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Creative Drama in Developing Communication Skills: The Bidirectional Effects of a Service-Learning Program Implemented by Nursing Students

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Abstract

Introduction. Drama-based education and service-learning have shown potential for promoting adolescents' communication and socio-emotional competencies. This study aimed to examine changes in middle school students' communication skills following a creative drama–based service-learning program and to explore the experiences of nursing students who implemented the program.
Methods. A single-group pretest–posttest quasi-experimental design was used. Nursing students delivered a 120-minute creative drama session to seventh- and eighth-grade students at a public middle school in Istanbul. The sample consisted of 81 students (M = 12.50, SD = 0.60; 53.1% female). Communication skills were assessed using the Communication Skills Scale (CSS) before and after the intervention. Nursing students' experiences were explored through semi-structured interviews and analyzed using thematic analysis.
Results. Posttest CSS scores were higher than pretest scores ($Z = -7.51$, $p < .001$, $r = .83$). Female students had higher communication skills scores than male students ($U = 546$, $p = .010$, $r = .33$). Thematic analysis revealed six themes: personal growth, stronger communication awareness, reduced stage anxiety, improved teamwork, increased professional motivation, and initial challenges and suggestions for

improvement.
Conclusion. Short-term creative drama–based service-learning programs may help enhance middle school students' communication skills while also providing meaningful personal and professional learning experiences for nursing students.

Keywords: Communication Skills, Creative Drama, Service Learning, Middle School Students, Nursing Education, Drama-Based Intervention

Introduction

Adolescence is a critical developmental period marked by substantial advances in cognitive, emotional, and social functioning. During this stage, the ability to manage peer relationships plays a central role in adolescents' social adjustment and academic engagement. Communication skills such as active listening, empathy, and constructive conflict resolution are particularly important for maintaining positive peer interactions. Difficulties in these skills have been linked to outcomes such as interpersonal conflict, social exclusion, and lower self-esteem (Eccles, 1999; Rubin et al., 2006). Previous research with youth populations has also associated communication-related difficulties with loneliness and reduced life satisfaction (ArslanIşık et al., 2026). In contrast, school-based programs designed to strengthen socio-emotional and communication competencies during early adolescence have been shown to support positive developmental outcomes, including improved peer relationships, social integration, and academic engagement (Durlak et al., 2011; Roorda et al., 2011; Chen-Bouck et al., 2023).

Drama-Based Education

In recent years, drama-based education has gained increasing attention as an experiential pedagogical approach for supporting adolescents' socio-emotional learning and communication development. Often referred to as creative drama, this approach involves structured activities such as role-playing, improvisation, and scenario-based enactments, enabling participants to explore social situations through embodied and collaborative learning processes (Goldstein & Winner, 2012; Conradty & Bogner, 2020). Within such environments, students are encouraged to experiment with different perspectives, practice communication strategies, and reflect on interpersonal dynamics in a psychologically supportive context.

Empirical research, including both meta-analytic and primary studies, suggests that drama-based educational approaches contribute to the development of communication and social competencies. Meta-analytic evidence indicates that drama-based pedagogy is associated with a range of positive educational and socio-emotional outcomes, particularly when implemented within structured learning environments and facilitated by trained instructors (Lee et al., 2015; Batdı & Elaldi, 2020). Complementing these findings, individual empirical studies have reported that participation in drama activities is linked to higher levels of empathy, perspective-taking, and self-confidence among adolescents (Goldstein & Winner, 2012; Lewandowska & Węziak-Białowolska, 2022). Together, these findings highlight the potential of drama-based education as a multifaceted approach to fostering communication-related competencies, although its effectiveness may vary depending on contextual and cultural factors.

Service-Learning in Nursing Education

Service-learning represents another educational approach that has gained prominence in health professions education. Broadly defined, service-learning integrates academic instruction with community engagement, allowing students to apply theoretical knowledge in real-world contexts while addressing community needs (Furco, 1996; Bringle et al., 2013). In nursing education, service-learning has been increasingly recognized as a high-impact pedagogical strategy for supporting the development of professional competencies.

