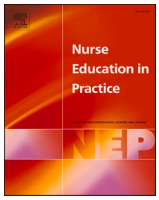
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Service-learning in prison settings: A qualitative study of nursing students' experiences

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ABSTRACT

Aim: To explore nursing students' perceptions of a Service-Learning (SL) experience within a Health Education module in a Spanish prison, focusing on its contribution to the development of non-clinical competencies.
Background: Community care education increasingly recognizes the value of non-traditional learning environments. Prisons represent a complex context where students confront vulnerability and social inequities. While SL integrates academic learning with community engagement, evidence on how it specifically contributes to the development of non-clinical competencies in correctional settings remains limited.
Design: An interpretive descriptive approach.
Methods: The study was conducted in a correctional facility in Spain. Participants included twenty second-year nursing students. Data were collected through twenty written reflections and seven semi-structured interviews. Data were inductively analyzed using Krippendorff's content analysis.
Results: Three categories emerged: (1) Students' personal development as mediated by exposure to non-traditional care contexts; (2) Service-Learning as a meaningful approach, which facilitated the development of non-clinical competencies—particularly empathy, cultural competence, social responsibility, teamwork and reflective capacity—through real-world application and reciprocal learning; and (3) understanding the culture of correctional settings, characterized by a trajectory from transformative insecurity to the humanization of incarcerated individuals, supported by key relational and institutional factors.
Conclusions: SL in prison settings fosters non-clinical competencies through structured reflection and community engagement, transforming students' initial insecurity into meaningful learning. This innovative approach challenges assumptions about incarcerated individuals while requiring pedagogical support for emotional safety and maximum educational impact. SL connects theory with transformative practice, promoting academic excellence and social responsibility in nursing education.

1. Introduction

Primary and community care placements are fundamental for acquiring core nursing competencies, including health literacy, health promotion, patient safety and the ability to address social determinants of health (World Health Organization, 2015). However, traditional clinical environments often fail to fully expose students to the complex realities faced by marginalized or underserved populations (Brooke et al., 2022). Consequently, alternative placements involving engagement with specific vulnerable groups—such as Roma communities,

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refugees and LGBTQI + populations—have emerged as powerful educational opportunities for bridging this gap (Escobar et al., 2024; Madrid-Fernández and Katz, 2018).

Within this landscape, correctional facilities represent a distinct non-traditional environment capable of supporting community health competencies. Prisons provide a unique context for students to address the distinct health needs of incarcerated individuals while meeting primary care educational objectives (Brooke et al., 2022). Although prisons were identified as potential clinical practice settings offering rich learning environments by the late 20th century (Boyd and Mott, 1999; Ruman et al., 1999), their usation remains distinct. These placements enable students to comprehend the lived experiences of a population shaped by incarceration, a reality often vastly different from their own (Brooke et al., 2022). Such immersion challenges students to confront personal biases by examining the complex social context of imprisonment and adopting the humanistic approach necessary for person-centered care within a restrictive environment (Ashton, 2017; Solell and Smith, 2019).

Clinical placements in correctional facilities can be conceptualized as a form of community-based learning, as they take place outside traditional acute hospital settings and focus on population health, health promotion and social determinants of health. However, they differ from conventional community placements in that they occur within highly structured, security-controlled environments and involve populations experiencing significant social exclusion and complex health needs. For this reason, prison-based placements are increasingly recognized as non-traditional community settings, expanding the boundaries of community health nursing education while providing exposure to vulnerable populations that are often underrepresented in standard clinical training (Brooke et al., 2022; World Health Organization, 2019). This distinction highlights their dual role as both community-oriented and atypical educational environments, requiring specific pedagogical preparation and reflective learning strategies.

Despite their pedagogical potential, prisons present distinct challenges that require careful preparation. Students often report significant concerns related to safety, emotional strain and uncertainty when interacting with inmates (Needham and Van de Mortel, 2020, Needham and Van de Mortel, 2020). These anxieties highlight the imperative for pedagogical approaches that bolster sociocultural competence, self-awareness and professional confidence prior to immersion in high-risk practice environments. In this context, SL offers an experiential pedagogical strategy designed to promote both personal and professional growth. SL fosters civic responsibility, sociocultural understanding and the humanistic foundations of nursing through structured reflection (Bringle et al., 2016).

