Barriers to Interprofessional Collaboration among Nurses at Selected Hospital, Ajman, UAE

Danya Yakoub[1] , Muhra Alblooshi[1], Seham Alhosani[1]
Beryl Juliet Sam [2] & Thushara Sekhar [3]

[1]*BSN Students, CoN, Gulf Medical University, Ajman, UAE*
[2]*Assistant Professor & Corresponding Author, CoN, Gulf Medical University, Ajman, UAE*
[3]*Lecturer, CoN, Gulf Medical University, Ajman, UAE*

Dr. Beryl Juliet Sam

Assistant Professor & Corresponding Author,
Mail ID for correspondence: beryljsam@gmail.com

ABSTRACT
Background:

Interprofessional collaboration (IPC) is crucial in healthcare delivery, promoting effective patient care and improved outcomes. However, challenges such as insufficient support, communication issues, and a lack of attention hinder IPC effectiveness, particularly among nurses. In the United Arab Emirates (UAE), where IPC is gaining traction, barriers exist that impede collaborative practice. This study aimed to assess the barriers to IPC among nurses at a selected hospital in Ajman, UAE. A scoping review revealed gaps in IPC guidelines, while a study in Ethiopia identified inadequate support as a key barrier. Additionally, a review in Oman highlighted the impact of the nurse work environment on IPC. This quantitative descriptive study collected data from Registered Nurses at Thumbay University Hospital, Ajman. Ethical approval was obtained, and data were collected using Google Forms. The study included 151 participants, predominantly female (82.8%) with bachelor's degrees (71.5%) and 5-10 years of experience (45.0%). The majority perceived IPC as good (87.4%). The research design employed a quantitative approach with a descriptive study design. The findings will help identify barriers to IPC among nurses in the UAE, contributing to the development of strategies to enhance collaborative practice and improve patient care outcomes.

Objectives:

The study was carried out with the main aim of assessing the barriers to Interprofessional Collaboration among Nurses. And to Associate the barriers to Interprofessional Collaboration among Nurses with their demographic variables.

Materials and Methods:

After prior permissions from all relevant authorities (Medical Director, CNO, Team Leaders & Ward In-charges, adequate explanation regarding the purpose of the study was given to the nurses. Written consent was obtained after which, google forms were shared with them. This study used a quantitative research approach with a descriptive cross sectional design. The data was collected from 151 nurses who were attending at the selected hospital, Ajman, UAE. A demographic questionnaire and the Interprofessional Collaboration Scale were used as research tools.

Major Findings of the Study:

The research highlights a significant barrier between nurses and healthcare professionals. Specifically, 74.2% note that disagreements often go unresolved, and 67.5% report medical staff rarely seek nurses' opinions. Additionally, approximately more than half (51.7%) agree on patient treatment adequacy. Moreover, 72% of allied healthcare professionals are unwilling to discuss their new practices with nurses. These findings underscore challenges in collaboration and communication, suggesting urgent areas for attention. There was a statistically significant association between age and IPC level (p = 0.001). Nurses aged 21-30 and 31-40 years had higher proportions in the "Good IPC" category compared to other age groups.

There was a significant association between gender and IPC level (p = 0.006). Female nurses showed a higher proportion in the "Good IPC" category compared to male nurses.

There was a significant association between position held and IPC level (p = 0.039). Nurses in the role of Registered Nurse had a higher proportion in the "Good IPC" category compared to other positions.

Conclusion:

In conclusion, this study has shown that there was a positive IPC among majority of nurses.

Medical and Nursing heads of the institution must address the barriers that nurses have in relation to Communication, Accommodation, and Isolation. This will help nurses to develop a positive IPC with all other health care personnel in the clinical working environment.

I. Introduction

Interprofessional collaboration is a process involving mutual and active participation among independent professionals. Insufficient professional support, poor interpersonal communication, and a lack of attention given to interprofessional collaborations are the factors that contribute to ineffective nurse-physician collaborations. Interprofessional collaboration (IPC) among healthcare professionals offers appropriate collaborative management for humans[1].

