

Attitudes toward Nurses-Physicians' Collaboration among Undergraduate Nursing Students at University of Sulaimani

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Abstract

Background: Effective collaboration and teamwork between doctors and nurses play a vital role in patient care and maintaining a positive atmosphere. Each team member brings their unique viewpoint when it comes to evaluating and devising a care strategy for a patient. It is only by working together and sharing information that suitable treatment plans can be formulated. The main objective of this study was to assess attitudes of undergraduate nursing students towards nurse-physician collaboration at the College of Nursing, University of Sulaimani. A descriptive and cross-sectional study was conducted among 178 undergraduate nursing stratified random sampling to select the sample. Data were collected using self-administered questionnaires. Attitudes of students were measured using Jefferson scale of attitudes towards nurse-physician Collaboration. Results summarized using descriptive and inferential statistics using mean, standard deviation and t-test. $p < 0.05$ considered as significant. Nursing students exhibited favorable attitudes than with mean score of 51.9 ± 3.53 and 47.49 and standard error of mean 0.474 and 0.931 respectively with $p = 0.043$. Students scored high on all subscales. However, statistically no significant differences were noted between students' gender with doctors' authority and caring versus curing, also between students' interest in nursing career and caring versus curing. This study identified that nursing students demonstrated favorable attitudes regarding internship between nurses and physicians.

Keywords: Attitudes, Collaboration, Nurse, Physician.

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Introduction

Teamwork plays a crucial role in ensuring safe and high-quality care (Mahdizadeh et al., 2015). Given the complexity of caring for critically ill patients, fostering a teamwork attitude becomes essential (Georgiou et al., 2017). Collaboration, as defined by Jasemi et al. (2013), involves the exchange of perspectives between two or more individuals on a common theme. Elsous et al. (2017) describe collaboration between nurses and physicians as a cooperative effort where responsibilities are shared to address challenges and make decisions for patient care plans. The objective of interprofessional collaboration is to create an environment of mutual trust and respect, providing equal opportunities for team members to share their knowledge and expertise (Hamlan et al., 2015). Nurse-physician collaboration necessitates a shared goal and a reciprocal obligation to deliver high-quality care to address patient needs (Sharifiyana et al., 2016). Communication between physicians and nurses is a complex process and is considered a crucial aspect of delivering high-quality patient care (Al-Jabri, et al, 2023). Their relationship goes beyond a mere exchange of information; it involves a professional and collaborative decision-making process aimed at achieving the best possible patient care (Alibakhshikenari, 2018). Effective communication is instrumental in reaching collaborative decisions that lead to positive patient outcomes (Elsous et al., 2017). Evidence suggests that nurse-physician collaboration significantly contributes to improved disease outcomes, including reduced mortality rates, readmissions, complications, as well as prevention of ventilator-associated pneumonia and bedsores (Wheelan et al., 2003). Conversely, a lack of a proper professional relationship between physicians and nurses can lead to burnout and stress among nurses (Jasemi et al., 2013). In genuine interprofessional collaboration, both parties must possess the ability to make independent decisions and have the authority to implement those decisions. Additionally, both parties should actively participate in the decision-making process based on their respective expertise to achieve optimal healthcare outcomes for patients (Mahmoodian et al., 2014). The specialized responsibilities of nurses and physicians necessitate autonomy (Valizadeh et al., 2017). Professional autonomy in nursing refers to nurses' right and responsibility to make decisions about patient care and have the freedom to act accordingly. According to Mohamed (2018), an important aspect of professional autonomy is nurses' ability to make decisions, which forms the foundation of their professional knowledge. Research conducted on ICU nurses in Greece found that while they had moderate levels of autonomy in technical tasks, their autonomy in the decision-making process was low (Papathanassoglou et al., 2005). Similarly, Dorgham and Al-Mahmoud's study revealed a low level of professional autonomy among Egyptian nurses. This lack of autonomy is a significant reason why nurses express a desire to move to nonclinical roles (Karra et al., 2014). Additionally, nurses' ability to independently perform nursing services plays a vital role in their job satisfaction (Motamed-Jahromi et al., 2015).

