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# Enhancing Communication Skills and Self-compassion in Nursing Students: A Quasi-experimental Comparative Study of Online and Face-to-face Courses

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## Abstract

**Background:** Communication and self-compassion skills are essential in nursing. While the effectiveness of face-to-face instruction is well documented, evidence on the impact of online formats remains limited.

**Aim:** The aim of this study was to assess and compare the impact of the online and face-to-face *Therapeutic Communication and Nurse-Patient Relationship* course on nursing students' communication skills and levels of self-compassion.

**Methods:** This quasi-experimental study was conducted with 331 first-year nursing students at a public university. The course was delivered online to one group (n=169), while the other group (n=162) attended the course face-to-face. Pre-test and post-test data were collected using the Communication Skills Scale, the Course Evaluation Questionnaire, and the Self-Compassion Scale. The chi-square test, independent samples t-test, paired samples t-tests, and Pearson correlation analysis were used to analyze the data.

**Results:** The mean age of participants was 19.08 years (standard deviation=1.05), and 87.3% were female. The groups did not differ significantly at baseline ($p>0.05$). After the 14-week course, both groups exhibited significant improvements in communication skills and levels of self-compassion ($p<0.05$). However, in the online group, no difference was found between pre-test and post-test scores in some sub-dimensions of the scales. The post-test scores of the two groups did not differ significantly ($p>0.05$).

**Conclusion:** This study highlights the potential of online learning while also identifying areas in which significant improvements in communication skills and self-compassion may not be achieved. The findings can inform the design of effective and sustainable communication courses in nursing education.

***Keywords:*** *Communication skills, nursing education, nursing students, self-compassion, therapeutic communication*

## Introduction

Patient-centered, compassionate care and effective communication are essential competencies in nursing.[1] These elements are well documented as being linked to care quality and positive health outcomes.[2] Communication is a powerful therapeutic tool and plays a vital role at every stage of the nursing process.[3] However, communication breakdowns remain a major source of patient dissatisfaction.[4,5] As future professionals, nursing students should be trained to be effective communicators.[6] According to both national and international nursing organizations, communication skills are typically included in undergraduate nursing curricula.[7,8]

Communication skills are considered teachable and learnable. Comprehensive reviews have demonstrated that educational interventions can enhance the communication competencies of both nursing students[6,9] and nurses.[10,11] However, these systematic reviews predominantly focus on face-to-face educational programs. In recent years, Coronavirus Disease 2019 (COVID-19) pandemic made in-person classes and direct patient interactions impossible, forcing nursing education to shift to online formats. This abrupt transition disrupted traditional approaches that support the development of communication skills.

Studies evaluating the impact of online communication skills education for nursing students are limited and have produced conflicting results.[12,13] A systematic review of digital education during the COVID-19 pandemic emphasized the need for research comparing online and face-to-face instructional methods.[14] This gap underscores the necessity of evaluating the effectiveness of different teaching modalities. Therefore, the main aim of the current study is to assess and compare the impact of face-to-face and online delivery of the *Therapeutic Communication and Nurse-Patient Relationship* course on nursing students' communication skills.

Another skill of growing importance in nursing education is self-compassion. To maintain emotional resilience, nurses must be able to support not only their patients but also themselves.[15] Self-compassion contributes to caring behaviors, emotional well-being, and compassion competence.[16] Studies have shown a strong association between empathy and self-compassion, suggesting that both can be enhanced through educational strategies such as mindfulness and reflection.[17–19] The COVID-19 pandemic further emphasized the importance of self-compassion among healthcare professionals. Nevertheless, the effects of online interventions on self-

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compassion remain underexplored.[20] Within this context, another goal of the study is to evaluate and compare the effects of online and face-to-face course delivery on nursing students' self-compassion. Finally, the study investigates the relationship between communication skills and self-compassion. This study contributes to the literature by providing empirical evidence from a quasi-experimental design involving first-year nursing students. Unlike previous research, it directly compares the outcomes of the same course delivered in two different formats and evaluates not only communication skills but also self-compassion.

### Study Questions

- Does participation in the *Therapeutic Communication and Nurse-Patient Relationship* course, delivered either online or face-to-face, improve nursing students' communication skills and self-compassion?
- Is there a significant difference in outcomes between online and face-to-face course delivery?
- What is the correlation between communication skills and self-compassion levels?