Interprofessional collaboration in the healthcare sector is a critical component for the delivery of effective patient care and improved patient outcomes. This collaboration becomes particularly significant among healthcare professionals such as nurses, who often form the primary point of contact for patients. Policymakers, healthcare managers, clinicians, and practitioners are increasingly recognizing the importance of enhancing these collaborative relationships to establish new and more efficient models of care delivery.[2]

In the United Arab Emirates (UAE), interprofessional collaboration is a relatively new concept, but one that is gaining attraction. However, there are challenges to achieving effective interprofessional collaboration in healthcare settings. These challenges often manifest as barriers, which, if identified and addressed, can significantly improve the overall level of collaboration among healthcare professionals, particularly nurses.[3]

There is a growing body of research that has begun to explore the perspectives of healthcare professionals toward interprofessional collaboration, and the factors that facilitate or hinder it [4]. This study aims to extend this research in the context of a selected hospital in the UAE, with a specific focus on nurses. The goal is to identify barriers to interprofessional collaboration and propose strategies for overcoming these challenges to ultimately enhance patient care delivery and outcomes in the UAE healthcare sector.

Interprofessional collaboration occurs when individuals from various professions work together to achieve common goals. It can also serve as a means for solving a variety of problems and complex issues [5]. The World Health Organization defines this collaboration as the joint effort of health workers from different disciplines, along with patients, families, caregivers, and communities, to deliver high-quality care across various settings [6].

Problem Statement: -

A study to assess the barriers to Interprofessional Collaboration among Nurses in a selected Hospital, UAE.

Objectives:
1- Assess the barriers to Interprofessional Collaboration among Nurses
2- Associate the barriers to Interprofessional Collaboration among Nurses with their demographic variables.

Hypothesis:
$H0_1$: There is no significant association between the barriers of nurses to their Interprofessional Collaboration and their demographic variables.

II. Materials and Methods:

A quantitative research approach was used for this study with a Descriptive design. The Study population were all Registered Nurses working in Thumbay University Hospital, Ajman, UAE. Total Enumeration method was used and all the nurses who fulfilled the Inclusion criteria at Gulf Medical University, Ajman were included in the study within the data collection period. Totally 170 nurses were available out of which 151 participated in the study.

Study instrument & validation procedure:
Section A – Demographic Data of Registered Nurses
Section B – Interprofessional Collaboration Scale
The questionnaire was devised by Chris Kenaszchuck in 2006. It is a standardized tool with a high validity and reliability[7].

Ethical Considerations and Method of data collection:
Ethical approval was obtained from the CRC of College of Nursing and the IRB of Gulf Medical University, the Medical Director of Thumbay University Hospital, the Chief Nursing officer and Ward In-charges. All the participants were explained about the purpose of the study and consent was obtained before proceeding.

III. Results:

Baseline Characteristics of Nursing Students and their Families:
❖ Totally 151 nurses participated in the study. Among them, 69(46%) were between 31-40years, 125(83%) were females, 75(50%) lived in Ajman, 78(52%) were married,108(72%) had BSN Degrees, 94(62%) were Registered Nurses and 68(45%) had 5-10 years of professional experience.

**Findings on Barriers to IPC among Registered Nurses:**
❖ Findings on the mean and standard deviation of each dimension of Inter-professional collaboration among Registered Nurses was presented in each dimension. The mean and Standard Deviation of Communication was 28.139 and 4.081. The mean and Standard Deviation of Accommodation was 28.192 and 4.390. The mean and Standard Deviation of Isolation was 16.695 and 2.886 respectively.
❖ Findings also showed that 10 out of 26 items were related to barriers to Interprofessional collaboration. The nurses felt that disagreements with allied health care professionals often remain unresolved. They also perceived that allied health care professionals will not be willing to discuss their new practices with the nursing staff. These factors were found to be the highest among the barriers.

