

Learning methods to improve communication skills in health professional student: a literature review



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ABSTRACT

Background: Effective communication is one of patient safety's foundations that health workers must consider. Poor communication will impact both patients and health professionals. Health profession students have to comprehend communication skills to improve patient safety when providing care for the patient. They have learned effective communication from the education stage through various learning strategies. This study aims to identify multiple learning methods to improve effective communication learning in health professional students.

Methods: This study is a literature review by looking for the main article according to the inclusion criteria of effective learning and communication methods for health professional students. The search was conducted on several databases with ScienceDirect 32,322, Ebsco 1,644, ProQuest 48,449, and SpringerNature 4,994 articles. The result was that nine articles were screened with the PRISMA chart guide.

Results: The results showed that several learning methods such as simulation with a standardized patient, role play with standardized family, experiential learning, cooperative learning, simulation with virtual reality, peer review method, video recording and standardized patient feedback, and specific feedback used to improved communication skills in the health professional students.

Conclusion: These methods can improve the communication skills of health professional students, which is the key to supporting patient safety, and there are many challenges and facilities during communication learning proses.

Keywords: Communication skill, effective communication, health professional student, learning method, teaching method.

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INTRODUCTION

Patient safety is an essential issue that health workers must consider by implementing six patient safety goals.¹ The six goals are to identify patients correctly, improve effective communication, improve the safety of drugs to watch out for, ensure the correct location, procedure, and patient for surgery, prevent the risk of falls and reduce the risk of infection.^{2,3} One of the fundamental patient safety standards is effective communication, which is critical in improving patient safety, achieving quality care, and establishing good relationships between patients and the health profession. Communication skills need to be possessed to prevent unwanted incidents.⁴

Medicine incidents in Finland occurred due to poor communication between nurses with 68.2%, nurse-doctor with 41.6%, nurse-patient with 9.6%, and poor team communication with 39.6%.

Forty-five (65.2%) of the 65 respondents had experienced medical errors in the operating room. One of the leading causes was inadequate communication (59.4%). Medical errors that threatened patient safety in the operating room were errors related to communication and information flow (37.7%), wrong place of surgery (17.4%), improper medication administration (17.4%), leaving equipment at the operating site (14.5%), and incorrectly identified the patient (13%).⁵

Poor communication hurts all parties, especially patients, such as cessation of care, patient safety, dissatisfaction, and ineffective use of health workers' working time.⁶ The above conditions indicate the need to teach communication to health professional students from the academic stage because communication skills are part of the medical school curriculum.⁷ Students are taught communication techniques and strategies, the importance

of communication for patient-professional health, attitudes, appropriate prescriptions for treatment, and promotion of healing through various learning methods for communication skills.⁸

Communication skills can be taught through various learning strategies to stimulate the learning process, change attitudes, knowledge, and improve communication skills in students.^{9,10} Research conducted at the University Medical Center Hamburg-Eppendorf evaluated and developed a new learning method for communication skills, called role-playing with simulated and scenario-based patients to improve basic communication skills in medical students.¹¹

The learning method during the education stage is one key to success in the teaching and learning process. In contrast, the variety of communication learning methods for health professional students in Indonesia is still limited. This review

aims to identify various learning methods to improve effective communication learning in health professional students.

METHODS

The research question for this review is “What is the learning method to improve effective communication skills in health professional students?”. We used a literature review approach to describe various learning methods to teach effective communication for health professional students.

The search strategy was carried out by looking for the primary articles related to effective communication learning methods for health professionals. The databases used were ScienceDirect, Ebsco, Proquest, and one publisher, namely Springer Nature, using the keywords learning method, teaching method, effective communication, communication skill, and health professional students.

Articles were determined based on two criteria. The inclusion criteria were the main article with a range of 2010-2020, in English, and the respondents were of health professional students in the first semester to the professional stage. The exclusion criteria were articles with incomplete or unclear research methodology and papers that were only abstract parts. They were checked for duplication to eliminate similarity, selected based on the title and abstract, and filtered to get the full article.

