Original Article

The Effects of Education through Role-Playing on Self-Concept among Older Adults

Fatemeh Mansouri[1], Parand Pourghane[1], Roya Mansour-Ghanaei[1,2], Zahra Atrkar Roushan[3]

[1]Department of Nursing, Zeynab (P.B.U.H) School of Nursing and Midwifery, Guilan University of Medical Sciences, Rasht, Iran, [2]Gastrointestinal and Liver Diseases Research Center, Guilan University of Medical Sciences, Rasht, Iran, [3] Department of Biostatistics, Faculty of Medicine, Guilan University of Medical Sciences, Rasht, Iran

ORCID:

Fatemeh Mansouri: 0000-0003-3068-9235

Parand Pourghane: 0000-0001-9927-5861

Roya Mansour-Ghanaei: 0000-0001-8062-8858

Zahra Atrkar Roushan: 0000-0002-1267-2133

ABSTRACT

Background: Self-concept (SC) is one the psychological characteristics affected by aging. **Objectives:** This study aimed to assess the effects of education through role-playing on SC among elderly people. **Methods:** This quasi-experimental study was conducted in 2018 using a two-group pre- and posttest design. Participants were 72 older adults randomly recruited from retirement centers in the East of Guilan province, Iran, and randomly allocated into control group and intervention group. Participants in the intervention group received education through role-playing in six-weekly sessions. Participants' SC was assessed before the intervention onset and 1.5 months after its end using the Rogers Self-concept Questionnaire. The independent sample t-test, the Mann–Whitney U test, and the Chi-square test were used for the data analysis. **Results:** There was no statistically significant difference between the intervention and the control groups respecting the pretest mean score of SC (10.69 ± 2.21 vs. 9.77 ± 2.59; $P = 0.11$). However, the posttest mean score of SC in the intervention group was significantly less than the control group (8.44 ± 2.70 vs. 9.69 ± 2.40; $P = 0.046$). The pre- and posttest mean difference of SC in the intervention group was also significantly greater than the control group (2.25 ± 2.43 vs. 0.10 ± 1.58; $P < 0.001$). **Conclusion:** Education through role-playing is effective in significantly improving older adults' SC. Therefore, health-care providers can use this method for SC improvement among older adults.

KEYWORDS: *Education, Older adults, Role playing, Self-concept, Self-image*

INTRODUCTION

Elderly population has significantly increased in recent years.[1,2] Aging can affect different aspects of life, including self-concept (SC).[3] SC refers to how a person perceives oneself. The formation of this view begins from infancy and continuing during later ages, people create an altering picture about themselves which little by little becomes clearer and more comprehensive.[4] According to Rogers, SC is a set of attributes a person perceives about self as a unique being.[5] Likewise, Krishnakar and Chengti define SC as the "accumulation of knowledge about the self" and they stated that beliefs and evaluations people make about themselves show not only what they think about themselves but also what they hope to become later.[6]

A positive SC denotes that the person accepts himself/herself as a person with weaknesses and strengths, while a negative SC reflects feelings such as worthlessness, incompetence, and disability.[3]

Those with poor SC often do not feel in control of situations and worthy of care, which affects decisions concerning health care. A positive SC gives a sense of meaning, wholeness, and stability to a person. A healthy

Address for correspondence: Dr. Parand Pourghane, Associate Professor in Department of Nursing, Zeynab (P.B.U.H) School of Nursing and Midwifery, Guilan University of Medical Sciences, Rasht, Iran.
E-mail: pourghanep@gmail.com

SC has a high degree of stability, which creates optimistic feelings toward self.[7]

Role-play (RP) is described as a way of acting of a specified part of a person or a character as a way of therapy or psychotherapy.[8] RP, as a common cognitive behavioral therapy, improves communication and social skills[9] and the relationship of the mind with traumatic experiences and memories.[10] RP was first introduced by Moreno. In this method, individuals are asked to demonstrate their interpersonal experiences in the presence of a group of people.[10] It is considered as an active learning method in medical education for creating positive personal learning experiences in a safe and supportive environment.[11] It focuses on the understanding and development of interpersonal relationships and skills. Active learning methods have positive effects on professional competence.[12]

