

From procedure to presence: A pedagogical evaluation of experiential touch-based training in nursing education

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ABSTRACT

Background and aim: Nursing education increasingly emphasizes relational and emotionally intelligent care. While technical skills remain essential, the ability to form therapeutic relationships and deliver person-centred care is a core competency. Emotional intelligence (including empathy, self-awareness, and communication) is linked to resilience and reduced burnout. Intentional and affective touch is a powerful, yet underexplored, modality for fostering emotional connection and reflective practice. This study explores how experiential learning involving touch influences nursing students' emotional awareness, perception of care, and professional identity.

Methods: A descriptive qualitative design was used with pre- and post-intervention open-ended questionnaires. 161 Bachelor of Nursing students across two campuses participated in workshops led by nurse educators. Data were collected in March–April 2025 and analysed using Braun and Clarke's thematic analysis. Semantic maps were constructed to trace conceptual development.

Results: Students' perceptions evolved from technical interpretations of touch to deeper, person-centred understandings. Pre-course themes focused on acquiring relational tools and viewing touch as a gesture of trust. Post-course responses reflected emotional engagement and recognition of touch as a communicative



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and ethical act. Semantic maps revealed five central concepts—Caring, Contact, Being a Nurse, Person, and Body—with empathy, trust, and safety as key relational anchors.

Conclusions: Experiential learning involving intentional touch fosters emotional awareness and relational depth. Despite limitations, the study highlights the pedagogical value of touch-based training, advocating its inclusion as a communicative and compassionate act. Future research should explore its long-term impact on clinical practice. (www.actabiomedica.it)

Key words: experiential learning, nursing education, affective touch, emotional intelligence, person-centred care, qualitative research.

Introduction

In recent years, there has been growing interest in developing compassionate and relational skills, as well as emotional intelligence, within nursing education (1-3). While mastery of technical skills remains essential, the ability to establish effective therapeutic relationships and provide person-centred care is recognized as a key competency for nursing profession (4). From this perspective, it becomes essential that nurses are able to develop and refine emotional skills such as: understanding and managing their own emotions, to deal with stress, prevent burnout and maintain resilience (5); the ability to perceive and understand the emotions of patients and family members, in order to offer more human and personalized care (6,7); and the ability to communicate effectively with patients, caregivers and members of the healthcare team, building trust, providing clear information and managing complex or delicate situations (8). The intensity of academic preparation, immersion in varied clinical settings, and the emotional demands of patient care can present substantial challenges to nurturing relational skills and compassion in nursing students. Numerous studies underscore the multifaceted benefits of integrating emotional and relational skills into nursing education. Empathetic and participatory care fosters deeper patient involvement, enhancing both perceived quality and person-centeredness (6,7). Emotional intelligence appears to be a protective factor against burnout, allowing nurses to manage the emotional challenges of work with greater resilience (9). Furthermore, solid

relational skills contribute to better interdisciplinary collaboration, facilitating teamwork (8,10). Finally, the possibility of establishing authentic connections with patients is often associated with greater professional satisfaction (6,8). Simulation and role-play are widely recognised as core experiential learning strategies in nursing education, particularly for enhancing students' relational competencies. These methods offer immersive, hands-on opportunities for learners to apply theoretical knowledge in realistic, yet controlled, clinical scenarios (11). By engaging in simulated interactions, students can develop empathy, communication skills, and emotional intelligence (12). The structured nature of these activities, combined with reflective debriefing, creates a psychologically safe environment that supports both skill acquisition and emotional wellbeing (13). Moreover, experiential modalities such as role-play allow students to explore diverse perspectives and relational dynamics, fostering deeper understanding and professional identity formation (11-13). In this context, a nurses' use of intentional and affective touch is a significant skill. In a clinical environment increasingly dominated by procedures and technology, physical contact, when offered consciously, respectfully, and intentionally conveys powerful non-verbal messages of comfort, safety, presence, and human connection to the patient. Research on touch in nursing (11) identifies different types of contact, ranging from instrumental or task-oriented to comforting touch, and finally to touch for emotional support (also referred to as affective or expressive touch). In moments of greatest vulnerability, this form of communication becomes an

essential component of person-centred care, with the potential to positively impact the patient's emotional and psychological well-being (11-15). However, despite growing interest in the use of intentional and affective touch in educational and professional settings, little is known about whether and how such experiences can improve students' reflections on the caring relationship, their perception of care, their emotional responses, and the development of their professional identity. Building on these foundations, the present study seeks to explore and understand the experiences and emotional responses of undergraduate nursing students participating in a workshop on intentional caring touch. Through a pre- and post-training design, the study aims to capture students' reflections associated with this experiential approach, in order to evaluate its potential contribution to nursing education.