Articles selection followed the PRISMA chart guidelines. Below are the searching strategy and results of the articles.

RESULT

Articles generated from four databases were 87,409 articles. The study took 540 health professional students from the early semester to the professional stage. They had received learning related to effective communication and communication skills. The result showed that nine articles reviewed used various learning methods to teach effective communication skills for health professional students—seven articles in nursing and two articles in medical. Below will describe the theme that authors found in the articles reviewed and a summary of nine articles.

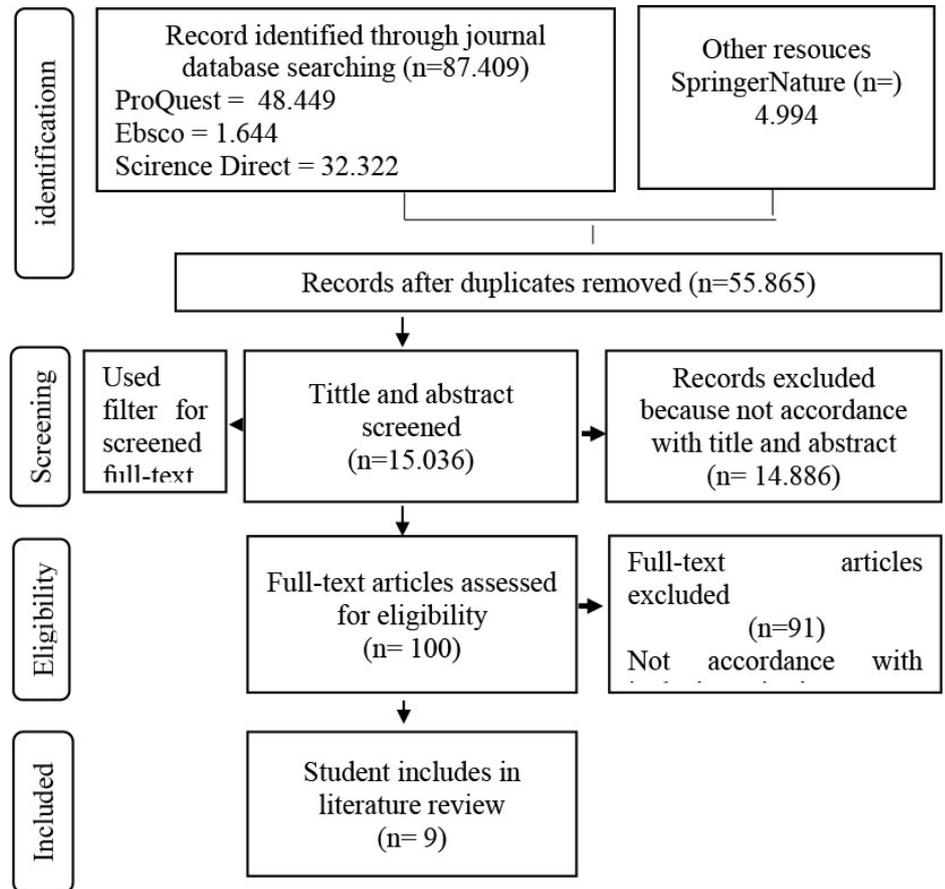


Figure 1. PRISMA (Search and Screening Strategy) of literature review.

DISCUSSION

The results showed that several learning methods such as cooperative learning, simulation with a standardized patient, simulation with standardized family, video recording and standardized patient feedback, experiential learning, simulation with virtual reality, peer review method, patient feedback, specific feedback, could be improved communication skills in health profession students.^{12-18,20} The above learning methods can enhance communication skills and encourage students to communicate appropriately and correctly. Furthermore, the facility and challenge during communication learning are also explained in the articles.

