

The Influence of the Role-Play Method on the Communication Skills of Midwifery Students

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Abstract:

Effective communication skills are essential competencies for midwifery students in providing quality maternal and neonatal care. This study aimed to analyze the influence of the role-play method on the communication skills of midwifery students. The research employed a quantitative approach using a quasi-experimental design with a pre-test and post-test control group. A total of 60 midwifery students were selected through purposive sampling and divided into intervention (N=30) and control groups (N=30). The intervention group received communication training through role-play activities, while the control group received conventional lecture-based learning. Data were collected using a standardized communication skills assessment questionnaire and observation checklist. The results showed a significant improvement in the communication skills scores of students in the intervention group compared to the control group ($p < 0.05$). Role-play activities enhanced students' confidence, empathy, active listening, and interpersonal communication abilities during simulated patient interactions. The findings indicate that the role-play method is an effective and interactive learning strategy for improving communication competencies among midwifery students. The study implies that integrating role-play into midwifery education curricula can support the development of professional communication skills needed in clinical practice.

ARTICLE HISTORY

Received: May 2026

Accepted: June 2026

Published: June 2026

KEY WORDS

Role-play Method,
Communication Skills,
Midwifery Students.

Please cite this article in APA style as:

Hikmawati, N., & Ermawati, I. (2025). *The Influence of the Role-Play Method on the Communication Skills of Midwifery Students*. *Minsight: Midwifery Insight and Innovation Journal*, 2(2), 1-11.

INTRODUCTION

Communication skills are one of the essential competencies that must be possessed by midwifery students as prospective health professionals. Effective communication plays an important role in establishing therapeutic relationships between midwives and patients, improving patient satisfaction, reducing misunderstandings, and supporting the quality of maternal and child health

services (Rodríguez-Martín et al., 2024). In the learning process, communication competence is not only obtained through theoretical understanding but also requires practical experience and interactive learning methods that actively involve students. However, many midwifery students still experience difficulties in communicating effectively with patients, especially in expressing empathy, conducting patient interviews, and delivering health education in clinical settings (Derakhshan, 2025).

Conventional learning methods that rely heavily on lectures are often considered less effective in improving students' communication abilities because students tend to become passive recipients of information. Therefore, innovative and student-centered learning strategies are needed to create meaningful learning experiences (Wu, 2023). One of the learning methods considered effective in developing communication skills is the role-play method. Role play allows students to simulate real-life situations, practice interpersonal communication, and develop confidence in interacting with patients. Through role-playing activities, students can directly experience communication scenarios commonly encountered in midwifery practice (Holderried, 2024).

Previous studies have shown that role play can improve students' communication competence, critical thinking, and confidence in health education programs. Research conducted in nursing and medical education demonstrated that role-play-based learning significantly enhanced students' interpersonal and therapeutic communication skills (Hüner, 2023). Nevertheless, studies specifically examining the influence of the role-play method on the communication skills of midwifery students remain limited. Most previous studies focused on nursing students or general medical students, creating a theoretical and empirical gap regarding its implementation in midwifery education (Peerboom, 2023). In addition, several studies mainly emphasized academic achievement outcomes rather than communication competence as the primary focus. Therefore, this study offers novelty by specifically investigating the effect of role play on the communication skills of midwifery students within the context of professional midwifery education (Sardessai-Nadkarni, 2023).

The role-play method is grounded in Kolb's Experiential Learning Cycle, which emphasizes learning through concrete experience, reflective observation, abstract conceptualization, and active experimentation. In this study, concrete experience was operationalized through structured role-play scenarios, while reflective observation was facilitated through guided debriefing and group discussion after each activity. Abstract conceptualization occurred when students connected their experiences with theoretical concepts, and active experimentation was achieved as students applied the feedback and knowledge gained to subsequent role-play performances (Lovink, 2024). By practicing communication through simulated clinical interactions, students are expected to develop empathy, active listening skills, verbal and non-verbal communication abilities, and professional attitudes. The application of role play in midwifery education is also relevant to the increasing demand for competent healthcare providers who can communicate effectively with patients from diverse cultural and social backgrounds (Meneses-La-Riva, 2025).

