

Original Research Article

Interprofessional Communication and Collaborative Leadership Among Healthcare Workers at the Adolescent Community Health Center, Samarinda

ABSTRACT

Analyzing the relationship between interprofessional communication in health services and collaborative leadership among health workers at the Youth Health Center, Samarinda City, this study employed a quantitative approach with a cross-sectional design. The population consisted of 35 health workers at the Youth Health Center, and a total of 32 respondents participated in the study. Considering the relatively small population size and the inclusion of nearly all eligible participants, the study applied a total sampling approach. Statistical analysis was conducted using Spearman's rank correlation test to examine the relationship between variables. Statistical tests were carried out using the rank spearman to analyze the relationship between two variables. The results of the study obtained a p-value = 0.037 ($p < 0.05$) which indicates a significant relationship between interprofessional communication in health services and collaborative leadership. The Spearman correlation coefficient shows a figure of 0.370 which means the value is positive with sufficient or moderate relationship strength. The results of this study are expected to be useful for all related stakeholders including the Health Office, Youth Health Center, medical personnel, and primary health care providers. Strengthening interprofessional communication in health services and the implementation of collaborative leadership can improve work effectiveness, teamwork and the quality of health services. Interprofessional Communication in Health Services, Collaborative Leadership. Health workers, community health centers.

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INTRODUCTION

Health services currently face multidimensional challenges alongside increasing public demands for high-quality, effective, and efficient care. One key factor in addressing these challenges is strong interprofessional communication among health professionals.¹ Interprofessional

communication not only serves as the foundation for interprofessional collaboration but also directly influences the quality of services delivered to patients.² In this context, a collaborative leadership approach is particularly relevant, as it emphasizes team synergy, participatory decision-making, and strengthened interactions among key stakeholders.²

Collaborative leadership has been shown to have a significant positive impact on healthcare quality, particularly through improved interprofessional coordination and more efficient decision-making processes.³ Previous studies indicate that this approach not only enhances communication among health professionals but also promotes more comprehensive service integration.⁴ However, its effectiveness is highly dependent on organizational support, including adequate resource allocation, continuous training, and the creation of a supportive work environment. In the absence of these enabling factors, interprofessional collaboration is likely to encounter substantial challenges.⁵

However, the implementation of collaborative leadership in primary healthcare facilities such as Community Health Centers still faces various challenges.⁶ In addition, management insufficient rewards and sanctions effective as well as limitations source Power man participate weaken effort collaboration. Therefore, development competence power health and improvement system management become aspect crucial in strengthen collaboration interprofessional.⁶ Communication interprofessional Which effective is element vital in support leadership collaborative.⁷ Previous research proves that that good communication interprofessional at home Sick capable increase coordination , reducing error medical, and produce external maintenance Which more Good.⁷ Findings This relevant in level Community Health Center, in where communication Which harmonious between power health including doctors , nurses , pharmacists and other personnel administration can speed up response to need patient at a time increase accountability service.⁸

Community Health Center chosen as location study Because has show his commitment For give service health quality , which is reflected from various achievement. Compared with Community Health Center Sidomulyo and Community Health Center Mangkupalas , Community Health Center succeed achieve High Accredited status, which shows that they has fulfil standard highest in accreditation service health. Community Health Center this also becomes references main For Integrated Service Posyandu Primary in Samarinda, Which reflect superiority in management program integrated health post innovative.⁹ In the field technology , Community Health Center succeed reach Champion 3 Best City Samarinda through innovation application Electronic Health Logistics Inventory Monitoring System (SMILE) which makes it easier data entry and upgrade efficiency services ⁹. Community Health Centers also show performance superior in support national programs with reach 2nd place in BPJS screening Health, Which show ability management data reliable as well as contribution significant in support system health national.

Although previous studies have examined interprofessional communication and collaborative leadership in relation to healthcare quality, most have focused on hospitals or large healthcare institutions.⁶ Limited evidence exists regarding how these two factors interact specifically at the Community Health Center (CHC) level, particularly in high-performing primary care settings.¹⁰ Given that CHCs serve as the frontline of primary healthcare delivery and often operate with limited resources, understanding these dynamics is both theoretically and practically important. This study addresses this gap by providing empirical evidence on the relationship between interprofessional communication and collaborative leadership within a high-performing CHC. The findings are expected to offer context-specific insights and inform strategies to strengthen team synergy and leadership effectiveness in primary healthcare settings.² This study aimed to analyze the relationship between interprofessional communication and collaborative leadership in Community Health Centers, as well as their impact on service effectiveness and healthcare team performance. Findings This expected No only enrich literature regarding leadership models inclusive in the sector health , but also to be reference for facility other health in optimize collaboration interprofessional. Thus, research This contribute to the improvement quality service sustainable and needs - oriented health public.

