



# The Effect of Multicultural Role Play on Multicultural Perception and Empathy Ability of Nursing College Students

Miyoun Cha\*  
Uiduk University,  
Gyeongju, South Korea

**Abstract:** This study investigated the effect of multicultural perception and empathy ability on nursing students through multicultural role-playing. It is a quasi-experimental research with a nonequivalent control group pre/post-test design. Data collection was from March to April 2022. Data analysis included frequency, percentage, mean, standard deviation, and chi-square tests, and a paired t-test was used to confirm the effect within each group of subjects before and after the survey. The subjects were nursing students from one area who agreed to the experiment. The experimental group wrote a scenario for multicultural role play and presented it as a video. A total of 100 people, 50 each from the experimental group and the control group were measured for multicultural perceptions and empathy before and after role-play activities. Multicultural role-playing had a significant effect on the multicultural perception ( $p=.004$ ) and empathy ability ( $p=0.000$ ) of nursing college students. Therefore, This study suggests that multicultural role-playing can help change multicultural perceptions and empathy ability.

**Keywords:** *Multicultural role play, multicultural perception, empathy ability, nursing college students*

**Received:** 5 January 2023; **Accepted:** 10 March 2023; **Published:** 5 May 2023

## I. INTRODUCTION

Significant changes in Korea in the 21st century are multicultural globalization, openness, and diversification. The opening of the Republic of Korea, which used to be a mono-ethnic state, is rapidly progressing. The multicultural population of Korea is the largest in Chinese, followed by Vietnamese and Filipinos [1]. Multicultural society refers to an increase of foreigners staying because of marriage or employment. Recently, there has been a need for nursing care for the rapidly increasing number of multicultural people in Korea. As a result, the reach of healthcare services expands to people from various cultures [2]. The increase in multicultural people presents many problems in the Korean healthcare field. Understanding multiculturalism has become very important for healthcare workers in the medical service field. Medical service providers have prejudice or difficulty in commu-

nicating with multicultural patients[3]. Multicultural patients may have different perceptions and interpretations of diseases, so that they can understand health promotion behaviors in differently aspects [4]. Perception of multiculturalism is to understand a group of people from various cultural backgrounds [5], which means removing stereotypes or prejudices about foreigners and accepting diversity. Cultural acceptance enhances cultural competence. Cultural acceptance enhances cultural competence, and as competence increases, multicultural perception expands. Nurses must understand the health care desired by multicultural families and act as coordinators, counselors, and educators by developing multicultural competencies. We must accurately express their nursing needs, help them manage their own health, and serve as counselors, educators, and advocates for them [6]).

Medical professionals are needed to best understand

\*Correspondence concerning this article should be addressed to Miyoun Cha, Uiduk University, Gyeongju, South Korea. E-mail: [my-cha@uu.ac.kr](mailto:my-cha@uu.ac.kr)

and recognize their problems. Cultural ability means understanding and effective communication of cultural differences in other countries [7], and cultural perception and empathy are complementary to each other. Korea needs education, such as national publicity and academic forums as to improve multicultural perception [8]. Social distance toward foreigners and feelings toward migrants were investigated as factors influencing multicultural recognition prejudice [9]. In particular, if medical personnel provide care with cultural prejudice, it can negatively affect the health of the subject [10].

Role play is an educational method used to maximize educational effects by a structured form, but it is not properly practiced in the field and tends to be avoided [11]. Based on empathy in the effectiveness of the instructional model for role play, coordination and communication with others were improved. Role play is a class model that improves communication skills, and many students have difficulty discussing and coordinating with others [12]. Role-playing classes need to be used a lot because empathy can be improved.

Empathy ability is a significant potential for health-care workers. Empathy understands the other person, recognizing this, and accepting the other person without judging them [6]. Nursing educators have come to think a lot about improving nursing students' empathy. The ability to explore and respond to information on multiculturalism was required. Through active role play of nursing students, the ability to empathize with others can be increased, and the ability to understand the other person

can be increased by experiencing confidence and cultural differences [13]. Such cooperative learning can create successful nursing college education and have a good effect on the competence of multicultural nursing personnel [14]. It is regarded that empathy for Multicultural perception will increase, and multicultural capabilities will increase, which will influencing multicultural perception. This study aims to understand the degree of multicultural perception of nursing students and to test the difference in multicultural perception and empathy ability of multicultural role-playing. Through this, primary data are provided for developing nursing curricula and programs, and specific purposes are as follows:

- It identifies the effect of multicultural role-playing on the subject's multicultural perception.
- It identifies the effect of multicultural role-playing on the subject's empathy ability.