Furthermore, experiential learning constitutes a key pedagogical foundation underpinning both clinical education and SL approaches. Rooted in the Experiential Learning Theory, experiential learning emphasizes the transformation of experience into knowledge through a cyclical process involving concrete experience, reflective observation, abstract conceptualization and active experimentation. This framework is particularly relevant in nursing education, where students must integrate theoretical knowledge with real-world practice in complex and unpredictable environments. Evidence suggests that experiential learning enhances critical thinking, professional identity formation and the ability to respond to socially complex health needs (Kolb, 1984; Yardley et al., 2012). In non-traditional settings such as prisons, experiential learning is especially valuable, as it enables students to engage directly with marginalized populations, fostering deeper sociocultural understanding and reflective practice beyond what can be achieved in conventional classroom-based instruction.

SL is defined as a pedagogical approach that integrates academic learning with meaningful community service through structured, reciprocal partnerships between educational institutions and community organizations (Bringle et al., 2016). Its implementation involves engaging students in service activities aligned with course objectives, accompanied by intentional reflection processes that promote the critical analysis of social issues and professional practice. This methodology enables students to apply theoretical knowledge to real-world contexts while fostering civic responsibility, ethical awareness and social justice competencies. Recent evidence highlights SL as a high-impact educational practice that strengthens academic outcomes and community engagement in higher education (Salam et al., 2019). While research has examined student learning in non-traditional settings (Brooke et al., 2022; Needham and Van de Mortel, 2020, Needham and Van de Mortel, 2020), evidence regarding the specific development of non-clinical competencies among nursing students working with incarcerated individuals remains limited.

A clearer distinction between Service-Learning and traditional clinical placements is essential to fully appreciate the added value of the approach in this study. While clinical practice primarily focuses on the acquisition and application of technical and professional competencies in healthcare settings, SL is grounded in the integration of community service, academic learning and structured critical reflection (Furco and Root, 2010; Barbara Jacoby, 2015). In this experience, SL was operationalized through students' active engagement in a prison setting not only as clinical learners but as participants in a community-oriented intervention, combined with facilitated reflective activities before, during and after the experience. This aligns with experiential learning principles (Kolb, 1984) while extending them through an explicit focus on reciprocity and social responsibility. Such an approach enables students to critically examine structural inequalities, power relations and personal biases, fostering transformative learning processes (Jack Mezirow, 2000). By explicitly linking service objectives with academic outcomes and reflection, SL constitutes a distinct pedagogical framework that enhances ethical sensitivity and sociocultural awareness—dimensions that are less systematically addressed in conventional clinical education (Eyler and Giles, 1999; Furco and Root, 2010).

Within the context of this study, non-clinical competencies are explicitly defined as a set of observable and developable cognitive, interpersonal and ethical abilities that are intentionally fostered through the SL experiences and made visible through structured reflection and community engagement processes. (Groh et al., 2011). In addition, professional identity formation and civic responsibility are conceptualized as integrative outcomes, reflecting students' development as socially accountable and justice-oriented practitioners. These competencies are not incidental but are core outcomes of SL pedagogy, which is characterized by the integration of meaningful community service, reciprocity and structured reflection, distinguishing it from traditional clinical education (Bringle et al., 2013; Furco and Root, 2010). Recent evidence in nursing education further supports that SL promotes critical thinking, social awareness, communication and civic engagement through engagement with real community needs and reflective learning processes (Phillips et al., 2024).

The learning process was intentionally scaffolded through preparatory seminars, guided fieldwork and post-experience reflective sessions, which enabled students to critically analyze social determinants of health, ethical dimensions of care and their own professional attitudes. This structured design distinguished SL from conventional placements by prioritizing transformative learning outcomes—such as critical reflection, social awareness and professional identity development—over procedural competence alone (Furco, 1996).

In addition, existing literature has largely focused on general learning outcomes or students' emotional responses in correctional placements, with less attention paid to how SL specifically facilitates the development of non-clinical competencies—such as critical reflection, ethical reasoning and sociocultural awareness—within prison contexts (Wright and Bronstein, 2007). Moreover, there is a notable lack of context-specific evidence from Southern European settings, particularly Spain, where sociocultural dynamics, prison health systems and educational frameworks may differ from those reported in predominantly Anglo-Saxon literature (Almost et al., 2013). This gap

underscores the need for empirical studies that examine how SL experiences in correctional facilities contribute to competency development in nursing education within diverse socio-institutional contexts.

