



Original Article

Nurses' perception of nurse-physician collaboration at emergency departments in the Gaza governorates

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ABSTRACT

Background & Aim: Nurse-physician collaboration is a fundamental component of interprofessional healthcare, where nurses and physicians share responsibilities and work-related goals to improve patient outcomes. This study aims to assess nurses' perceptions of nurse-physician collaboration in the emergency departments in Gaza Governorate, Palestine.

Methods & Materials: A cross-sectional study was conducted between January and April 2023, involving a census sample of 205 emergency department nurses working in Ministry of Health hospitals. Data were collected using the Jefferson Scale of Attitudes toward Physician–Nurse Collaboration, a 15-item questionnaire that quantifies these attitudes in a meaningful way. Higher scores indicate a more positive attitude toward interprofessional collaboration. Four domains (shared education and collaboration, responsibility and role expectations, nurses' autonomy, and physicians' authority) represent the intricate factors that influence IPC in Ministry of Health hospitals. A validated self-administered questionnaire was employed.

Results: The findings revealed a high level of nurse-physician collaboration in governmental hospital emergency departments in Gaza, with an overall weighted mean of 78.4%, indicating a positive perception among nurses. Among the four dimensions of nurse-physician collaboration, nurse autonomy ranked highest (88.2%), followed by responsibility and role at 87.9%, and shared education & collaboration at 87.3%. However, physician authority ranked lowest, with a relative weight of 50.0%, suggesting a perceived imbalance in decision-making authority within emergency departments.

Conclusion: The study highlights a strong positive attitude toward nurse-physician collaboration among nurses in Gaza's governmental hospital emergency departments. However, the low perception of physician authority suggests the need for further investigation into interprofessional dynamics.

Introduction

Emergency care provision presents significant challenges worldwide due to the high-pressure environment in which healthcare providers operate. Emergency Departments (EDs) are often characterized by time-sensitive decision-making, critical patient conditions, and resource constraints (1). In Palestine, these challenges are further exacerbated by political instability, insufficient stabilization measures, and a highly overcrowded healthcare system. Overpopulation in EDs represents one of the most pressing barriers to delivering high-quality care, increasing patient wait times, and straining

medical resources (2). Given these challenges, effective collaboration between nurses and physicians is paramount, as it enhances the quality of healthcare, improves patient safety, and contributes to job satisfaction among healthcare professionals (3).

Nurse-physician collaboration (N-P collaboration) is defined as an interprofessional relationship in which both professionals share work-related goals and assume joint responsibility for patient outcomes. Essential elements of successful collaboration include open communication, mutual respect, shared

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decision-making, and collective problem-solving in inpatient care management (4). However, establishing and maintaining such collaboration is often hindered by factors such as hierarchical workplace structures, differences in professional autonomy, communication barriers, and organizational policies (5).

Power dynamics significantly influence nurse-physician interactions, often leading to conflicts when discrepancies arise in patient care plans. The dominance of physician-centered decision-making in many healthcare settings has been identified as a key factor affecting nurse-physician relationships, with nurses frequently experiencing limited input in medical decisions (3). While nursing has traditionally been structured within hierarchical and bureaucratic models, the profession has evolved, with nurses increasingly assuming leadership roles and engaging in interdisciplinary collaboration (6). However, despite these advancements, disparities in power and status continue to impact the perceived and actual roles of nurses in decision-making processes.

Studies suggest that nurses and physicians perceive collaboration differently. Physicians often equate collaboration with compliance, expecting nurses to follow instructions and orders, while nurses tend to view it as a complementary relationship in which both professionals contribute equally to patient care (6). This divergence in perceptions can create tension and hinder effective teamwork, ultimately compromising patient safety and healthcare outcomes. Research further indicates that ineffective collaboration in EDs is associated with increased medical errors, higher levels of occupational stress, and reduced patient satisfaction (7).

Given the critical role of nurse-physician collaboration in enhancing patient care, this study aims to assess nurses' perceptions of N-P collaboration in EDs within the MoH in the Gaza Governorates, Palestine. Understanding these perceptions is essential for identifying existing barriers and developing strategies to foster a more collaborative healthcare environment, ultimately improving emergency care delivery in the region.