## II. METHOD

### A. Purpose

The purpose of this study is to investigate as follows. The effect of multicultural role play of nursing students on multicultural perception and empathy ability.

### B. Model

The design of this study is a non-equivalence-like experimental study to test the effect of multicultural perception and empathy ability through pre- and post-tests (table 1).

TABLE 1  
RESEARCH DESIGN

Group	Pre-test	Treatment	Post-test
Cont	Test 1	-	Test 2
Exp	Test 1	Treatment	Test 2

Cont: Control group, Exp: Experimental group, Test 1: General characteristics, Multicultural perception, Empathy ability. Test 2: Multicultural perception, Empathy ability, Treatment: Multicultural role play

### C. Data Analysis

The collected data was analyzed using SPSS WIN 20.0. The subject's general characteristics and the values of each variable were calculated as frequency, percentage, mean, and standard deviation. A chi-square test was conducted to examine the general characteristics and homogeneity of the subjects, and the effect within each group of the subjects pre- and post-survey was examined by paired t-test.

### D. Term Definition

1) *Multicultural role play*: Multicultural role play involves the experimental group understanding the health concepts and cultural aspects of each country and performing role play activities [15]. During the multicultural understanding course, students form teams, set up situations for multicultural families, decide on roles, and perform role plays. Video filming takes place for about 20 minutes while role-playing a scenario centered on five Asian countries, including China, Vietnam, the Philippines, Mongolia, and North Korea. Before the role-play

activity, multicultural awareness and empathy were surveyed, and after the activity, the multicultural awareness and empathy ability questionnaires were filled out again.

2) *Multicultural perception* : Multicultural perception is about understanding and respecting the differences in the cultural backgrounds of the other person [16]. Multicultural perception in this study is a tool developed by [17], which is a 4-point scale comprised of a total of 22 questions. The higher the multicultural perception score, the higher the perception.

3) *Empathy ability* :Empathy is the process and result of passive experience and active experience, meaning that emotions are absorbed and felt in the other person's mind [6]. The Interpersonal Reactivity Index (IRI) developed by [18] was used. It is a 5-point scale tool, and higher scores mean higher empathy.

#### E. *Subjects of Research*

For the selection of subjects, an experimental group and a control group were assigned to carry out multicultural education targeting nursing students using convenience sampling. The subject understood the purpose and procedure of the study and agreed to participate in the study. They drew up questionnaires before and after the activity. Role play and data collection took place from March to April 2022. Before performing the role play, a pre-survey was administered to the experimental and control groups. After performing the role play, a post-survey was conducted. The number of the subjects was confirmed to be 26 people per group when done with the significance level ( $\alpha$ ) =.05, the number of the groups = 2, power =.90, and the effect size =.80 by [19] power analysis. In allow for of the dropout rate, 50 subjects were chosen, each in an experimental group and a control group. Specific target selection is as follows:

- A person who agreed to this study and agreed to collect personal information.
- A nursing student.
- The experimental group participated more than 80% in the epidemiological play

#### F. *Ethical Protection of the Subject*

The recruitment of the study subjects was those who agreed to this study, and the purpose and method of participation in the study were explained. The questionnaire was filled out for about 10 minutes, and it explained the guarantee of anonymity, voluntary participation, and the possibility of giving up halfway. It was explained that the subjects' information was discarded after analysis, and only those who agreed to collect personal information

were investigated. And after examining the data to the subjects, school supplies were paid as compensation.

#### G. *Apply Multicultural Role Play*

The subjects were divided into 5 teams, and each team prepared scenarios related to communication in Asian countries and prepared role plays for each situation. As for the main contents, the recognition of diseases suitable for each country's culture, such as China, Vietnam, the Philippines, Mongolia, and North Korea, and the characteristics of communication, eating habits, and lifestyles by country were presented. The experimental group wrote role-playing scenarios for health and tradition by country and recorded and filmed the role play for 20 minutes. Each team took a video of each country's unique traditions and health-related folk remedies. The recorded recording was shown to the study subjects. The experimental group played roles according to the written scenario. The control group and the experimental group filled out a questionnaire about multicultural awareness and empathy before the role play. They completed a post-questionnaire right after the activity was done.