Consequently, the aim of this study was to explore nursing students' perceptions of a SL experience within a Health Education module in a Spanish prison, focusing on the specific contribution of the SL approach to their learning.

2. Method

2.1. Research design

The research adopted an interpretive descriptive approach, focusing on how nursing students perceive SL experience in a correctional facility. Interpretive description acknowledges the researcher's role in interpreting data in its real-world context, making it well-suited for studies seeking to translate findings into actionable recommendations for nursing education and care (Thorne et al., 2004; Thorne, 2016).

2.2. Context

2.2.1. Prisons in catalonia

The study was situated in the Catalan penitentiary system, which operates under a rehabilitative framework characterized by a dynamic, multidisciplinary approach. Inmates engage in personalized rehabilitation plans that integrate education, vocational training and psychosocial support coordinated by a network of educators, social workers and healthcare professionals. This structure creates a comprehensive care environment intrinsic to the bachelor's degree in nursing, offering students a unique platform to apply competencies regarding health promotion and continuity of care for vulnerable populations. Furthermore, this setting exposes students to complex ethical dimensions—such as healthcare equity and decision-making under restricted autonomy—requiring them to act as bridges between the penitentiary and general healthcare systems (World Health Organization, 2014; Ministerio del Interior, 2014; Consejo General de Enfermería, 2020). The study was conducted at Brians 1 Penitentiary Center (Sant Esteve Sesrovires, Barcelona), a facility opened in 1991 that serves both male and female populations. The center covers over 61,000 m^2 and features a modular design that facilitates the separation of living quarters from activity areas. This structure allows independent spaces for educational, work and sports programs, creating an environment that functionally resembles a small community to support inmate rehabilitation (Generalitat de Catalunya, n.d).

2.3. Participants

The study sample consisted of 20 s-year nursing students who voluntarily elected to undertake the SL project within the Health Education module. To be eligible for inclusion, participants were required to be taking the course for the first time and to have attended the scheduled seminar sessions. Students repeating the module or failing to meet attendance requirements were excluded.

2.4. Service-learning experience

Second-year nursing students at a Spanish university complete a compulsory 3-ECTS Health Education course consisting of 63 h of lectures and 12 h of seminars. Theoretical instruction is delivered by a professor and covers the design of educational projects, intervention strategies and evaluation methods. As part of this training, students attend a dedicated two-hour session introducing SL methodology and the SL opportunities available within the course.

Following the theoretical training, students participate in seminar sessions organized in groups of approximately 20 students and supervised by a designated faculty member with expertise in health education and SL methodology. During these seminars, all students are required to design a health education and promotion program and present it orally to the class as part of the course assessment.

Students are then offered the opportunity to implement their projects through an SL approach aimed at addressing real-world community needs identified by the course coordinator. Those who choose the SL pathway work collaboratively with a partner institution, assuming responsibility for the design, implementation and evaluation of the intervention under continuous faculty supervision. The rest of the students developed an educational project in a traditional format.

Before designing the intervention, the director of the educational unit at the Brians 1 correctional facility conducted an orientation session for the students. During this session, the director identified and suggested the health education topics considered most relevant and potentially beneficial for the incarcerated population, thereby defining the service needs to be addressed through the Service-Learning project. In addition, students received information regarding the educational needs and sociodemographic characteristics of the prison population, enabling them to adapt their proposals to the target context.

Based on this needs assessment, students developed their SL projects during five two-hour seminar sessions scheduled at three-week intervals. Throughout this process, the supervising faculty member guided students in planning educational content, organizing activities and preparing the intervention materials.

On the scheduled intervention day, the student cohort, accompanied by three faculty members, traveled to the correctional facility. After completing the mandatory security procedures, students divided into their pre-assigned groups and conducted one-hour workshops with groups of five to ten inmates. The main objectives of the workshops were to promote emotional awareness and emotional management strategies in vulnerable populations, as well as to encourage understanding of the relationship between physical activity and emotional well-being.

The workshops were designed and delivered by the nursing students under faculty supervision and included participatory educational activities such as group discussions, practical examples, reflective dynamics and brief physical activation exercises aimed at encouraging active involvement among participants. Students assumed responsibility for facilitating the sessions, presenting the educational content, encouraging dialogue and adapting communication strategies to the characteristics of the group.