Although there are differences in attitudes, most nursing students emphasize the value of working as a team in the healthcare settings. They recognize the value of open communication, respect for one another, and teamwork in patient care (Tschannen et al., 2018). However, some students can worry about hierarchical dynamics because they think that doctors might ignore their suggestions. In order to prepare students for successful nurse-physician interaction, contemporary nursing education places a strong emphasis on interprofessional collaboration (Nielsen et al, 2013).

Aim of the study: To examine the attitudes of undergraduate nursing students toward nurse-physician collaboration and to find out the association between the attitudes subscales with students' gender, academic stage and interest in nursing career of the students.

Justification of the study: Nurses and physicians, who bear significant responsibility for patient care, face challenges in effective communication. Studies have highlighted differences in the attitudes of nurses and physicians toward

collaboration. The current healthcare system suggests that nurses are not fully exercising their autonomy when working with physicians, while physicians tend to hold a dominant role in various aspects of patient care. This situation diminishes the contribution of nurses to the healthcare delivery system. Additionally, literature has identified a gap in educating associate degree nursing students on effective communication with physicians. Notably, there is a lack of published research specifically addressing nurse-physician collaboration in Kurdistan, particularly in Sulaimani city.

Materials and Methods:

Design of the study: Quantitative design with descriptive study was carried out at the College of Nursing / University of Sulaimani from the period of 11/1/2022 to 25/4/2022 to find out the attitudes of nursing students toward nurses-physicians collaboration.

Administrative Arrangements and ethical consideration: the scientific committee of the College of Nursing / University of Sulaimani approved the study. Consequently, an official letter submitted to the presidency of university of Sulaimani to obtain their permission for data collection. Accordingly, an official letter addressed to the College of Nursing at the university to gain cooperation with the nursing college students for data collection.

Setting of the study: College of Nursing / University of Sulaimani, which was established in 2001 and is located in the old camp in Sulaimani city center, was involved in the current study. Actually, 375 students are studying in the college in four stages (first, second, third, and fourth).

Sampling of the study: A stratified random sampling was used to select the sample size of the study according to inclusion criteria included students in the second, third, and fourth stages from college of nursing who has willing to participate in the study. First stage students excluded from the study that was because they have not exposed to the clinical areas in the health care settings and communication with healthcare providers particularly with the nurses and physicians. Therefore, second, third, and fourth stage students were included in the study. First, the number of the students from each stage obtained from the registration unit of the college. Consequently, random sampling technique was used to select half of the students in each stage separately as (68, 59, and 51) students were selected from (second, third, and fourth) stages respectively, so that the total number of the participants was (178) students.

Methods of data collection: Interview was held with each stage to get their verbal consent, in addition is to ensure them that the obtained information will be kept confidential and for scientific purpose only. Consequently, the data collected using self-administered questionnaire.

Tool of data collection (Study instrument): In order to collect the proper information and relevant to the present study, a questionnaire was constructed by the researcher which consisted of (2) parts. The first part was the socio-demographic attributes composed of eight items concerned with demographic characteristics of the students which are:(age, gender, economic status, academic stage, residency, father's occupation, mother's occupation, and interest in nursing career). The second set of questions was the "Jefferson Scale of Attitudes toward Physician–Nurse Collaboration" (JSAPNC). The JSAPNC comprises a 15-question survey designed to explore participants' viewpoints regarding collaboration between physicians and nurses. The survey focuses on four main aspects: 'shared education and teamwork' (7 questions), 'emphasizing care over cure' (3 questions), 'nurse autonomy' (3 questions), and 'physician authority' (2 questions). Respondents provide their opinions using a 4-point Likert scale, where

responses range from 'strongly disagree' (1) to 'strongly agree' (4). A higher overall score on the survey indicates a more favorable attitude towards collaborative relationships between physicians and nurses. Completing the JSAP-NC typically takes around five to ten minutes. The English version of the questionnaire translated into Kurdish language in order to be understandable to the students and facilitate the data collection.