### III. RESULTS

#### A. *Demographic and Sociological Characteristics of Subjects*

In this study, 64% of the subjects in the experimental group were women, and 82% in the control group, with more female students participating than male students. There were more female students in nursing colleges than male students so many female students participated in the study. The most common age of the study was 20 years old, 66% in the experimental group and 80% in the control group. The subjects aged 21 to 25 were 24% in each experimental group and 18 in the control group, and they were surveyed as re-enrollers or returning students. As for the religion of the subjects, Christian was 24% in the experimental group, followed by Catholicism. And in the control group, Christian was 20%, followed by Catholicism and Buddhism at the same rate. The degree of subjective multicultural awareness of the study subjects is as follows. The experimental bacteria were very high at 46%, and in the control group at 50%, indicating that the subjects of the study had a high perception of multicultural people. The recognition of the necessity of multicultural education was 80% in the experimental group and 88% in the control group, indicating that all experimenters were very necessary. Finally, both groups were reported to fully agree on the need for multicultural education.

TABLE 2  
HOMOGENEITY TEST OF GENERAL CHARACTERISTICS (N=100)

Characteristics	Cont. (n=50)	Exp. (n=50)	x <sup>2</sup>	p	
	N (%)	N (%)			
Gender	Female	41(82)	32(64)	0.34	0.413
	Male	9(18)	18(36)		
Age	20	40(80)	33(66)	187.222	0.051
	21 25	9(18)	12(24)		
	26 30	1(2)	5(10)		
R Religion	Christian	10(20)	12(24)	4.54	0.333
	Catholic	5(10)	10(20)		
	Buddhism	5(10)	2(4)		
	No	30(60)	26(52)		
Subjective Multicultural Perception	Low	0(0)	2(4)	6.539	0.587
	Average	5(10)	6(12)		
	High	20(40)	19(38)		
	Very high	25(50)	23(46)		
M Multicultural Education Needs	No need	0(0)	0(0)	4.315	0.116
	Need	6(12)	10(20)		
	High Need	44(88)	40(80)		

Cont: Control group, Exp: Experimental group, Test 1: General characteristics, Multicultural perception, Empathy ability. Test 2: Multicultural perception, Empathy ability, Treatment: Multicultural role play

**B. Homogeneity of the Study Subjects**

Homogeneity between the experimental group and the control group was confirmed before the study intervention. As a result of conducting an independent sample

T-test on the pre-test scores of each measurement variable, there was no significant difference between the experimental group and the control group in all indicators, so the homogeneity of the two groups was secured (Table 3).

TABLE 3  
PRE-TEST SCORES FOR THE HOMOGENEITY

Variables	Groups	M	SD	t	Sig.
Multicultural Perception	Exp.(n=50)	3.099	0.825	6.537	0.412
	Cont.(n=50)	3.152	0.369		
Empathy Ability	Exp.(n=50)	2.995	0.553	37.914	0.874
	Cont.(n=50)	2.901	0.796		

**C. Effect of Multicultural Perception and Empathy Ability**

A paired-samples t-test was performed to determine pre-post changes between the experimental and control groups participating in the study. As a result, the experimental group showed an increase in multicultural aware-

ness and multicultural empathy scores. Multicultural awareness increased from pre-score (M=3.099) to post-score (M=3.446), and multicultural empathy increased significantly from (M=2.995) to (M=3.338). There was no change in the control group, and there was a significant difference in the experimental group (Table 4).

TABLE 4  
EFFECT OF MULTICULTURAL PERCEPTION AND EMPATHY ABILITY

Variables	Categories	Exp.(n=50) M(SD)	Cont.(n=50) M(SD)	t	p
Multicultural Perception	Pre	3.099(.825)	3.152 (.369)	-3.24	0.004
	Post	3.446(.241)	3.015(.202)		
Empathy Ability	Pre	2.995(.553)	2.901(.796)	-4.984	0
	Post	3.338(.381)	3.058(.543)		

#### IV. DISCUSSION

This study was to determine the effect of multicultural role-playing of nursing college students on multicultural perception and empathy. This study was a nursing student in a region who played a role to find out the difference between pre and post-mortem. The results of the study are summarized as follows.

It was examined that the subjective multicultural perception of nursing college students was very high. According to the research results of [1], the degree of multicultural perception of nursing students was 3.74 ( $\pm 0.48$ ) out of 5 points, and there was no significant difference depending on the existence or nonexistence of their multicultural learning experiences. Lecture teaching is limited to changes in perception. Increasing the rate of multicultural experience learning will change the perception of multiculturalism. To raise awareness, it is necessary to develop opportunities for various multicultural experiences and strategies and experience programs that induce interest. When students recognized the need for multicultural education, the degree of multicultural perception was significantly high [20]. In this study, all the subjects answered that education is necessary. According to the study by [21], 79.5% of ward nurses felt the need for multicultural education, and nurses who felt the need for multicultural education had high awareness of multiculturalism. This study revealed the need for active experiential education rather than lecture-oriented education.