## Materials and Methods

### Study Design and Participants

This quasi-experimental study employed a pretest-posttest intervention design. It was conducted during the second semesters of the 2020–2021 and 2021–2022 academic years in the Nursing Department of the Faculty of Health Sciences at a public university in Türkiye. The study population consisted of 377 first-year nursing students enrolled in the *Therapeutic Communication and Nurse-Patient Relationship* course, which is a required course in the undergraduate nursing curriculum. The required sample size was calculated using the formula for a known population (n=sample size, N=population size, e=margin of error, Z=z-score).[21] Based on a total population of 377 students (N=377), a 99% confidence level (Z=2.58), and a 3% margin of error (e=0.03), the estimated minimum sample size was approximately 314 students. All students enrolled in the course were invited to participate. Inclusion criteria were: (a) being enrolled in the course and (b) voluntarily agreeing to participate. Exclusion criteria included: (a) repeating the course or (b) failure to fully complete the questionnaire. A total of 331 students participated in the study. Of these, 169 students received the course online during the COVID-19 pandemic, while 162 students attended the course face-to-face after the pandemic.

### Instruments

**Data were collected using four instruments:** A Personal Information Form, the Communication Skills Scale, the Course Evaluation Questionnaire, and the Self-Compassion Scale.

#### Personal Information Form

This researcher-prepared form consisted of demographic questions related to age, gender, type of high school graduated from, place of residence, and economic status. It also included questions about prior participation in communication training within the past year, whether students had read personal development books, and their rank-order preference for nursing as a career.

#### Communication Skills Scale

This scale, widely used in the field, is designed to assess individuals' communication skills. It consists of 25 items distributed across four sub-dimensions: "Communication Principles and Basic Skills," "Self-expression," "Effective Listening and Nonverbal Communication," and "Communication Willingness." Each item is rated on a 5-point Likert scale ranging from 1 (Never) to 5 (Always), with higher scores indicating better communication competencies. The original scale demonstrated good internal consistency, with a Cronbach's alpha coefficient of 0.81.[22] In the present study, Cronbach's alpha values were 0.83 for the pretest and 0.85 for the posttest.

#### Course Evaluation Questionnaire

This questionnaire was developed by the researcher based on the course's learning outcomes, with a specific focus on enhancing self-compassion and therapeutic communication skills. It comprises 25 statements rated on a 5-point Likert scale, ranging from 1 (Not competent at all) to 5 (Highly competent). Example statements include: "Awareness of myself," "Recognizing my strengths," "Identifying my emotions," "Saying no and maintaining my boundaries," "Expressing empathy," "Showing self-compassion," and "Collaborating effectively in a group task." Cronbach's alpha coefficients for the questionnaire were 0.93 for both the pretest and the posttest. Questionnaire scores were calculated by summing responses to all 25 statements.

#### Self-compassion Scale

This scale evaluates both positive and negative dimensions of self-compassion.[23,24] It consists of 26 items grouped into six subdimensions: "Self-kindness," "Self-judgment," "Common Humanity," "Isolation," "Mindfulness," and "Over-identification." Participants rate each item on a 5-point Likert scale ranging from 1 (Almost never) to 5 (Almost always). Each subdimension is scored separately, with higher scores indicating a stronger presence of the trait being measured. Cronbach's alpha values were reported to range from 0.72 to 0.80.[24] In this study, Cronbach's alpha values ranged from 0.76 to 0.86 in the pretest and from 0.76 to 0.88 in the posttest.

### Data Collection

Data were collected from nursing students enrolled in the *Therapeutic Communication and Nurse-Patient Relationship* course, which was delivered online during the 2020–2021 academic year and face-to-face during the 2021–2022 academic year. Pretest and posttest data for both groups were obtained using an online survey platform (Survey.com). The pretest was administered during the first week of the course, immediately after students were informed about the study. The survey link was shared during the initial class session. The posttest was conducted at the end of the 14$^{th}$ week, following the final class session, using the same distribution method. To enable accurate matching of pretest and posttest responses, students were asked to use a pseudonym, phone number, or student ID when completing the forms. The estimated time required to complete the data collection tools ranged from 10 to 13 minutes.