Learning Method

Simulations with Standardized Patient
Simulations with standardized patients for 15-20 minutes also improved verbal and non-verbal communication skills. Students demonstrated maintaining eye contact, creating comfortable conditions for

patients, keeping boundaries therapeutic, ensuring patient safety, performing therapeutic communication techniques, conforming with verbal and non-verbal communication, setting limits for inappropriate behavior, reducing anxiety when meeting patients, summarizing, and ending the interaction well. The standardized patient used has been guided and trained for two months. Thus, the simulation with standardized patients effectively will improve communication skills.^{13,21}

Simulation with standardized patients effectively enhanced communication skills in the intervention group with higher post-test scores than the control group. The standardized patients created active learning through knowledge in the laboratory, increased confidence when communicating, helped practice direct communication with real people, provided feedback, improved the communication learning process. They also allowed an opportunity to ask questions and discuss

communication skills, identify areas that need to be addressed, improve, and learn in various patient situations with a structured and safe learning environment for students.^{21,22}

Video Recording and Standardized patient feedback

Another method was to use video recordings to practice communication skills. Video recordings with standardized patients reviewed the simulations. Hence, students could assess communication skills during the simulation. Students found several factors in non-verbal communication that could damage the relationship between patients and nurses. Besides, students were more sensitive to non-verbal responses shown by the simulated patient, so that in the second simulation, students' communication skills increased. Video recordings as self-evaluation material for students accompanied by feedback from standardized patients had a substantial role in influencing student communication skills. Student communication skills, especially in the third and fourth simulations, increased. The control and intervention groups continued to progress in communication skills after the simulation, but the group that received feedback and videotaped had higher communication skills scores. Therefore, simulation accompanied by video recordings, self-evaluation, and feedback

from standardized patients effectively improved students' communication skills.^{13,16}

Simulated Patient Feedback and Specific Feedback

Feedback as a formative assessment can be integrated into learning methods. The feedback provided can develop self-evaluation, reflect the learning process, help build and actively acquire knowledge and skills of students.²³ Input from the simulated patient showed significant improvement in communication skills than the group that did not receive feedback, such as self-introduction, non-verbal behavior, showing care and empathy, providing information, and asking questions. Specific feedback will be better due to its effectiveness in improving student communication skills, such as communication structure, patient handling skills, non-verbal communication skills including pause and intonation, and conversation ending skills.^{19,20}

Information from the health profession and patients will support the safety of providing care for patients. Simulation patients have a role in learning communication skills, such as active facilitators to train general or specific communication skills and evaluate students' communication skills training and feedback.²⁴

Role Play with Standardized Family

Students of health professions must possess communication skills related to patient safety. Role-play with standardized families effectively improved communication skills by demonstrating behaviors through formal lectures, communication skills, and self-confidence when communicating. Students' communication skills increased after role play by self-introducing skills, gathering information, clarifying goals and expectations. The most prominent ability is gathering information. Role-play with a standardized family is effective for learning communication skills.²⁵ Other research has shown that with role play, students' oral and written communication skills became compatible with pharmacy practice in various settings and could identify effective interaction with other professionals.²⁶

Cooperative Learning

Cooperative learning can improve communication skills. It emphasizes cooperation and interaction/communication between students with several activities such as face-to-face interaction between students, Socrates questions, quizzes in pairs, small group discussions using predetermined cases, exercises to form concept maps in groups, identify concept maps that have been made and make presentations aimed at building therapeutic communication skills and collaboration between students,

Table 1. Themes in Review Articles.

No.	Themes
1.	Learning Method <ul style="list-style-type: none"> - Standardized Patient Simulation - Cooperative Learning - Specific Feedback - Experiential Learning - Simulation with Virtual Reality - Simulated Patient Feedback - Video Recording with Standardized Patient Feedback - Peer Review Method - Role-Play with Standardized Families
2.	Facility <ul style="list-style-type: none"> - Active and creative mentor/instructor - Standardized patients from Interdisciplinary teams (members of a local acting group, students from theater, communication arts majors, and retired nurses) well trained - Two expert psychiatric nursing faculty to train the SP
3.	Challenge in Communication Learning Skill <ul style="list-style-type: none"> - Difficult communication with different health disciplines - The different language between student and patient from all walks during clinical practice - Different cultural backgrounds, attitudes, language between students during learning - Meeting patients with mental health

Table 2. Summary of Nine Articles Reviewed for Effective Communication Skill in Health Professional Students.