Methods

Study design and setting

This study utilized a cross-sectional design to assess nurse-physician collaboration among emergency department (ED) nurses working in MoH hospitals in the five governorates of the Gaza Strip (GS), Palestine. Eligible settings included Shifa Medical Complex, Gaza General Hospital (EGH), Nasser Medical Complex, Al-Aqsa Martyrs Hospital, and Indonesian Hospital. Data collection was carried out from October 2022 to January 2023. The total duration of the study was approximately one year, from proposal approval to data analysis completion in April 2023. The study targeted nurses who work in adult EDs for at least six months.

Sample size and sampling

The study included all nurses and physicians who worked in adult EDs of selected government hospitals. The total sample size was 205 nurses and 132 physicians. A census sample was used to avoid sampling errors, with questionnaires distributed to all participants in the selected hospitals.

The study was not equally distributed across all hospitals due to differences in hospital size, staffing levels, and patient volumes, with larger institutions such as Al-Shifa and Nasser Medical Complex naturally having more nurses and physicians working in EDs compared to smaller facilities. The study employed a census sampling method, aiming to include all eligible nurses and physicians in the selected hospitals rather than enforcing equal representation, which allowed for a more accurate reflection of the actual workforce distribution. Additionally, logistical factors such as nurse and physician availability during different shifts, administrative cooperation, and accessibility challenges in certain areas of the Gaza Strip may have influenced participation rates across hospitals.

Inclusion and exclusion criteria

The study included all nurses and physicians working in adult EDs in government hospitals in Gaza who had fixed-term contracts

Nurse-physician collaboration

and consented to participate. Nurses who were absent during data collection, had less than six months of work experience, or were on long-term leave were excluded from the study.

Data collection

Data were collected using a self-administered questionnaire distributed during the morning, evening, and night shifts. The average time to complete the questionnaire was 20 minutes. The researcher visited different shifts to maximise response rates and clarified any ambiguities in the tool.

Questionnaire development

The study adopted the Jefferson Scale of Attitudes Toward Physician-Nurse Collaboration (JSAPNC), a validated instrument developed by Mohammadreza Hojat at Jefferson Medical College (8). The JSAPNC has been widely used to measure interprofessional collaboration in healthcare settings and has demonstrated strong psychometric properties (9). The scale consists of four subscales. Items 1, 3, 6, 9, 12, 14, and 15 refer to shared education & collaboration, and items 2, 4, 7 set for caring in opposite to curing (responsibility and role). While items 5, 11, and 13 measure nurse autonomy, items 8 and 10 measure physician authority. Responses were rated from 1 to 5, and then all responses for the participant were summed together. Items 8 and 10 are reverse-scored items.

To ensure linguistic and cultural appropriateness, the cross-cultural adaptation guidelines outlined by Beaton et al. (10) were followed during the translation of the questionnaire into Arabic. The process included forward translation, back-translation, expert committee review, and pretesting. Face and content validity of the Arabic version were assessed by a panel of ten healthcare experts, including researchers, academics, head nurses, and physicians. Based on their feedback, minor modifications were made to enhance clarity and cultural relevance.

The final questionnaire comprised six sociodemographic items and 15 items measuring nurse-physician collaboration, categorized into four domains:

- Shared education & collaboration “7 items”
- Responsibility and role expectations “3 items”
- Nurse autonomy “3 items”
- Physician authority “2 items”

Response value

The final version of the JSAPNC used in this study contained 15 items answered on a 5-point Likert-type scale: 1 Strongly disagree; 2 I tend to disagree; 3 Neutral; 4 I tend to agree; 5 Strongly agree.

Pilot study

A pilot study was conducted with 20 nurses to evaluate the questionnaire’s reliability and clarity. The results demonstrated good internal consistency, with a Cronbach’s alpha of 0.78, indicating satisfactory reliability (11).

Data analysis

The data were analysed using the Statistical Package for the Social Sciences (SPSS) version 24.0 (IBM Corp., Armonk, NY, USA). Various statistical methods were carried out, including frequency tables, central tendency measures (mean), dispersion (standard deviation), and relative weight (RW).

Ethical considerations

Ethical approval for this study was obtained from the University of Al-Butana and the Human Resources Development Directorate at the MoH. Additional approval was secured from the Helsinki Ethics Committee to ensure compliance with international ethical standards.