In this study, multicultural perception and empathy significantly increased after the role play was conducted. Empathy plays a role in fostering the values of responsibility, respect, consideration, and communication, which are critical virtues of human nature. It is a concept in which affective, cognitive, and communicative elements are circulated in a complex way [22]. Empathy develops as experience increases, and the way to develop this ability is through various activities such as travel, reading, and role play [23].

A guideline for empathy promotion is to focus on the other person, pay attention to verbal and non-verbal messages, and deliver empathic responses to the other person [24]. [12] expressed empathy with a subject in need of health as a process in which the subject is understood. Cultural proximity should be increased through participation in long, short-term volunteer activities related to domestic and foreign multiculturalism or mentoring voluntary work for multicultural students [1].

The study by [6] explained 4 types of multicultural recognition structures of pregnant nurses, which were value-neutral acceptance type, inevitable acceptance type, NIMBY (Not in my backyard) type, and negative preju-

dice. It also wrote that it was required to develop differentiated programs based on these various types. According to a study by [6], value-neutral acceptance is a position to accept multicultural people as an individual or family, but NIMBY-type nurses acknowledged the advantages of multicultural families but refused to marry their own families. In the negative prejudice type, rejection and negative feelings toward multicultural families were strong. This suggests that educational programs for nurses with NIMBY types or negative biases are needed. Role play is a teaching method that trains the communication situation of multicultural families through direct participation and experience [4]. Various education is needed to raise delivery power based on acceptance, analysis, and evaluation of others and to improve coordination power that prioritizes empathy and response [25]. It will be helpful to learn communication skills suitable for the situation and object by actively applying a situation-oriented role play to the curriculum. According to such various studies, an empirical curriculum is needed to foster awareness and empathy for multiculturalism from the time of nursing students.

#### V. CONCLUSION

This study investigated the impact of nursing students' multicultural awareness and empathy ability through multicultural role play. There were more female participants than male participants, and the participants' Perception of multiculturalism and their demands for multicultural education were found to be high. Subjects wrote role-play scenarios related to multiculturalism and gave recorded presentations through video. As a result, multicultural role play was found to have a significant impact on nursing students' multicultural Perception and empathy ability. This study suggests that role-playing in multicultural situations can be helpful in improving multicultural awareness and empathy among nursing students. Most multicultural curricula in nursing schools in Korea are still lecture-based. There are difficulties in role-playing classes suitable for student-led situations. Instructors should try to run experiential classes.

##### A. Suggestion

This study was conducted to find out the effect of role play on the multicultural perception and empathy ability of nursing students. In nursing colleges in Korea, most multicultural curriculum are lecture-style curriculum. It talks about the difficulties of role-playing classes suitable for student-led situations. However, instructors should try to run hands-on classes. In this study, as a result of mediating the contextual role play of multicultural families,

there was a significant change in multicultural perception and empathy in the experimental group. Based on the results of this study, it is believed that practical role-playing education programs, not lecture-style education, should be implemented to strengthen multicultural perception and empathy. However, research from a nursing college may have limitations in generalization, so it is necessary to analyze factors affecting multicultural perception, including various objects and variables.