Methods

Study design

This study used a descriptive qualitative design with a pre- and post-intervention open-ended questionnaire. The pre and post qualitative approach was selected for its appropriateness in exploring experiential and subjective dimensions of learning, particularly within educational contexts where the nuanced perspectives of participants are central to understanding the impact of pedagogical interventions (14,15).

Participants and context

The participants included a convenience sample of first, second, and third-year students of the Bachelor Nursing degree program at the University of Siena (Italy) who participated in the workshops. The workshops were conducted by nurse teachers (DR and AP) from the School of Contact and Affectivity (Turin, Italy) and facilitated by two Nurse Team Leaders (BP and ST) from the Department of Nursing and Health Professions of the USL Toscana Sud-Est. The study took place between March and April 2025 at the teaching locations in Arezzo and Siena. Participation in the study was voluntary and did not influence the educational assessment. Informed consent

was obtained, and data anonymity was guaranteed, in compliance with the ethical principles of qualitative research (16,17).

Data collection

Data was collected using two open-ended questionnaires, administered at two different times: immediately before and after the workshop (Tables 1,2). The questionnaire administered before the workshop contained open-ended questions designed to explore students' expectations and their values related to the concept of caring and intentional affective touch in nursing. The same questions were repeated in the post-course questionnaire to detect any changes in their representations. In this final phase, students were also asked to construct a "concept map" to encourage personal reflection on the topics covered.

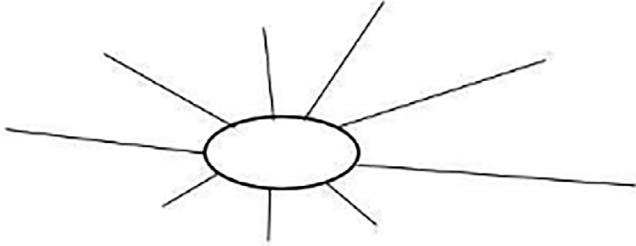
Data analysis

The qualitative data was analyzed using thematic analysis by Braun and Clarke, which consisted of six phases: familiarization with the data, generation of initial codes, identification of themes, review, definition and naming of themes, and drafting of the final report (18). Two researchers (LR and CRI) conducted the initial coding independently, with subsequent comparisons to ensure intersubjective reliability and semantic consistency. The analysis was conducted manually using Microsoft Excel software. The post-course semantic maps were constructed by extracting the central word-concepts and grouping the related concepts in frequency-based clusters to reflect how students developed conceptual understanding across sessions (19).

Table 1. Pre-workshop questionnaire

Before the workshop begins, please take a few moments to reflect and answer the following questions. Your input will help us tailor the experience to your expectations and interests.
What are your expectations for this workshop?
What value does the concept of <i>caring</i> hold, and what does it represent for you in the nursing profession?
What value does <i>interpersonal physical contact</i> hold, and what does it represent for you in the nursing profession?

Table 2. Post-workshop questionnaire

Dear student, Please take a few moments to reflect on your experience in this workshop and answer the questions below. Your feedback is valuable.
Were your expectations met? Did this workshop capture your interest?
Considering what you've learned, what value do you place on physical contact within the nursing profession?
Based on the main topic of the workshop, create a 'map' of related ideas or themes: 
It would be great to hear your final reflections—could you write them down below?

A secondary analysis (conducted by EDL and ST) reviewed and developed logical connections across the related concepts and informed the final map.

