

Original Article

The Impact of Role-playing in Internships on the Socialization and Clinical Self-efficacy of Nursing Students

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Abstract

Background: Role-playing is an innovative and effective educational method that fosters active and experiential learning among learners. This research was conducted to determine the impact of role-playing during internships on the socialization and clinical self-efficacy of nursing students.

Methods: This semi-experimental study included 39 nursing students selected through a census sampling technique. At the beginning of the study, participants completed questionnaires covering demographic data, socialization, and clinical self-efficacy. Both the control and experimental groups received the standard clinical training provided by their instructors. Additionally, the intervention group took part in 6 role-playing training sessions alongside the regular education. Data were analyzed with SPSS version 23.0, using independent and paired *t*-tests for statistical evaluation.

Results: The findings showed no significant difference in the mean scores of overall socialization and clinical self-efficacy between the groups before the intervention. However, after implementing role-playing, the mean scores in all domains of the variables were significantly higher in the experimental group compared to the control group ($P < 0.05$).

Conclusion: Role-playing in clinical practicum can augment the socialization and clinical self-efficacy of nursing students. This approach helps prepare students to integrate theoretical knowledge with practical competencies effectively in clinical environments, contributing to the development of a competent future nursing workforce.

Keywords: Role-playing, Socialization, Self-efficacy, Nursing students

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Introduction

Nursing education today confronts significant challenges in both theoretical instruction and clinical training environments. Educational planners must focus on designing learning conditions that maximize the effective use of available resources, ensuring that students gain the essential knowledge and practical skills required for their future roles as healthcare professionals (1). Given that nursing is a performance-based profession and skill development in nursing occurs during the undergraduate level (2), proper education for students is crucial (3).

Selecting an appropriate method in nursing education can make the learning process both highly engaging and effective (4). Role-playing is an effective method for student learning as it encourages participants to think deeply about the individuals whose roles they are portraying. At its core, this teaching approach facilitates

learning by engaging students in practical activities and is grounded in both individual experiences and social interactions within the educational process. According to Iran's newly approved curriculum, emphasis has been placed on utilizing role-playing in the patient education course to enhance students' competencies. This approach aims not only to improve patient health outcomes but also to foster professional development (5).

The role-playing teaching method offers numerous advantages, including reducing the time and costs of training (6), improving performance, facilitating learning, enhancing students' decision-making skills, altering knowledge and attitudes, boosting communication skills, increasing self-confidence, fostering critical thinking, and improving overall student performance. As a teaching method, role-playing can be effectively applied across all levels of nursing education (7).



Socialization is a lifelong process that occurs throughout human life (8). This process, which results from the interaction between the individual, the environment, and interpersonal relationships (9), enables individuals to acquire knowledge of roles, values, and positions necessary for participation in social institutions (10). Professional socialization of nurses has been a topic of discussion for many years. This term describes the process by which beginners enter the field and become professional staff. Some researchers view socialization as either an intended or unintended consequence of the educational process. This process is a vital aspect of nursing students' development and occurs both formally and informally during their studies at nursing schools (11). Through professional socialization, nursing students can acquire the necessary commitment to the profession and act as nurses by problem-solving, adhering to regulations, and practicing critical thinking (9).

An effective socialization process plays a crucial role in helping individuals develop a professional identity that aligns with their occupational roles. This alignment fosters both professional and organizational commitment, enhances career contentment, and ultimately contributes to enhancing the quality of patient care (12). Improper and insufficient implementation of the professional socialization process can result in several negative outcomes for nurses. These outcomes include job burnout, role conflicts, decreased motivation, and reduced job satisfaction in the future (13,14).

Self-efficacy is described as a person's belief or judgment about their capacity to effectively perform a particular task by managing and influencing the factors around them. In simpler terms, it reflects a person's confidence in their capability to strategize, coordinate, and execute actions necessary to accomplish a specific objective (15). Self-efficacy in an academic context is related to a student's confidence in their capability to successfully carry out particular academic tasks. A higher level of self-efficacy directs individuals toward more ambitious goals and increases their commitment to achieving those goals. Success in a clinical environment requires motivation, and person's self-efficacy leads to motivation by setting goals, expanding efforts, increasing perseverance, and enhancing adaptability (15,16).