### Process of the Course

The *Therapeutic Communication and Nurse-Patient Relationship* course is a compulsory part of the nursing curriculum, delivered in the second semester of the first academic year. The online sessions were delivered live via the Microsoft Teams platform, while face-to-face sessions were held in an amphitheater. In accordance with the university's academic regulations, students were required to attend at least 70% of the classes, and this requirement was fulfilled. Further details about the course content and structure, including placement in the curriculum, duration, learning objectives, main topics covered, teaching methods, and films used, are provided in Table 1. Importantly, all of these components were kept identical across both course formats; the only variation was the delivery format. This approach ensured comparability between the online and face-to-face modalities.

The course was delivered by the same instructor in both formats to minimize instructor-related variability. The instructor is a professor of mental health and psychiatric nursing with extensive experience in consultation-liaison psychiatry, psychotherapy, and therapeutic communication training since 1997. This instructor has taught both undergraduate- and graduate-level courses and has led numerous training programs focused on therapeutic communication, nurse-patient interaction, and psychosocial care.

### Data Analysis

Descriptive statistics, including frequencies, percentages, means, and standard deviations, were used to summarize participant characteristics. Sociodemographic differences between the two groups were analyzed using chi-square tests and independent samples t-tests. Normality of the data was confirmed prior to further analysis. Within-group changes from pretest to posttest in communication skills and self-compassion were evaluated using paired samples t-tests. Between-group comparisons of scores were conducted using independent samples t-tests. The relationship between communication skills and self-compassion scores at posttest was examined using Pearson correlation analysis. All statistical analyses were performed using SPSS version 22.0 (IBM Corp., Armonk, NY, USA), with statistical significance set at $p<0.05$.

### Ethical Considerations

Ethical approval for this study was obtained from the Bolu Abant İzzet Baysal University Human Research Ethics Committee (Approval Number: 2020/77, Date: 15.04.2020). Written permission was also granted by the faculty administration where the study was conducted (2020-E.15577). Additionally, permission was ob-

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**Table 1.** Therapeutic communication and nurse-patient relationship course details

| Component | Details |
|---|---|
| Placement in curriculum | Second semester of the first academic year |
| Duration | 14 weeks; 2 hours per week |
| Delivery format | Online and face-to-face |
| Learning objectives | • Improve self-awareness and self-compassion<br>• Set and maintain professional boundaries<br>• Explain key concepts of therapeutic communication and relationships<br>• Distinguish between therapeutic and non-therapeutic communication methods<br>• Use therapeutic communication techniques effectively<br>• Predict possible outcomes of different communication methods in nurse–patient interactions<br>• Recognize the importance of teamwork |
| Main topics covered | • Self-awareness and self-compassion<br>• Professional values and boundaries<br>• Therapeutic communication (concepts, models,[25] skills)<br>• Therapeutic relationship and Peplau's Interpersonal Relations Theory[26]<br>• Nurse-patient interview<br>• Breaking bad news<br>• Teamwork and the SBAR (Situation-Background-Assessment-Recommendation) framework[27] |
| Teaching methods | Lectures, Q&A sessions, group work, film analysis, reflection, role-playing |
| Films used | *Patch Adams, The Diving Bell and the Butterfly, Wit* |