Evidence from the literature indicates that participation in service-learning activities is associated with improvements in communication skills, teamwork, and critical thinking among nursing students. Educational interventions implemented by nursing students have also been shown to enhance awareness and professional competencies in community settings (Işık, 2021). An integrative review by Marcilla-Toribio et al. (2022), for example, reported that service-learning programs in nursing education are frequently linked to enhanced empathy, increased social awareness, and a stronger commitment to community engagement. When nursing students implement educational or health-promotion activities in community settings such as schools they may simultaneously develop professional skills while contributing to community well-being (Schmidt & Brown, 2022).

However, the effectiveness and reception of such experiential and community-based educational approaches may be shaped by broader cultural norms and social expectations.

Cultural Context: Gender and Communication

Although the international literature highlights the potential benefits of both drama-based education and service-learning, the outcomes of such interventions may vary across cultural and social contexts. Cultural norms related to communication styles, emotional expression, and gender roles may influence how adolescents engage with interactive educational activities.

Turkish society has been described as reflecting a combination of collectivist relational values and relatively high power-distance norms, which may shape interpersonal expectations and communication patterns within social and educational settings (Hofstede, 2011; Kağıtçibaşı, 1996; Sunar & Fişek, 2005). Within such contexts, gender differences in emotional expression and interpersonal communication have been reported in adolescent populations. Some studies suggest that female adolescents may demonstrate higher levels of empathic engagement and openness in emotionally expressive activities, whereas male adolescents may experience greater social constraints regarding the expression of vulnerability in group settings (Ozen et al., 2020; Altıntaş-Atay et al., 2025). However, empirical findings remain mixed, and further research is needed to better understand how cultural and gender-related factors may shape adolescents' responses to interactive educational interventions.

Research Gap and Study Objectives

Despite increasing international interest in both drama-based education and service-learning, limited research has examined how these approaches can be integrated within a single intervention framework. Several additional gaps also remain. First, although drama-based approaches have been widely studied, their implementation within Turkish middle school settings has received relatively limited empirical attention. Second, few studies have explored interventions that combine drama-based educational activities with service-learning models in which university students actively facilitate learning experiences for younger adolescents. Third, the potential role of contextual factors, such as gender-related communication patterns, in shaping the outcomes of such interventions remains underexplored.

Accordingly, the present study aimed to examine communication skill outcomes associated with a creative drama-based service-learning program implemented by nursing students with middle school adolescents in Turkey. In the Turkish education system, middle school includes grades 6–8, typically serving students aged 11–14; the current study focused on seventh- and eighth-grade students (ages 12–14), representing early-to-middle adolescence. Using a quasi-experimental pretest–posttest design, the study aimed to examine differences in students' communication skill scores following participation in the program, while also exploring the qualitative experiences of nursing students who facilitated the activities.

Based on these objectives, the following hypotheses were proposed:

H_1. Students' post-test CSS scores will differ significantly from their pre-test scores following participation in the drama-based education program.

H_2. Female students' post-test CSS scores will differ significantly from those of male students.

H_3. Nursing students will report positive qualitative experiences related to personal development, communication awareness, teamwork, and professional motivation following participation in the program.

By examining these outcomes, the study aims to contribute to the emerging literature on drama-based educational practices and service-learning models within culturally contextualized educational settings.

Methods

Design

This study employed a quasi-experimental, single-group pretest–posttest design to examine differences in communication skill scores between pretest and posttest measurements among seventh- and eighth-grade middle school students following participation in a creative drama–based educational program. Because the study did not include a control group, findings are interpreted as reflecting pre–post differences rather than causal effects.

In addition, a qualitative descriptive approach was used to explore the experiences of first-year nursing students who facilitated the intervention.

Setting and Participants

Facilitator Group (First-Year Nursing Students)

The facilitator group consisted of 60 first-year nursing students enrolled in a public university in Istanbul. First-year students were selected because they were concurrently enrolled in a compulsory "Communication Skills" course that includes both theoretical instruction and applied training in interpersonal communication.

Students were assigned by course instructors to one of six communication skill themes: active listening, appropriate emotional expression, building self-confidence, developing empathy, intragroup cooperation, and conflict resolution. Assignment was not randomized but followed a structured allocation process designed to ensure balanced group sizes and diversity in academic performance and participation levels.