Prior to participation, informed consent was obtained from all participants. Each nurse received a participant information sheet attached to the questionnaire, detailing the study objectives, data confidentiality assurances, voluntary participation, and instructions for completing the questionnaire. Participants were explicitly informed that their responses would remain anonymous and that they had the right to withdraw from the study at any time without consequences.

Results

Sociodemographic characteristics of the participating nurses

The total target population consisted of 205 emergency department nurses, of whom

193 responded positively, yielding a response rate of 94.1%. Table 1 presents the demographic distribution of the participants. The sample consisted predominantly of male nurses (69.0%), with most participants under 40 years old (51.0% under 30 and 42.0% 30–39), and the majority holding a bachelor's degree (75.0%).

Table 1. Socio-demographic characteristics of participants

Variable	Categories	Physicians (N=110) (%)	Nurses (N=193) (%)
Gender	Male	78 (70.9)	133 (69.0)
	Female	32 (29.1)	60 (31.0)
Age	less than 30	30 (27.3)	98 (51.0)
	30 to less than 40	45 (40.9)	81 (42.0)
	More than 40	35 (31.8)	14 (7.0)
Education level	Diploma	-	36 (18.5)
	Bachelor	72 (65.45)	145 (75.0)
	Postgraduate	17 (15.45)	13 (6.5)
	ER Board	21 (19.1)	-
Marital status	Not married	15 (13.6)	69 (35.7)
	Married	95 (86.4)	124 (64.3)
Total experience (Years)	Less than 5	38 (34.5)	76 (39.4)
	5 to less than 10	23 (20.9)	64 (33.3)
	10 to less than 15	25 (22.7)	29 (15.2)
	More than 15	24 (21.8)	23 (12.1)

Note: Data are expressed for continuous variables and as percentages for different categorical variables

Perceptions and attitudes of nurses toward nurse-physician collaboration

Table 2 presents the mean scores, relative weights (RW), and rankings of the four JSAPNC subscales measuring nurse-physician (N-P) collaboration. Nurse Autonomy had the highest

relative weight (88.2%), followed by Caring vs. Curing (Responsibility and Role) (87.9%) and Shared Education & Collaboration (87.3%), with Physician Authority lowest at 50.0%. Overall, nurses reported a high level of nurse-physician collaboration in MoH EDs across the Gaza Strip (overall RW= 78.4%).

Table 2. Perception attitudes of nurses toward nurse-physician collaboration

Dimensions	Mean	SD	RW	Ranked
1. Shared education & collaboration	3.49	0.72	87.3	3
2. Caring vs. curing (responsibility and role)	3.51	0.66	87.9	2
3. Nurse autonomy	3.53	0.67	88.2	1
4. Physician authority	2.00	0.72	50.0	4
Overall perception	3.13	0.62	78.4	-

Note: Data are expressed as average scores for continuous variables and as (%) percentages for different categorical variables. Abbreviations: RW: Relative Weight; SD: Standard deviation.

Shared education & collaboration

Table 3 showed a high RW (87.3%), with the top item indicating that physicians and nurses should be included in each other's education, which implies strong support for joint educational initiatives. The highest-ranked item was "Physicians and nurses contribute to decisions regarding the hospital discharge of patients" (RW= 91.5%), while the lowest-ranked item was "Interprofessional relationships

between physicians and nurses should be included in their educational programs" (RW=80.3%). Overall mean for the dimension was 3.49 (SD 0.72).

The finding shows that there is a very high level of shared education & collaboration in ED at governmental hospitals in GS from the point of view of nurses. This means a positive perception of shared education & collaboration from the nurses' point of view.

Responsibility and role

In Table 4, the dimension “Responsibility and Role” had an RW of 87.9% (mean 3.51, SD 0.66). The top item was “Nurses are involved in making policy decisions

affecting their working conditions” (RW= 81.0%), with “Nurses have special expertise in patient education and psychological counseling” (RW= 89.3%) ranking second. Overall mean 3.51 (SD 0.66).

