Table 1: Means and standard deviations of the dimensions of differentiation of self and attitude towards physician-nurse relationship in physicians and nurses

Dimensions of differentiation of self	Mean (SD)	
	Nurses	Physicians
Emotional reactivity	38.93 (7.65)	42.82 (6.51)
I Position	36.88 (8.37)	45.51 (7.71)
Emotional Cut-off	38.93 (5.84)	24.96 (4.71)
Fusion With Others	59.72 (9.98)	60.26 (8.24)
Total score of differentiation of self	159.28 (9.53)	186.43 (9.62)
Attitude towards physician-nurse relationship	5.31 (27.52)	5.30 (30.65)

SD: Standard deviation

Table 2: Multiple regression analysis and ANOVA results to evaluate the predicting variables of attitude towards the physician-nurse relationship in the nurses

Other variables	Statistical indexes					R^2	F
	B	SD	Beta	t	P		
Emotional reactivity	0.06	0.06	0.09	1.1	0.28	0.17	10.32
I Position	-0.1	0.06	-0.16	-1.62	0.11		
Emotional Cut-off	-0.22	0.09	-0.25	-2.51	0.01		
Fusion With Others	-0.14	0.05	-0.29	-2.87	0.005		

of the variance related to physicians’ attitude ($R^2 = 0.14$). The significant results of ANOVA signify that the scores of attitude towards physician–nurse relationship among the physicians can be predicted by the scores of quadruple dimensions of their differentiation of self ($P < 0.001$, $f_{4,195} = 7.69$). The results show that emotional reactivity subscale ($P = 0.003$) significantly has predicted the physicians’ attitude [Table 3].

Discussion

This study was conducted to determine the association of differentiation of self with physician–nurse relationships. The findings of the study suggested that the nurses enjoy higher mean score of attitude towards physician–nurse relationships than the physicians do. This has been confirmed in the same findings in other societies. For example, Amsalu *et al.*^[13] as well as Zakerimoghadam *et al.*^[19] represented in their findings that nurses had more favorable attitude to physician–nurse relationship than the physicians. In these studies, the variation of attitude among physicians and nurses towards interprofessional relationships has been attributed to different factors. In a study performed by Brown *et al.*, for instance, nurses’ positive attitude has been attributed to higher levels of professional and educational value.^[11] According to some evidences, the attitude variation among physicians and nurses stems from their education period; for example, the result of studies conducted by Wang *et al.* showed that the mentioned variation to physician–nurse relationships among medical and nursing students was significant, of which the latter enjoyed more favorable attitude.^[12]

The innovative aspect of this study is that the construct of differentiation of self has been surveyed as the predicting factor of the attitude toward interprofessional relationships of physicians and nurses for the first time, and the significance of statistical model of predicting attitude based on dimensions of self-differentiation in both physicians and nurses strengthens the correction of this hypothesis. The results of analysis on subgroup of nurses suggested that subscales of emotional cut-off and fusion with others significantly explained nurses’ attitude to physician–nurse relationships. These components refer to a range of disorder in individual relationships from extreme separation to extreme fusion, which shows a sort

of disorder and weakness in regulating the mentioned relationships and are confirmed by some evidences. In their study, Farmahini *et al.* stated that although nurses have learned communication skills well during their education, they do not utilize them well during the treatment period.^[20] According to Park’s study, the crowded ward and shortage of workforce are among the factors causing nurses to face challenges in using communicative skills and not paying enough attention to them.^[21]

Similarly, the findings relevant to subgroup of physicians suggested that of differentiation of self-dimensions, emotional reactivity dimension can only predict physicians’ attitude to physician–nurse relationships significantly. The emotional reactivity is a psychological strategy through which humans try to acquire more favorable individual relationships by changing their own anxiety level.^[22] The existing literature has also emphasized on the importance of reactivity levels in determining humans’ behaviors.^[23] Stressing on the importance of learning how to manage and control of excitement due to control behavior and attitude, Shapiro^[24] claims the medical teaching does not care about the attitudes and the excitements of its learners. Emphasizing the challenge of physicians’ emotional load, Lin and Chang^[25] also consider it as an effective factor on their professional performance.

Overall, it seems to be able to achieve more favorable attitude towards physician–nurse interprofessional relationships by impressing two dimensions of emotional cut-off and fusion with others of self-differentiation among nurses and then emotional reactivity among physicians. Despite the fact that this study provides a good insight into the role of one of the important psychological factors in predicting and explaining the attitude to interprofessional relationships of physicians and nurses, it deals with a limited dimension of individual and psychological factors. Thus, it is necessary that more dimensions of psychological situation affecting on the attitude to interprofessional relationships of physicians and nurses be considered in the coming studies.

Conclusion

The results of this study introduce the difference of differentiation of self among physicians and nurses as explanation of the variation of attitude to interprofessional relationship of physicians and nurses. According to the findings of the study, it appears to be able to achieve more favorable attitude towards physician–nurse interprofessional relationships by impressing on the levels of differentiation of self to reduce emotional cut-off and fusion with others events among nurses and improve emotional reactivity among physicians. Some studies recommend to survey such facilitating factors as education level and other ground factors in differentiation of self and also attitude towards physician–nurse relationship.

Table 3: Multiple regression analysis and ANOVA results to evaluate the predicting variables of attitude towards the physician–nurse relationship in the physicians

Other variables	Statistical indexes					R^2	F
	B	SD	Beta	t	P		
Emotional reactivity	0.22	0.07	0.29	2.97	0.00	0.14	7.69
I Position	-0.05	0.07	-0.07	-0.70	0.48		
Emotional Cut-off	-0.06	0.10	-0.06	-0.62	0.58		
Fusion With Others	-0.11	0.06	-0.17	-1.95	0.05		

Acknowledgments

We appreciate all the physicians and nurses who kindly participated in this study. Moreover we thank vice president of research of IUMS and also the managers of the participant hospitals.

Financial support and sponsorship

Isfahan University of Medical Sciences.

Conflicts of interest

There are no conflicts of interest.

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