

## **Research Article**

### **Communication and collaboration's nurse with physician from the perspective of hospitals nurse in Neyshabur City 2013**

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**Abstract:** Interactions between physician and nurse are discussed as an indicator to present the desirable care from the patient. The present study was conducted with aim of clarifying the status of communication and collaboration's nurse and physician as well as the correlation of these two factors from the nurses' viewpoint. The materials and methods in this research has been a descriptive – analytical study from cross-sectional type that all nurses employed in the wards of Hospitals 22 Bahman and Hakim's Neyshabour County participated as total census in it. The sample size was determined 162 persons according to Morgan table. To collect data was used from three-part questionnaire including demographic information as well as the communication and collaboration's physician and nurse. Data collected by SPSS software of version 16 and through descriptive-statistical methods and inferential tests were analyzed. In results from all participants, 37%, 24.7% and 38.3% were working in intensive care units (ICUs), emergency ward, and other wards, respectively. Communication and collaboration scores of nurses in all domains were at moderate extent. A positive correlation was found between the scopes of communication with collaboration's physician and nurse ( $r = 0.04$ ,  $P < 0.001$ ). A significant relationships were also found between employees' demographic characteristics and communication and collaboration ( $P = 0.000$ ). In conclusion the results showed that the effective communication between physician and nurse for collaboration among them is an important element so that whatever communication is more, collaboration will be more.

**Keywords:** Nurse, physician, communication, collaboration

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#### **INTRODUCTION**

To encountering the today challenges of health system, one of the most important needs is strengthening the interdisciplinary professional interactions. Among the various occupations which activate in the health section, interactions' physician and nurse are of special importance [1]. Physician and nurse as members of the health care team are expected to provide the safe and high quality care for patients and such care especially in hospital environment requires the existence of capability in health care staff to establish the effective relationships with each other [2].

The communication is a continuous and mutual process by which person conveys his/her own thoughts, feelings and ideas to others and in fact is establishing the significant contact between individuals [3]. Stein believes that this communication should be based on framework of the easy relationship, the

presence of mutual honesty and trust as well as authorities, capabilities and responsibilities of both parties to assist shared decision-makings with regard to resources, facilities and equipments available and in order to resolve the problems of patient [4]. In traditional communications, physicians gave order and were responsible for providing cares and nurses were obedient and executive of orders [5]. Physicians knew collaboration's nurses equal to administration of orders while nurses had a more positive view towards the professional collaboration, saw collaboration including the exchange of information and participation in decision making [6]. With becoming academic nursing profession, increase of nurses' knowledge and expanding the working scope of nurses, their decision-making power also increased that it affected their inter-professional relationships as well as participation and collaboration in affair of treatment. Hence, the concept of collaboration among health staff because of its

impact on care presented and the working efficiency have had been the great consideration [7].

The collaboration's physician and nurse is beyond working next to each other and in a similar environment, but also requires having the common purpose, taking responsibility and conducting the reciprocal task to provide the effective safe and high quality care [8]. Collaboration in health care system means that individuals from the different hygienic professions communicate together and make decision regarding patient's care [9]. Yoshiro introduces collaboration's physician and nurse, working together along with the exchange of information related to patient, participation in therapeutic decision-makings and providing comprehensive care with patient-centered approach [10]. Such a collaboration has led to reduce hospitalization costs and mortality among patients, follows promoting the patient' health status, increasing the quality of cares and improving behavioral disorder's nurses [11-15]. In a study that was conducted by Eric, only in 33% cases, there were the appropriate collaboration and participation among physicians and nurses the therapeutic decision-makings [16]. Low participation in decision-making leads to the lack of personal worth, the feeling of being subordinate, diminishing self-confidence, decrease of occupational satisfaction, despair and disappointment, inconvenience and anger, discouragement and lack of motivation. It is in spite of this fact that participation in decision-makings will lead to the positive effects such as increase of self-confidence, better decision-making, strengthening the human feeling and social position, causing motivation and shared interests, stimulating staff to take responsibility and improving the morale's individuals for teamwork, creating a positive attitude towards the organization, increasing individual's commitment to the organization, increase of the occupational quality as well as care [17-20]. Furthermore, studies in this field show that there is the close relationship between collaboration and communication's physician and nurse and the occupational satisfaction among nurses [21]. On the other hand, the interactions among nurses and physicians lead to promoting results in their performance. Including the outcomes of these positive interactions for patients can be noted to promoting satisfaction's patient, increasing awareness from the problems' patient, promoting patient's care, reducing therapeutic errors and costs [22]. In another study, the nurses believed that whatever their communication and collaboration with physicians increase, the occurrence of medicinal errors becomes also less [23]. According to the working shared scope's physicians and nurses as well as being complementary of these two professions, presence of professional communications is inevitable [24]. One of the factors affecting inter-professional communications is viewpoint's nurses and physicians in this field so that Bener knows collaboration between