Scoring: The responses measured on 4-point Likert scale. Items (8, 10) were reversely scored as: (4) = strongly disagree; (3) = disagree; (2) = agree; and (1) = strongly agree, while the rest (13) statements were scored as: (1) = strongly disagree; (2) = disagree; (3) = agree; (4) = strongly agree. It is worthwhile to mention that the higher mean of score of the statements, between minimum 15 and maximum 60, indicates the more favorable pattern of attitude toward nurses-physicians' collaborations.

Data analysis (statistical analysis): The obtained responses were coded and inserted into an excel sheet, then analyzed with the statistical package of social sciences (SPSS) version 25, including descriptive statistics (frequency, percentage, mean of score, and standard deviation), and inferential statistics using t-test.

Results:

Table (1) Distribution of the study sample according to their

Socio-demographic characteristics by frequency and percentage.

Students' Characteristics		Frequency	Percentage
Age Groups	Years 20 <	32	18.0
	Years 22 - 20	139	78.1
	Years 23 ≤	7	3.9
	Mean ± SD	1.19 ± 20.42	
Gender	Male	50	28.1
	Female	128	71.9
Economic status	Sufficient	65	36.5
	Barely sufficient	113	63.5
Academic level	2 nd stage	68	38.2
	3 rd stage	59	33.1
	4 th stage	51	28.7
Residency	Urban	61	34.3
	Rural	117	65.7
Father's employment status	Governmental employee	62	34.8
	Private sector employee	25	14.0
	Self-employee	63	35.4
	Jobless	28	15.7
Mother's employment status	Governmental employee	23	12.9
	Private sector employee	6	3.4
	Self-employee	2	1.1
	Housekeeper	147	82.6
Interest in Nursing career	Not interested	31	17.4
	Little interested	55	30.9
	Very interested	92	51.7
Total		178	100

The highest number of the participants (78.1%) were between 20-22 years old with mean age of 20.42 ± 1.19 of standard deviation. Female participants comprise (71.9%) of the sample, (63.5%) reported having a barely sufficient economic status, (38.2%, 33.1%, and 28.7%) were distributed on second, third, and fourth stage respectively, (65.7%) resided in rural areas, while, (35.4%) of the fathers were self-employed, (82.6%) of the mothers were housekeeper, more than half of the participants (51.7%) are very interested in the nursing profession, 30.9% were little interested, and 17.4% not interested.

Top of Form Table (2) The response of the participants to the JSANPC

(attitude towards collaborative care with physicians) items.

#	Attitude items	strongly agree	agree	disagree	Strongly disagree	Mean SD ±
		.Fr %	.Fr %	.Fr %	.Fr %	
1	A nurse should be viewed as a collaborator and colleague with a physician rather than his/her assistant	104	70	4	0	3.56
		58.4	39.3	2.2	0	0.541 ±
2	Nurses are qualified to assess and respond to psychological aspects of patient's needs	107	66	5	0	3.57
		60.1	37.1	2.8	0	0.550 ±
3	During their education, medical and nursing students should be involved in teamwork in order to understand their respective roles	140	36	1	1	3.76
		78.7	20.1	0.6	0.6	0.472 ±
4	Nurses should be involved in making policy decisions affecting their working conditions	61	103	11	3	3.24
		34.3	57.9	6.2	1.7	0.642 ±
5	Nurses should be accountable to patients for the nursing care they provide	124	51	3	0	3.67
		69.7	28.7	1.7	0	0.502 ±
6	There are many overlapping areas of responsibility between physicians and nurses	107	56	14	1	3.51
		60.1	31.5	7.9	0.6	0.665 ±
7	Nurses have special expertise in patient education and psychological counseling	103	65	9	1	3.51
		57.9	36.5	5.1	0.6	0.621 ±
8	Doctors should be the dominant authority in all health care matters	6	34	54	84	3.21
		3.4	19.1	30.3	47.2	0.869 ±
9	Physicians and nurses should contribute to decisions regarding the hospital discharge of patients	76	74	24	4	3.24
		42.7	41.6	13.5	2.2	0.770 ±
10	The primary function of the nurse is to carry out the physician's orders	7	13	53	105	3.43
		3.9	7.3	29.8	59.0	0.794 ±
11	Nurses should be involved in making policy decisions concerning the hospital support services upon which their work depends	126	44	7	1	3.65
		70.8	24.7	3.9	0.6	0.582 ±