Studies have highlighted the significance of self-efficacy in providing nursing care among nursing students. Therefore, identifying the factors that influence clinical self-efficacy in nursing learners is of particular significance. However, research conducted in the field of clinical nursing education has primarily focused on environmental and communicative issues in clinical settings, such as the lack of suitable educational facilities and resources, inadequate coordination and respect from hospital staff, and insufficient orientation of staff regarding the role of nursing students in clinical settings. Despite this, the learner has not received sufficient attention as an effective and active element; however, the clinical

environment, instructors' capabilities, and personal factors can play a crucial role in fostering self-efficacy (13,14,17,18). The present study aimed to determine the effect of role-playing training on socialization and clinical self-efficacy of nursing students in internship.

Materials and Methods

The current research was a quasi-experimental study performed in 2024 among senior nursing students. The sample size was equal to the population of students, consisting of 39 individuals, and was conducted through census sampling. Then, all final-year nursing students were divided into control and intervention groups. The inclusion criteria for the study included being a final-year nursing student, being in the clinical internship phase, and having informed consent to participate in the study. Students who expressed their unwillingness to continue participation at any stage of the study were excluded from the study. The data collection instrument used in this study included demographic, socialization, and clinical self-efficacy questionnaires.

The professional socialization questionnaire is derived from phrases used in the tool developed by Shahim (9) and some items from the professional socialization tool presented by Chao et al (19). It consists of 48 items scored on a five-point Likert scale and has 4 domains: professional valuation, recognition and skills, organizational management and policies, and interpersonal communication. The instrument was developed and psychometrically validated by Mousavi et al. The validity of the tool was verified through content and face validity evaluations, and its reliability was confirmed with a Cronbach's alpha of 0.92 along with an intraclass correlation coefficient (ICC) of 0.94 for the overall instrument (10).

The clinical self-efficacy questionnaire used in the present study consists of 37 items measured on a 5-point Likert scale. It covers key domains including patient assessment, nursing diagnoses and planning, implementation, and evaluation of care plans. This instrument was developed and psychometrically validated by Cheraghi et al. The validity of the instrument was established through evaluation of content and face validity, while its reliability was proven by a strong internal consistency, indicated by a Cronbach's alpha of 0.96 (17).

This research was approved by the Ethics Committee of Islamic Azad University of Urmia (IR.IAU.URMIA.REC.1403.009). The researcher obtained the list of all senior nursing students (39 individuals) from the nursing faculty. Samples were randomly assigned to control and intervention groups by a simple randomization method using a random number table. Those with even numbers were placed in the intervention group ($n=19$), and those with odd numbers were assigned to the control group ($n=20$). Students in both groups initially completed demographic information questionnaires (age, gender, marital status, and GPA), as well as socialization and

clinical self-efficacy questionnaires.

Both groups received the standard education according to the faculty curriculum from clinical instructors. The intervention group, in addition to the standard education, also received role-playing training in groups for six sessions, each lasting 90 minutes, twice a week, over three weeks. The sessions were conducted by the researcher. In each session, the first 30 minutes included the researcher explaining the topic through lectures using a video projector in four small groups of five students each, while also addressing students' questions. The educational interventions were conducted simultaneously for two groups on different days of the week and lasted approximately 6 weeks (from April 22 to May 31, 2024). Afterward, scenarios aligned with the topics of each session were provided to the students, who discussed them in groups of two or three and then presented the scenario through role-playing, simulating a clinical environment. In the next step, the researcher, along with the role-players and observers, discussed and interpreted various aspects of the performance and its outcomes. The researcher guided the discussions so that the role-players could generalize different approaches to problem situations and their consequences after gaining experience, enabling them to apply these approaches in real clinical settings. The questionnaires were filled out again after the educational interventions were completed. The content of the educational interventions was developed based on studies conducted by Bayrami et al (20) and Zabihi Hesari et al (21), as well as a logbook approved by the nursing faculty (Table 1).