**Table 2.** Descriptive characteristics of the participants

| Characteristics | Total (N=331) | | Online course group (n=169) | | Face-to-face course group (n=162) | | $x^2$ | p |
|---|---|---|---|---|---|---|---|---|
| | n | % | n | % | n | % | | |
| Gender | | | | | | | 0.713 | 0.398 |
| Female | 289 | 87.3 | 145 | 85.8 | 144 | 88.9 | | |
| Male | 42 | 12.7 | 24 | 14.2 | 18 | 11.1 | | |
| Type of High School graduated | | | | | | | 9.237 | 0.055 |
| Health Vocational High School | 22 | 6.6 | 15 | 8.9 | 7 | 4.3 | | |
| Anatolian High School | 260 | 78.5 | 133 | 78.7 | 127 | 78.4 | | |
| Science High School | 21 | 6.3 | 5 | 3.0 | 16 | 9.9 | | |
| Imam Hatip High School | 7 | 2.1 | 4 | 2.4 | 3 | 1.9 | | |
| Other | 21 | 6.3 | 12 | 7.1 | 9 | 5.6 | | |
| Place of residence | | | | | | | 1.964 | 0.580 |
| Big city | 153 | 46.2 | 84 | 49.7 | 69 | 42.6 | | |
| Small city | 118 | 35.6 | 55 | 32.5 | 63 | 38.9 | | |
| Town | 13 | 3.9 | 7 | 4.1 | 6 | 3.7 | | |
| Village | 47 | 14.2 | 23 | 13.6 | 24 | 14.8 | | |
| Economic status | | | | | | | 4.954 | 0.175 |
| Low | 25 | 7.6 | 9 | 5.3 | 16 | 9.9 | | |
| Medium | 220 | 66.5 | 109 | 64.5 | 111 | 68.5 | | |
| Good | 82 | 24.8 | 49 | 29.0 | 33 | 20.4 | | |
| Very good | 4 | 1.2 | 2 | 1.2 | 2 | 1.2 | | |
| Participation in communication training in the last year | | | | | | | 1.750 | 0.186 |
| No | 288 | 87.0 | 143 | 84.6 | 145 | 89.5 | | |
| Yes | 43 | 13.0 | 26 | 15.4 | 17 | 10.5 | | |
| Reading personal development books | | | | | | | 0.070 | 0.791 |
| No | 170 | 51.4 | 88 | 52.1 | 82 | 50.6 | | |
| Yes | 161 | 48.6 | 81 | 47.9 | 80 | 49.4 | | |
| **Characteristics** | **Mean±SD** | | **Mean±SD** | | **Mean±SD** | | **t** | **p** |
| Age (range: 18–25 years) | 19.08±1.05 | | 19.04±0.96 | | 19.12±1.14 | | -0.705 | 0.481 |
| Nursing preference order | | | | | | | 0.057 | 0.954 |
| No (range: 1–20) | 3.11±4.04 | | 3.12±4.21 | | 3.10±3.87 | | | |

SD: Standard deviation, N/n: Frequency, %: Percentage, t: Independent samples test, $x^2$: Chi-square test.

**Table 3.** Comparison of online and face-to-face course score averages in terms of communication skills

| Variables | Online course group (n=169) mean±SD | Face-to-face course group (n=162) mean±SD | t[a] | p |
|---|---|---|---|---|
| Communication principles and basic skills | | | | |
| Pre-test | 41.40±4.82 | 40.88±5.13 | 0.960 | 0.338 |
| Post-test | 41.95±5.09 | 42.23±4.82 | -0.505 | 0.614 |
| t[b]; p value | -1.534; 0.127 | -3.464; 0.001 | | |
| Self-expression | | | | |
| Pre-test | 15.46±3.10 | 15.13±3.29 | 0.942 | 0.347 |
| Post-test | 16.03±2.78 | 15.98±2.62 | 0.141 | 0.888 |
| t[b]; p value | -2.767; 0.006 | -3.719; ≤0.001 | | |
| Effective listening and nonverbal communication | | | | |
| Pre-test | 24.68±3.34 | 24.21±3.39 | 1.271 | 0.205 |
| Post-test | 25.15±3.42 | 25.2±3.15 | -0.392 | 0.695 |
| t[b]; p value | -1.730; 0.085 | -4.110; ≤0.001 | | |
| Willingness to communicate | | | | |
| Pre-test | 18.87±3.13 | 18.78±3.19 | 0.264 | 0.792 |
| Post-test | 19.94±3.25 | 19.96±2.96 | -0.047 | 0.963 |
| t[b]; p value | -5.088; ≤0.001 | -5.708; ≤0.001 | | |
| Total score | | | | |
| Pre-test | 100.43±11.96 | 99.02±12.52 | 1.055 | 0.292 |
| Post-test | 103.07±12.58 | 103.46±11.56 | -0.295 | 0.768 |
| t[b]; p value | -3.144; 0.002 | -5.020; ≤0.001 | | |
| Course evaluation questionnaire | | | | |
| Pre-test | 93.55±12.82 | 92.27±14.31 | 1.162 | 0.227 |
| Post-test | 102.17±12.65 | 101.11±13.18 | 0.747 | 0.456 |
| t[b]; p value | -9.281; ≤0.001 | -0.239; ≤0.001 | | |

SD: Standard deviation, t[a]: Independent samples test, t[b]: Paired samples test.

tained from the original authors or the researchers responsible for the local adaptation of the scales. All participants provided written informed consent. Students were assured that their responses would be used solely for course evaluation purposes and that the data would not be reviewed or analyzed before the end of the semester. The study was conducted in accordance with the principles of the Declaration of Helsinki.