## REFERENCES

- [1] K. Bok-jeong and K. Kyung-ah, "Exploration of educational personnel operation status and improvement plans from the perspective of a multicultural understanding education professional instructor," *Family and Quality of Life Research*, vol. 36, no. 3, pp. 63–78, 2018.
- [2] K. Bok-jeong and K. Kyung-ah, "Exploration of educational personnel operation status and improvement plans from the perspective of a multicultural understanding education professional instructor," *Family and Quality of Life Research*, vol. 36, no. 3, pp. 63–78, 2018.
- [3] M. Kyung-hee and O. Jae-yeon, "The effect of the child's temperament, mother's emotional expressiveness, and early childhood teacher's empathy ability on the child's self-regulation ability," *Open Early Childhood Education Research*, vol. 26, no. 6, pp. 215–241, 2021.
- [4] E. J. Song, Y. K. Yang, and S. K. Park, "Effects on critical thinking disposition and empathy on cultural competency in nursing students," *Journal of Korean Academy of Psychiatric and Mental Health Nursing*, vol. 25, no. 4, pp. 347–355, 2016.
- [5] S. Na-rae and P. Yun-jeong, "Effect of situation-based role-playing social studies classes on self-expression and self-advocacy abilities of middle school students with intellectual disabilities," *Journal of Intellectual Disabilities*, vol. 24, no. 2, pp. 51–72, 2022.
- [6] J. Y. Lee and H. O. Ju, "The perception of multicultural families on hospital nurses," *Journal of East-West Nursing Research*, vol. 19, no. 1, pp. 30–36, 2013.
- [7] P. I. James S, "Cultural diversity and mental health towards integrative practice." *Clin Psychol Rev.*, vol. 22, no. 8, pp. 1133–54, 2002.
- [8] E.-A. Cho, "Effects of nursing education using role play of delivery on communication ability and self-directed learning of nursing students," *Journal of the Korea Entertainment Industry Association*, vol. 9, no. 4, pp. 351–360, 2015.
- [9] K. S. Kim and M. Yu, "The influencing factors associated cultural awareness of immigrants for marriage, foreign workers in Korean nursing students." *Korean Journal of Adult Nursing*, vol. 24, no. 5, 2012.
- [10] L. Clark and C. Thomam, "Using educational technology to teach cultural assessment," *Journal of Nursing Education*, vol. 41, no. 3, pp. 117–120, 2002.
- [11] K. Bok-jeong and K. Kyung-ah, "Exploration of educational personnel operation status and improvement plans from the perspective of a multicultural understanding education professional instructor," *Family and Quality of Life Research*, vol. 36, no. 3, pp. 63–78, 2018.
- [12] S. Hong and J. Y. Lee, "Evaluation of therapeutic communication education for nursing students based on constructivist learning environments: A systematic review," *Nurse Education Today*, p. 105607, 2022.
- [13] M. Z. Hoq, "E-learning during the period of pandemic (COVID-19) in the kingdom of Saudi Arabia: an empirical study," *American Journal of Educational Research*, vol. 8, no. 7, pp. 457–464, 2020.
- [14] C. Mi-Youn, "The effects of nursing college student's mentoring activity on their college life adaptability and learning attitude." *International Journal of Humanities, Arts & Social Sciences*, vol. 5, no. 1, 2019.
- [15] Y. Seo, S. Yoon, and Y. A. Kim, "The effects of domestic nursing practical education using role-play - a systematic review and meta-analysis -," *Journal of the Korean Data And Information Science Society*, 2019.
- [16] J. Jun and J. Chang, "Significant variables influencing the self-efficacy of middle school students of multicultural families," *Family and Environment Research*, vol. 51, 06 2013. doi: 10.6115/fer.2013.51.3.333
- [17] H. A. Alismail, "Multicultural education: Teachers' perceptions and preparation," *Journal of Education and Practice*, vol. 7, no. 11, pp. 1–8, 2016.
- [18] M. H. Davis *et al.*, "A multidimensional approach to individual differences in empathy," 1980.
- [19] J. Cohen, *Statistical Power Analysis for the Behavioral Sciences*, 2nd ed. Lawrence Erlbaum Associates, 1988, no. pp. 1-579.
- [20] Y. k. Huijin Mun and X. Sun, "A qualitative study on the process of changing multicultural perceptions

- of college students participating in role-playing oriented liberal arts classes,” *The Korean Association of General Education*, vol. 17, no. 4, pp. 159–178, 2023.
- [21] J. H. O. J. L. J. H.-o. Lee, Jae Young, “The perception of multicultural families on hospital nurses,” *Journal of East-West Nursing Research*, vol. 19, no. 1, pp. 30–36, 2013.
- [22] M. Kyung-hee and O. Jae-yeon, “The effect of the child’s temperament, mother’s emotional expressiveness, and early childhood teacher’s empathy ability on the child’s self-regulation ability,” *Open Early Childhood Education Research*, vol. 26, no. 6, pp. 215–241, 2021.
- [23] S. Kwon and M. Kim, “Factors influencing multicultural attitude in nursing students,” *Journal of the Korean Data Analysis Society*, vol. 18, no. 2, pp. 1123–1135, 2016.
- [24] M. Gu and S. Sok, “Factors influencing multicultural acceptance of Korean nursing students,” *BMC Nursing*, vol. 22, 2023.
- [25] J. Kyung-ah and E. Mi-ran, “Development of a program to strengthen mental nursing communication skills using role play,” *Business Convergence Research*, vol. 8, no. 3, pp. 43–51, 2023.