Int. j. adv. multidisc. res. stud. 2026; 6(4):441-445

Received: 21-05-2026
Accepted: 02-07-2026

International Journal of Advanced Multidisciplinary Research and Studies

ISSN: 2583-049X

Interpersonal Determinants of Individuals in Interprofessional Collaborative Practices in Hospitals

[1] Yolanda, [2] Hajjul Kamil, [3] Darmawati

[1] Master of Nursing Program, Faculty of Nursing, Universitas Syiah Kuala, Banda Aceh, Indonesia
[2] Department of Nursing Management, Faculty of Nursing, Universitas Syiah Kuala, Banda Aceh, Indonesia
[3] Department of Maternity Nursing, Faculty of Nursing, Universitas Syiah Kuala, Banda Aceh, Indonesia

Corresponding Author: **Darmawati**

Abstract

Interprofessional collaboration (IPC) in hospitals continues to face numerous challenges that adversely affect the quality of patient care. Interpersonal factors, including effective communication, mutual trust, and respect among healthcare professionals, have been identified as key determinants of successful interprofessional collaboration. Therefore, further investigation is needed to better understand the role of interpersonal factors in supporting collaborative practice within hospital settings. This study aimed to analyze the interpersonal determinants influencing individual interprofessional collaborative practice. A quantitative cross-sectional study was conducted among 199 healthcare professionals, including physicians, nurses, pharmacists, and dietitians, working at the Aceh Government Mother and Child Hospital. Participants were recruited using a total sampling technique. Interprofessional collaborative practice was assessed using the Assessment of Interprofessional Team Collaboration Scale II (AITCS-II), while interpersonal determinants were measured using an interpersonal determinants questionnaire. Data were analyzed using the chi-square test and multivariable logistic regression. The findings demonstrated that shared values and beliefs ($p < 0.001$; OR = 4.984), motivation ($p < 0.001$; OR = 3.961), role clarity ($p = 0.043$; OR = 2.946), and effective communication ($p = 0.002$; OR = 4.925) were significantly associated with interprofessional collaborative practice. Among these factors, shared values and beliefs emerged as the strongest predictor of effective interprofessional collaboration. Hospitals should implement regular interprofessional collaboration training programs and workshops while fostering an organizational culture that emphasizes equality, mutual respect, and patient safety. Such initiatives may strengthen trust among healthcare professionals, enhance appreciation of each profession's expertise, and ultimately improve the effectiveness of interprofessional collaborative practice.

Keywords: Interpersonal Determinants, Interprofessional Collaboration, Healthcare Professionals, Collaborative Practice, Hospital

1. Introduction

The World Health Organization (WHO) has identified interprofessional collaboration (IPC) as an effective strategy for improving health outcomes, reducing healthcare costs, and enhancing the overall quality and value of healthcare services [1]. Within the nursing context, interdisciplinary collaboration has become increasingly important because nurses play a central role in coordinating patient care. The growing complexity of healthcare needs requires nurses to work collaboratively with other healthcare professionals to ensure the continuity, safety, and effectiveness of patient care [2, 4].

Despite the well-established benefits of IPC, its implementation in clinical practice remains suboptimal. Commonly reported barriers include limited time, inadequate training, unclear professional roles and responsibilities, concerns regarding professional identity, and ineffective communication [3]. A study by Degu *et al.* [5] found that nurse–physician collaboration in African healthcare settings remains ineffective due to insufficient professional support, poor interpersonal communication, and inadequate institutional attention to interprofessional collaboration. Similarly, Endris *et al.* [6] reported that nurses engaged in collaborative practice more frequently than physicians. This difference was attributed to variations in educational background, clinical decision-making ability, interpersonal competence, and teamwork skills between the two professions. The study further demonstrated that nurses reported a higher frequency of nurse–physician collaboration (46.6%) than physicians (39.9%).

Likewise, Muusse *et al*. [7] emphasized that communication patterns substantially influence interprofessional collaboration, with limited communication representing one of the principal barriers to effective teamwork.