Table 1: Mean scores of Inter-professional Collaborations (IPC) among Registered Nurses

Dimensions of IPC	Mean	SD
Communication	28.139	4.081
Accommodation	28.192	4.390
Isolation	16.695	2.886
Total	73.026	10.32

Figure 1: Overall Inter-Professional Collaboration (IPC) among Registered Nurses
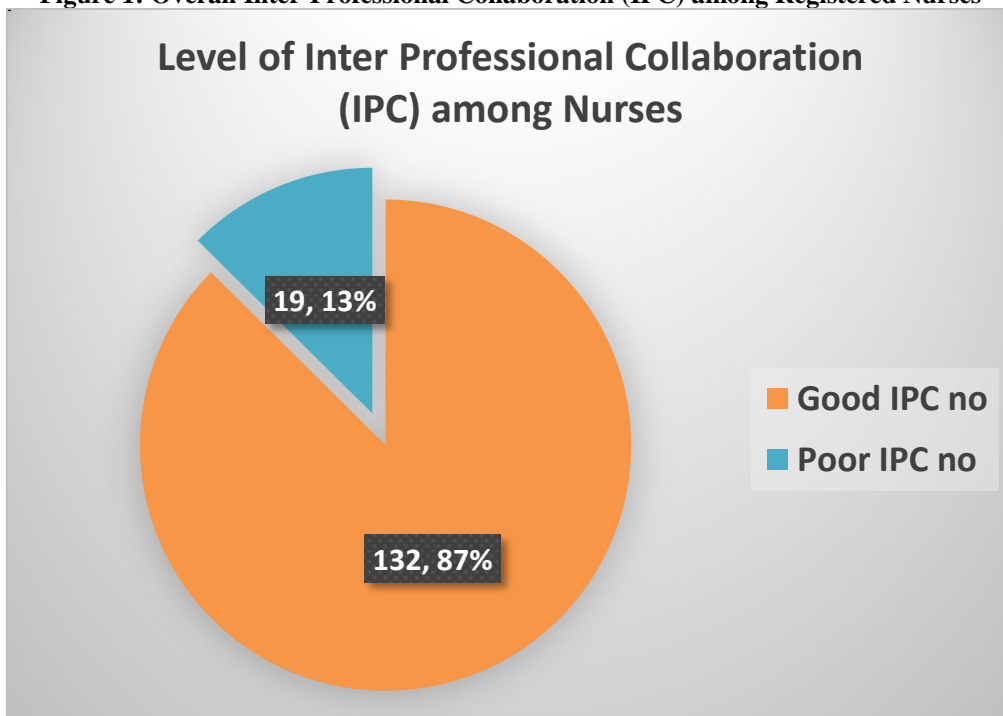
❖ Totally 151 nurses participated in the study. Among them, majority, 132 (87%) registered nurses had good Inter-professional Collaboration whereas, only 19 (13%) had poor IPC.
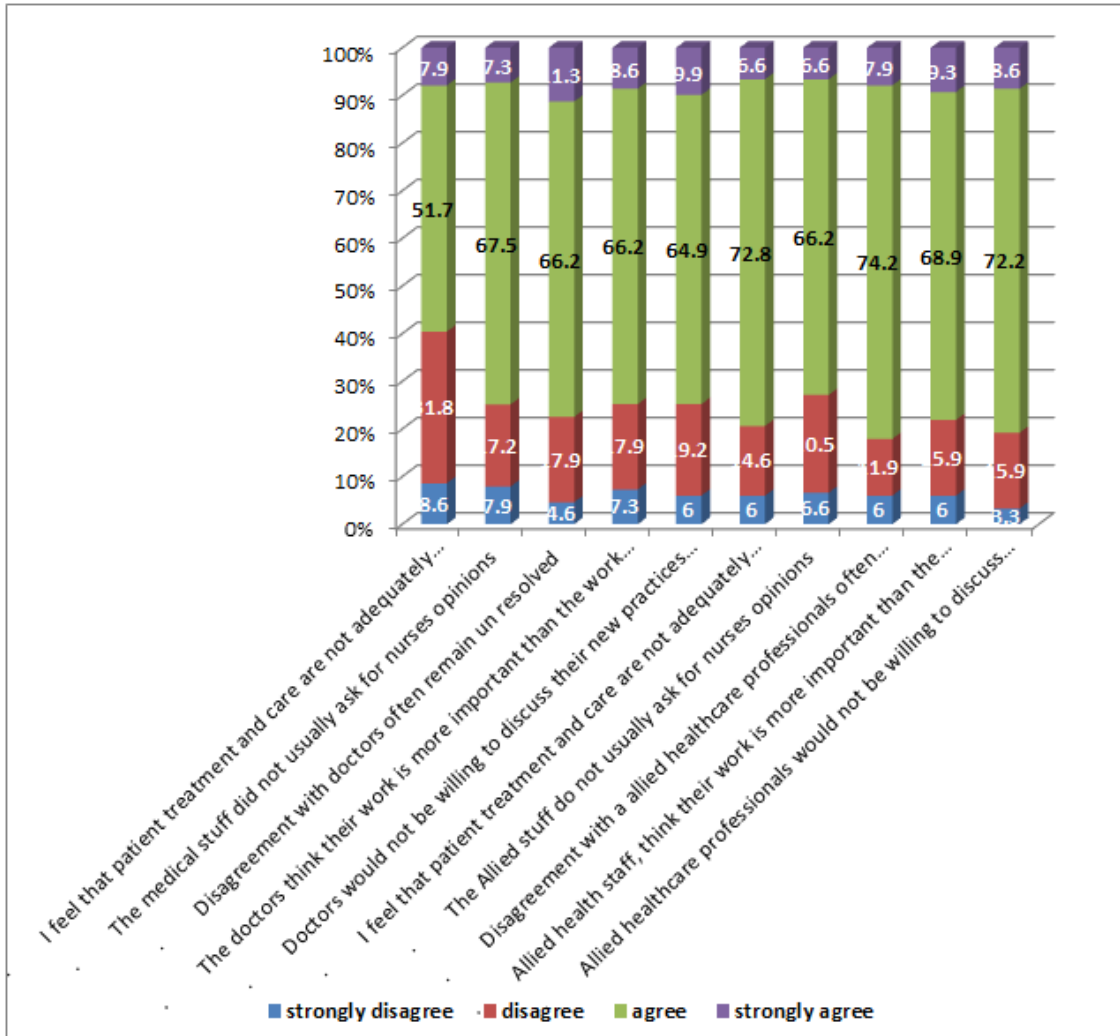
Figure 2: Barriers for Inter Professional Collaboration among Registered Nurses