Intervention Group (Middle School Students)

The intervention was conducted with seventh- and eighth-grade students enrolled in a public middle school in Istanbul. These grade levels were selected because early adolescence (ages 12–14) represents a developmental stage characterized by rapid social and emotional development and increased responsiveness to structured psychosocial and educational activities.

Prior to participation, written informed consent was obtained from the parents or legal guardians of all students. In addition, students were informed about the purpose and procedures of the study in age-appropriate language, and their written assent was obtained before data collection. Participation was entirely voluntary.

A total of 81 students (54 girls; M = 12.50 years, SD = 0.60) participated in the study. All students attended the full session and completed both the pretest and posttest assessments. No attrition occurred; therefore, the final sample consisted of 81 participants.

Sample Size

An a priori power analysis was conducted using G*Power 3.1 for paired-sample t-tests, assuming a medium effect size (d = 0.50), α = .05, and statistical power of .80. The analysis indicated that a minimum of 34 participants would be required to detect statistically significant pre–post differences.

The final sample size of 81 students exceeded the required minimum and was therefore considered adequate for the planned analyses.

Development and Implementation of the Intervention Program

Preparation Phase

The intervention was developed over a four-week preparation period. Nursing students worked under faculty supervision for two hours per week. During this period, they received structured guidance in creative drama techniques, including role distribution, script development, stage organization, and the effective use of body language, vocal emphasis, and intonation.

Each thematic group was divided into two subteams:

1. performers, responsible for acting, and
2. a technical support team, responsible for costume planning, script refinement, and stage preparation.

For each communication theme, two

consecutive scenes were designed. The first scene depicted ineffective or maladaptive communication behaviors, while the second reenacted the same scenario using effective communication strategies aligned with the assigned theme. This dual-structure format was intended to facilitate observational learning and contrast-based reflection.

To ensure consistency across performances, all groups received standardized guidance and supervision from faculty members during the preparation phase.

Implementation Phase

The intervention was delivered in a single session held in the university conference hall. The session included six performances, each lasting approximately 15–18 minutes. The total duration, including transitions between performances, was approximately 120 minutes.

The duration was determined to ensure sufficient time for the delivery of six structured drama performances and brief thematic introductions, while also remaining consistent with school-based activity schedules and adolescents' attention capacities.

Between performances, brief transition intervals (approximately 2–3 minutes) allowed for stage adjustments. During these intervals, a designated nursing student briefly introduced the communication skill focus of the upcoming performance to facilitate intentional observation and thematic awareness among participants.

Qualitative Data Collection and Analysis

Following the intervention, qualitative data were collected from nursing students through brief written reflections. Students were asked open-ended questions designed to elicit their experiences regarding communication awareness, personal development, teamwork, and professional motivation (e.g., "What did you learn from this experience?" and "How did participating in this activity influence your communication skills?").

The qualitative data were analyzed using a descriptive thematic analysis approach. All responses were read multiple times to achieve data familiarization. Initial codes were generated inductively and subsequently grouped into broader themes based on conceptual similarity. Both positive and negative experiences were included to ensure a balanced and transparent representation of participants' perspectives.

Data Collection Instruments

Descriptive Information Form

A six-item form developed by the researchers was used to collect basic sociodemographic information, including age, gender, grade level, parents' educational status, and perceived socioeconomic level.

Communication Skills Scale (CSS)

Communication skills were assessed using the Communication Skills Scale (CSS), originally developed by Reyes et al. (2012) and adapted into Turkish by Korkut, Owen, and Bugay (2014). The scale consists of 25 items rated on a 5-point Likert scale ranging from 1 (never) to 5 (always). There are no reverse-scored items. Total scores range from 25 to 125, with higher scores indicating greater perceived communication competence. Çatalkaya (2019) examined the psychometric properties of the scale among middle school students and reported a Cronbach's alpha of .996. In the present study, the internal consistency coefficient was .87, indicating satisfactory reliability.

Data Collection

Quantitative Data (Middle School Students)

Students' communication skills were assessed using the Communication Skills Scale (CSS) one week before the intervention (pretest) and two weeks after the program (posttest).