## Results

Data were collected from 331 first-year nursing students, with 169 in the online group and 162 in the face-to-face group. Descriptive characteristics of the total sample and subgroups are presented in Table 2. Participants ranged in age from 18 to 25 years, with a mean age of 19.08 years (standard deviation [SD]=1.05), and 87.3% were female. No statistically significant differences were found between the groups in terms of baseline characteristics, including age, gender, type of high school, place of residence, perceived economic status, prior communication training within the past year, reading personal development books, and nursing program preference ranking (p>0.05).

Regarding communication skills, students in the online group showed significant improvements in the total scale score (p=0.002), the Self-expression subscale (p=0.006), the Willingness to Communicate subscale (p<0.001), and Course Evaluation Questionnaire scores (p<0.001). Similarly, the face-to-face group demonstrated significant increases in the total score (p<0.001), all subscale scores (p≤0.001), and Course Evaluation Questionnaire scores (p<0.001). No significant differences were found between the two groups in posttest communication skills scores (p>0.05) (Table 3).

With respect to self-compassion, students in the online course group showed significant improvements in the Self-Kindness (p<0.001), Common Humanity (p<0.001), and Mindfulness (p<0.001) subscales. In the face-to-face group, significant increases were observed across all subscales (p≤0.008). No significant differences were found between the two groups in posttest self-compassion scores (p>0.05) (Table 4).

Statistically significant correlations were observed between posttest communication skills and self-compassion scores across both education formats, except for the Willingness to Communicate and Over-Identification subscales. Correlation coefficients ranged from −0.19 to 0.46 (p≤0.001). Positive correlations were found between total communication skills and the self-compassion subdimensions of Self-Kindness (r=0.42), Common Humanity (r=0.41), and Mindfulness (r=0.43). Negative correlations were observed with Self-Judgment (r=−0.29), Isolation (r=−0.29), and Over-Identification (r=−0.21) (p≤0.001).

## Discussion

This study demonstrated that both online and face-to-face delivery of the *Therapeutic Communication and Nurse-Patient Relationship* course effectively enhanced nursing students' communication skills and self-compassion. The absence of statistically significant differences in posttest scores between the two groups suggests that both instructional formats can foster these competencies. However, some subdimensions showed less improvement in the online group, suggesting that certain interpersonal skills may be better developed through face-to-face learning.

These findings align with previous systematic reviews supporting the effectiveness of face-to-face educational interventions in improving nursing students' communication competencies.[6,9,10] While much of the existing literature is based on small-group formats, the present study shows that large classroom-based instruction can also be effective when well designed. Comparable outcomes between the online and face-to-face groups support the potential of online learning in communication training. Nevertheless, face-to-face instruction appears to be more advantageous for developing competencies that require real-time interaction, such as active lis-

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**Table 4.** Comparison of online and face-to-face course score averages in terms of self-compassion

| Variables | Online course group (n=169) mean±SD | Face-to-face course group (n=162) mean±SD | t[a] | p |
|---|---|---|---|---|
| Self-kindness | | | | |
| Pre-test | 3.17±0.76 | 3.14±0.81 | 0.380 | 0.705 |
| Post-test | 3.49±0.74 | 3.49±0.73 | 0.057 | 0.954 |
| t[b]; p value | -5.339; ≤0.001 | -5.491; ≤0.001 | | |
| Self-judgement | | | | |
| Pre-test | 2.33±0.79 | 2.45±0.85 | -1.273 | 0.204 |
| Post-test | 2.31±0.81 | 2.26±0.80 | 0.473 | 0.636 |
| t[b]; p value | 0.382; 0.703 | 2.954; 0.004 | | |
| Common humanity | | | | |
| Pre-test | 3.09±0.80 | 3.13±0.83 | -0.438 | 0.662 |
| Post-test | 3.59±0.74 | 3.56±0.74 | 0.456 | 0.648 |
| t[b]; p value | -8.155; ≤0.001 | -6.799; ≤0.001 | | |
| Isolation | | | | |
| Pre-test | 2.56±0.85 | 2.75±0.94 | -1.926 | 0.061 |
| Post-test | 2.53±0.89 | 2.58±0.83 | -0.473 | 0.636 |
| t[b]; p value | 0.387; 0.700 | 2.677; 0.008 | | |
| Mindfulness | | | | |
| Pre-test | 3.25±0.72 | 3.18±0.74 | 0.894 | 0.372 |
| Post-test | 3.49±0.72 | 3.50±0.69 | -0.173 | 0.863 |
| t[b]; p value | -4.143; ≤0.001 | -5.276; ≤0.001 | | |
| Over-identification | | | | |
| Pre-test | 2.79±0.93 | 2.93±0.97 | -1.338 | 0.182 |
| Post-test | 2.66±0.90 | 2.68±0.91 | -0.226 | 0.329 |
| t[b]; p value | 1.891; 0.060 | 3.513; 0.001 | | |