While using RP, individuals collaboratively analyze social circumstances, find solutions to interpersonal problems, and develop liberal methods for dealing with social circumstances.[13] RP can reduce the time and the costs of education,[14] facilitate learning,[15] and improve decision making and critical thinking skills.[15,16] It is considered as a valuable method for clinical skill education with positive effects on anxiety and learning.[17] RP has potential effects on nurses' communication skills, caring behaviors, and counseling ability.[18] A study showed that RP improved creative thinking.[19] Another study reported RP as an effective therapeutic strategy for children with attention deficit hyperactive disorder and anxiety.[20]

All nursing clients have the right to receive quality care so that the quality of nursing care has turned into an important item in hospital accreditation and leveling programs in most countries. Nurses can provide quality care to older adults through accurately identifying and effectively fulfilling their needs. Despite the increasing population of older adults, limited studies have been conducted on their SC and the effects of RP on it in Iran, particularly Guilan province. Moreover, RP still has no distinct position in medical and nursing education though it can be used to improve educational outcomes in these practical professions. Therefore, the present study was conducted to address this gap.

Objectives

The aim of this study was to evaluate the effects of education through RP on SC among older adults.

METHODS

Design and participants

This quasi-experimental study was conducted using a two-group pre- and posttest design. Participants were 72 older adults who were randomly recruited from retirement centers in Roodsar, Langerood, Lahijan, and Astaneh Ashrafieh cities in the East of Guilan province, Iran.

The sample size was calculated based on the results of a pilot study on twenty older adults which revealed that the mean score of SC in the intervention and the control groups was 10.04 ± 2.2 and 8.4 ± 2.8, respectively. Subsequently, with a confidence level of 0.95 and a power of 0.80, the sample size was determined to be 72 [Figure 1]. Inclusion criteria were agreement for participation, age between 60 and 74 years, no cognitive impairment (based on the *Clock Drawing Test*), a score greater than 7 for the Rogers Self-Concept Questionnaire, and no significant loss in the past 6 months. Exclusion criteria were three or more absences from the intervention sessions, development of serious physical or mental health problems, significant loss, or death during the study. Participants were allocated into control group ($n = 36$) and intervention ($n = 36$) group through block randomization that was performed via an online randomization software (i.e., https://www. sealedenvelope. com/simple-randomiser/v1/lists). Eligible participants were selected based on their medical records in the study setting and were invited to the study through telephone contact by the managers of the study setting.

Intervention

The intervention for participants in the intervention group was RP education provided by the first author in a quiet room in the study setting. Educations were provided through RP in 6 one-hour sessions once a week weekly group sessions and were mainly related to communication skills, positive and negative feeling expression, request making, and refusal of others' irrational requests [Table 1]. Teaching methods were lectures, group discussions, and brainstormings. Educational materials were developed based on the
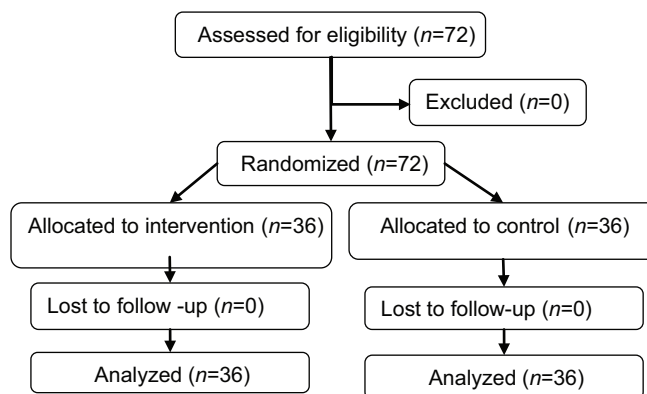
Figure 1: The flow diagram of the study

Table 1: The content of the sessions of the role-play education program

Session	Content
First	Introduction of the sessions and their aims and rules
	Creation of an intimate atmosphere
	Familiarization of participants with each other
	Prevention of group tensions through asking participants to provide positive feedback
	Techniques for giving positive feedback
Second	Communication and greeting with people in daily life (family members, friends, colleagues, etc.)
	Welcoming guests in parties as a host
	Giving feedback during group discussions in educational sessions
Third	Positive feeling expression while giving a gift to spouse, children, or friends and how to congratulate the international day for older persons to peers
	How to thank caregivers and express happiness in case of good news
Fourth	Appropriate request making without any negative feelings for example when asking about time in the street or asking others for a favor
	Assertion of normal human rights for self and others
	Education about the fact that rejecting a request does not necessarily mean a violation of human rights
Fifth	Expression of negative feelings to a person who breaks a promise
	Expression of negative feelings in case of bad news
	Expression of negative feelings to a person with unethical conduct such as accusation or backbiting
Sixth	Rejecting irrational requests for instance an invitation to a boring party
	Rejecting the request of a person who has not returned previously borrowed things
	Rejecting the request of a family member for doing his/her personal affairs in case of time limitation or limited willingness