No.	Author (Year) Title	Method	Result
1.	¹²	<p>Purpose: To compare the effects of traditional learning methods and cooperative learning on nursing students' communication skills with patients.</p> <p>Design: RCT</p> <p>Sample: 34 nursing students</p> <p>Intervention: The classroom-based control group and intervention group with a cooperative learning approach</p>	<p>The communication ability between the control and intervention groups showed no significant difference. Still, there was a considerable difference in the interaction skills subscale after the intervention and following up on problems with a P-value <0.05. The results showed that the cooperative learning approach effectively improved nursing students' communication skills.</p> <p>Cooperative learning consists of several activities that could improve communication and cooperation skills.</p>
2.	¹³	<p>Purpose: To test the effectiveness of standardized patient experience as a learning method to improve the therapeutic communication skills of nursing students in patients with mental disorders</p> <p>Design: Quasi-experimental one group pre-post test design</p> <p>Sample: 89 nursing students</p> <p>Intervention: Simulation with standardized patients trained for ±2 months for 15-20 minutes and recorded on video for use as a review.</p> <p>Instrument: 14 points Effectiveness of Standardized Patient Experiences (SPE) Evaluation Criteria</p>	<p>12 of the 14 criteria for therapeutic communication skills showed significant results:</p> <ol style="list-style-type: none"> 1. Maintaining eye contact 2. Engaging in making the patient comfortable 3. Maintaining appropriate therapeutic boundaries 4. Assessing patient safety 5. Responding appropriately, both verbally and non-verbally, to the patient's verbal statements 6. Responding to the patient's non-verbal behavior appropriately 7. Using therapeutic communication techniques 8. Setting limits on inappropriate behavior 9. Validating the meaning of the patient's response 10. Demonstrating my anxious behavior 11. Summarizing the content of the interaction 12. Ending interactions appropriately <p>The results showed that the simulation using standardized patients effectively improved communication skills.</p>
3.	¹⁴	<p>Purpose: To test the effectiveness of role-playing with family standards to improve nursing students' communication skills</p> <p>Design: Quasi-experimental two groups post-test design</p> <p>Sample: 41 nursing students</p> <p>Intervention: The control group with a formal lecture approach and the intervention group received a traditional lecture and did role-play with standardized family members for 60 minutes.</p> <p>Instrument: Standardized Grading Tool Evaluated</p>	<p>The communication skills of the intervention group were better than the control group in all domains of communication skills, such as introducing themselves, gathering information, conveying information, clarifying goals and expectations. The significant difference lies in the domain of gathering information.</p> <p>These results indicate that role-play with Standardized Family effectively taught nursing students communication skills.</p>
4.	¹⁵	<p>Purpose: To evaluate educational innovations using virtual clinical simulations to improve nursing students' communication skills; The purpose of the simulation is to recognize essential patient data and perform ISBAR communication techniques.</p> <p>Design: Quasi-experimental design</p> <p>Sample: 8 undergraduate nursing students in semester 3</p> <p>Intervention: Virtual simulation in an online virtual clinical environment</p> <p>Instrument: CliniSpace ISBAR Rating Sheet</p>	<p>Students' communication skills with the ISBAR technique in the second simulation experienced a significant increase. This study showed that virtual reality simulations effectively improved communication skills in nursing students. Virtual clinical simulation is a learning strategy with an online-based approach that uses an avatar to practice communication skills using the ISBAR technique.</p>