SD: Standard deviation, t[a]: Independent samples test, t[b]: Paired samples test.

tening and nonverbal communication. This reinforces the idea that online formats may not fully substitute for in-person instruction. Combining the strengths of both methods may lead to more comprehensive educational outcomes.

In the online group, certain key communication competencies did not show significant improvement. This may help explain the inconsistent results in the literature regarding the effectiveness of online training.[12,13,28] Such inconsistencies may also reflect differences in course design, instructional duration, and levels of student engagement.[29] In contrast, a systematic review on empathy and compassion training reported that neither the length nor the complexity of interventions directly influenced outcomes.[17] Although the online sessions in the present study were recorded for later access, students' individual learning styles and study habits may have affected their performance. Moreover, the online group participated during the COVID-19 pandemic under mandatory conditions, which may have posed adaptation challenges and reduced learning effectiveness.

In the present study, in terms of self-compassion, participants in the face-to-face group showed significant improvements across all subdimensions. This included increased self-kindness, common humanity, and mindfulness, along with decreased self-judgment, isolation, and over-identification. These results are in consistent with Taylor et al.[30] in 2022, who found that mindfulness-based classroom interventions significantly enhanced self-compassion. Other studies also confirm that group-based interventions are more effective than individual formats in enhancing self-compassion-related attributes.[20,31] Integrating activities that support self-compassion into nursing education may foster this essential quality in future nurses.

In this study, in the online group, significant improvements were observed in self-kindness, common humanity, and mindfulness. However, changes in self-judgment, isolation, and over-identification were not statistically significant. This may be attributed to psychological strain and limited interaction opportunities during the pandemic. It is also worth noting that only one of the course objectives specifically targeted self-compassion. Prior studies have shown that online interventions lasting 6 to 10 weeks—when fully dedicated to self-compassion and applied to small groups—can produce significant improvements.[32,33] These findings suggest that online self-compassion programs may be a viable option, especially for learners with limited access to in-person education.

At the end of the course in the current study, the observed correlation between communication skills and self-compassion suggests that these qualities may reinforce each other. This relationship aligns with a narrative review emphasizing the role of mindfulness and compassion-based strategies in effective communication with patients.[18] A systematic review has emphasized the close links among empathy, self-awareness, and compassion, indicating that enhancing one may positively impact the others.[17] Educational strategies that integrate communication training with self-compassion practices may thus provide dual benefits. However, achieving a lasting impact requires continuity rather than one-time interventions.

In sum, the present findings offer valuable evidence on how to support nursing students in developing communication skills and self-compassion. While the study confirms the potential of online learning, it also highlights its limitations in fostering certain interpersonal skills. Future research should explore blended or hybrid models, evaluate the long-term retention of skills, and examine the influence of student characteristics and contextual variables on training outcomes.

## Limitations

The first major limitation of this study, as highlighted in previous literature, is the difficulty of measuring the impact of communication training interventions.[9] Although a tool specifically developed in Türkiye for evaluating therapeutic communication skills exists, it could not be used in this study because it requires clinical practice experience, which the students had not yet undertaken. To partially address this limitation, a course evaluation questionnaire was developed and included alongside standard-

ized measurement tools. Reliance solely on self-report instruments presents another key limitation, as such measures can be subject to bias. Additionally, the fact that the study was conducted at only one institution restricts the extent to which the findings can be generalized. Future research should consider multicenter studies to enhance external validity and support broader application of the results. Another limitation arises from the study being conducted across different academic years. Potential variations in student profiles, such as changes in university entrance rankings, may have influenced the results. Furthermore, because the measurements were taken immediately after completion of the course, the study could not capture the long-term retention and sustainability of the skills gained. Future studies should incorporate follow-up assessments to better evaluate the durability of learning outcomes.