physician and nurse as a result of thought, notion and viewpoint's own physician and nurse rather than the organizational structure [12].

It seems, according to the great importance that existence of relationships along with collaboration's physician and nurse and having a positive view towards these interactions has in promoting the safe and adequate care quality's patients, increase of satisfaction and reduce of occupational tensions in nurses, increase working efficiency and reduce of cost in hospitals, it seems to be necessary conducting more extensive research to examine the current status of relations between these two professions as well as investigating their viewpoint regarding collaboration and communication in the working scope. Now given that the first step in reforming and improving any subject is clarifying status quo in that context, this study was conducted with aim of investigating status of communication collaboration's physicians with nurses from nurses' view of Neishabour city hospitals in 2013.

#### **METHODS:**

This research has been a descriptive - analytical study from cross-sectional type that in 2013 was conducted on all nurses employed in all wards of Hospitals 22 Bahman and Hakim's Neyshabour County participated as total census. a. The sample size according to Morgan table for population with size of 280 was computed equal to 162 persons. Therefore, proportional to the number of nurses at two Hospitals of Hakim and 22 Bahman which respectively, were 97 and 183, the sample size of these two hospitals was determined equal to 56 and 106 individuals respectively. The research population included nurses who at the time of the study were employed in hospitals mentioned above. Having at least bachelor's degree and minimum of one year working history in the ward were considered as entry criteria. The participant by an open question in terms of the acute psychological problem was also examined and providing having psychological problem was eliminated from the research population. Researcher to contact with all of the nurses in all shifts by referring to the mentioned wards of hospitals and regarding moral considerations such as being voluntary entry and exit from study, assuring to the research units about the confidentiality of their information, explaining about being anonymous of questionnaires as well as catching the verbal consent from the research units in this study, provided data collection tools for them and finally, delivered questionnaire.

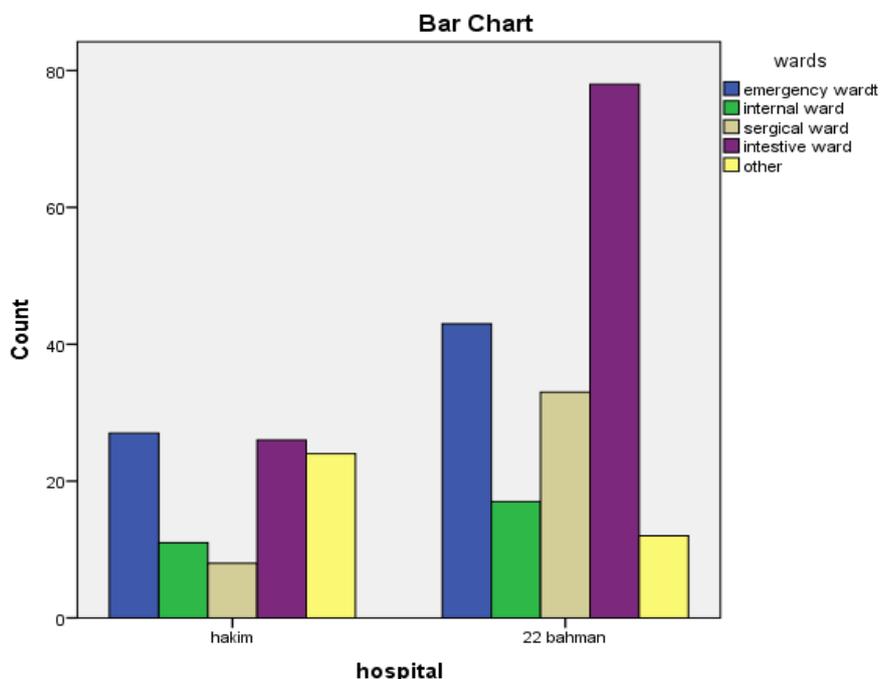
The tools of collecting data include a three-part questionnaire. Its first section included 10 questions related to the demographic information (age, gender, working history, marital status, educational degree, employment condition, type of ward, the average shift per month, the time of shift and an open question