METHODS

This study employed an analytic cross-sectional design conducted between 18 February and 5 April 2025. Research This aim For analyze connection between communication interprofessional service health as variables independence and leadership collaborative as variables dependent. Spearman rank correlation test was used for evaluate connection between second variables the.

Population and Samples

This study involved health workers employed at the Community Health Center as the study population, totaling 35 individuals. Given the relatively small population size and the inclusion of nearly all eligible participants, a total sampling approach was applied. A total of 32 health workers

participated in the study. The final sample consisted of 4 general practitioners, 2 dentists, 9 nurses, 2 dental and oral therapists, 6 midwives, 1 pharmacist, 3 pharmacist assistants, 1 public health officer, 1 nutritionist, 1 medical laboratory technologist, 1 medical records officer, and 1 environmental health officer. The inclusion criteria comprised active health personnel working at Community Health Centers who were willing to complete the questionnaire and participate in the study, and who had at least six months of work experience at the respective center. The exclusion criteria included health personnel who were on leave, absent, or otherwise not actively working during the study period, those who had not yet completed a minimum of six months of employment, and employees with temporary daily labor (THL) or outsourced employment status.

Data collection

Data collection was conducted between 18 February and 5 April 2025. Respondents were asked to complete the questionnaire during their available time to ensure that participation did not interfere with their primary duties or working hours at the Community Health Center. Participants were categorized based on their professional background, including general practitioners (n = 4), dentists (n = 2), nurses (n = 9), dental and oral therapists (n = 2), midwives (n = 6), pharmacists (n = 1), pharmacist assistants (n = 3), public health officers (n = 1), nutritionists (n = 1), medical laboratory technologists (n = 1), medical records officers (n = 1), and environmental health officers (n = 1). This distribution ensured proportional representation across the various health professions within the Community Health Center.

Data were collected using a structured questionnaire administered online via Google Forms. Participation in the study was entirely voluntary. Prior to data collection, the research team coordinated with the Community Health Center management to arrange the data collection schedule. Participants were provided with detailed information regarding the study objectives, procedures, and other relevant aspects of the research, including the opportunity to ask questions. Informed consent was obtained from all participants before the questionnaire was completed. The data were subsequently compiled, tabulated, and systematically organized for statistical analysis. Throughout the data collection process, no intervention or external pressure was reported that could have influenced participants' comfort, autonomy, or willingness to participate in the study.

Data Analysis

Spearman's rank correlation test was employed to examine the relationship between interprofessional communication in health services as the independent variable and collaborative leadership as the dependent variable at the Community Health Center. The instrument used to measure interprofessional communication was adapted from Patrícia et al. (10) and consisted of 12 items with a Cronbach's alpha of 0.941, indicating excellent reliability. Collaborative leadership was measured using Juma's questionnaire (5), which included 8 items and demonstrated a Cronbach's alpha of 0.921.

Participants were categorized into four levels (very low, low, high, and very high) based on their total questionnaire scores. On the questionnaire communication interprofessional service health respondents with range scores 12–21 are categorized as "very low", 22–30 as "low", 31–39 as "high", and 40–48 as "very high". Temporary that, on the questionnaire leadership collaborative, respondents with range a score of 8–14 indicates categories "very low", 15–20 "low", 21–26 "high", and 27–32 "very high". Evaluation to second variables the done use scale Likert 1 until 4, Where 1 to "very much not agree", 2 for "no" agree, 3 for "agree", and 4 for "strongly agree". This scale used For measure to what extent respondents give evaluation to communication interprofessional service health and leadership collaborative that they natural in the environment Community Health Center.

Study using two steps analysis, namely analysis univariate For describe characteristics respondents, as well as analysis bivariate using the Spearman correlation test to test connection between communication interprofessional service health and leadership collaborative analysis This focused on leadership collaborative as variables dependent, whereas communication interprofessional service health as variables independent. Steps analysis done use IBM Statistical Package for the Social Sciences (SPSS) version 23.