Data Analysis

For data analysis, SPSS version 23 software was utilized. Descriptive statistics, including mean (standard deviation) and frequency (percentage), were used to summarize

demographic characteristics. The Shapiro-Wilk test assessed the normality of quantitative data distribution. To compare socialization and self-efficacy scores within and between the role-playing group and the standard education group before and after the intervention, paired *t*-tests and independent *t*-tests were applied. A significance level of $P < 0.05$ was considered statistically significant.

Results

In the present research, the participants consisted of 26 females (66.7%) and 13 males (33.3%). The majority of the participants were in the age group of 22 to 25 years (92.3%), and 34 participants were single (87.2%) (Table 2).

The independent *t*-test indicated that there was no significant difference between the intervention and control groups in the mean socialization scores across the domains of value recognition, professional skills, organizational management and policies, and interpersonal communication prior to the role-playing education (Table 3).

The independent *t*-test revealed that there was a significant difference between the intervention and control groups in the mean socialization scores for the domains of value recognition, professional skills, and interpersonal communication after the role-playing education. However, no significant difference was observed in the domain of organizational management and policies (Table 4).

The independent *t*-test revealed that there was no significant difference in the mean clinical self-efficacy scores in the domains of assessment, diagnosis, implementation, and evaluation between the intervention and control groups before role-playing education (Table 5).

The independent *t*-test revealed that there was a

Table 1. Educational Content of Sessions and Scenarios

Session	Session content	Scenario topics
Session 1	Introduction to nursing concepts, values, norms, and professional behaviors	Familiarity with ward regulations (understanding ward rules, nursing department organizational chart) Interaction with colleagues (understanding duties of nursing and other hospital staff)
Session 2	Explanation of professional behaviors and communication skills	Proper communication with supervisors (how to communicate administratively with ward heads, supervisors, etc.) Communication with restless patients (implementing guidelines for managing high-risk and vulnerable patients, use of physical and chemical restraints according to guidelines)
Session 3	Explanation of responsibility and proactivity in assigned tasks	Error event management (quick error identification, familiarity with error reporting forms, and reporting procedures) Acceptance of errors and their compensation (reporting errors without fear of punishment, adopting and promoting a patient safety culture)
Session 4	Explanation of proper communication with others and enhancing a receptive attitude to criticism and improvement	Proper communication with patients and their companions (familiarity with factors affecting communication and its barriers, efforts to establish a supportive nurse-patient relationship) Anger management skills and strengthening acceptance of criticism (efforts to minimize miscommunication between colleagues and patients, differentiating assertive communication from aggressive behavior)
Session 5	Explanation of problem-solving and decision-making skills and their stages	Crisis management (familiarity with crisis codes, crisis team, hospital guidelines during a crisis) Decision-making in sensitive and critical situations (familiarity with problem-solving processes and techniques)
Session 6	Stages of controlling negative emotions and creating motivation through successful performance, verbal persuasion, and enhancing self-efficacy	Communication skills with patients in end-of-life stages and acceptance of reality by the patient and family (paying attention to patient needs, providing palliative care, controlling negative emotions of the patient and family, and creating a calm atmosphere in end-of-life stages)

Table 2. Demographic Characteristics of Final-year Nursing Students Participating in the Study

Variable		Intervention group	Control group
Gender	Male	6 (31.57)	7 (35)
	Female	13 (65)	13 (68.42)
Marital status	Single	16 (84.21)	18 (90)
	Married	3 (15.79)	2 (10)
Age group	22-25	17 (89.47)	19 (95)
	Above 25	1 (5.26)	2 (10.52)
GPA	Mean	17.72	18.02
	SD	1.08	1.46

GPA: Grade point average

Table 3. Comparison of Socialization Scores of Nursing Students before Role-playing Education in Intervention and Control Groups