Experiential workshop: Affective touch within nursing care relationship

The training program consisted of a two-hour workshop, aimed at first, second, and third-year Nursing students. The workshop adopted a participatory and experiential approach, promoting participants' direct involvement in symbolic relational dynamics. The primary objective was to explore with the students the role of affective touch and gesture as a fundamental skill in caring relationships. Secondly, the workshop aimed to enhance relational skills through guided and safe physical contact and proximity, key elements in patient care, and core competencies in the nursing profession. Following a brief theoretical introduction about the themes of nursing care and physical touch, students took part in an experiential activity grounded in metaphor. The exercise used the imagery of a "forest", where each student represented a tree with branches capable of safely guiding a blindfolded traveler—another student wearing a soft eye mask—through the room. This metaphor aimed to evoke the qualities of a healing environment and the relational nature of care. All participants were invited to experience the role of

the blind traveler, while being clearly informed that they could withdraw or observe at any time without consequence or judgment. Participants were invited to engage silently with the metaphor of the forest, immersing themselves in the tactile experience of guiding and being guided. As the blindfolded traveler moved through the room, the "forest"—embodied by fellow participants—offered support through spontaneous, gentle touch: a hand on a shoulder, palm to palm, or other intuitive gestures. These moments of contact allowed the traveler to register and reflect on the physical sensation, the emotional and sensory nuances of different types of touch, evoking memories, feelings, and a deeper awareness of relational presence. This approach was intended to elicit proprioceptive awareness and allow emotional responses to surface organically. The activity was facilitated by a workshop leader and supported by nurse educators, who attentively monitored students' emotional reactions throughout. The facilitation team remained attentive and responsive to participants' emotional and physical wellbeing throughout the activity. Students were offered the option to remove their blindfolds, pause for reflection, or withdraw from the experience at any time—without judgment. This commitment to psychological safety ensured that the process respected individual boundaries and was conducted in a trauma-informed manner, fostering a supportive and inclusive environment for

all. At the end of the activity, a discussion was held to share emotional responses and personal reflections on these experiences. The experience concluded with a collective debriefing, in which participants shared reflections, emotions, and personal insights that emerged during the activity. The workshop was delivered in the same format at both campuses.

Results

The group of participants consisted of 161 students in the bachelor’s degree in nursing, divided into first, second, and third years, split almost equally across the two campuses. All the students compiled the questionnaires. No demographic variables or individual curricular information were collected from the participants. The detailed distribution by campus and year is shown in Table 3.

Table 3. Participants distribution among courses site and years

Year	n_students Siena	n_students Arezzo	Total
1st	32	17	49
2nd	24	35	59
3rd	24	29	53
Tot	80	81	161

Pre/post questionnaire findings

Thematic analysis of the textual material contained in the pre- and post-course questionnaires revealed an evolution in students’ perceptions of the use of touch and the relational dimension of care in nursing practice (Table 4). Pre-course responses focused primarily on expectations, functional definitions of caring, and an initial interpretation of touch as a technical-relational gesture. In contrast, post-course responses were characterized by greater complexity, reflective depth, and emotional engagement. Comparing the responses provided before and after the course revealed a shift from a predominantly technical or instrumental view of touch to a deeper, more holistic, and person-centered understanding.

PRE-WORKSHOP THEMES

The pre-workshop themes identified through thematic analysis of questionnaire responses regarding students’ expectations for the event, and their knowledge of foundational concepts (caring and physical contact) were: “exploring tools for building relationships”, “caring as attention and presence for the person in nursing” and “physical contact as a gesture of trust”. Exploring tools for building relationships. Many students, particularly those in their first year, expressed the need to acquire tools and techniques for relating to others in a correct, effective, and respectful manner.

Table 4. Pre and Post workshop Themes, codes and central concepts

	Theme	Codes identified	Concept synthesis
Pre-Workshop	Exploring tools for building relationships	approach, attention, empathy, communication	Students expect to learn to communicate better with patients, apply a massage in practice, and feel more empathetic.
	Caring as attention and presence for the person in nursing	care, presence, listening, respect, person	
	Physical contact as caring gesture	touch, gesture, contact, trust, closeness	
Post- Workshop	An experience that leaves a mark	emotions, involvement, awareness, reflection	Students experienced growth in empathy, deepened their understanding of the human side of care, and highlighted the importance of trust and meaningful connection.
	Physical contact as relationship and a pathway to professional development	relationship, empathy, listening, trust, presence, intimacy, communication	