The incarcerated participants were encouraged to actively engage in the activities by sharing personal experiences, participating in discussions and reflecting on emotional regulation and healthy lifestyle habits. This participatory approach aimed to foster mutual learning, respectful interaction and a supportive educational environment.

Following the workshops, students and inmates participated in an informal gathering held in the prison courtyard, where refreshments, including traditional Spanish nougat and drinks, were shared to promote social interaction and rapport. Finally, the intervention was evaluated through voluntary and anonymous written reflections completed by the students after the activity, as well as through faculty observations regarding participation, group interaction and the development of communication and educational competencies during the sessions.

2.5. Data collection

Data collection took place between February and May 2023 using a two-stage approach. First, students completed individual written reflections on their SL experience in the correctional facility. To ensure a more structured reflective process aligned with SL pedagogy, students were provided with guiding prompts designed to encourage critical analysis of their learning experience, including their perceptions of the activity, emotional responses, ethical considerations and perceived learning outcomes in relation to health education competencies. In a second phase, volunteers from the cohort were invited to participate in in-depth semi-structured interviews, which allowed for further

exploration and elaboration of emerging themes from the written reflections. The interviews were conducted three months post-experience, using an open-ended guide centered on the meaning of the experience (Table 1). To minimize potential bias, interviews were conducted by a researcher (AP) who had previous experience in qualitative methods and was not involved in teaching the course. Interviews were scheduled individually and held in a private office at the Faculty of Medicine prior to the end of the academic year. All sessions were audio-recorded and transcribed verbatim immediately following the interview; to ensure confidentiality, transcripts were anonymized and the original audio files were destroyed. Two people transcribed the interviews (AP and SS). Data saturation was achieved after seven interviews and the totality of the written reflections. (Guest et al., 2006).

2.6. Data analysis

Written reflection notes were read by two experienced researchers (MA and AP) before the semi-structured interview guide was developed. This preliminary review of the reflections directly informed the interview guide, allowing researchers to probe deeper into emergent themes and ambiguities during the spoken interviews. Transcribed interviews and written reflections were subsequently analyzed by the same two research team members using Krippendorff's (2019) content analysis method. This approach is particularly appropriate for educational and health sciences research, where reflective narratives often contain rich, multidimensional accounts that require careful interpretation. Krippendorff's method emphasizes semantic and contextual validity, which is essential in this study given that students' experiences in a prison setting involve complex perceptions, emotions and socially constructed meanings.

Researchers first immersed themselves in the data through repeated readings. The analysis then proceeded through explicit methodological steps. First, the text was independently unitized to identify distinct recording units that captured underlying meanings. Second, a recording and coding process was undertaken, where these units were independently categorized. The researchers then met to compare these codes, resolving any discrepancies through discussion to reach a consensus and ensure reliability. By applying the same analytical procedure to both data sources, the study ensured consistency in interpretation while enabling the integration of complementary perspectives derived from spoken and written accounts.

Although a unified analytical framework was used, the practical analysis of the two materials differed slightly. Evaluating the written texts primarily involved interpreting self-paced, unprompted reflections, whereas the interview transcripts required interpreting dynamic dialogue, conversational context and researcher prompts. Furthermore, the analysis of these distinct materials iteratively influenced one another, facilitating the abductive inference central to Krippendorff's method.

2.7. Scientific rigor

Methodological rigor was established by addressing the criteria of credibility, dependability, confirmability, transferability and authenticity (Lincoln and Guba, 1985; Yardley, 2000). Credibility and confirmability were bolstered by employing a single interviewer with no prior relationship to the students to minimize social desirability bias, alongside ongoing reflexive reporting to maintain objectivity. Dependability was strengthened through investigator triangulation, involving three independent researchers in the analysis. Transferability was addressed by providing detailed descriptions of the participants and the study context. Finally, authenticity was promoted by ensuring a fair representation of perspectives (fairness), facilitating participants' understanding of their experiences (ontological authenticity) and supporting potential action based on findings (catalytic and tactical authenticity).

2.8. Ethical considerations

The study received approval from the University Ethics Committee (6812). Prior to data collection, all participants were fully informed of the study's purpose and their right to withdraw at any time, after which they provided verbal and written informed consent. To guarantee anonymity and confidentiality, personal identities were replaced with alphanumeric codes (e.g., P1, P2). Following transcription, audio recordings were destroyed and access to the anonymized transcripts was restricted exclusively to three members of the research team (MA, AP & SS).