relevant textbooks.[21] At the beginning of each session, the first author provided participants with the necessary education about the session topic and how to RP it. Then, participants role-played the topic and discussed the topic and the play. Finally, the first author provided them with supplementary educations about the topic and offered explanations about the best possible behaviors and feelings in that situation. Participants' SC was assessed before the intervention onset and 1.5 months after its end. At the end of the study, we suggested education through RP to participants in the control group, though none of them was willing to receive it due to time limitations.

Data collection instruments

A demographic questionnaire, the Rogers Self-Concept Questionnaire, and the clock drawing test were used for the data collection. The demographic questionnaire included items on age, gender, marital status, education level, place of residence, income sufficiency, and employment status.

Rogers Self-Concept Questionnaire

This questionnaire has two forms, A and B, which respectively assess attitude about actual self and ideal self. Each form includes 25 pairs of opposite personality traits. Each pair of opposite traits is shown on a 7-point scale. The score of each item is calculated by subtracting its score in the form B from its score in form A and squaring the result. Then, the total score of the questionnaire is calculated by summing the scores of the items and calculating its square root. The total score of the questionnaire determines SC type and is interpreted as follows: scores 0–7: positive SC; scores 7–10: negative SC; and scores >10: neurotic SC. A former study reported that the Cronbach's alpha values of the forms A and B were 0.69 and 0.6, respectively.[22] These values in the present study were 0.76 and 0.79, respectively.

The clock drawing test

This test is a simple and inexpensive method for the screening of cognitive disorders among older adults. Each elderly person is asked to write numbers 1–12 on their appropriate places on a clock and then to draw on the clock the minute and the hour hands of a predetermined time, for example, 04:45. Writing all twelve numbers, drawing distinguishable hands, and accurate drawing of the hands based on the predetermined time each is scored 2 points, while accurate positioning of the numbers is scored 1. Scores 5 or lower show the need for complete neurologic assessment.[23] A former study reported that the Spearman's correlation coefficient of this test for concurrent validity assessment was 0.782 and its inter-rater intraclass correlation coefficient was 0.96.[24]

Ethical considerations

The Ethics Committee of Guilan University of Medical Sciences, Rasht, Iran, approved this study (code: IR.GUMS.REC.2018.147). Participants were provided with information about the study aim, confidential management of their data, and their right to withdraw from the study at will. Then, written informed consent was obtained from each of them.

Data analysis

The SPSS software v. 16.0 (SPSS, Inc, Chicago, IL). was used for the data analysis. Initially, normality was tested using the Kolmogorov–Smirnov test. Then, the independent sample t–test and the Mann–Whitney U-test were used for between-group comparisons respecting the mean score of SC and the pretest–posttest mean difference of SC scores. Moreover, the Chi-square test, the independent sample t-test, and the Mann–Whitney

U-test were used to compare the groups respecting participants' demographic characteristics. The level of significance was set at <0.05.

RESULTS

All participants were male and most of them aged 60–64 years. The between-group differences respecting participants' demographic characteristics were not significant [Table 2].

There was no statistically significant difference between the intervention and the control groups concerning the pretest mean score of SC ($P = 0.11$). However, the posttest mean score of SC in the intervention group was significantly less than the control group ($P = 0.046$). Moreover, the pre- and posttest mean difference of the SC score in the intervention group was significantly greater than the control group ($P < 0.001$) so that the mean score of SC changed by 2.25 ± 2.43 points in the intervention group and only by 0.10 ± 1.58 point in the control group. Within-group change in the mean score of SC was statistically significant in the intervention group ($P = 0.001$) and statistically insignificant in the control group [$P = 0.69$; Table 3].

DISCUSSION

Findings showed that the posttest mean score of SC in the intervention group was significantly less than the control group. Similarly, a former study on fifty second-semester medical students showed the effectiveness of an assertiveness training program in significantly improving SC. Assertiveness training aims to improve self-confidence and promote assertive behaviors and hence can improve self-worthiness in interpersonal relationships.[2] Contrary to our findings, a study showed that RP education for teachers had no significant effects on social skills among students with mild intellectual disability.[25] This contradiction may be related to the type of intervention in these studies. Studies showed that SC can significantly change all aspects of life, including mental health and quality of life.