Table 2: Correlation between total IPC and communication, accommodation, and isolation among the Registered Nurses

Dimensions of IPC	r	p
Communication	0.954	0.001**
Accommodation	0.910	0.001**
Isolation	0.846	0.001**

r= Pearson correlation   ** significant high correlation

Pearson's correlation test was computed to find out the relationship between the 3 dimensions of IPC. Findings revealed that there was a significant correlation between the IPC among registered nurses and all the 3 dimensions like Communication, Accommodation, and Isolation at 0.001 level of significance.

Table 3: Association between the Interprofessional Collaboration among Registered Nurses and their demographic variables.

Personal Characteristics	Poor IPC	Good IPC	Chi Square test	(p)
Age				
• 21-30 years	6(4.0)	51(33.8)	20.192	0.001*
• 31-40 years	8(5.3)	61(40.4)		
• 41-50 years	1(0.7)	18(11.9)		
• 51-60 years	2(1.3)	2(1.3)		
• >60 years	2(1.3)	0		

Gender				
• Male	8(5.3)	18(11.9)	9.444	0.006*
• Female	11(7.3)	114(75.5)		
Emirate of stay				
• Ajman	5(3.3)	70(46.4)	6.090	0.298
• Sharjah	7(4.6)	26(17.2)		
• RAK	0	1(0.7)		
• Dubai	2(1.3)	10(6.6)		
• Umm AL Quwain	3(2.0)	19(12.6)		
• Abu Dhabi	2(1.3)	6(4.0)		
Marital status				
• Married	8(5.3)	70(46.4)		
• Single	10(6.6)	54(35.8)	0.940	0.625
• Divorced-separated	1(0.7)	8(5.3)		
How many children do you have?				
• None	5(3.3)	63(41.7)		
• less than 5	11(7.3)	58(38.4)	3.395	0.183
• More than 5	3(2.0)	11(7.3)		
How many years of experience do you have?				
• Less than 5 years	8(5.3)	48(31.8)	4.132	0.248
• 5-10 years	7(4.6)	61(40.4)		
• 10-15 years	2(1.3)	20(13.2)		
• More than 15 years	2(1.3)	3(2.0)		
What is your latest qualification?				
• Diploma in Nursing	5(3.3)	20(13.2)	11.823	0.008*
• Bachelor's degree	9(6.0)	99(65.6)		
• Master's degree	4(2.6)	13(8.6)		
• PhD in Nursing	1(0.7)	0		
What is the position that you currently hold?				
• Registered Nurse	8(5.3)	86(57.0)		
• Clinical Resource Nurse/ Unit In-charge	3(2.0)	24(15.9)	10.083	0.039*
• Unit / Line Manager	3(2.0)	13(8.6)		
• Nurse Educator	5(3.3)	8(5.3)		
• Deputy Nursing Superintendent/ Administrator	0	1(0.7)		