RESULT AND DISCUSSION

Based on Table 1 above shows that part big respondents man evaluate leadership collaborative in category high, namely as many as 3 respondents (75%), while 1 respondent (25%) rated it very high. Among the respondents women, 9 respondents (32.1%) said leadership collaborative in category high, and 7 respondents (25%) rated it very high. Based on position work, respondents with position nurse evaluate leadership collaborative part big in category tall as many as 3 respondents (33.3%) and the very high category as many as 3 respondents (27.3%). For position midwives, the assessments were very varied, with 1 respondent (16.7%) evaluate very low, respondents (33.3%) evaluate low, 1 respondents (16.7%) rated high, and 2 respondents (33.3%) rated it very high. In terms of education lastly, respondents with vocational degree assesses leadership collaborative in category tall as many as 4 respondents (22.2%) and very high as many as 7 respondents (38.9%). Respondents with bachelor education evaluate leadership collaborative in category tall as many as 7 respondents (53.8%).

Table. 1 Distribution Respondents based on Gender, Position Work and Education to Leadership Collaborative

		Very Low		Low		High		Very High	
		n	%	n	%	n	%	n	%
Gender									
	Male	0	0.0%	0	0.0%	3	75.0%	1	25.0%
	Female	3	10.7%	9	32.1%	9	32.1%	7	25.0%
Position Work									
	Midwife	1	16.7%	2	33.3%	1	16.7%	2	33.3%
	Nurse	0	0.0%	3	33.3%	3	33.3%	3	33.3%
	Health Public	0	0.0%	0	0.0%	1	100.0%	0	0.0%
	Record Medical	0	0.0%	0	0.0%	1	100.0%	0	0.0%
	Dentist	1	50.0%	1	50.0%	0	0.0%	0	0.0%
	Doctor General	1	25.0%	2	50.0%	1	25.0%	0	0.0%
	Pharmacist	0	0.0%	0	0.0%	1	100.0%	0	0.0%
	Assistant Pharmacist	0	0.0%	1	33.3%	1	33.3%	1	33.3%
	Health Environment	0	0.0%	0	0.0%	1	100.0%	0	0.0%
	Assistant Dentist	0	0.0%	0	0.0%	1	50.0%	1	50.0%
	Laboratory	0	0.0%	0	0.0%	1	100.0%	0	0.0%
	Nutrition	0	0.0%	0	0.0%	0	0.0%	1	100.0%
Education									
	High School	0	0.0%	0	0.0%	1	100.0%	0	0.0%
	Vocational	0	0.0%	7	38.9%	4	22.2%	7	38.9%
	Bachelor	3	23.1%	2	15.4%	7	53.8%	1	7.7%

source: Primary data, 2025

Table. 2 Correlation Rank Spearman Based Leadership Collaborative

Table 2: Correlation Rank Spearman Based Leadership Collaborative													
Variables				Leadership Collaborative						P-Value	r		
				Very Low		Low		Tall				Very high	
				N	%	N	%	N	%			N	%
Communication Interprofessional													
	Very	0	0.0%	1	50.0%	1	50.0%	0	0.0%	0.037	0.370		
	Low	0	0.0%	0	0.0%	2	100.0%	0	0.0%				
	Tall	3	15.8%	7	36.8%	6	31.6%	3	15.8%				
	Very	0	0.0%	1	11.1%	3	33.3%	5	55.6%				

source: Primary data, 2025

Based on Table 2, results analysis connection between communication interprofessional service health with leadership collaborative in the Community Health Center show that part big respondents agree that communication interprofessional service health have connection to leadership collaborative, with 7 respondents (31.6%) said in category high. Data analysis shows a p-value of 0.037 ($p < 0.05$) and a coefficient of Spearman Rank correlation as big as 0.370. Therefore, the null hypothesis was rejected and the alternative hypothesis was accepted, indicating a significant positive relationship between interprofessional communication and collaborative leadership.

Discussion

The findings of this study indicate that interprofessional communication plays an important role in supporting collaborative leadership within Community Health Centers. Effective communication not only facilitates interactions among healthcare professionals but also serves as a key driver for improving the quality of patient care. Therefore, the close relationship between these two aspects contributes to the optimization of healthcare service delivery.^{11,12} Previous studies have also demonstrated a strong association between interprofessional communication and collaborative leadership, showing that leaders who adopt a collaborative approach are more likely to create a work environment that fosters open communication and mutual trust among healthcare professionals, including physicians, nurses, and pharmacists.¹³