5. ¹⁶ **Purpose:** To assess the effectiveness of reviewing simulated video recordings and standardized patient feedback on nursing student communication performance
Design: RCT
Sample: 94 nursing students
Intervention: Both groups did a simulation, and the intervention group was given feedback by standardized patients and video recordings to be reviewed. The control group was only assigned the results of the communication assessment.
6. ¹⁷ **Instrument:** The Macy Communication Scale
Purpose: To evaluate the effect of using SBAR communication on communication performance and practical results for senior nursing students through experiential learning
Design: Quasi-experimental non-equivalent control group pre-post-test design
Sample: 81 nursing student
Intervention: The intervention group played a role in the SBAR communication technique based on experiential learning, and the control group did the usual practicum.
Instrument: SBAR communication tool and communication clarity scale
7. ¹⁸ **Purpose:** To evaluate the effectiveness of video-based peer review on communication skills and learning motivation of nursing students
Design: Quasi-experimental pre-post test design
Sample: 47 nursing students in semester 2
Intervention: The intervention group used peer reviews to evaluate communication performance with standardized patients on a video, whereas the control group only considered themselves after watching their video.
Instrument: Communication Assessment Tool
8. ¹⁹ **Purpose:** To investigate the effectiveness of communication skills training that integrates specific and structured feedback.
Design: RCT
Sample: 66 undergraduate medical students
Intervention: The intervention group was in theory introduction, role play with SP, specific and structured feedback, while the control group had the same curriculum but general feedback.
Instrument: Communication Skills Checklist
- There was a significant difference between the first and second simulations in the two groups after the intervention. The intervention group had a higher score than the control group, although both groups continued to experience improvements in communication performance in each simulation. Self-assessment and feedback from standardized patients strongly influence nursing students' communication skills, especially in the third and fourth simulations. Standardized video recordings and patient feedback effectively improve the communication performance of nursing students.
- Communication performance with SBAR technique on nursing students increased significantly with clarity of communication and level of confidence when performing operands through experiential learning. This method emphasized the student experience as a learning process through four stages: factual knowledge, reflection, abstract conceptualization, and active experience.
- There was no difference in communication skills between the two groups before the intervention. Still, significant differences were found after the intervention. The intervention group's communication skills and learning motivation were higher than the control group. The three highest items were asking open-ended questions, encouraging patients to ask questions, and caring for patients with a sense of care. Video-based peer evaluation was an effective learning method to improve nursing students' communication skills and learning motivation.
- Communication skills in communication structure, dealing with patient emotions, general communication skills, and communication ending skills increased significantly after training by including specific and structured feedback on medical students. Specific feedback helped students assess communication skills that must be improved. Thus, students could improve their communication skills.

9. ²⁰

Purpose: To determine the effectiveness of simulated patient feedback in improving the communication skills of undergraduate medical students

Design: RCT pre-post test

Sample: 80 Medical undergraduate students

Intervention: OSCE was conducted twice, and simulated patients attended seminars and training with three experts. The control and intervention groups interacted with simulated patients for 5 minutes. The intervention group received verbal feedback from the SP each OSCE, while the control group was at the end.

Instrument: 12 items Liverpool Communication Skill Assessment Tool

There was a significant improvement in the communication skills of the intervention group after receiving feedback from the simulated patient compared to the control group. The communication skills assessed included:

1. Self-introduction
2. Non-verbal behavior
3. Caring and empathy
4. Asking questions
5. Providing information

Feedback improved communication skills because students could learn from it.

including decision-making abilities. After cooperative learning, the results showed that communication skills in students increased compared to groups that only received formal lectures, especially in interacting skills and following up on patient problems. Thus, cooperative learning is an effective method to improve nursing students' communication skills.¹²