*Significant (P<0.05).

Chi-Square test revealed that, there was a significant association ($p < 0.05$ level) between the barriers to IPC among Nurses and demographic variables like, their Age, Gender, Qualification and the Current position of the registered nurses held at Thumbay University Hospital, Ajman.

Hence the Null hypothesis Ho1 – There is no Significant Association between the barriers to Interprofessional Collaboration among registered nurses and selected Demographic Variables was accepted.

IV. Discussion

The discussion is based on the research objectives.

The first objective was to Assess the Barriers to Interprofessional Collaboration among Registered Nurses. Findings on the mean and standard deviation of each dimension of Inter-professional collaboration among Registered Nurses was presented in each dimension. The mean and Standard Deviation of Communication was 28.139 and 4.081. The mean and Standard Deviation of Accommodation was 28.192 and 4.390. The mean and Standard Deviation of Isolation was 16.695 and 2.886 respectively. Totally 151 nurses participated in the study. Among them, majority, 132 (87%) registered nurses had good Inter-professional Collaboration whereas, only 19 (13%) had poor IPC.

Pearson's correlation test was computed to find out the relationship between the 3 dimensions of IPC. Findings revealed that there was a significant correlation between the IPC among registered nurses and all the 3 dimensions like Communication, Accommodation, and Isolation at 0.001 level of significance.

A similar study done by Maria and Minecious[8] aimed at assessing satisfaction from collaboration among nursing staff members as well as between nurses and physicians, and to determine factors influencing their collaboration. The data collection was carried out through a self-administered questionnaire, which was developed by the researchers. The participants were 336 nursing staff members working in hospitals in the greater area of Thessaloniki. 87.8% agreed that colleagues in the hospital help one the other, and 76.9% agreed that there is teamwork and collaboration between the various levels of nursing staff. Almost half (50.5%) disagree that no-one does not undermine the efforts of the other.

Many nursing staff members (50.6%) agreed that physicians collaborated very well with them. More than a half of the sample (56%) disagreed that physicians have a complete picture of the activities of a nurse and 57.7% disagreed that physicians underestimate too much the nursing staff. The study concluded that since the nursing work environment has a critical impact on patient safety, nursing staff members and physicians should try to collaborate well and to provide quality services.

Findings also showed that 10 out of 26 items were related to barriers to Interprofessional collaboration. The nurses felt that disagreements with allied health care professionals often remain unresolved. They also perceived that allied health care professionals will not be willing to discuss their new practices with the nursing staff. These factors were found to be the highest among the barriers.

Interprofessional collaboration is a critical aspect of healthcare delivery, aiming to improve patient outcomes through the coordination and integration of care provided by different healthcare professionals. However, despite its importance, there are several barriers that hinder effective interprofessional collaboration among nurses in the current study. These barriers include communication issues within the healthcare team, resistance to change in the organizational setting, unclear understanding of team members' roles and responsibilities, unequal distribution of knowledge among team members, lack of perceived value in contributions from different professions, conflict arising from different approaches to patient care, and absence of clear inter professional collaboration protocols and guidelines.

The Second objective was to check the Association between the Barriers to Interprofessional Collaboration among Registered Nurses and their Demographic Variables. Chi-Square test revealed that, there was a significant association ($p < 0.05$ level) between the barriers to IPC among Nurses and demographic variables like, their Age, Gender, Qualification, and the Current position of the registered nurses held at Thumbay University Hospital, Ajman. Hence the Null hypothesis Ho1 – There is no Significant Association between the barriers to Interprofessional Collaboration among registered nurses and selected Demographic Variables was accepted.