In Indonesia, the Minister of Health Regulation No. HK.01.07/MENKES/1596/2024 concerning Hospital Accreditation Standards, particularly the chapter on Access to Care and Continuity of Care, emphasizes that hospital services should be delivered according to the principles of Patient-Centered Care (PCC). This approach is operationalized through Integrated Patient Care, which requires coordinated services across multiple healthcare units and levels of care. Consequently, the role of the Patient Care Manager is essential in facilitating integrated care through effective communication among healthcare professionals.

Nevertheless, interprofessional collaboration in Indonesian hospitals remains inadequate. Individual-level barriers include limited self-confidence, insufficient flexibility, lack of trust, poor teamwork, and ineffective communication. At the system level, barriers include unclear policies, inadequate leadership, and insufficient organizational support, whereas organizational barriers encompass limited training opportunities, unclear standard operating procedures, and poorly implemented collaborative decision-making processes [8, 9]. Wahyuni *et al*. [10] reported that communication among healthcare professionals at a regional public hospital in Banda Aceh had not effectively supported interprofessional collaboration. Similarly, Azzahra *et al*. [11] found that interpersonal factors demonstrated the strongest association with interprofessional collaborative practice compared with professional, patient-related, and organizational factors. Consistent with these findings, Kamil *et al*. [12] reported that professional, patient-related, interpersonal, and organizational factors were all significantly associated with IPC practice, with interpersonal factors emerging as the most influential determinant.

Interpersonal factors including effective communication, mutual trust, shared respect, and collaborative attitudes are fundamental to successful interprofessional collaboration. Positive attitudes and collaborative behaviors among healthcare professionals have been shown to improve team productivity and job satisfaction [13]. Previous studies have identified several interpersonal dimensions that influence collaboration in primary healthcare and public health settings, including mutual trust, shared values and beliefs, clearly defined professional roles, effective communication, and shared decision-making. Among these factors, effective communication has consistently been recognized as the cornerstone of successful interpersonal and interprofessional interactions [14]. Furthermore, team members who develop stronger interpersonal relationships are more likely to trust one another and actively engage in collaborative practice, thereby strengthening teamwork and improving patient care outcomes [15].

2. Methods

This study employed a descriptive cross-sectional design and was conducted among 200 healthcare professionals involved in patient care at a district hospital in Indonesia. A total sampling technique was used to recruit participants. Of the 200 distributed questionnaires, 199 were returned and deemed eligible for analysis, resulting in a response rate of 99.5%.

The demographic characteristics collected included age, gender, educational level, employment status, and length of employment at the hospital.

Interprofessional collaborative practice was assessed using the Assessment of Interprofessional Team Collaboration Scale II (AITCS-II), while interpersonal determinants were measured using an interpersonal determinants questionnaire. Both instruments demonstrated acceptable internal consistency, with Cronbach's alpha coefficients of 0.958 and 0.973, respectively, and have been reported to possess good discriminant and convergent validity.

Data were collected using printed self-administered questionnaires between March and April 2026. Ethical approval was obtained prior to data collection, and permission was granted by the participating institution. The questionnaires were distributed by the researchers after participants provided informed consent to participate in the study.

3. Results

A total of 199 healthcare professionals participated in this study. The majority of respondents were female (74.9%), held a Diploma III qualification (39.7%), and were employed as Government Employees under Employment Agreements (PPPK) (70.9%). The mean age of the respondents was 38.3 years (SD = 6.50), while the mean length of employment at the hospital was 6.61 years (SD = 4.93).