Table 3. Results related to the dimension of Shared education & collaboration

#.	Items	Mean	SD	RW	Ranked
1.	A nurse should be viewed as a collaborator and colleague with a physician rather than his/her assistant.	3.61	0.56	90.3	3
2.	During their education, medical and nursing students are involved in teamwork in order to understand their respective roles.	3.38	0.78	84.5	5
3.	The responsibilities of nurses and physicians are clear, and there is no overlap between them.	3.64	0.72	91.0	2
4.	Physicians and nurses contribute to decisions regarding the hospital discharge of patients.	3.66	0.85	91.5	1
5.	Nurses also have responsibility for monitoring the effects of medical treatment.	3.58	0.67	89.5	4
6.	Physicians should be educated to establish collaborative relationships with nurses.	3.36	0.90	84.0	6
7.	Interprofessional relationships between physicians and nurses should be included in their educational programs.	3.21	1.01	80.3	7
All items		3.49	0.72	87.3	-

Note: Data are expressed as average scores for continuous variables and as (%) percentages for different categorical variables. Abbreviations: RW: Relative Weight; SD: Standard deviation.

Table 4. Results on the responsibility and role dimension among nurses

#.	Items	Mean	SD	RW	Ranked
1.	A physician is qualified to assess and respond to the psychological aspects of patients' needs.	3.73	0.74	93.3	1
2.	Nurses should be involved in making policy decisions affecting their working conditions.	3.24	0.72	81.0	3
3.	Nurses have special expertise in patient education and psychological counseling.	3.57	0.67	89.3	2
All items		3.51	0.66	87.9	-

Data are expressed as average scores for continuous variables and as (%) percentages for different categorical variables. Abbreviations: WR: Relative Weight; SD: Standard deviation.

Nurse autonomy

Table 5 showed the dimension “Nurse Autonomy” showed RW= 88.2% (mean 3.53, SD 0.67). The highest-rated item was “Nurses be involved in making policy decisions concerning the hospital support services on which their work depends” (RW = 91.0%), with “Nurses should clarify a physician’s order when they feel it might affect the patient” (RW=

85.3%) ranking third. Overall mean 3.53 (SD 0.67).

Physician authority

Table 5 showed that the dimension “Physician Authority” had a relatively low RW=50.0% (mean 2.00, SD 0.72). The leading items suggested that physicians should be the dominant authority and nurses should carry out physicians’ orders (both RW ~50%). Overall mean 2.00 (SD 0.72).

Table 5. Results related to dimension of nurse autonomy and physician authority-nurses

#	Items	Mean	SD	RW	Ranked
1.	Nurses be accountable to patients for the nursing care they provide.	3.53	0.69	88.3	2
2.	Nurses be involved in making policy decisions concerning the hospital support services upon which their work depends.	3.64	0.81	91.0	1
3.	Nurses should clarify a physician's order when they feel that it might have the potential effects on the patient.	3.41	0.69	85.3	3
All items		3.53	0.67	88.2	-
#	Items	Mean	SD	RW	Ranked
1.	Physicians should be the dominant authority in all health care matters.	1.98	0.97	49.5	2
2.	The primary function of the nurse is to carry out the physician's orders.	2.02	0.70	50.5	1
All items		2.00	0.72	50.0	-

Data are expressed as average scores for continuous variables and as (%) percentages for different categorical variables. Abbreviations: WR: Relative Weight; SD: Standard deviation.

Discussion

This study aimed to assess nurses' perceptions and attitudes toward nurse-physician (N-P) collaboration in emergency departments (EDs) within governmental hospitals in Palestine. The findings align with previous studies conducted in Iran (12), Egypt (13), and Saudi Arabia (14), highlighting the global significance of nurse-physician collaboration. Over recent years, there has been sustained interest in improving N-P collaboration as it is considered a crucial factor in enhancing healthcare quality and patient outcomes (7). Effective interdisciplinary collaboration is essential for improving communication, reducing medical errors, and optimizing patient care (15).

Several studies have reported positive attitudes toward N-P collaboration. For example, research conducted among nurses in Johannesburg intensive care units (ICUs) indicated a favorable perception of collaborative practices (16). Similar findings were reported in studies using the Jefferson Scale of Attitudes toward Physician-Nurse Collaboration (JSAPNC), demonstrating that nurses generally hold positive views regarding interprofessional teamwork (17-19). However, other studies have reported moderate attitudes toward collaboration, such as research in Iran (18). Workplace dynamics appear to play a significant role in shaping these perceptions; higher levels of collaboration are typically observed in high-intensity environments such as EDs and ICUs, where interprofessional interactions are frequent and essential (19).