Qualitative Data (Nursing Students)

No scale-based measurement was administered to the nursing students at the end of the program. Instead, unstructured written reflections were collected to evaluate their experiences during the preparation and implementation process. Participants were invited to share their

perceptions regarding the strengths, challenges, and perceived contributions of the program.

Data Analysis

Data analysis was conducted in two phases: quantitative and qualitative.

Quantitative Analysis

Quantitative data were analyzed using Jamovi version 2.3. The Shapiro–Wilk test indicated that CSS total scores deviated significantly from normal distribution ($p < .05$). Therefore, nonparametric statistical methods were used. Pretest–posttest differences were examined using the Wilcoxon signed-rank test, while gender and grade-level differences were analyzed using the Mann–Whitney U test. Effect sizes were calculated as r and interpreted using Cohen's (1988) criteria (0.10 = small, 0.30 = medium, 0.50 = large). Associations between variables were examined using Spearman's rank correlation analysis. To further explore factors associated with posttest communication skills, a multiple linear regression analysis was conducted. Posttest CSS scores were entered as the dependent variable, while pretest CSS scores were included to control for baseline individual differences. Gender, grade level, and age were entered as covariates based on previous literature suggesting potential developmental and gender-related differences in communication skills.

With four predictors and a total sample of 81 participants, the analysis met the commonly recommended guideline of at least 10–15 observations per predictor variable, indicating an adequate sample size for regression analysis.

Qualitative Analysis

Qualitative data were analyzed using Braun and Clarke's (2006) six-phase thematic analysis framework.

First, both researchers independently familiarized themselves with the dataset through repeated reading. Second, initial codes were generated inductively from the data without imposing predefined categories. Third, these codes were organized into candidate themes based on conceptual similarities. The themes were subsequently refined through iterative discussion and comparison with the original data to ensure internal coherence and conceptual clarity.

Two researchers independently coded the dataset. Coding discrepancies were discussed until consensus was reached, thereby enhancing the credibility and rigor of the analysis. Six themes were identified (Table 5). Most feedback reflected positive evaluations of the program, particularly regarding personal development, communication awareness, teamwork, and professional motivation. However, a smaller subset of participants described initial challenges, including rehearsal-related stress, time demands, and temporary fatigue. To provide a balanced representation of participant experiences, these responses were grouped under a distinct theme ("Initial Challenges and Suggestions for Improvement"). Because the feedback session was brief and not designed as an in-depth qualitative inquiry, thematic saturation was not formally pursued. Therefore, the findings should be interpreted as descriptive and exploratory, providing insight into participants' experiences rather than comprehensive qualitative generalization.

Ethical Considerations

The study was conducted in accordance with the principles of the Declaration of Helsinki. Ethical approval was obtained from the Istanbul Kartal District National Education Directorate (No. E-36391296-604.01-119364474) and the Ethics Committee of the Faculty of Social and Human Sciences, Istanbul Medeniyet University (Approval No. 2025/01). Prior to data collection and implementation of the intervention, written informed consent was obtained from parents or legal guardians of all participating students. Parents were provided with detailed information regarding the purpose, procedures, voluntary nature of participation, and confidentiality of the study. Students were included in the study only after parental consent had been secured. In addition, written assent was obtained from all students before participation. Students were informed that participation was voluntary and that they could withdraw from the study at any time without penalty. Confidentiality and anonymity were strictly maintained throughout the research process.

Results

This section presents the short-term effects of a single session of a creative drama-based service-learning program on the communication skills of middle school students, as well as the experiences of the nursing students who facilitated the program.

Table 1. Demographic Characteristics of the Participants (N=81).

Characteristics	n	%
Gender		
Female	43	53.1
Male	38	46.9
Age (years) M = 12.5, SD = 0.6		
11	3	3.7
12	39	48.1
13	37	45.6
14	2	2.4
Grade		
7th Grade	42	51.9
8th Grade	39	48.1
Mother's Education		
Primary School	13	16.0
Secondary School	8	9.9
High School	34	42.0
University	22	27.2
Graduate School	4	4.9
Father's Education		
Primary School	11	13.6
Secondary School	11	13.6
High School	32	39.5
University	23	28.4
Graduate School	4	4.9
Socioeconomic status		
Low	20	24.7
Medium	48	59.3
High	13	16.0