3. Findings

The study participants included twenty nursing students (17 women and 3 men) aged 19–22 years. The dataset comprised written reflections from the entire cohort (N = 20), with each entry averaging approximately 600 words, supplemented by in-depth interviews with a subset of seven students. The inductive analysis yielded three categories: (1) Students' personal development as mediated by exposure to non-traditional care contexts; (2) Service learning as a meaningful educational approach; and (3) Understanding the culture of correctional setting (Table 2).

3.1. Category 1: students' personal development as mediated by exposure to non-traditional care contexts

This category explores how participation in a Service-Learning (SL) experience within a non-traditional care environment contributed to students' personal and professional development. More specifically, the findings highlight how the combination of academic learning, community service and direct interaction with a socially vulnerable population promoted transformative learning processes. Rather than the correctional setting alone producing these outcomes, it was the structured SL experience—based on reflection, active participation and community engagement—that enabled students to critically examine their

Table 2
Categories and subcategories.

Categories	Subcategories
1 Students' personal development as mediated by exposure to non-traditional care contexts.	Recognition and reinterpretation of unfamiliar care contexts Authentic engagement with diverse populations as a pathway to the development of cultural competence
2.- Service learning as a meaningful educational approach	Value of real-world application A maximum-achievement methodology Personal impact of the experience
3.- Understanding the culture of the correctional setting	Transformative insecurity Sources of support Humanizing prisons

Table 1
Primary questions.

1. Could you describe your experience participating in an educational activity with incarcerated individuals at Brians 1 detention facility?2. Tell me about the emotions you experienced before, during, and after the activity.3. What do you think were the main lessons learned from this experience?4. What were the main difficulties you encountered?5. Would you participate in a similar experience again? Why?

assumptions, adapt to unfamiliar care situations and develop relational and professional competencies.

Within this framework, the prison context acted as a meaningful learning environment through which SL principles were operationalized, facilitating experiential learning and the integration of theoretical knowledge with real-world practice. This category is organized into two subcategories: (a) recognition and reinterpretation of unfamiliar care contexts; and (b) authentic engagement with diverse populations as a pathway to the development of empathy and cultural competence.

3.1.1. Recognition and reinterpretation of unfamiliar care contexts

Participants described a process of adaptation where they actively reinterpreted the challenges of the correctional setting as opportunities for professional growth. Rather than passively experiencing the environment, students engaged in a process of cognitive and practical reframing, transforming perceived constraints into situations that required creative problem-solving and deeper involvement. This shift entailed moving from observational roles to more active and strategic participation, reflecting the emergence of professional agency. As one student explained when describing how they approached reluctant participants:

> *"…it felt more like a challenge, like, let's see if I can find another way to help them see a different side of this reality. And even with my classmates, we tried to focus on those who did seem motivated to take part…" (P4, personal interview).*

This account illustrates how students developed reflective and intentional practices, using the demands of the context as a catalyst for critical thinking and meaning-making.

3.1.2. Authentic engagement with diverse populations as a pathway to the development of cultural competence

In parallel, students' direct interaction with incarcerated individuals fostered processes of empathy development and transformation of prior assumptions. Participants described how bridging the gap between their own social context and that of the correctional population enabled a deeper understanding of lived experiences, contributing to the development of cultural competence. This process was not immediate; rather, it involved the gradual construction of trust and mutual recognition. As students navigated initial resistance, they learned to adapt their communication and relational strategies, which in turn facilitated participation and engagement:

> *"Being able to talk with people whose lives are completely different from mine… was a huge source of personal learning for me" (P10, personal reflection).*

> *"…at the beginning, very few wanted to participate… But as the activity went on, people started to warm up and soon everyone was participating. That was incredibly rewarding!" (P6, personal interview).*

Together, these experiences illustrate how engagement with diverse populations functioned as a key mechanism through which students developed empathy, challenged stereotypes and strengthened their relational competencies.

3.2. Category 2: service learning as a meaningful educational approach

This category examines how participation in the SL experience functioned as a bridge between academic theory and authentic community engagement, facilitating the development of key non-clinical competencies. Beyond the acquisition of technical knowledge, participants' accounts reflected the development of transferable professional skills that supported their ability to interact within complex social contexts. In this study, non-clinical competencies are understood as skills that facilitate effective, reflective and socially responsive practice. These included empathy (the ability to understand and relate to others' experiences), cultural competence (the capacity to engage with diverse populations in a respectful and informed manner), teamwork (collaborative problem-solving and peer support) and reflective capacity (the ability to critically examine one's own assumptions and actions).