Socialization domain	Group	Mean	SD	t-statistic	P value
Value recognition	Control	25.36	6.31	0.39-	0.696
	Intervention	26.36	9.09		
Professional skills	Control	53.18	6.31	0.38-	0.705
	Intervention	54.66	9.09		
Organizational management and policies	Control	28.50	3.80	0.56-	0.574
	Intervention	29.31	5.11		
Interpersonal communication	Control	4.60	1.31	1.06	0.296
	Intervention	4.10	1.59		
Total score	Control	109.06	20.90	-0.72	0.477
	Intervention	114.61	22.87		

significant difference in the mean scores of assessment, diagnosis, implementation, and evaluation between the intervention and control groups after role-playing education (Table 6).

According to Table 7, the paired *t*-test showed that the mean scores of clinical self-efficacy and socialization among nursing students in all domains before and after the implementation of the role-playing education program in the control group did not have a significant difference ($P > 0.05$).

According to Table 8, the paired *t*-test showed that the mean scores of clinical self-efficacy and socialization among nursing students in all domains had a significant difference before and after the implementation of the role-playing education program in the intervention group ($P < 0.05$).

Discussion

The findings of this research indicated that the role-playing method during internships is effective in enhancing the socialization and clinical self-efficacy of nursing students. Consistent with the results of our study, Soltanian et al demonstrated that role-playing effectively improved nursing students' communication skills with patients and enhanced their self-efficacy. Their findings support the use of role-playing as an active learning approach that fosters practical skills and confidence in

Table 4. Comparison of Socialization Scores of Nursing Students after Role-playing Education in the Intervention and Control Groups

Socialization domain	Group	Mean	SD	t-statistic	P-value
Value recognition	Control	20.84	5.85	11.704	0.000
	Intervention	41.84	5.18		
Professional skills	Control	47.38	5.85	11.106	0.001
	Intervention	95.93	14.98		
Organizational management and policies	Control	23.31	3.72	1.868	0.70
	Intervention	25.65	4.05		
Interpersonal communication	Control	6.15	6.15	11.106	0.000
	Intervention	11.00	1.68		
Total score	Control	97.16	12.78	14.342	0.000
	Intervention	189.00	23.32		

Table 5. Comparison of Clinical Self-efficacy Scores of Nursing Students before Role-playing Education in the Intervention and Control Groups

Self-efficacy domain	Group	Mean	SD	t-statistic	P-value
Assessment	Control	19.95	4.46	0.582	0.564
	Intervention	19.92	3.02		
Diagnosis	Control	16.50	4.12	2.121	0.065
	Intervention	14.15	2.54		
Implementation	Control	16.35	2.73	-0.203	0.841
	Intervention	16.52	2.62		
Evaluation	Control	8.35	1.89	0.751	0.457
	Intervention	7.89	1.88		
Total score	Control	61.15	10.26	0.982	0.333
	Intervention	58.16	8.21		

clinical settings, making it a recommended approach not only for nursing students but also for other medical science students engaged in practical and clinical training (22). Dehghan Abnavi et al conducted a study titled "The Effect of Role-playing PREP and DRP on Perceived Stress and Self-efficacy of Operating Room Students", which showed that teaching PREP and DRP using role-playing reduced stress and increased self-efficacy among students (23).

Lin et al conducted a study on nursing students, demonstrating that simulation-based learning significantly improved students' self-efficacy regarding the acquisition of skills and performance expected by nursing instructors. Additionally, this study found that simulation-based learning had a positive impact on student progress outcomes (24). Perhaps one of the reasons why the role-playing method is more effective than other methods is that the learners participate more and the learning process is more realistic for them. Bahri and Pourjamshidi conducted a study on elementary students, showing that integrating technology into the role-playing method increased cognitive engagement more than traditional role-playing or lecturing alone. Additionally, it was more effective in enhancing students' academic self-efficacy. Consequently, educators can create learning opportunities by integrating technology (such as

Table 6. Comparison of Clinical Self-efficacy Scores of Nursing Students after Role-playing Education in the Intervention and Control Groups