A total of 81 middle school students participated in the study. Of the participants, 53.1% were female (n=43) and 46.9% were male (n=38). The age range was 11–14 years, with 93.7% aged 12 or 13 (n=39 and n=37, respectively); the mean age was 12.5 (SD=0.6). In terms of grade level, 7th-grade students comprised 51.9% (n=42), while 8th-grade students accounted for 48.1% (n=39). Regarding parental education, 42.0% of mothers (n=34) and 39.5% of fathers (n=32) had completed high school; university graduates constituted 27.2% (n=22) of mothers and 28.4% (n=23) of fathers. Socioeconomic status indicated that 59.3% belonged to the middle-income group (n=48), followed by 24.7% low-income (n=20) and 16.0% high-income (n=13) (Table 1).

As presented in Table 2, a statistically significant difference was observed between pre-test and post-test CSS scores ($W = 751$, $p < .001$). Post-test scores ($M = 99.7$, $SD = 18.8$) were higher than pre-test scores ($M = 95.9$, $SD = 19.3$). Regarding gender, no statistically significant difference was found in pre-test scores between male and female students ($U = 662$, $p = .144$). However, a statistically significant difference was observed in post-test scores ($U = 546$, $p = .010$). Female students ($M = 106.0$, $SD = 13.7$) had higher post-test scores than male students ($M = 93.1$, $SD = 21.5$). Grade-level comparisons revealed no statistically significant differences between 7th- and 8th-grade students in either pre-test scores ($U = 666$, $p = .148$) or post-test scores ($U = 670$, $p = .159$).

As shown in Table 3, Spearman correlations were computed to examine the relationships among the study variables. A strong positive correlation was found between pre-test and post-test CSS scores ($r = .72$, $p < .01$), indicating that students with higher initial communication skills tended to have higher scores after the program. Gender (female coded higher) showed a moderate positive correlation with post-test CSS scores ($r = .29$, $p < .01$). In addition, a strong positive correlation was observed between age and grade level ($r = .83$, $p < .01$). No other correlations were statistically significant.

As shown in Table 4, the overall regression model was statistically significant, $F(4, 76) = 24.50$, $p < .001$, accounting for 56% of the variance in post-test CSS scores ($R^2 = .56$, adjusted $R^2 = .54$). Pre-test CSS score significantly predicted post-test CSS scores ($B = 0.65$, $\beta = .67$, $p < .001$). Gender was also a significant predictor, with female students scoring higher on the post-test compared to males ($B = 7.44$, $\beta = .40$, $p = .015$). Grade level ($B = -1.00$, $\beta = -.16$, $p = .124$) and age ($B = 1.46$, $\beta = .05$, $p = .622$) were not significant predictors.

The qualitative findings are based on a thematic analysis of written student feedback collected after the program. Six themes were identified through this process (Table 5). While the majority of responses reflected positive evaluations of the program, a smaller number of participants described initial challenges, such as time constraints, early rehearsal stress, and temporary fatigue. Rather than embedding

these statements within positive themes, they were grouped under a distinct theme ("Initial Challenges and Suggestions for Improvement") to ensure a balanced and transparent representation of participant experiences. Given the brief and exploratory nature of the feedback session, the qualitative findings should be interpreted as descriptive rather than exhaustive.

Table 2. Pre–Post, Gender, and Grade-Level Comparisons of CSS Scores (N = 81).

Analysis	Group	n	M	SD	Median	Test	p	r
Pre–Post Comparison	Pre-Test	81	95.9	19.3	98.0	W = 751	< .001	.44
	Post-Test	81	99.7	18.8	103.0			
Gender Comparisons								
Pre-Test	Male	38	91.0	23.2	96.5	U = 662	.144	.19
	Female	43	100.0	14.1	99.0			
Post-Test	Male	38	93.1	21.5	99.0	U = 546	.010	.33
	Female	43	106.0	13.7	106.0			
Grade-Level Differences								
Pre-Test	7th Grade	42	97.0	22.7	103.0	U = 666	.148	.19
	8th Grade	39	94.7	15.1	95.0			
Post-Test	7th Grade	42	101.7	20.0	106.0	U = 670	.159	.18
	8th Grade	39	97.6	17.3	99.0			

Legend. W = Wilcoxon signed-rank test; U = Mann–Whitney U test; r = effect size.