Their training needs highlighted the importance of relational practice as a skill to be learned and refined. For example, students noted: “*Learning alternative care approaches to provide relief to sick patients*” and “*Better understanding what affective touch means because I haven’t heard of it.*” Caring as attention and presence for the person in nursing. Students described caring in terms of human connection, attention, kindness, and an empathetic approach. This understanding reflects a spontaneous and intuitive vision of caring, which is not yet theoretically structured. Illustrative comments include: “*Caring is an essential element of the nursing profession: it means caring for people through empathy and kindness*” and “*Learning an approach to caring relationship.*” Physical contact as a gesture of trust. Touch is predominantly perceived as a physical dimension that accompanies the nurse–patient relationship. The idea of touch as a communication tool and the intention to use it to convey trust, empathy, and security emerge (e.g., “*Caring represents taking complete care of the patient. It’s the way we approach them, trying to communicate with them and establishing a relationship of trust*”; “*I expect to acquire new knowledge and skills, and deepen my understanding of the importance of touch in improving the patient’s well-being*”).

POST-WORKSHOP THEMES

Two main themes emerged from the analysis of students comments, to the post-workshop questionnaires: “an experience that leaves a mark” and “physical contact in relationship and pathway to professional development”.

An experience that leaves a mark. Most students described the workshop as an experience that generated awareness and triggered personal and professional reflections. The phrases used express a profound emotional impact and the perception of learning that was not only technical, but also human (e.g., “*It intrigued me and made me think*”; “*This experience made me realize how powerful contact is if used properly, which is why I believe it is essential in our profession*”; “*It met my expectations ... and prompted many reflections on the importance of contact that is unobtrusive and invasive, without being abrupt*”).

In addition, the role-playing activity—conducted while experiencing the forest and being guided by

others—served as a powerful source of reflection on patient perspectives. Participants shared insights such as: “It was a very intense experience... it felt like being a patient”; and “Reflecting on what it means to be in a position of needing help and relying on someone you cannot see, I felt uneasiness, discomfort, and fear when I was left alone—without touch or guidance. This experience made me aware of many things; I am still processing it...”.

Physical contact as relationship and pathway to professional development. After the workshop, the concept of contact was enriched and transformed. It was no longer just a physical gesture, but became an intentional presence, a communicative act, a relational tool. Words such as relationship, listening, awareness, and meaning emerged (e.g., “*It allows you to build a relationship with others*”; “*It strengthened my initial value by highlighting my awareness of contact*”; “*It made me understand the meaning of contact, which we were told is the most important value for both patient and nurse*”). Students highlighted how attention to touch became integrated into their understanding of the professional role, particularly as a means of building trust within the caring relationship (e.g., “*It made me think how difficult it is to trust someone and also to accept being helped.*”; “*I understood that our highest responsibility is to create a trustworthy relationship with the person*”). They also reflected on the importance of caution, consent, and appropriateness in physical contact (e.g., “*It is fundamental in this work to understand who the person in front of us is—not everyone likes to be or feel touched*”; “*In our profession, touch is sort of implied; therefore, I think we need to pay attention to how we present ourselves and how we initiate physical contact*”).

These reflections represent a shift—or enrichment—of the concepts introduced prior to the workshop. What began as a more didactic engagement with definitions evolved into a lived (albeit brief) experience that deepened and expanded students’ reflections on key elements such as trust and communication. The experience also underscored the need for dedicated space—both physical and pedagogical—for students to explore the meaning of touch and care in greater depth. Many expressed a desire to further engage with these topics: (e.g. “*This experience helped me to look at nursing care from another point of view!*”).

One student poignantly described the experience as a beginning, “*The foundations of a huge building have been laid.*” Others expressed a wish to connect with like-minded peers to continue this exploration (e.g. “*A very positive experience. I hope to find colleagues who use this approach to learn and to share*”).