Demographic characteristics	f	%
Gender		
Male	50	25,1
Female	149	74,5
Educational level		
Diploma III	79	39,7
Diploma IV	38	19,1
Bachelor	26	13,1
Professional	43	21,6
Specialist	13	6,5
Employment status		
Civil servant	58	29,1
Government Employees with Employment Agreements (PPPK)	141	70,9

Independent variables that fulfilled the selection criteria in the bivariate analysis were included simultaneously in a multivariable logistic regression model using the enter method to determine the independent interpersonal factors associated with interprofessional collaborative practice. The findings of the multivariable analysis are summarized in table:

No.	Independent Variable	*P*	*OR*	95% *CI*
1	Shared values and beliefs	< 0,001	5,238	2,221 – 12,355
2	Motivation	< 0,001	4,425	1,948 – 10,052
3	role clarity	0,037	3,062	1,069 – 8,775
4	effective communication	0,005	4,390	1,570 – 12,274
5	Trust and mutual respect	0,066	2,352	0,945 – 5,850

The first multivariable logistic regression model showed that four interpersonal factors were independently associated with interprofessional collaborative practice ($p < 0.05$). Shared values and beliefs emerged as the strongest predictor (OR = 5.238), followed by motivation (OR = 4.425), effective communication (OR = 4.390), and role clarity (OR

= 3.062). Trust and mutual respect did not reach statistical significance (p = 0.066) and was therefore excluded from the final model.

The final multivariable logistic regression analysis was conducted to identify the most influential predictors of interprofessional collaborative practice after removing the non-significant variable. The results of the final regression model are presented in table:

No.	Independent Variable	*p*	OR	95% CI
1	Shared values and beliefs	< 0,001	4,984	2,146 – 11,578
2	Motivation	< 0,001	3,961	1,778 – 8,825
3	role clarity	0,043	2,946	1,037 – 8,370
4	effective communication	0,002	4,925	1,813 – 13,378

The final multivariable logistic regression model identified shared values and beliefs as the most influential interpersonal determinant of interprofessional collaborative practice. After adjustment for other interpersonal factors, healthcare professionals with positive shared values and beliefs had 4.984-fold higher odds of demonstrating effective interprofessional collaborative practice compared with those who reported less favorable shared values and beliefs (p < 0.001; OR = 4.984) (Table 3).

4. Discussion

The findings of this study demonstrate that individual interpersonal factors among healthcare professionals significantly influence the implementation of interprofessional collaborative practice. Specifically, shared values and beliefs (83.8%, p < 0.001), motivation (83.7%, p = 0.001), role clarity (80.7%, p = 0.005), and effective communication (81.8%, p < 0.001) were significantly associated with interprofessional collaborative practice. These findings suggest that supportive interpersonal characteristics are essential for fostering effective collaboration among healthcare professionals.

These results are consistent with those reported by Wang *et al*. [16], who found that successful interprofessional collaboration is strongly associated with clinical pharmacists possessing effective communication skills and physicians demonstrating trust in the professional competence and values of other healthcare professionals. Furthermore, participants in their study identified motivation as one of the most influential factors facilitating interprofessional collaboration.

Previous studies have similarly highlighted the importance of organizational support for professional development, recognition, motivation, shared responsibility, and early conflict management in enhancing professional satisfaction, mutual understanding, and collaborative practice [17, 18]. Likewise, Vaseghi *et al*. [19] identified interprofessional communication, transparency of professional roles and responsibilities, and teamwork as essential competencies for effective interprofessional collaboration. Muusse *et al*. [7] further reported that communication, role clarity, information sharing, organizational support, and shared interprofessional goals are critical determinants of collaborative practice in multifactorial fall-prevention interventions. Similarly, Rawlinson *et al*. [20] identified inadequate time, insufficient training, and unclear professional roles as major barriers to effective interprofessional collaboration.

In contrast, personality type (76.7%, p = 0.555) and trust and mutual respect (85.1%, p = 0.095) were not significantly associated with interprofessional collaborative practice in the present study. This finding is consistent with the meta-analysis conducted by Moloro *et al*. (2025), which reported that individual attitudes toward collaboration were not significantly associated with collaborative patient care (OR = 1.13, 95% CI: 0.13–9.89). Hierarchical relationships within healthcare organizations continue to shape how respect is expressed and how care values and goals are negotiated among professionals. Such professional hierarchies influence the development of professional identity and role conceptualization and may constitute significant barriers to collaborative practice. In particular, some healthcare professionals perceived that physicians and nurses lacked confidence in each other's competencies and expertise, thereby reinforcing professional boundaries that hinder effective collaboration across healthcare settings [21, 22].