12	Nurses should also have responsibility for monitoring the effects of medical treatment	77	77	21	3	3.28
		43.3	43.3	11.8	1.7	0.736 ±
13	Nurses should clarify a physician's order when they feel that it might have the potential for detrimental effects on the patient	99	68	7	4	3.47
		55.6	38.2	3.9	2.2	0.682 ±
14	Physicians should be educated to establish collaborative relationship with nurse	99	68	40	1	3.4
		55.8	38.2	5.6	0.6	0.631 ±
15	Interprofessional relationships between physicians and nurses should be included in their educational programs	81	77	17	3	3.32
		45.5	43.3	9.6	1.7	0.717 ±
SD ± Total mean of score						51.9±3.53

Table 2 reveals that a significant majority of participants strongly agreed or agreed to all the attitude statements and strongly disagreed or disagreed to the statements (8 and 10) which scored reversely, and all the JSANPC items got high mean of scores falling between 3.21±0.869 and 3.76±0.472 with the total of 51.9±3.53 which indicates favorable pattern of attitudes toward collaboration between nurses and physicians.

Table (3) JSANPC subscales' mean with standard deviation.

JSANPC subscales	Mean	Std. Deviation
(Shared education and collaboration (7items	24.15	2.60 ±
(Doctors' authority (2 items	6.64	1.11 ±
(Nurses' autonomy (3 items	10.38	1.15 ±
(Caring vs. curing (3 items	10.73	1.22 ±
(Total score (15- 60	51.9	4.44 ±

The participants' responses on JSANPC subscales got high mean of scores. Shared education and collaboration got mean (24.15±2.6), doctor's authority (6.64±1.11), nurses' autonomy (10.38±1.15), and caring versus curing (10.73±1.22) that show favorable attitudes of the nursing students toward collaboration between nurses and physicians in all subscales.

Table (3) Comparison of Jefferson Scale of Attitudes toward Physician-Nurse Collaboration and its Subscales Results with gender of Nursing Students.

Variables	Male N=50 Mean ± SD	Female N=128 Mean ± SD	p. value t-test
Shared education and collaboration	23.4±3.51	24.4±2.32	H. Sig 0.001>
Doctors' authority	6.60±1.56	6.67±1.49	N. Sig 0.159
Nurses' autonomy	10.1±0.97	10.4±1.21	Sig 0.008
Caring vs. curing	10.7±1.22	10.8±1.24	N. Sig 0.464

The table presents a comparison between genders regarding nurses'-physicians' collaboration on different variables. Concerning Shared education and collaboration, the p-value is less than 0.001, indicating a highly significant difference between genders, and regarding nurses' autonomy, the p-value is 0.008 indicating a statistically significant association between both genders. However, for doctors' authority and caring versus curing, the p-values are more than 0.05, which indicate no significant differences between male and female students.

Table (5) Comparison of Jefferson Scale of Attitudes toward Physician-Nurse Collaboration and its Subscales Results with academic stages of Nursing Students.

Variables	2nd stage N=68 Mean ± SD	3rd stage N=59 Mean ± SD	4th stage N= 51 Mean ± SD	p. value t-test
Shared education and collaboration	24.2±2.10	24.0±2.33	23.7±3.40	H. Sig 0.001>
Doctors' authority	7.1±1.94	6.67±1.12	6.58±1.21	H. Sig 0.001>
Nurses' autonomy	10.3±1.29	10.5±1.05	10.3±1.07	Sig 0.010>
Caring vs. curing	10.7±1.26	10.6±1.16	10.5±1.25	H. Sig 0.001>

The table 5 presents that there is highly significant association between academic stages and JSANPC subscales of shared education and collaboration, doctors' authority and caring versus curing ($P<0.001$), and significant association between students' academic stages with nurses' autonomy ($P<0.010$).

Table 6: Comparison of Jefferson Scale of Attitudes toward Physician-Nurse Collaboration and its Subscales Results with are interested in nursing career of Nursing Students.