Based on these conditions, this study aims to analyze the influence of the role-play method on the communication skills of midwifery students. The hypothesis proposed in this study is that the implementation of the role-play method significantly improves the communication skills of midwifery students compared to conventional learning methods. The findings of this research are expected to contribute to the development of innovative teaching strategies in midwifery education and provide recommendations for educators in improving students' professional competencies, particularly in communication skills needed in clinical practice.

RESEARCH METHODS

This study employed a quantitative research approach using a quasi-experimental design with a pre-test and post-test control group. The quantitative approach was selected because the study aimed to measure the influence of the role-play learning method on the communication skills of midwifery students through statistical analysis. The quasi-experimental design enabled the researcher to compare the effectiveness of the role-play method with conventional lecture-based learning in improving students' communication competence.

The unit of analysis in this study was midwifery students enrolled in a midwifery education program at a health sciences institution. The research was conducted at the Midwifery Department of a higher education institution specializing in healthcare education. The study focused on learning activities related to communication practice in maternal and child healthcare services. The participants consisted of second-year midwifery students who had taken basic communication and clinical practice courses. A total of 60 students participated in the research and were divided into two groups: the intervention group and the control group, with 30 students in each group. The participants were selected using purposive sampling based on predetermined inclusion criteria, including active enrollment in the midwifery program and willingness to participate in the study.

The primary sources of information were the students as respondents. Additional supporting data were obtained from observation results during communication practice sessions. The research instruments included a communication skills assessment questionnaire, observation checklist, and performance assessment rubric. The questionnaire was developed based on indicators of effective communication in healthcare settings, including verbal communication, non-verbal communication, empathy, active listening, clarity of information delivery, and interpersonal interaction. The observation checklist was used to evaluate students' communication performance during role-play simulations and patient interaction scenarios.

The data collection process was conducted in several stages. Initially, both groups completed a pre-test to measure their baseline communication skills before the intervention. The intervention group then participated in communication learning sessions using the role-play method, while the control group received conventional lecture-based instruction. The role-play sessions involved simulated clinical communication scenarios, including patient

interviews, health counseling, antenatal care consultations, and communication with patients' family members. Students performed specific roles as healthcare providers and patients to create realistic interaction experiences. The intervention was conducted over four weeks with regular supervised practice sessions. After the intervention period, both groups completed a post-test to evaluate changes in communication skills.

Observation techniques were also applied during the learning process to assess students' participation, confidence, and interaction patterns during communication simulations. The observations were conducted by lecturers and trained observers using standardized observation guidelines to ensure consistency and objectivity. In addition, documentation techniques were used to collect supporting data related to students' learning activities and assessment results.

The collected data were analyzed quantitatively using the Statistical Package for the Social Sciences (SPSS) software. Data analysis was conducted through several stages, including data reduction, data display, and data verification. Data reduction involved selecting, organizing, and simplifying the collected data to ensure accuracy and completeness. Data display was performed using tables and descriptive statistical presentations to facilitate interpretation of the findings. Data verification was conducted to ensure the validity and reliability of the research results.

Descriptive statistical analysis was used to describe the characteristics of respondents and the distribution of communication skills scores. Inferential statistical analysis was conducted using paired sample t-tests to examine differences between pre-test and post-test scores within each group. Furthermore, an independent sample t-test was applied to compare the communication skills improvement between the intervention and control groups. Statistical significance was determined at a significance level of $p < 0.05$. The results of the analysis were interpreted to determine the effectiveness of the role-play method in improving communication skills among midwifery students.

To ensure the validity and reliability of the research instruments, a validity test and reliability test were conducted before the main data collection process. Instrument validity was assessed using expert judgment and product-moment correlation analysis, while reliability testing employed Cronbach's Alpha coefficient. Ethical considerations were also implemented in this study by obtaining informed consent from all participants, ensuring confidentiality of respondents' identities, and conducting the research in accordance with academic research ethics principles.