regarding having psychosis problem or history).The second part of the questionnaire, "scale of communication's physician and nurse" in four scopes include the open communication with six questions, the accuracy and precision in communication with three question, the scheduled communication with 4 questions and perception in communication with 2 questions that in study conducted by Vaezi et al in 2009 has been provided and normalized and reliability of tools has been reported by alpha coefficient of 0.86. The third part questionnaire, "the collaboration's physician and nurse" along with 12 questions used has been that it has also adapted from study's Vaezi *et al.*; so that reliability reported for the questionnaire has been mentioned 0.82 [25]. Furthermore, the validity of content and retest methods were used respectively to determine the validity and reliability of above questionnaires and correlation coefficients of 0.87 and 0.85 for questionnaires of "the communication's physician and nurse" and "the collaboration's physician and nurse" were computed, respectively. Questions as a five-part Likert (always, often, sometimes, rarely or never) had been arranged. The total score for questionnaire of the communication's physician and nurse was placed in the interval of 0 to 4 that was divided at 3 levels of the poor, moderate and good communication with scores in the intervals of (0-1.333), (1.334-2.667) and (2.668-4), respectively. The total score for questionnaire of the collaboration's physician and nurse was placed in the interval of 0 to 4 that had

been divided at 3 levels of the poor, moderate and good collaboration with scores in the intervals of ( 0-1.333), (1.334-2.667) and( 2.668-4), respectively. Initially we note that kolmogorov-smirnov test showed the dependent variables (collaboration and communication in all scopes) at levels of all the demographic independent variables are with normal distribution. Descriptive-statistical methods (tables of frequency, mean, standard deviation and etc.) as well as inferential tests (t-tests, analysis of inter-group variance, Pearson correlation coefficient test) were used in data analysis. SPSS software of version 16 was used in order to analyze the data.

**RESULTS:**

69.8% and 30.2% of the research units were female and male, respectively and had an average age of 36.73 years. 80.2% and 19.8% were married and single, respectively. 97.7% had a bachelor's degree. 19.8%, 31.5%, 18.5% and 30.9% of them were official, contractual, plan and arbitrary employment, respectively. Minimum and maximum working histories were one year and 29 years, respectively and the average working history was 8.473 years. 34.6% and 65.4% of them were employed in Hospitals of Hakim and 22 Bahman, respectively. 37%, 24.7% and 38.3% of them in Intensive care units (ICUs), the emergency ward and other wards , respectively were working (Fig-1).



**Fig-1: Comparison of the number nurses to separation of ward in which were employed and the name of hospital.**

**Table-1: The mean and standard deviation of communication from viewpoint's nurses in terms of the questionnaire different aspects**

	Test Value = 0					
	T	Df	Sig. (2-tailed)	Mean Difference	95% Confidence Interval of the Difference	
					Lower	Upper
open communication	26.436	161	.000	1.52675	1.4127	1.6408
accuracy and precision in communication	22.991	161	.000	1.41975	1.2978	1.5417
scheduled communication	23.153	161	.000	1.47531	1.3495	1.6011
perception in communication	20.618	161	.000	1.45062	1.3117	1.5896
communication	28.885	161	.000	1.47354	1.3728	1.5743