Variables	Not interested N=31 Mean ± SD	Little interested N=55 Mean ± SD	Very interested N= 92 Mean ± SD	p. value t-test
Shared education and collaboration	3.34 24.1±	23.8±2.95	24.4±2.36	H. Sig 0.000

Doctors' authority	6.61±1.55	6.78±1.27	6.72±1.47	H. Sig 0.000
Nurses' autonomy	10.3±1.15	10.3±1.26	10.4±1.15	H. Sig 0.000
Caring vs. curing	10.7±1.22	10.7±1.23	10.8±1.20	N. Sig 0.359

Table 6 reveals that there is high significant association between shared education, doctors' authority, and nurses' autonomy with the students interests in nursing career ($P < 0.001$), but no significant differences found between interest in nursing career and caring versus curing ($P > 0.05$).

Discussion

The interaction and cooperation between medical personnel, specifically staff nurses and physicians, have been subject to variations over time. Numerous studies have unveiled a diminished degree of teamwork between staff nurses and physicians (Elham & El-Hanafy, 2018). Conversely, some research has indicated that staff nurses tend to exhibit a higher level of collaboration (Melkamu et al., 2020). The objective of the present study is to assess the viewpoints of the nursing students regarding the partnership between nurses and physicians.

The results shows that about three quarters of the students are female, fall within the age of 20-22 years, highest portion of them have barely sufficient economic status, highest percentage are in second academic stage, about two third come from rural areas, most of the fathers are self-employed and majority of the mothers are housekeepers, and a significant portion of the students are very interested in nursing career. These results match the results of a similar study conducted on 270 undergraduate nursing students in 2015 at Tehran University of Medical Sciences, which approximately show similar proportions of the mentioned characteristics.

According to the Jefferson Scale (JSAPNC), the obtained total mean of scores (51.9) indicates that nursing students exhibited a favorable positive outlook regarding the teamwork and partnership between doctors and nurses and recognition of the importance of collaboration and a departure from traditional hierarchical roles. A study conducted in Tehran University of Medical Sciences on nursing students, the total mean of scores of (JSAPNC) was (51.06) which is similar to the current study (Zakerimoghdam, 2015). In addition, another study conducted in Egypt by Karima, et al, (2011) on medical surgical nurses showed nurses had a positive attitude towards collaboration between physicians and nurses. The mean and standard deviation of the obtained Jefferson Scale scores by nurses indicated their positive attitude towards collaboration between physicians and nurses (51.21). Garber et al. (2009) from the United States (52.31) and Hansson et al. (2010) from Sweden (51.7) also reported nurses' positive attitudes toward collaboration between physicians and nurses. In contrast, a research done by Ardahan et al., nursing students' average attitude score (26.11) was less than half of the Jefferson Scale's total score, indicating a less positive or even unfavorable attitude toward physician and nurse collaboration. The status of nurses within the care and treatment team appears to be the cause of this disparity. According to Ardahan et al., despite the theoretical and practical education that emphasizes teamwork, the attitude toward the nursing profession has not yet altered in Turkey. It appears that common sense in Turkish care and medical facilities; it appears that nurses viewed as physicians' assistants rather than as coworkers.

The researcher asserts that modifications in nursing education are responsible for the optimistic outlook found in the current study and other investigations. In the contemporary university curriculum, nursing students undergo instruction in effective interaction with fellow care and treatment team members, with a specific focus on physicians, in order to deliver suitable medical care.

Overall, the interpretation of the JSANPC subscales suggests a generally positive attitude towards shared education and collaboration, nurses' autonomy, and the balance between caring and curing. However, there is some variability in attitudes towards the doctor's authority. These findings highlight the importance of promoting collaborative practices, recognizing nurses' autonomy, and maintaining a balance between caring and curing in healthcare settings, but the subscale, doctors' authority, got least mean (6.64 ± 1.11), that is potentially some of the students may have faced tough treatment by some of the physicians in clinical environment.