RESULTS AND DISCUSSION

Results

The data in this table present the results of the normality test using the Shapiro-Wilk method for both the intervention and control groups in the pre-test and post-test measurements. The analysis was conducted to determine whether the distribution of the data met the assumption of normality, which is a prerequisite for further parametric statistical testing. The table includes the

number of participants (N), the Shapiro–Wilk statistic (W), and the significance value (Sig.) for each group and measurement. These results provide important information regarding the distribution characteristics of the data collected in this study.

Table 1. Normality Test – Shapiro–Wilk Pretest and Posttest Datas

Group	Variabel	Statistic	Value
Intervention	Pretest	N	30
		Shapiro–Wilk W	0.972
		Sig.	0.612
	Posttest	N	30
		Shapiro–Wilk W	0.961
		Sig.	0.341
Control	Pretest	N	30
		Shapiro–Wilk W	0.968
		Sig.	0.521
	Posttest	N	30
		Shapiro–Wilk W	0.974
		Sig.	0.688

Based on table 1, the normality assumption of the data was examined using the Shapiro–Wilk test for both the intervention and control groups in pre-test and post-test measurements. The results showed that all data were normally distributed. In the intervention group, the pre-test results indicated a Shapiro–Wilk value of $W = 0.972$ with a significance value of $p = 0.612$. The post-test results also demonstrated normal distribution with $W = 0.961$ and $p = 0.341$. Since both significance values were greater than 0.05, the data were considered normally distributed. Similarly, in the control group, the pre-test data showed a Shapiro–Wilk value of $W = 0.968$ with $p = 0.521$, while the post-test data showed $W = 0.974$ with $p = 0.688$. All significance values were above the 0.05 threshold, indicating that the data were also normally distributed. Overall, these findings confirm that both pre-test and post-test scores in the intervention and control groups meet the assumption of normality. Therefore, parametric statistical tests, such as the paired sample t-test and independent sample t-test, are appropriate for further analysis.

Table 2. Uji Homogenitas Levene’s Test Pretest and Posttest Datas

Variabel	Levene Statistic	df1	df2	Sig.
Pretest	0.214	1	58	0.645
Posttest	0.387	1	58	0.537

Based on table 2, the homogeneity of variance assumption was tested using Levene's Test for Equality of Variances for both pre-test and post-test scores between the intervention and control groups. This test was conducted to determine whether the variability of scores in both groups was statistically equal, which is an important assumption for parametric tests such as the independent sample t-test. For the pre-test scores, the Levene's Test results showed a Levene Statistic of 0.214 with $df_1 = 1$ and $df_2 = 58$, and a significance value of $p = 0.645$. Since the significance value was greater than 0.05, it indicates that the variance between the two groups was homogeneous. Similarly, for the post-test scores, the Levene's Test showed a Levene Statistic of 0.387 with $df_1 = 1$ and $df_2 = 58$, and a significance value of $p = 0.537$. Because the p-value was also greater than 0.05, the post-test data were confirmed to have equal variances. Overall, these findings indicate that both pre-test and post-test data meet the assumption of homogeneity. Therefore, parametric statistical analyses such as the independent sample t-test are appropriate for further analysis in this study.

Table 3. Pengaruh Role Play terhadap peningkatan Keterampilan Komunikasi (Independent t-Test)

Group Comparison	Variabel	Mean Difference	t	df	Sig. (2-tailed)
Intervention vs Control	Pretest	-0.40	-0.742	58	0.461
Intervention vs Control	Posttest	16.10	24.587	58	0.000

Based on table 3, the result an independent sample t-test was conducted to examine differences in communication skill scores between the intervention and control groups at pre-test and post-test stages. For the pre-test comparison, the mean difference between the intervention and control groups was -0.40 with a t-value of -0.742 and 58 degrees of freedom. The significance value was $p = 0.461$, indicating that there was no statistically significant difference between the two groups before the intervention. This result confirms that both groups had comparable baseline characteristics in terms of communication skills prior to the treatment. In contrast, the post-test results showed a substantial difference between the two groups. The mean difference was 16.10 with a t-value of 24.587 and 58 degrees of freedom. The significance value was $p = 0.000$ ($p < 0.05$), indicating a highly significant difference between the intervention and control groups after the intervention. The intervention group demonstrated significantly higher communication skill scores compared to the control group. Overall, these findings indicate that the role-play method had a significant positive effect on improving the communication skills of midwifery students.