The multivariable logistic regression analysis identified shared values and beliefs as the strongest predictor of interprofessional collaborative practice at the Aceh Government Mother and Child Hospital (p < 0.001; OR = 4.984). Healthcare professionals who reported positive shared values and beliefs were nearly five times more likely to engage in effective interprofessional collaborative practice than those with less favorable interpersonal values and beliefs. These findings support the work of Berger and Krug [23], who emphasized that professional education should promote rational thinking and individual cognition, with shared values and beliefs serving as the foundation for negotiation and collaborative decision-making.

The present findings also provide empirical support for Imogene King's Goal Attainment Theory in explaining the relationship between shared values and beliefs and interprofessional collaborative practice. King's three interacting systems the personal, interpersonal, and social systems operate simultaneously, with individual ethical values, perceptions, and beliefs functioning as fundamental components of the personal system that motivate healthcare professionals to collaborate. The internalization of positive professional values may have been reinforced by the demographic characteristics of the study participants, whose mean age (38.3 years) and average length of professional experience (6.61 years) indicate a relatively mature and experienced workforce. From King's theoretical perspective, greater professional maturity strengthens self-concept and individual perceptions, thereby facilitating the adoption of collaborative values such as integrity, commitment, and professional responsibility. These findings are consistent with Joseph *et al*. (2021), who reported that nurses in more mature stages of their careers demonstrate greater psychological stability and a stronger internal locus of control, both of which promote professional accountability and goal-oriented collaborative behaviors.

Within King's interpersonal system, these internalized personal values facilitate dynamic interactions among healthcare professionals through effective communication and the development of mutual trust. The educational background of the participants, the majority of whom held diploma, professional, or specialist qualifications, together with stable employment status, likely contributed to a sense of professional security, enabling more equal, confident, and assertive interprofessional communication. These interpersonal transactional processes provide a theoretical

explanation for the present findings, whereby healthcare professionals with stronger shared interpersonal values and beliefs were 4.984 times more likely to demonstrate effective interprofessional collaboration. This interpretation is further supported by previous studies applying King's conceptual framework, which have shown that adequate educational preparation, clinical maturity, clearly defined professional roles, and employment stability function as key facilitators of effective interprofessional communication, reduce hierarchical barriers, and promote shared perceptions necessary to achieve optimal patient outcomes within complex hospital systems.

In the interpersonal system dimension, effective communication acts as the primary axis driving the interaction, transaction, and coping processes between PPA. Through a structured verbal and nonverbal exchange of information, such as using the SBAR (Situation, Background, Assessment, Recommendation) method, message distortion and clinical errors can be avoided. Open and reciprocal communication at the interpersonal level triggers transactions, namely the meeting point where nurses, doctors, and other healthcare professionals reach clinical consensus for patient safety. Meanwhile, in the social system dimension, represented by the organizational structure of the Aceh Government Maternity and Child Hospital, effective communication is influenced by the dynamics of the work environment, including clarity of authority, status, and the availability of recording systems such as the Integrated Patient Progress Note (CPPT).

A supportive social system will facilitate legal and assertive communication flows, reduce power imbalances, and eliminate conventional hierarchical barriers. Thus, the harmonious integration of communication skills in the personal system, transparency of interactions in the interpersonal system, and a climate of openness in the social system are absolute determinants of optimal interprofessional collaboration.