## Conclusion

This study demonstrated that both online and face-to-face delivery of a therapeutic communication and nurse-patient relationship course significantly improved nursing students' communication skills and self-compassion. However, limited improvement in certain subdimensions among the online group suggests that virtual formats may not fully support all learning outcomes. When online education is preferred or necessitated by circumstances, it is important to incorporate diverse teaching strategies to ensure an effective learning experience. These results may provide valuable insights for nursing educators and academic institutions when designing sustainable programs focused on improving communication skills and self-compassion in nursing students. Based on these findings, it is important for institutional policies aimed at enhancing the quality of nursing education to support face-to-face instruction while integrating the advantages of both digital and in-person teaching methods. Furthermore, developing systematic guidelines for the implementation of such blended approaches is essential.

**Ethics Committee Approval:** The study was approved by the Bolu Abant İzzet Baysal University Human Research Ethics Committee (Approval Number: 2020/77, Date: 15.04.2020).

**Informed Consent:** Written informed consent was obtained from all participants.

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## References

1. Gregory J. Understanding the communication skills that support nurses to provide person-centred care. Nurs Stand. 2024;39(2):61–66. [CrossRef]
2. Vieten C, Rubanovich CK, Khatib L, et al. Measures of empathy and compassion: A scoping review. PLoS One. 2024;19(1):e0297099. [CrossRef]
3. Lee SH, Yoo HJ. Therapeutic Communication Using Mirroring Interventions in Nursing Education: A Mixed Methods Study. Asian Nurs Res (Korean Soc Nurs Sci). 2024;18(5):435–442. [CrossRef]
4. Kerr D, Martin P, Furber L, et al. Communication skills training for nurses: Is it time for a standardised nursing model? Patient Educ Couns. 2022;105(7):1970–1975. [CrossRef]
5. Mielke K, Frerichs W, Cöllen K, Lindig A, Härter M, Scholl I. Perspective on patient-centered communication: a focus group study investigating the experiences and needs of nursing professionals. BMC Nurs. 2024;23(1):822. [CrossRef]
6. Gutiérrez-Puertas L, Márquez-Hernández VV, Gutiérrez-Puertas V, Granados-Gámez G, Aguilera-Manrique G. Educational Interventions for Nursing Students to Develop Communication Skills with Patients: A Systematic Review. Int J Environ Res Public Health. 2020;17(7):2241. [CrossRef]
7. Schulenberg SL, Goldberg D, Kreps G, Oh KM. Communication self-efficacy and communication apprehension in a national sample of undergraduate nursing students: A cross-sectional study. Nurse Educ Pract. 2024;77:103977. [CrossRef]
8. Nursing Education Association. National Core Nursing Education Program, Ankara, Türkiye. 2022. Accessed December 25, 2025. https://www.hemed.org.tr/wp-content/uploads/2023/10/hemsirelik_cekirdek_egitim_programi.pdf
9. Kerr D, Ostaszkiewicz J, Dunning T, Martin P. The effectiveness of training interventions on nurses' communication skills: A systematic review. Nurse Educ Today. 2020;89:104405. [CrossRef]
10. Peisachovich EH, Sombilon EV, Grant N, Ladha N, Silva CD. Evaluating the Effectiveness of Empathy-Based Education in Undergraduate Nursing: A Scoping Review. J Nurs Educ. 2024;63(6):367–371. Erratum in: J Nurs Educ. 2025;64(1):6. [CrossRef]
11. Blake T, Blake T. Improving therapeutic communication in nursing through simulation exercise. Teach Learn Nurs. 2019;14(4):260–264. [CrossRef]
12. Can Ş, Durgun H, Dalcalı BK. Effect of online communication skills training on effective communication and self-efficacy and self-regulated learning skills of nursing students: A randomized controlled study. Nurse Educ Pract. 2022;63:103371. [CrossRef]