Self-efficacy domain	Group	Mean	SD	t-statistic	P-value
Assessment	Control	20.25	5.62	-22.83	0.000
	Intervention	53.00	3.89		
Diagnosis	Control	15.90	3.50	-22.51	0.000
	Intervention	33.88	2.54		
Implementation	Control	42.53	3.99	-2.11	0.041
	Intervention	45.31	3.09		
Evaluation	Control	8.60	2.32	-19.53	0.000
	Intervention	22.26	1.96		
Total score	Control	61.90	10.64	-27.32	0.000
	Intervention	159.44	11.33		

Table 7. Comparison of Mean Scores for Clinical Self-efficacy and Socialization before and after Role-playing Education in the Control Group

	Group	Mean	SD	t-statistic	P-value
Socialization domain					
Value recognition	Before	42.00	4.61	0.348	0.732
	After	41.84	5.18		
Professional skills	Before	91.66	11.09	0.145	0.272
	After	94.80	14.78		
Organizational management and policies	Before	37.35	4.29	0.145	0.211
	After	38.10	4.21		
Interpersonal communication	Before	10.90	1.58	-0.462	0.649
	After	11.00	1.68		
Total score	Before	183.21	19.97	-1.056	0.310
	After	186.57	22.15		
Self-efficacy domain					
Assessment	Before	19.95	4.46	-0.501	0.622
	After	20.25	3.95		
Diagnosis	Before	16.50	4.12	0.674	0.508
	After	15.90	3.50		
Implementation	Before	16.35	2.73	-1.004	0.328
	After	16.52	2.62		
Evaluation	Before	8.35	1.89	-0.773	0.449
	After	8.60	2.32		
Total score	Before	61.15	10.26	-0.411	0.685
	After	61.90	10.68		

film) into role-playing methods, which not only enhances cognitive engagement with course content but also increases learner's sense of competence, capability, and belief in their skills, namely their academic self-efficacy (25). Ashghali Farahani et al have conducted research on the impact of role-playing on nursing students' knowledge in patient education. Their studies have shown that role-playing improves students' knowledge in this area. They suggest that role-playing should be used over more than one semester, alongside other active learning methods, in educational programs for nursing students (26). It can be said that the use of role-playing educational method in

Table 8. Comparison of Mean Clinical Self-Efficacy Scores in the Assessment Domain before and after Role-playing Education in the Intervention Group

	Group	Mean	SD	t-statistic	P-value
Socialization domain					
Value recognition	Before	20.84	5.85	13.951	0.004
	After	45.10	4.05		
Professional skills	Before	47.35	5.86	2.754	0.001
	After	54.41	10.33		
Organizational management and policies	Before	23.31	3.72	5.168	0.000
	After	29.31	5.11		
Interpersonal communication	Before	4.10	1.59	-6.243	0.000
	After	6.15	0.89		
Total score	Before	97.70	12.77	3.115	0.007
	After	114.23	23.52		
Self-efficacy domain					
Assessment	Before	19.22	3.02	-27.57	0.000
	After	52.88	5.07		
Diagnosis	Before	14.05	2.57	-35.89	0.001
	After	38.88	2.67		
Implementation	Before	16.52	2.69	-28.17	0.000
	After	45.31	3.03		
Evaluation	Before	7.89	1.88	-19.15	0.003
	After	8.60	2.32		
Total score	Before	58.11	8.46	-30.68	0.000
	After	159.17	11.62		

teaching communication skills is required. In fact, the role-playing method provides conditions for nursing students to practice patient care duties with self-confidence and without worrying about harming the patient. Creating such an environment where students actively participate in their educational activities and receive appropriate feedback can lead to increased self-efficacy.