The findings indicate a high level of shared education and collaboration in EDs from the nurses' perspective. This aligns with the study by Pakpour et al. (20), which emphasized that shared education is a fundamental component of N-P collaboration. Integrating interprofessional education into medical and nursing curricula fosters a deeper understanding of each profession's roles and responsibilities, ultimately strengthening collaboration (7). Ghadery (21) similarly reported that nurses with more exposure to interprofessional education exhibited more positive attitudes toward teamwork. The importance of shared education

has been reinforced by previous research, demonstrating that nurses often report higher levels of agreement with the need for shared learning experiences compared to physicians (14, 22). One possible explanation for this trend is that nurses, particularly in hierarchical healthcare systems, view interprofessional education as a means of achieving professional recognition and parity with physicians (23).

The results demonstrate a strong perception of responsibility and role clarity among nurses in EDs. Similar findings have been reported in a previous study, where nurses recognized their critical role in patient-centered care, particularly in the psychosocial and educational aspects of healthcare (24). However, discrepancies often exist between nurses' and physicians' perspectives on role delineation, with physicians sometimes underestimating nurses' contributions to holistic care (21). The organizational structure and the prevailing medical hierarchy may limit nurses' ability to exercise their full scope of practice, thereby influencing their perceptions of role-based collaboration (25). Studies suggest that increasing organizational support for nursing autonomy could enhance the quality of N-P collaboration by reinforcing the complementary nature of both professions (14-17).

Nurses in this study reported a high level of professional autonomy in EDs. However, literature suggests that autonomy varies significantly across healthcare settings. Aghamohammadi et al. (12) found that most nurses perceived their professional autonomy as moderate, while Balasi et al. (26) reported similar findings among Iran emergency nurses. Conversely, research from the United States indicates higher levels of nursing autonomy, potentially due to differences in legal frameworks and professional recognition (27). Factors such as hierarchical physician dominance and excessive workloads continue to challenge nurses' autonomy in many healthcare systems (28). Despite these challenges, studies have highlighted that strong N-P collaboration can positively impact nurses' clinical autonomy, reinforcing the importance of fostering interprofessional teamwork (29).

The study findings indicate a low level of physician authority in EDs from the nurses' perspective, suggesting a shift toward a more balanced collaborative relationship. This is consistent with research by Alsallum et al. (14), which found that approximately 50% of nurses disagreed with the notion that physicians should hold dominant authority in all healthcare matters. Similarly, a study in the United States (30), reported that nurses increasingly view themselves as equal partners in patient care rather than subordinates. Aghamohammadi et al. (12) also reported low scores for physician dominance, further supporting the argument for a more egalitarian healthcare model. However, power imbalances persist in many healthcare settings, with administrative structures often reinforcing physician authority over nurses (6). El-Hanafy (13) highlighted that more than half of nurses reported dissatisfaction with administrative support in N-P collaboration, indicating the need for systemic changes to promote equitable professional relationships.

Study limitations and recommendations

This study has several limitations. Firstly, only nurses working in EDs were included, and perspectives from other departments were not considered. Future studies should expand the sample to include nurses from various hospital units to provide a more comprehensive understanding of N-P collaboration. Secondly, physician perspectives were not assessed, limiting the study's ability to capture a holistic view of interprofessional collaboration. Further research should incorporate both nurses' and physicians' viewpoints to identify potential discrepancies and areas for improvement. Additionally, qualitative approaches such as in-depth interviews and focus group discussions could provide deeper insights into the underlying factors influencing N-P collaboration.

Conclusion

The findings indicate a high level of N-P collaboration in EDs within governmental hospitals in Gaza, as perceived by nurses. The results highlight the positive attitudes of nurses

toward interprofessional teamwork, particularly in shared education, role responsibility, and nurse autonomy. However, challenges related to physician authority and organizational support persist. Continuous efforts by nurse managers and medical directors to strengthen collaboration, foster interprofessional education, and integrate physician perspectives are recommended. Future research should explore strategies to enhance interdisciplinary collaboration and improve patient care outcomes in diverse healthcare settings.

Availability of data and materials

The datasets used and/or analyzed during the current study are available from the corresponding author on reasonable request.

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Conflict of interest

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Nurse-physician collaboration

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