Interprofessional communication is a key component of effective collaborative leadership. Open and clear communication between member team contribute to the improvement performance team in a way overall, and leader own role important in push as well as look after effective communication said.¹⁴ With create supportive environment exchange good information and collaboration, leaders can strengthen communication interprofessional among member team, which in turn will repair process taking decision And settlement problem.¹⁴ Therefore, communication interprofessional service health and leadership collaborative each other related and contribute to success team in reach objective together.¹⁴

In the organization service health like health centers, lack of communication interprofessional in leadership collaborative can cause consequence Serious, including obstruction channel information clinical, decreasing coordination interprofessional, as well as increasing risk error medical.^{15,16} Strengthen communication structured, power health tends in sectors isolated and fail reach objective team. The impact not only reduce efficiency services, but also endanger safety patients such as case of misinterpretation instructions medical or duplication procedure.¹⁷ Therefore, integration communication interprofessional in leadership collaborative become foundation critical For build system responsive, error, and results-oriented health care optimal patient.^{7,18}

This result suggests that collaborative leadership in primary healthcare settings does not emerge solely from formal authority or structural hierarchy, but is substantially shaped by the quality of everyday professional interactions among health workers. In a Community Health Center context where multidisciplinary professionals operate within limited resources and high service demands effective communication functions as the social infrastructure that enables shared decision-making, mutual trust, and coordinated action. The moderate strength of the association indicates that while communication is a critical driver, leadership collaboration is also influenced by organizational culture, managerial support, and professional maturity. Therefore, strengthening structured interprofessional dialogue, routine case discussions, and psychologically safe communication climates may serve as practical entry points for enhancing collaborative leadership.^{17,18} This synthesis reinforces the

argument that in primary care environments, communication is not merely a technical skill but a strategic leadership asset that shapes team performance and service quality.¹⁹

Another important implication of this study lies in its contribution to strengthening primary healthcare governance, particularly in the context of decentralized health systems such as Indonesia. Community Health Centers operate at the frontline of service delivery, where coordination across diverse professional roles is essential yet often constrained by limited resources and high patient loads(20). The findings of this study suggest that improving interprofessional communication can serve as a low-cost but high-impact strategy to enhance collaborative leadership without requiring major structural reforms.^{21,22} This aligns with broader evidence that emphasizes relational coordination and communication quality as critical determinants of organizational performance in healthcare settings. Therefore, policy interventions focusing on communication training, leadership capacity building, and integrated teamwork models may significantly improve service delivery outcomes, especially in high-performing but resource-constrained primary care facilities.

In addition, this study highlights several important considerations for future research and methodological refinement. The use of a cross-sectional design limits the ability to establish causal relationships between interprofessional communication and collaborative leadership. Longitudinal or mixed-method approaches are recommended to better capture the dynamic and context-dependent nature of team interactions and leadership processes in healthcare environments. Furthermore, the relatively small sample size and single-site setting may limit generalizability, although the study provides valuable context-specific insights.

Future studies should consider multi-center designs and incorporate qualitative exploration to deepen understanding of how communication patterns, organizational culture, and leadership behaviors interact over time. By addressing these limitations, subsequent research can build a more comprehensive evidence base to inform sustainable improvements in interprofessional collaboration and leadership effectiveness in primary healthcare systems. As a result, a psychologically safe work environment not only increases job satisfaction and reduces staff turnover but also directly improves the quality of patient care.^{4,23} Healthcare workers who feel supported are more likely to report errors and actively contribute to service innovation.^{24,25} Thus, the relationship between communication interprofessional and leadership collaborative is very dependent , because both of them each other support For create environment effective and safe work.⁶

CONCLUSION

This study identified a statistically significant positive relationship between interprofessional communication and collaborative leadership among health workers at the Community Health Center. The moderate correlation suggests that stronger communication among professionals is associated with higher levels of collaborative leadership, emphasizing that effective communication is a fundamental driver of team synergy, participatory decision-making, and coordinated service delivery in primary healthcare settings. These findings indicate that strengthening structured interprofessional communication supported by conducive organizational policies and leadership development can enhance teamwork effectiveness and service quality. The study contributes context-specific empirical evidence at the primary care level and offers practical implications for improving collaborative practices within Community Health Centers.

AUTHOR'S CONTRIBUTION STATEMENT

Ferry Fadzlul Rahman contributed to the conceptualization, study design, methodology, data collection, data analysis, interpretation of findings, literature review, manuscript drafting, critical revision, and final approval of the manuscript. The author is accountable for all aspects of the work.

CONFLICTS OF INTEREST

The author declares no conflicts of interest related to this study.

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