Semantic maps

Post-workshop semantic maps were completed by 75% of students (n=121). Rather than applying predefined categories, the maps analysis was guided by the language students used—capturing words, frequencies, and associations that emerged around key themes (Figure 1). Five central words were identified for their resonance within the caring professions: Caring

(n=66) as the cornerstone of the learning experience and the starting point for deeper reflection; Contact (n=26) understood as an intentional gesture and integral part of the relationship; Being a Nurse (n=18) reflecting students’ sense of identity and belonging; Person (n=17) indicating a shift from the object of care to the subjectivity of the other; Body (n=10) highlighting perceptions of nursing as embodied practice, especially following experiential workshops. Each central word was treated as a conceptual anchor. Lower-frequency terms were integrated into broader themes to maintain clarity and coherence. Associated words with each central concept were then filtered to exclude those appearing only once or twice, and variants were harmonized (e.g., “help” and “to help”). This refined dataset informed the construction of semantic maps



Figure 1. Semantic Map of the Experiential Workshop.

for each concept. These maps functioned as conceptual landscapes, with word size reflecting frequency and proximity suggesting emotional or functional closeness. Terms such as Empathy, Trust, and Safety consistently appeared near the core of both Caring and Contact, underscoring their dual role as emotional foundations and relational gestures. The maps were then integrated into a unified framework, revealing key intersections. Empathy appeared across four of the five central nodes, while Trust, Respect, and Help formed connective threads between Caring, Contact, and Being a Nurse. Embodied terms like Touch, Support, and Emotion linked Body and Person to more abstract dimensions of care. The resulting conceptual map (Figure 1) offers an expressive overview of the language used by students, highlighting both central ideas and the relationships between corollary terms. Notable differences emerged across year groups. In first-year students, Empathy was the most frequent term, suggesting spontaneous emotional closeness. In second-year cohorts, Relationship and Trust gained prominence, indicating a more structured reflection on professional interaction. By the third year, Care and Person emerged strongly, reflecting maturation toward patient-centered practice. Other terms such as Presence, Listening, and Intimacy appeared less frequently but retained qualitative significance. Overall, the use of these words and concepts illustrates a developmental shift—from emotionally driven language to more conscious, professional conceptualizations of care.

Conclusions

This study underscores the transformative potential of experiential learning in nursing education, particularly when focused on touch and relational contact. The workshop, followed by guided reflection, enabled students to articulate emotional resonances that emerged during hands-on care simulations—a necessary condition for shifting perspectives on affectivity and interpersonal connection. Thematic analysis of pre- and post-course reflections revealed a clear evolution: initial expectations centered on technical proficiency and communication skills gave way to a deeper awareness of human vulnerability, trust, and

the relational dimension of care. This shift aligns with previous research suggesting that experiential methods foster emotional awareness, professional empathy, and relational competence among nursing students (18). Through structured physical contact and reflective dialogue, students developed heightened sensitivity to patients' emotional needs and a more holistic understanding of care. Semantic mapping of student language further illustrates this progression, showing how terms like trust, empathy, and safety gained prominence post-intervention. Touch, once perceived as a procedural necessity, emerged as a relational gesture imbued with meaning and ethical significance (26). This study, despite its limitations - including the use of non-validated questionnaires and the multi-site composition of the sample - highlighted the pedagogical impact of the educational intervention. The integration of experiential and reflective components appears to support a shift from task-oriented practice to relationally attuned care (27). These findings echo call for more intentional use of touch in nursing education, not only as a technical skill but as a communicative and compassionate act (28-31). The analysis of the pre/post workshop questionnaire supports the inclusion of touch-based relational training as a strategy to integrate technical execution with a caring approach. Such integration offers added value for both learners and patients, enhancing interpersonal skills without extending training time. Future research should explore the long-term effects of these interventions and their translation into clinical practice.

Ethic Approval: In accordance with the ethical guidelines of the University of Siena, the study was classified as a non-interventional observational educational study and therefore did not require formal approval from an ethics committee. Compliance with the principles of anonymity, confidentiality, and adherence to the ethical principles of research with human subjects was guaranteed (20).

Conflict of Interest: Each author declares that they have no commercial associations (e.g. consultancies, stock ownership, equity interest, patent/licensing arrangement etc.) that might pose a conflict of interest in connection with the submitted article.

Authors Contribution: The study was conceived and designed by BP, LR, ST, VA and EDL. Data collection was carried by MS

and FM with the support of BP, ST during the implementation phase. Data analysis was conducted by EDL, LR, CRI and ST. The initial draft was written by LR, with contributions from CRI, EDL, ST and BP. The final manuscript was critically reviewed and approved by CN, EDL and VA. All authors approved the final version to be published

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