In a similar study done by Ndibu [9], results showed that knowledge integration, team climate and multifocal identification were independently and positively associated with IPC. Any worker given more responsibility and decision-making power over his/her job will produce higher quality work and achieve a higher level of job performance and satisfaction. Professional role characteristics, type of profession, team identification and professional identification have been frequently studied in relation to IPC.

V. Conclusion

This study explored the barriers to Interprofessional Collaboration among registered nurses its association with demographic variables. The findings revealed that majority of the nurses had a good IPC. However, few areas of barriers were noticed which needs attention. Overall, these findings underscore the importance of understanding students' perceptions in the implementation of flipped classroom strategies. By tailoring instructional methods to align with students' preferences and needs, educators can optimize the effectiveness of flipped classroom initiatives and enhance student engagement and learning outcomes in nursing education.

This study has implications for Nursing Education and Nursing Research.

Study Limitations

* It was challenging to motivate students to respond to the survey
* Study was limited to only the College of Nursing

Recommendations for Further Research

* A similar study can be conducted using more samples and multiple settings.
* A similar study can be done using a true experimental research design after delivering a teaching program on IPC
* An interdisciplinary comparative study may yield interesting findings.

References:

[1]. Jabbar S, Noor HS, Butt GA, Zahra SM, Irum A, Manzoor S, Mukhtar T, Aslam MR. A Cross-Sectional Study on Attitude and Barriers to Interprofessional Collaboration in Hospitals Among Health Care Professionals. Inquiry. 2023 Jan-Dec; 60:469580231171014. doi: 10.1177/00469580231171014. PMID: 37162170; PMCID: PMC10184235.

[2]. Degu, T., Amsalu, E., Kebede, A. et al. Inter-professional collaboration and associated factors among nurses and physicians in specialized public hospitals, the northwest, Ethiopia: mixed method multi-centered cross-sectional study. BMC Health Serv Res 23, 286 (2023). https://doi.org/10.1186/s12913-023-09200-5

[3]. Martin J, Ummenhofer W, Manser T, Spirig R. Interprofessional collaboration among nurses and physicians: Making a difference in patient outcome. Swiss Medical Weekly [Internet]. 2010 Sep 1; Available from: https://smw.ch/article/doi/smw.2010.13062/

[4]. Schmiedhofer M, Derksen C, Keller FM, Diet JE, Häussler F, Strametz R, et al. Barriers and facilitators of safe communication in obstetrics: Results from qualitative interviews with physicians, midwives, and nurses. Int J Environ Res Public Health [Internet]. 2021;18(3):915. Available from: http://dx.doi.org/10.3390/ijerph18030915.

[5]. Green BN, Johnson CD. Interprofessional collaboration in research, education, and clinical practice: working together for a better future. J Chiropr Educ. 2015 Mar;29(1):1-10. doi: 10.7899/JCE-14-36. Epub 2015 Jan 16. PMID: 25594446; PMCID: PMC4360764.

[6]. Holly W, Phyllis N, Samuel F, Kun H, Christopher M, Trent L. A systematic meta-review of systematic reviews about interprofessional collaboration: facilitators, barriers, and outcomes. Journal of Interprofessional Care [Internet]. 2022;36(5):735–49. Available from: http://dx.doi.org/10.1080/13561820.2021.1973975.

[7]. Kenaszchuk C, Reeves S, Nicholas D, Zwarenstein M. Validity and reliability of a multiple-group measurement scale for interprofessional collaboration. BMC Health Serv Res. 2010 Mar 30;10:83. doi: 10.1186/1472-6963-10-83. PMID: 20353577; PMCID: PMC2867963.

[8]. Maria T, Minacious P. Interprofessional collaboration and collaboration among nursing staff members in Northern Greece. 2008.

[9]. Ndibu Muntu Keba Kebe N, Chiocchio F, Bamvita J-M, Fleury M-J. Variables associated with interprofessional collaboration: a comparison between primary healthcare and specialized mental health teams. BMC Fam Pract [Internet]. 2020;21(1). Available from: http://dx.doi.org/10.1186/s12875-019-1076-7