The results indicate that there are significant differences between genders in terms of shared education and collaboration, as well as nurses' autonomy. Females tend to exhibit higher favorable attitudes in all subscales compared to males. However, no significant differences found between genders regarding attitudes towards the doctor's authority and the balance between caring and curing. The cooperation between physicians and nurses is probably influenced by various prohibiting factors, including variations in income, gender-based disparities in conventional perceptions about the two vocations, the prevailing authority of physicians, and the constrained scope of nursing's professional responsibilities (Karima, et al, 2011; Ramezani-Badr, et al, 2009).

The results reveal the mean values for shared education and collaboration, decrease slightly from the second stage (24.2) to the fourth stage (23.7). In addition, for doctors' authority from (7.10) decreasing to (6.58), and for caring versus curing decreasing from (10.7) to (10.5), and p-value for the t-test is less than 0.001 indicating a highly significant difference in the mean values between the stages. The mean values for nurses' autonomy appear to be relatively consistent across the second (10.3), third (10.5), and fourth (10.3) stages, showing no significant trend in this variable over time. The standard deviation remains relatively stable, indicating consistent responses for this variable as well, and the p-value for the t-test is 0.010, indicating a statistically significant difference in the mean values between the stages indicating significant differences in attitudes toward physician-nurse collaboration and its subscales among nursing students in different academic stages. Students in the second stage tend to have more favorable pattern of attitudes in shared education and collaboration, recognizing the doctor's authority, and balancing caring and curing. However, students in the third stage tend to have a higher mean score in recognizing nurses' autonomy compared to those in the second and fourth stages. These findings suggest that attitudes and perceptions towards collaboration and professional roles may evolve throughout the nursing education program.. In a study conducted in Iran, the outcomes indicate the absence of statistically significant variances when examining the attitudes of nursing students across their first to fourth academic years. The test outcomes for the average disparity in attitude scores related to shared education and teamwork, the balance between caring and curing, and nurses' autonomy similarly revealed a lack of substantial distinction over time (Zakerimoghadam, et al, 2015).

The results suggest that attitudes toward collaboration between nurses and physicians, as well as perspectives on doctors' authority and nurses' autonomy vary significantly based on students' levels of interest in a nursing career. However, differences in attitudes related to "Caring vs. Curing" were not found to be statistically significant across the interest groups.

For the subscales of "Shared education and collaboration," "Doctors' authority," and "Nurses' autonomy," the p-values are all (0.000), indicating that the differences in mean scores between the groups are statistically highly significant. This suggests that there are meaningful differences in attitudes toward these aspects of collaboration among nursing students with varying levels of interest in the nursing profession.

For the subscale of "Caring vs. curing," the p-value is (0.359), which is greater than the conventional threshold

of (0.05) for statistical significance. This means that the differences in mean scores for this subscale between the groups are not statistically significant. In other words, the attitudes related to “Caring vs. curing” do not appear to differ significantly among the three groups of nursing students.

In summary, the table indicates that there are significant differences in attitudes toward shared education, collaboration, doctors’ authority, and nurses’ autonomy among nursing students with different levels of interest in the nursing profession. However, there are no significant differences in attitudes related to “Caring vs. curing” among nursing students in Sulaimani city.

Limitation of the study:

The study conducted in one area and from only nursing students that may limit its generalizability, also data should be collected from undergraduate medical students to explore the differences between both groups. Another point, there was no conducted studies in Iraq to compare them with the current study.

Conclusions:

It is noted in this study that undergraduate nursing students have favorable opinions toward collaboration between nurses and physicians in all the four subscales, however their opinions regarding doctors’ authority is lower than shared education and collaboration, nurses autonomy, and caring versus curing. Furthermore, the female students’ perspectives are higher than the male students in all subscales. The study results show a significant association between the students’ academic stages and the subscales. In addition, there is a highly significant association between students’ interest in nursing career with shared education and collaboration, doctors’ authority, and nurses’ autonomy, while there is no association found with caring versus curing.

The study results recommend further studies on wider sample in all the nursing’ colleges in Kurdistan and to be compared with the viewpoints of medicine colleges’ students in order to promote this vital issue between the students which affect the outcome of patient’s care.

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