13. Yang J, Kim S. An online communication skills training program for nursing students: A quasi-experimental study. PLoS One. 2022;17(5):e0268016. [CrossRef]
14. Hao X, Peng X, Ding X, et al. Application of digital education in undergraduate nursing and medical interns during the COVID-19 pandemic: A systematic review. Nurse Educ Today. 2022;108:105183. [CrossRef]
15. Raab K. Mindfulness, self-compassion, and empathy among health care professionals: a review of the literature. J Health Care Chaplain. 2014;20(3):95–108. [CrossRef]
16. Alquwez N, Cruz JP, Al Thobaity A, et al. Self-compassion influences the caring behaviour and compassion competence among saudi nursing students: A multi-university study. Nurs Open. 2021;8(5):2732–2742. [CrossRef]
17. Menezes P, Guraya SY, Guraya SS. A Systematic Review of Educational Interventions and Their Impact on Empathy and Compassion of Undergraduate Medical Students. Front Med (Lausanne). 2021;8:758377. [CrossRef]
18. Amutio-Kareaga A, García-Campayo J, Delgado LC, Hermosilla D, Martínez-Taboada C. Improving Communication between Physicians and Their Patients through Mindfulness and Compassion-Based Strategies: A Narrative Review. J Clin Med. 2017;6(3):33. [CrossRef]
19. Hagerman LA, Manankil-Rankin L, Schwind JK. Self-compassion in undergraduate nursing: an integrative review. Int J Nurs Educ Scholarsh. 2020;17(1):20200021. [CrossRef]
20. Stutts L. Increasing Self-Compassion: Review of the Literature and Recommendations. J Undergrad Neurosci Educ. 2022;20(2):A115–A119. [CrossRef]
21. Sümbüloğlu K, Sümbüloğlu V. Klinik ve Saha Araştırmalarında Örnekleme Yöntemleri ve Örneklem Büyüklüğü. 1st ed. Hatiboğlu Yayınevi; 2005.
22. Korkut Owen F, Bugay A. Development of Communication Skills Scale: Validity and reliability study. Mersin EFD. 2014;10(2):51–64.
23. Neff KD. The development and validation of a scale to measure self-compassion. Self and Identity. 2003;2(3):223–250. [CrossRef]
24. Akin U, Akin A, Abaci R. Self-compassion Scale: Validity and reliability study. HU J Educ. 2007;33(33):1–10. Turkish.
25. Connolly M, Perryman J, McKenna Y, et al. SAGE & THYME: a model for training health and social care professionals in patient-focussed support. Patient Educ Couns. 2010;79(1):87–93. [CrossRef]
26. Peplau H. Interpersonal Relations in Nursing: A Conceptual Frame of Reference for Psychodynamic Nursing. New York, NY: Springer Publishing Company;1991.
27. Kesten KS. Role-play using SBAR technique to improve observed communication skills in senior nursing students. J Nurs Educ. 2011;50(2):79–87. [CrossRef]
28. Pei L, Wu H. Does online learning work better than offline learning in undergraduate medical education? A systematic review and meta-analysis. Med Educ Online. 2019;24(1):1666538. [CrossRef]
29. Joo JY. Abrupt Transition to Remote Learning in Nursing Students During the COVID-19 Pandemic. J Nurs Educ. 2024;63(2):108–115. [CrossRef]
30. Taylor SB, Kennedy LA, Lee CE, Waller EK. Common humanity in the classroom: Increasing self-compassion and coping self-efficacy through a mindfulness-based intervention. J Am Coll Health. 2022;70(1):142–149. [CrossRef]
31. Ferrari M, Hunt C, Harrysunker A, Abbott MJ, Beath AP, Einstein DA. Self-compassion interventions and psychosocial outcomes: A meta-analysis of RCTs. Mindfulness. 2019;10(8):1455–1473. [CrossRef]
32. Nadeau MM, Caporale-Berkowitz NA, Rochlen AB. Improving women's self-compassion through an online program: A randomized controlled trial. J Couns Dev. 2021;99(1):47–59. [CrossRef]
33. Finlay-Jones A, Kane R, Rees C. Self-Compassion Online: A Pilot Study of an Internet-Based Self-Compassion Cultivation Program for Psychology Trainees. J Clin Psychol. 2017;73(7):797–816. [CrossRef]