Simulation with Virtual Reality

Communication learning utilizes advanced technology in the 4.0 industrial era.¹⁵ A virtual reality simulation is a learning method with an online-based approach in an immersive and synchronous 3D environment. Simulation with virtual reality allows students to practice communication skills with avatars and effectively improve communication skills with SBAR techniques in nursing students. One of the studies used a virtual patient named Jim, an old adult male displayed in 3D computer simulation results as a virtual reality development. Visual arrangements, expressions, gestures, and verbal and non-verbal responses were shown as old adult men occupying nursing homes in real life. Students could practice communication skills with virtual patients, although most prefer direct clinical placement interactions.²⁷ Virtual reality provided insight and opportunities to practice practical communication skills. Students who performed simulations with virtual patients became effective communicators, and their experiences and personality traits influenced their communication skills.²⁸

Experiential Learning

Communication skills can be trained using the SBAR communication technique based on experiential learning by David Kolb. *Experiential learning* is a learning method that emphasizes student experience as a learning process include four stages: the concrete experience stage, which is the initial stage of scenario-based learning; the second stage is reflection, where students will make observations and reflect on the implementation of SBAR communication; the third stage is the abstract conceptualization stage, where the instructor will help students understand the gap between theory and practice to support their conceptualization, and the final step is an active experience, students will do role-play to practice communication skills using SBAR techniques directly with patients in clinical settings. This method can improve communication performance skills in nursing students with a high level of communication clarity and confidence when performing operations.¹⁷ In experiential learning, students are involved and positioned as actively engaged in developing skills and higher-order thinking, oriented to doing tasks directly through learning experiences.²⁹

Peer Review Method

The above activities involve students' peers. Hence, peer feedback also improves communication skills. Research related to video-based peer review effectively enhances nursing students' communication skills and learning motivation. Skills such as asking open-

ended questions, encouraging patients to ask questions, caring for patients with a sense of caring, and learning motivation of students who received video-based peer reviews were higher than those who did not receive reviews. The assessment can form critical thinking skills, analysis, problem-solving, and evaluation; recipients can develop communication skills through peer assessments.¹⁸ Interventions in peer feedback showed significant results in improving communication skills (overall assessment, empathy, coherence, verbal and non-verbal expressions) in dental student-patient interactions.³⁰

Facility

We need to improve communication skills in health professional students by standardizing patients from interdisciplinary teams such as members of a local acting group, students from the theater, communication arts majors, and nurses to maximize the communication learning process. Active mentor/instructor, practice environment, and expert training the standardized patient also needed.^{12,13,16,20} Availability of standardized patient and simulated virtual clinical environment can facilitate students to improve their communication skills. Students reported that they had the opportunity to practice and interact with standardized patients. Students can start and maintain the conversation and feel an increase in their communication skills.³¹

Challenge

Many challenges faced by health professional students, clinical facilitators,

and faculty members during the communication learning process, such as difficult communication with different health disciplines, different language between students and patients from all walks during clinical practice, different cultural backgrounds, attitudes, language between student and mentor, meeting with patient mental health and scenario difficulty level that student used during learning communication skill.^{12,16,20,32}

Different cultures and languages are the aspects that can impact communication—this challenge faced by clinical nurse, clinical facilitator, student, and academic which impact interaction. Participant also explained how gender issues cause intercultural communication challenges, especially when they give feedback, like when teaching some students can be a challenge because they have a patriarchal attitude.³³

CONCLUSION

Based on the literature results on communication learning for health professional students, several methods can improve the communication skills of health professional students, such as cooperative learning, simulations with standardized patients, standardized families and virtual reality, experiential learning approaches, peer review methods, and patient feedback. Effective communication learning for health professions students is the key to improving patient safety. We found many challenges and facilities during the communication learning process. The researcher can review specific learning methods or other communication skills in health professional students for further research.

LIMITATION OF THE STUDY

Articles that we used just two types of research: RCT and quasi-experimental. The article about learning methods for communication skills in health professional students that authors found, most implemented in developed countries, only a few in developing countries.

ETHICS APPROVAL

Not applicable.

CONFLICT OF INTEREST

The authors declare that there is no conflict of interest regarding the manuscript.

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AUTHOR CONTRIBUTION

All authors are contributed from concept, literature searching until finishing the article.

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