Tabel 4. Pengaruh Role Play terhadap peningkatan Keterampilan Komunikasi (Paired Sample t-Test)

Pair	Mean Pre-Test	Mean Post-Test	Mean Difference	t	df	Sig. (2-tailed)
Intervensi	65.10	86.00	-20.90	-34.812	29	0.000
Control	65.50	69.90	-4.40	-6.215	29	0.000

Based on table 4, a paired sample t-test was conducted to examine the differences between pre-test and post-test scores within each group. In the intervention group, the mean pre-test score was 65.10, while the mean post-test score increased to 86.00. The mean difference was -20.90, with a t-value of -34.812 and 29 degrees of freedom. The results showed a statistically significant improvement in communication skills after the intervention ($p = 0.000$, $p < 0.05$), indicating a substantial increase in scores following the implementation of the role-play method. Similarly, in the control group, the mean pre-test score was 65.50, and the mean post-test score increased slightly to 69.90. The mean difference was -4.40, with a t-value of -6.215 and 29 degrees of freedom. The result also showed a statistically significant difference between pre-test and post-test scores ($p = 0.000$, $p < 0.05$), although the improvement was relatively smaller compared to the intervention group. Overall, these findings indicate that both groups experienced an improvement in communication skills; however, the increase in the intervention group was significantly greater, suggesting that the role-play method is more effective in enhancing the communication skills of midwifery students compared to conventional learning methods.

Discussion

This study investigated the impact of the role-play method on the communication skills of midwifery students. The findings revealed a consistent and statistically significant improvement in communication skills in the intervention group compared to the control group. The intervention group experienced a substantial increase in mean scores from 65.10 (pre-test) to 86.00 (post-test), whereas the control group showed a relatively smaller improvement from 65.50 to 69.90. The independent sample t-test confirmed a significant difference between groups at post-test ($p = 0.000$), while no significant difference was found at pre-test ($p = 0.461$), indicating baseline equivalence. Additionally, the paired sample t-test demonstrated a significant improvement within both groups, although the magnitude of improvement was far greater in the intervention group. These results indicate a strong impact of the role-play method on enhancing students' communication skills and show a clear distribution of learning outcomes favoring experiential learning strategies (Holford, 2024). However, several potential threats to internal validity should be considered when interpreting these findings. Factors such as student motivation, peer interaction outside the classroom, and teacher bias may have influenced the outcomes despite efforts to maintain comparable learning conditions between groups. Baseline equivalence between groups reduced the likelihood of selection bias, and standardized teaching materials and assessment procedures were applied to minimize instructor-related differences. Nevertheless, uncontrolled external interactions and varying levels of student engagement may still have contributed to the observed improvement, suggesting the need for future studies using randomized designs and stricter control of confounding variables (Rutherford-Hemming, 2024).

The improvement in the intervention group can be explained through the mechanism of experiential learning, where role play provides students with direct, structured, and repetitive practice in simulated clinical communication

settings. This learning approach allows students to actively construct knowledge through experience, reflection, and feedback (Wynn, 2023). The cause-and-effect relationship observed in this study suggests that exposure to role-play activities leads to improved communication competence because students are trained to respond to realistic patient scenarios, develop empathy, and practice verbal and non-verbal communication skills in a safe environment. In contrast, the control group, which relied on conventional lecture-based learning, demonstrated limited improvement due to passive knowledge absorption and minimal practical engagement. This indicates an unequal distribution of skill acquisition between active and passive learning methods, reinforcing the importance of interactive teaching strategies in healthcare education (Sikveland, 2023).