The study findings also showed that the pre- and posttest mean difference of SC in the intervention group was significantly greater than the control group. This finding denotes the effectiveness of RP education in significantly improving SC. In line with our findings, a former study reported that RP education significantly improved general, familial, academic, and social self-esteem and emotional, academic, and social adjustment among students. That study also noted that RP education creates a joyful learning environment; helps students improve their listening,

Table 2: Comparison of participants' self-concept mean score based on their demographic characteristics

Characteristics	Group		P^a
	Intervention, *n* (%)	Control, *n* (%)	
Marital status			
Married	34 (94.4)	35 (97.2)	0.55
Single	2 (5.6)	1 (2.8)	
Educational level			
Diploma lower	7 (19.4)	6 (16.7)	0.75
University	29 (80.2)	30 (83.3)	
Place of residence			
Urban area	32 (88.9)	32 (88.9)	0.99
Rural area	4 (11.1)	4 (11.1)	
Income			
Insufficient	11 (30.6)	9 (25)	0.86
Low	9 (25)	10 (27.8)	
Sufficient	16 (44.4)	17 (47.2)	
Employment status			
Employed after retirement	13 (10.37)	19 (78.52)	0.54
Unemployed after retirement	23 (89.63)	17 (21.48)	

^{a}Chi-square test

Table 3: Between-group comparisons respecting the mean score of self-concept

Time	Group, mean ± SD		P
	Intervention	Control	
Before	10.698 ± 2.21	9.778 ± 2.59	0.11^a
After	8.445 ± 2.70	9.672 ± 2.40	0.046^a
P	< 0.001^c	0.69^c	—
Pretest-posttest mean difference	2.252 ± 2.43	0.106 ± 1.58	0.00^b

^{a}The independent samples *t*-test, ^{b}The Mann–Whitney U-test, ^{c}The paired *t*-test. SD: Standard deviation

anger management, and communication skills; enables them to wait for their turn and use respectful tone in group discussions; and provides them with the opportunity to use learned skills in daily life.[26] The results of the current study accord with a study which compared the impact of role-playing on young and adult learners and reported that role-playing had a significant effect on improving speaking ability learners.[27] RP represents an appropriate model of human behavior and is considered as a method through which learners understand their feelings, attitudes, and values. During RP education, learners are assisted in finding the meaning of self in their social environments and clarifying ambiguities about self in social groups.[13] Role-play (RP) can positively affect older adults' self-image and SC through providing them with the opportunity to express their feelings and attitudes and defend themselves against others in different social conditions.

In contradiction with our findings, a study reported the insignificant effects of assertiveness training on social adjustment and positive SC among female heads of households.[28] This ineffectiveness might have been due to participants' limited social experiences during the training course because SC is greatly affected by interactions with others and their constructive feedback. The contradiction between our findings and the findings of that study may be due to the differences between the studies respecting their outcome measures and participants' characteristics. For instance, all of our participants were male, while that study was conducted on female heads of households.

Due to age-related problems, some participants were impatient during the study. We attempted to promote their collaboration through establishing effective communication with them, creating an interesting and comfortable environment, and informing them about the advantages of the educational sessions. On the other hand, as participants in the control group did not receive any intervention, we had problems in winning their collaboration. Of course, we attempted to manage this limitation through ensuring them that in case of the effectiveness of the study intervention, RP education would also be provided to them. Moreover, although participants were randomly selected, only three women were eligible for the study. We decided to exclude them from the study due to their fewness.

Replication of similar studies in other settings and using other SC measurement instruments and comparison of the effects of different teaching methods with the effects of RP education on SC are recommended. This study can also be replicated on elderly women. Qualitative studies are also recommended to provide more in-depth information about SC and the effects of RP education on it.

Conclusion

This study suggests the effectiveness of education through RP in significantly improving SC among older adults. Our findings provide nurses with a better understanding of SC and the effects of PR on it among older adults. Moreover, findings help nurses and nursing students accurately interpret older adults' behaviors and enable them to improve older adults' SC through providing them with the opportunity to show certain behaviors using RP. Nurses and nursing instructors and students can use the findings of the present study to improve older adults' SC, self-image, and morale.

Policymakers can also use our findings to develop better plans for improving older adults' quality of life.

Acknowledgments

Conflicts of interest

There are no conflicts of interest.

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