Additionally, regarding the second objective of the study, "determining the impact of role-playing during internships on the socialization of nursing students", the results showed that this method during internships is useful in enhancing the socialization of nursing students. Although no research in Iran has directly assessed the impact of role-playing on the socialization of nursing students, various studies have emphasized the importance of socialization for nurses and nursing students. Matsumori and Kageyama showed that virtual education, extracurricular activities, and clinical exercises have an impact on the socialization of nursing students. The study emphasized that final-year students undergo more of the socialization process by responding to clinical exercise conditions. Additionally, the study recommended that nursing instructors use various educational models to improve the socialization of nursing students, leading to the development of professional commitments and professional identity in them (27). In the research by Hosseinzadegan et al titled "The Impact of Educational Functions on the Professional Socialization Process of

Nursing Students”, the results showed that improving and organizing the educational system, emphasizing the selection of effective and interested clinical instructors, and using educational mentors, peers, and role models are strategies to facilitate and enhance the professional socialization of nursing students (28). The factor of support from instructors and mentors significantly affects the socialization of nursing professionals. These models for fostering professional socialization among nursing students should be updated continuously to provide relevant findings for nurse educators’ planning and implementing programs as society may demand (27).

According to the results of this research, nursing education programs should be designed to provide conditions that will ensure the optimal use of available resources and promote understanding of the nursing profession, management, and support of nursing services, thereby maintaining the level of professional socialization of nursing students in order to fulfill their professional roles and fulfill the mission of the health system. Organizational culture plays a significant role in the socialization of nurses by shaping their work environment, interactions, and professional identity. Studies highlight that a strong organizational culture, characterized by shared values, beliefs, norms, and supportive practices such as informal learning and shared leadership, facilitates nurses’ organizational socialization, even in the short term (29). Understanding the status of professional socialization among nursing students is crucial for healthcare administrators. This understanding can prompt them to create environments that foster more practical experience and independence for students, which is essential for providing high-quality nursing care. By recognizing the importance of socialization, administrators can implement policies that support the development of professional identities and abilities among nursing students(10).

The present study attempted to visually depict clinically relevant topics and procedures in the daily tasks and challenging situations faced by nurses. Discussions about problems and potential solutions in these situations were carried out, and documented solutions were presented. It can be said that creating an environment through visual representation, detailed explanation, and proper management contributed to boosting the socialization of nursing students. The results of this study suggest that nursing students in clinical environments need to seek help from experienced nurses and instructors when facing new and sometimes stressful work conditions. Seeking of help from workplace peers can indicate better social interactions for clinical performance. By using the role-playing educational approach, an environment similar to the clinical setting is simulated, where problems and issues that may occur in real clinical environments are discussed. Through role-playing scenarios presented in each session, students learn how to correctly apply the skills taught and enhance their social skills and clinical performance.

Effective communication skills are fundamental to the success of nursing students in their interactions with patients, patients’ families, hospital staff, and all clinical personnel. Failure to establish a suitable relationship with patients or other nurses can lead to increased anxiety for both parties, negatively affecting care quality and patient outcomes (30). The role-playing method can be described as a form of authentic practice or activity that allows participants to engage in the learning process by performing a role in a specific situation. It can be used to enhance academic motivation, academic self-efficacy, and social adjustment.

Conclusion

The results of this research suggest that internships using role-playing are useful in enhancing the socialization and clinical self-efficacy of nursing students. However, the main issue in the nursing system regarding the socialization and clinical self-efficacy of nursing students is that these topics lack a clear framework and are not seriously integrated into the formal educational curriculum. One of the reasons for this problem seems to be the scarcity of comprehensive studies on this subject in nursing education for students in the country.

It is recommended that managers of educational institutions plan to use the role-playing method to teach clinical processes to students. Additionally, various variables that affect the learning process of students, such as stress and their clinical competence, should also be evaluated in this educational method. This will enable improvements in education at the university level and the training of students who, upon entering clinical environments, can apply the theoretical knowledge they have learned with practical competence. Given that role-playing is considered one of the modern educational methods, it can be part of the nursing curriculum as an effective method for empowering nursing students and enhancing educational quality.

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Competing Interests

None to declare.

Data Availability Statement

The datasets used and/or analyzed during the current study are available from the corresponding author upon reasonable request.

Ethical Approval

This study was approved by the Ethics Committee of Urmia Islamic Azad University (IR.IAU.URMIA.REC.1403.009).

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