**Table-2: The mean and standard deviation of collaboration between physician and nurse from viewpoint's nurses.**

	Test Value = 0					
	T	Df	Sig. (2-tailed)	Mean Difference	95% Confidence Interval of the Difference	
					Lower	Upper
Correlation	34.293	161	.000	1.92181	1.8111	2.0325

**Table-3: The amount of correlation of communication with collaboration based on Pearson's test respectively in all scopes of communication**

		open communication	accuracy and precision in communication	scheduled communication	perception in communication	communication
Correlation	Pearson Correlation	.465**	.387**	.474**	.441**	.533**
	Sig. (2-tailed)	.000	.000	.000	.000	.000

The minimum score obtained from questionnaire's amount of communication's nurse and physician in scopes of open, precision, time and perception was placed at an interval of 1.334-2.666 that was reported in the moderate extent (Table 1). Amount of collaboration's nurse and physician in general had been reported with an average of 1.92 in the moderate extent (Table 2). According to table, there was the significant relationship among the scopes of communication and collaboration between the physician and nurse from nurses' view in Neyshabour city hospitals based on the simple t-test ( $p = 0.000$ ) which had been reported in the moderate extent. Correlation amount of communication with collaboration based on Pearson test respectively in all scopes of open, precision, time and perception was  $r = 0.46$ ,  $r = 0.38$ ,  $r = 0.47$ ,  $r = 0.44$  and there was total  $r = 0.53$ ,  $p = 0.000$  in level of one percent (table 3). Amount of the communication's physician and nurse in all scopes did not show significant relationship with the hospital and gender through independent t-test ( $p = 0.61$ ,  $p = 0.2$ ). In the investigating amount of the communication's physician and nurse based on marriage, data showed the significant relationship in 5% level in the scope of

communication scheduled ( $p = 0.04$ ), but in other scopes, it being significant was not observed. ANOVA test only in the scope of perception from communication between being official and plan showed a significant relationship between amount of communication's physician and nurse with employment status ( $P = 0.37$ ) and this relationship was not found in the rest of scopes. Also, the analysis of data in relation with amount of communication on basis of different wards, only in the scope of precision and accuracy in communication between the emergency ward and Intensive care unit showed a significant relationship ( $P = 0.03$ ). The correlation coefficient between the amount of communication and age in all scopes was negative and only in the scope of perception from communication with age, there was a significant relationship ( $P = 0.03$ ). The correlation coefficient between the amount of communication in all scopes and amount of service history were reported negative.

The data also showed that the correlation coefficient between the amounts of communication's nurses in all scopes except scope of the open communication with service history relationship is

statistically significant at the 5% level. At reviewing the amount of collaboration's physician and nurse from nurses' view, data did not show a significant relationship with nurses' demographic information ( $P = 0.06$ ). Data also showed that the amount of collaboration's nurses in Hakim Hospital is significantly more than in 22 Bahman Hospital and this amount of collaboration is significantly more in female than male nurses ( $P = 0.016$ ). The amount of collaboration was far more in single than married nurses ( $P = 0.03$ ). ANOVA test showed that the amount of collaboration's nurses with physicians in different employment statuses is with a significant difference ( $P = 0.016$ ) so that plan and official nurses have had the highest and lowest collaboration, respectively. The amount of collaboration's nurses in different wards was identical and a significant correlation was not found ( $P > 0.05$ ). The data also show that among the amount of collaboration's nurses with physicians as well as their age and service history, there is a significant and inverse relationship at level of 5% ( $P = 0.02$ ).

#### DISCUSSION:

This research has been conducted with aim to determine communication and collaboration between nurse and physician from nurses' view and investigating their correlation. The results showed that the amount of communication's nurse and physician in hospitals of Neyshabour is at a moderate extent. This finding corresponds with the results of study's Vaezi [25]. In research's Zeighami and Haghighi in Karaj Alborz hospital, communication at 52% and 48% of cases was good and moderate, respectively [26]. The amount of communication's physician and nurse in all scopes of communication also didn't showed a significant relationship with the type of hospital and gender that results of this study corresponds with results of the study's Vaezi [25].