The conceptual theoretical basis of King's three systems of effective communication is strongly empirically confirmed through the demographic characteristics of the respondents in Table 4.1 above. The results of the demographic data analysis indicate that the average age of PPA is in the mature range (Mean = 38.3 years) with adaptive clinical experience (Mean = 6.61 years). Based on King's Theory perspective, this chronological maturity and length of service strengthen the stability of the personal system, where PPA with longer work experience tend to have better emotional stability and resilience, thus being able to avoid ethical dilemmas and communication barriers when facing critical situations. This condition is linearly supported by the educational background of the respondents in Table 4.1, which is dominated by diploma levels up to professional and specialist levels at 28.1%. This higher level of education academically equips PPA with team communication competencies and standardized conflict resolution methods. Coupled with the certainty of employment status, the majority of which are PPPK (70.9%) and PNS (29.1%), these characteristics provide a sense of professional security within the hospital's social system. This sense of security encourages the PPA, who are predominantly female at 74.9%, to conduct interprofessional communication assertively, equally, and confidently without feeling inferior to other professions. The alignment of these demographic and theoretical factors reflects the statistical findings in this study, where of the 176 PPA who carried out effective communication, the absolute majority, namely 144 PPA (81.8%) succeeded in carving out good interprofessional collaboration practices significantly with a p value < 0.001.

5. Conclusions

There is an influence of value and belief factors (p = <0.001), motivation factors (p = 0.001), role clarity factors (p = 0.005), effective communication factors (p = <0.001) with interprofessional collaboration practices. There is no influence of personal type factors (p = 0.555) and trust and respect factors (p = 0.095) with interprofessional collaboration practices at the Aceh Government Mother and Child Hospital. The most dominant variables influencing interprofessional collaboration practices are value and belief factors. Conducting regular interprofessional collaboration training and workshops, instilling a work culture that emphasizes equality, mutual respect, and a focus on patient safety, developing a code of ethics or guidelines for interprofessional collaboration.

6. References

1. Goldsberry JW. Advanced practice nurses leading the way: Interprofessional collaboration. Nurse Educ Today. 2018; 65:1-3.
2. WHO. Interprofessional Collaborative Practice in Primary Health Care: Nursing and Midwifery Perspectives Six Case Studies. Hum Resour Heal Obs [Internet]. 2013; 13:1-18. Available from: https://apps.who.int/iris/handle/10665/120098
3. Huber C. Interprofessionelle Zusammen - arbeit in der Gesundheitsversorgung. 2022; 111(1):3-4.
4. Moloro AH, Sabo KG, Lahole BK, Wengoro BF, Mare KU. Prevalence of interprofessional collaboration towards patient care and associated factors among nurses and physician in Ethiopia, 2024: A systematic review and meta-analysis. BMC Nurs. 2025; 24(1).
5. Degu T, Amsalu E, Kebede A, Adal O. 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 [Internet], Mar 27, 2023; 23(1):286. Available from: https://bmchealthservres.biomedcentral.com/articles/10.1186/s12913-023-09200-5
6. Endris Y, W/Selassie M, Edmealem A, Ademe S, Yimam W, Zenebe Y. Nurse-Physician Inter-Professional Collaboration and Associated Factors at Public Hospitals in Dessie City, Amhara, Northeastern Ethiopia, 2021. J Multidiscip Healthc [Internet], Aug 2022; 15:1697-708. Available from: https://www.dovepress.com/nursephysician-inter-professional-collaboration-and-associated-factors-peer-reviewed-fulltext-article-JMDH
7. Muusse JSC, Zuidema R, Van Scherpenseel MC, Velde SJ. Influencing factors of interprofessional collaboration in multifactorial fall prevention interventions: A qualitative systematic review. BMC Prim Care [Internet]. 2023; 24(1):1-15. Available from: https://doi.org/10.1186/s12875-023-02066-w
8. Keumalasari K, Yetti K, Hariyati RTS. Penerapan Model Kolaborasi Interprofesional dalam Upaya Meningkatkan Keselamatan Pasien: A Systematic Review. REAL Nurs J. 2021; 4(2):65.