When compared with previous studies, the findings of this research are consistent with evidence from nursing and medical education literature, which reports that simulation-based learning and role-play significantly improve communication competence, clinical confidence, and patient-centered care abilities. Several studies have shown that students exposed to role-play methods demonstrate better therapeutic communication skills and higher confidence levels compared to those receiving traditional instruction (Qian, 2024). However, this study adds value by focusing specifically on midwifery students, who require highly sensitive communication skills in maternal and neonatal care contexts. The results strengthen existing literature by confirming that the impact of role-play is not limited to general healthcare education but is also highly relevant in midwifery training. Moreover, the distribution of learning outcomes observed in this study suggests that structured experiential learning can reduce variability in student performance by providing equal opportunities for practice and feedback (Alharazi, 2025).

From a theoretical perspective, these findings support experiential learning theory, which emphasizes learning through direct experience, reflection, and active experimentation. Role play enables students to engage cognitively, emotionally, and socially, thereby enhancing retention and application of communication skills (Kudubes, 2023). The significant improvement in the intervention group demonstrates that learning is more effective when students are actively involved in realistic scenarios rather than passively receiving information. This highlights the broader educational impact of student-centered learning approaches and the importance of equitable distribution of learning experiences to ensure all students achieve competency standards (Yang, 2023).

The contribution of this study lies in providing empirical evidence that the role-play method has a strong impact on improving communication skills among midwifery students. This research also highlights the importance of improving the distribution of interactive learning methods within midwifery curricula to ensure consistent skill development across all learners (Fischer, 2024). Based on the empirical findings showing substantial improvement in students' communication skills, this study proposes a structured pedagogical framework for integrating role-play into midwifery education through three interconnected stages: integration, assessment, and scaling. In the integration stage, role-play activities are systematically embedded within communication and clinical

practice courses using progressively complex maternal care scenarios aligned with learning outcomes. The assessment stage incorporates standardized performance rubrics, reflective debriefing, and continuous feedback to evaluate communication competence and reflective learning, while the scaling stage emphasizes lecturer training, curriculum standardization, and institutional support to ensure sustainable implementation of simulation-based learning across midwifery programs. (Elhilu, 2023). Furthermore, continuous practice in clinical skills laboratories should be expanded to maximize the long-term impact of learning outcomes (Hamarash, 2024). By strengthening the distribution of experiential learning opportunities, institutions can better prepare midwifery students for real clinical environments, ultimately improving the quality of maternal and neonatal healthcare services (Karci, 2024).

CONCLUSION

This study demonstrates that the role-play method has a significant impact on improving the communication skills of midwifery students, as evidenced by a greater increase in post-test scores in the intervention group compared to the control group. The key finding indicates that experiential learning through simulation-based activities provides more effective skill development than conventional lecture methods, offering valuable insight into the importance of active learning in midwifery education. The wisdom gained from this study highlights that communication competence is best developed through practice, reflection, and real-life simulation rather than passive learning. Scientifically, this research contributes evidence supporting experiential learning theory in healthcare education, while practically it provides a reference for educators to integrate role-play into teaching strategies to enhance clinical communication skills. However, this study is limited by its relatively small sample size and single-institution setting, which may affect generalizability. Future research is recommended to involve larger samples, multiple institutions, and long-term evaluation of communication skill retention.

ACKNOWLEDGMENT

The authors would like to express their sincere gratitude to Universitas Hafshawaty Zainul Hasan, Probolinggo, Indonesia, for providing academic support and facilities that made this research possible. Special appreciation is extended to all midwifery students who participated in this study for their cooperation and active involvement during the data collection process. The authors also acknowledge the valuable assistance and guidance provided by lecturers and colleagues throughout the research process, from the preparation stage to the completion of the manuscript. No specific financial support was received for this study. The constructive feedback and encouragement from all parties involved have significantly contributed to the successful completion of this research.

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