At research's Zamaani *et al.*; a significant relationship was also not found between the nurses and physicians' attitude toward communication between two professions and their gender [27]. In our study, there was a positive correlation among scopes of communication and collaboration's nurse and physician at moderate extent that this means whatever the communication is more, the collaboration will be more. In the study's Eric *et al.*; only in 33% of cases, the appropriate collaboration and participation between two professions was observed and the majority of nurses had evaluated collaboration at the average and poor level [28] and the results of this study is identical to the present research. In research's Zeighami and Haghighi collaboration and participation's nurses in the therapeutic decision-makings in 14%, 52% and 34% was poor, moderate and good, respectively [26] which corresponds with the present study.

Ogbimi in his own study reported one of the important reasons for the communicational vacuum among physicians and nurses, the incomplete development of communicational skills. Presence of the communicational skills causes to develop and keep behavior of collaboration through relying individuals mutually on each other, discussing and investigating, exchange of view and finding recourse about problems related to patients. Other finding of this research indicated that using appropriate communicational skills doesn't lead to increase of participation and collaboration's nurses in the therapeutic decision-makings [29] that this finding was comply with our results of study. The our results of study also showed that a significant relationship was found between communication and collaboration with demographic data so that communication and collaboration with physicians was more in single than married nurses and was reported in plan more than official groups that with results of the study's Vaezi was inconsistent [25].

In the research's Vafa and Karima, a significant relationship was found between working history and collaboration between nurse and physician [30] which corresponds with the results of the current research. Of course, Ericsson and Clifford believe that training the effective relationships and increasing the organizational support from nurses more than their increase of working history causes their participation in the therapeutic decision-makings. They also believe that presence of relationship's president - subjects among nurses and physicians and the no having awareness of some physicians about the special roles' nurse physicians in patient's care are the strongest factors affecting participation's nurses in the therapeutic decision-makings [31]. Data in our study showed that with increasing age, amount of the communication and collaboration between physician and nurse has decreased. In the research's Vafa and Karima in 2011, a negative correlation was found between score of collaboration's physicians and nurses and their age [30] that is identical to results of the current research and based on the results, the highest and the lowest interaction was in the emergency ward and Intensive care unit, respectively while in study's Lyndek and Sykert ICU nurses because of high knowledge and skill, the better the exchange of information with physicians and dynamics of ward had better interaction with physicians [32] that its results was Unlike our study results. According to Lyndek and Sykert, physicians' need to participate with nurses increases in the sensitive situations [32]. Possibly reducing awareness' nurses and physicians from practices of establishing teamwork, no having the proper implementation of policies dealing with the inappropriate communication among staff have had an impact on the communicational atmosphere among physicians and nurses [33]. Furthermore in the present study, the amount of interaction was more in the

Hakim Hospital than 22 Bahman Hospital. Most of the current researches about this subject have been conducted in the governmental hospitals. Vaezi in Iran had study about three types of hospitals (private, public and social security) that was consistent with the results of our study and had been reported in the moderate extent [25]. Of course, it was also found in this study that communication among physicians and nurses is placed in the moderate extent that due to the importance of this communication, this level does not seem to be appropriate.

It should be noted that in this study, only viewpoint' nurses has been evaluated and the physicians' view is not has been included, therefore it is recommended that studies in other environments and with considering the attitude's physicians and nursing managers are conducted.

#### CONCLUSION:

Given that in this study, the communication and collaboration among nurses and physicians was reported at an average extent, can with more consideration to the professional roles and independence's nurses, including inter-professional lessons in the nursing and medicine curriculum and creating teamwork among nurses and physicians be helped whatever further to promote patient's care level and increase the satisfaction from working profession. Moreover, according to this that viewpoint's nurses have been investigated in this research, its results can be also be useful in research, education and nursing management. Results of this research can be guidance though little to senior managers in health organizations until are able with knowledge from the status of collaboration and communication between these two professions to have correct policy makings in order to develop the effective relationships along with increase of participation's nurses in the clinical decision making.

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