Through this pedagogical approach, several students described increased motivation and a stronger sense of professional meaning when perceiving that their work could have a positive impact on others. Participants also highlighted that community immersion represented a distinct learning experience that required them to adapt to unfamiliar environments, manage organizational challenges and respond to real interpersonal situations beyond conventional classroom learning. In this sense, the findings suggest that the SL experience contributed to students' awareness of the social dimensions of healthcare and the importance of contextualized, person-centered practice.

These competencies emerged through active engagement with the community and the application of knowledge in real-world contexts, rather than through theoretical instruction alone. The category is organized into three subthemes: the value of real-world application, active and experiential learning through community participation and the personal impact of the experience.

3.2.1. Value of real-world application

Participants emphasized that the transition from theoretical coursework to authentic practice is essential for meaningful learning. For the students, the SL methodology held significant value precisely because it connected abstract concepts with a purposeful, real-world intervention. One student articulated this distinction clearly, contrasting the impact of the SL project with traditional academic assessments:

> *I'd actually do it again, because doing an assignment that only a lecturer will read and then it just sits there, is totally different from putting in the effort and knowing it will actually reach someone else. (P3, personal interview)*

Others noted that this "first-hand" exposure was the only way to truly understand the context. By sharing a learning space with the incarcerated population, students gained insights into resources and educational programs they were previously unaware of:

> *It was a really enriching experience because we got to see first-hand what the situation of people in custody is like and how they go about their daily lives (P8, personal reflection).*

> *I learned a lot more about the incarcerated community and the resources they have access to, including the educational programs, I had no idea about any of that. And getting to share a learning space with them was really meaningful (P18, personal reflection)*

3.2.2. A maximum-achievement methodology

The second subcategory reflects the capacity of SL to foster humanistic values—such as empathy, social responsibility and teamwork—alongside scientific knowledge. Students identified this dual growth as a key benefit of the methodology compared with other teaching formats. Central to this was the concept of reciprocity; students valued the exchange of knowledge rather than a unidirectional delivery of care. As one participant noted:

> *It was a really good, different and interesting experience where the incarcerated people were able to learn from us and we were able to learn from them (P12, personal reflection).*

Furthermore, perceiving the utility of their work increased student commitment. Knowing that their intervention had a tangible impact on others served as a powerful intrinsic motivator:

> *Knowing that the work I did actually made a difference… I guess that's really rewarding and it makes you put even more care into it (P9, personal reflection).*

3.2.3. Personal impact of the experience

Finally, this subcategory encompasses the deep impression left by immersion itself. From navigating security protocols to engaging in the prison yard, the experience extended beyond typical professional training to touch on personal existential questions. The non-traditional setting provoked curiosity and emotional engagement, leading to reflections on the fragility of life:

> *I mean, I thought a lot about everything we had done and I really liked it (P4 personal reflection).*

> *It made me think about the meaning of life, because life can change at any moment. (P1, personal reflection).*

> *I think being out in the yard with them helped a lot. We were sitting there and suddenly they'd come over, or we'd go to them, you know? (P1, personal interview).*

The intensity of the experience fostered a high level of satisfaction and engagement, with students recognizing the longevity of the memories created. One student summarized this lasting impact:

> *I'm sure I'll remember the experience for the rest of my life and it's definitely something I'll be telling as a story in the future (P10 personal reflection).*

3.3. Category 3: understanding the culture of correctional setting

This category captures the profound shift nursing students experienced while navigating the unique environment of a correctional facility. Immersion in this setting posed significant challenges, extending beyond the delivery of the health workshops to the complexity of navigating rigid organizational procedures and security protocols. The data reveals a trajectory where initial anxiety—driven by the unfamiliarity of the context—evolved into a sense of safety and professional growth. This process of acculturation is defined by three subcategories: Transformative insecurity, which reframes fear as a catalyst for learning; Sources of support, which identifies the key figures who facilitated this transition; and Humanizing prisons, which describes the dismantling of stigma and the recognition of human dignity.