9. Darmawan Y, Suhoyo Y, Effendy C. Faktor Pendukung dan Penghambat Pelaksanaan Interprofessional Collaborative Practice (Ipcp) di Rumah Sakit Jejaring Pendidikan Dalam Lingkup Academic Health System (Ahs) di Daerah Istimewa the Supporting and Inhibiting Factors of Interprofessional Col, 2023, 40-41.
10. Wahyuni S, Lestari ND, Syahrizal D. Communication of Professional Caregivers in Establishing Interprofessional Collaboration at Meuraxa Hospital, Banda Aceh. Indones J Heal Adm. 2021; 9(2):110-123.
11. Azzahra Y, Kamil H, Saputra I. Determinants of Interprofessional Collaboration Practices at Pidie Regency Regional Hospital, Indonesia. Int J Adv Multidiscip Res Stud. 2024; 4(3):1006-1009.
12. Kamil H, Fuad M, Asnawi A. Determinan Praktik Interprofessional Collaboration di Rumah Sakit Umum Daerah Dr. Zainoel Abidin Banda Aceh. J Med Sci [Internet], Apr 29, 2025; 6(1):1-11. Available from: https://rsudza.acehprov.go.id/publikasi/index.php/JMS/article/view/216
13. Ansa BE, Zechariah S, Gates AM, Johnson SW, Heboyan V, De Leo G. Attitudes and behavior towards interprofessional collaboration among healthcare professionals in a large academic medical center. Healthc. 2020; 8(3).
14. Valaitis RK, Mara LO, Wong ST, Macdonald M, Murray N. Strengthening primary health care through primary care and public health collaboration: The in fluence of intrapersonal and interpersonal factors, 2018, 378-391.
15. WHO. Framework for Action on Interprofessional Education & Collaborative Practice Health Professions Networks Nursing & Midwifery Human Resources for Health, 2010.
16. Wang Y, Wan Q, Guo J, Jin X, Zhou W, Feng X, *et al*. The influence of effective communication, perceived respect and willingness to collaborate on nurses' perceptions of nurse-physician collaboration in China. Appl Nurs Res [Internet], Jun 2018; 41:73-79. Available from: https://linkinghub.elsevier.com/retrieve/pii/S089718971730527X
17. Eukubay T, Abate A. Interprofessional collaboration and associated factors among nurses and physicians working at public hospitals in Mekelle city tigray region, North. 2019; 6(5):185-192.
18. Mohammed CA, Chaturvedi A, Kamath MG, Ummer SV, Gagan B. Influential factors affecting perceptions of interprofessional collaboration for advancing health outcomes: Insights and recommendations from an international fellowship program. Clin Epidemiol Glob Heal. 2023; 24:101411.
19. Vaseghi F, Yarmohammadian MH, Raeisi A. Interprofessional Collaboration Competencies in the Health System: A Systematic Review. Iran J Nurs Midwifery Res. 2022; 27(6):496-504.
20. Rawlinson C, Carron T, Cohidon C, Arditi C, Hong QN, Pluye P, *et al*. An Overview of Reviews on Interprofessional Collaboration in Primary Care: Barriers and Facilitators. Int J Integr Care [Internet], Jun 22, 2021; 21(2):32. Available from: https://www.ijic.org/article/10.5334/ijic.5589/
21. Thomas J, Kumar K, Chur-Hansen A. How pharmacy and medicine students experience the power differential between professions: "Even if the pharmacist knows better, the doctor's decision goes." 2021; 16(8). Available from: https://journals.plos.org/plosone/article/authors?id=10.1371/journal.pone.0256776
22. Sabrina H. Interprofessional Collaboration in Addressing Contemporary Health Problems: Analyzing the Factors Inhibiting Interprofessional Health Collaboration, 2024, 1-5.
23. Berger S, Krug K, G. Encountering uncertainty and complexity in decision-making: An observational study of clinical reasoning among medical and interprofessional groups of health care students. J Interprof Care. 2023; 37(2):262-271.