Table 3. Correlations Among Study Variables (N = 81).

Variable	1	2	3	4	5
1. Age	-	.83**	.17	-.11	-.08
2. Grade (7th)	-	-	.18	-.15	-.17
3. Gender (Female)	-	-	-	.16	.29**
4. Pre-Test CSS	-	-	-	-	.72**
5. Post-Test CSS	-	-	-	-	-

Note. **p < .01.

Table 4. Multiple Linear Regression Predicting Post-Test CSS Scores (N = 81).

Predictor	B	SE	β	t	P	95% CI (LL, UL)
Constant	25.58	33.81	–	0.76	.452	(-41.76, 92.93)
Pre-Test CSS	0.65	0.08	.67	8.47	<.001	(0.49, 0.80)
Gender (Female)	7.44	2.98	.40	2.50	.015	(1.51, 13.37)
Grade (7th)	-1.00	0.64	-.16	-1.56	.124	(-2.28, 0.28)
Age	1.46	2.96	.05	0.50	.622	(-4.42, 7.35)

Note. R^2 = .56; adjusted R^2 = .54. F(4, 76) = 24.50, p < .001. CSS = Communication Skills Scale.

Table 5. Themes and Representative Statements Identified from Nursing Students' Feedback After the Program (N = 60).

Theme	n	%	Representative Statement
1. Personal Development and Increased Self-Confidence	38	63.3	"My self-confidence has increased, and speaking in front of a group no longer scares me."
2. Increased Awareness of Communication Skills	34	56.7	"Seeing my communication mistakes on stage was eye-opening; now, I consciously use 'I-statements.'"
3. Reduction in Stage/ Performance Anxiety	29	48.3	"The first rehearsal was stressful, but by the end of the performance, my anxiety had decreased significantly."
4. Development of Teamwork Skills	26	43.3	"Working harmoniously with a group of ten gave me a real sense of team spirit."
5. Increased Professional Motivation and Empathy	31	51.7	"Through this project, I realized that nursing is not just about providing treatment; its true strength lies in effective communication and empathy."
6. Initial Challenges and Suggestions for Improvement	9	15.0	"At the beginning, I felt nervous about acting in front of others, and I would have preferred more rehearsal time."

Discussion

This study examined the short-term effects of a creative drama–based service-learning program on the communication skills of middle school students and explored the experiences of nursing students who implemented the program. Although the single-group pretest–posttest design does not permit causal inference, the observed increase in communication skills scores suggests that drama-based educational activities may contribute to the development of communication competencies among adolescents.

A statistically significant increase was observed in the Communication Skills Scale (CSS) scores of the middle school students. This finding is consistent with previous studies indicating that creative drama activities can support communication skills, expressive abilities, and interpersonal interaction among young learners (Frydman & Mayor, 2024; Kyle et al., 2023; Kesgin & Tok, 2023; Conradty & Bogner, 2020). Drama-based learning environments typically promote experiential engagement, perspective taking, and emotional expression, which are key components of effective interpersonal communication.

However, the literature does not present a fully consistent picture regarding the effectiveness of drama-based interventions. For instance, Podlozny's (2000) meta-analysis reported considerable variability in the impact of drama activities on social skill development, while Lee et al. (2015) found no significant short-term improvements in communication outcomes following a drama-based intervention. These inconsistencies suggest that the effectiveness of such programs may depend on factors such as intervention duration, implementation intensity, participant characteristics, and program structure.

Indeed, previous research generally indicates that longer-term and regularly implemented drama programs tend to produce more robust and sustainable outcomes (Podlozny, 2000; Batdi & Elaldi, 2020). For example, Wright (2006) reported that improvements in social skills obtained from a twelve-week drama program were largely retained six months after the intervention. In contrast, short-term or single-session interventions often produce smaller effects and may be influenced by external factors such as maturation or familiarity with the measurement tool (Arveklev et al., 2018; Frydman & Mayor, 2023).

Despite the brief duration of the intervention in the present study, a significant increase in communication skills was observed. One possible explanation may be the intensive and focused structure of the session. The performances were designed to present both ineffective and effective communication scenarios, allowing participants to compare contrasting behaviors. Such contrast-based learning may facilitate rapid cognitive and behavioral insight. In addition, the interactive and engaging nature of drama activities may have increased participants' motivation and attention, which can enhance short-term learning outcomes.

Gender differences observed in the study are broadly consistent with findings reported in the literature. Female students demonstrated significantly higher posttest communication skills scores compared to male students. Previous research has frequently reported that female adolescents tend to score higher in communication-related domains such as empathy, emotional awareness, and verbal expression (Kesgin & Tok, 2023). Nevertheless, some studies have found no gender differences in drama-based communication interventions (Joronen et al., 2012; Conradty & Bogner, 2020). These inconsistent findings may be related to cultural factors, differences in engagement with expressive activities, or variations in measurement instruments.

No significant differences were found according to age or grade level. This finding may be explained by the relatively narrow age range of the participants (12–13 years), which likely limited developmental variability in communication skills. Additionally, the short and intensive nature of the intervention may have produced a relatively uniform effect across participants. Similar findings were reported by Wattanawongwan et al. (2023), who observed no significant age-related differences in adolescents participating in communication-focused interventions.

Regression analyses indicated that baseline communication skills were the strongest predictor of posttest scores. This finding suggests that communication skills may demonstrate a degree of stability over time while still allowing room for improvement through educational interventions. Previous research has similarly shown that baseline competence often accounts for a substantial portion of variance in post-intervention outcomes (Dziadkowiec, 2023).

The qualitative findings provided additional

insight into the educational value of the program for the nursing students who implemented the intervention. Students reported gains in self-confidence, communication awareness, teamwork, empathy, and professional motivation. These findings align with studies emphasizing the reciprocal benefits of service-learning approaches, which simultaneously support community-based learning outcomes and student professional development (Kyle et al., 2023; Kesgin & Tok, 2023). The experience of designing and performing communication scenarios appears to have facilitated experiential learning, allowing nursing students to translate theoretical communication concepts into practice.

Overall, the findings suggest that drama-based service-learning activities may provide a meaningful experiential learning environment for both adolescents and nursing students. Such programs may promote communication awareness, reflective learning, and interpersonal engagement across educational levels.

Limitations and Strengths

This study has several limitations that should be considered when interpreting the findings. First, the use of a single-group pretest–posttest design without a control group limits the ability to attribute observed changes solely to the intervention. Second, the sample was drawn from a single public middle school in Istanbul, which may limit the generalizability of the results. Third, the intervention consisted of a single 120-minute session, and therefore the findings reflect only short-term outcomes. Finally, the study did not include long-term follow-up measurements to evaluate the sustainability of the observed improvements.

Despite these limitations, the study also has several strengths. It represents one of the few studies in Turkey examining the outcomes of a creative drama–based service-learning program for both adolescent participants and nursing students simultaneously. By integrating quantitative data from middle school students with qualitative reflections from nursing students, the study provides a more comprehensive understanding of the educational process. Additionally, the program combined creative drama with service-learning principles, offering an innovative and potentially replicable model for communication skills education in both secondary school and nursing education contexts.

Future Directions

Future research should employ randomized controlled or quasi-experimental designs with comparison groups to better evaluate the causal effects of drama-based communication interventions. Implementing the program across multiple sessions and including follow-up assessments several months after the intervention would provide stronger evidence regarding the durability of the observed effects. In addition, the professional development outcomes of nursing students could be evaluated using standardized quantitative instruments. Replicating the intervention in schools with different socioeconomic backgrounds and in different regions would further enhance the generalizability of the findings.

Conclusion

The findings of this study suggest that a creative drama–based service-learning session may contribute to short-term improvements in communication skills among middle school students while simultaneously providing nursing students with valuable experiential learning opportunities. These results highlight the potential of interdisciplinary and experiential educational approaches to support communication skill development across different educational levels.

Declaration of Generative AI Use in the Writing Process

During the preparation of this manuscript, the authors used ChatGPT to support language refinement, improve clarity, and enhance the overall flow of the text. The tool was used solely for editing and paraphrasing purposes, and no analytical, interpretive, or content-generating functions were delegated to the AI.

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