3.3.1. Transformative insecurity

The first subcategory addresses the intense emotional response to the physical and procedural realities of the prison. Students initially experienced a heightened sense of vulnerability, particularly when negotiating security checkpoints. However, participants eventually recognized this discomfort as the necessary first step in their learning process—a state of "transformative insecurity" where unease paved the way for a new understanding of the context. One student vividly described the contrast between their expectations of authority figures and the reality encountered on entry:

> *It was really striking to arrive and see the security guard there, super serious and stern, telling us you have to do this, that, the other… and then once we went through the gate it was like a complete shift, like he was a totally different person… (P6 personal reflection).*

Another participant articulated how this anxiety was entwined with curiosity, marking the beginning of their engagement with the unknown:

> *At first there was a bit of uncertainty because I had no idea where we were going or what would happen… if they would listen to us or not. It was mostly uncertainty and curiosity about the place because I had never been there before (P1 interview).*

3.3.2. Sources of support

Navigating this complex environment required significant scaffolding. In this subcategory, students highlighted that their ability to move from anxiety to confidence was heavily dependent on specific support systems. The presence of security staff and faculty was instrumental in relieving tension and breaking the ice. Peers also emerged as a vital source of resilience, creating a collaborative space for sharing ideas and encouragement. Students were surprised by the demeanor of the correctional staff, noting that:

> *Unlike what we thought at first, that everything would be really strict and tightly controlled, it turned out not to be like that at all. He walked us through the different steps and security checks, but in a really warm and even funny way (P3, personal interview).*

> *And also the preparation in the seminars, where we got support that we honestly wouldn't have been able to do without on the actual day. I think a lot of people supported us exactly when we needed it (P2, personal interview).*

> *My classmates were my biggest support. They were the ones who were always there, sharing ideas, encouraging each other at every moment. They're the people I felt most supported by (P7 interview).*

Furthermore, the pedagogical preparation provided in seminars proved crucial. Students emphasized that the guidance received from instructors offered a necessary safety net, allowing them to feel grounded in a high-stakes environment:

> *I think this support was necessary and very helpful because it was the first time we were doing prevention and health education with a population. I felt it was important to have someone by our side to help us understand the situation, to feel more grounded and to know that if we needed help at any moment, someone was there and paying attention (P1, personal interview).*

3.3.3. Humanizing prisons

This subcategory reflects the ultimate outcome of immersion: the dismantling of preconceptions. Through direct interaction, students realized that incarcerated individuals faced problems, pain and needs similar to the general population. This experience confronted students with an ethical challenge, compelling them to apply the core nursing principle of inherent dignity regardless of a patient's past actions, identifying this shift as the most meaningful part of the project:

> *Yes, well, in my case I didn't write it down, but I think that, like everyone, at some point we've all had some prejudice toward people who are incarcerated. And the best way to break those prejudices is through direct contact (P1, interview).*

Another student reflected on the emotional complexity of the population, noting a striking contrast between their difficult reality and their resilience:

> *And there was this sense of melancholy about "what had happened before?", where they are now and what might happen in the future. Even so, many of them still had this glimmer of hope or joy, which created a really striking contrast (P3, personal interview).*

4. Discussion

The findings of this study demonstrate that SL experiences situated in non-traditional environments, such as prisons, serve as a potent pedagogical tool for facilitating the personal, professional and ethical development of nursing students. Consistent with established evidence in nursing education, SL enhances both theoretical and practical knowledge, including communication, teamwork and empathy, while simultaneously challenging students' assumptions and broadening their understanding of the social determinants of health (Guest, Bunce, and Johnson, 2006). In the specific context of correctional settings, these educational benefits are amplified by the inherent complexity and vulnerability of the population served. While exposure to the correctional environment contributed to students' awareness of vulnerability

and social exclusion, the findings suggest that the development of reflective capacity, professional engagement and socially responsive competencies was more specifically associated with the pedagogical structure of SL, particularly through structured reflection, reciprocal interaction with the community and students' active participation in the design and implementation of the intervention (Bringle et al., 2016). However, the present findings suggest that these outcomes are not solely attributable to contextual exposure, but to the pedagogical structure of SL, which intentionally combines community engagement, reflection and active participation. Consequently, the experience fosters deep reflection and a heightened sense of social responsibility that extends beyond the learning outcomes typically achieved in conventional clinical placements (Bringle et al., 2016; Needham and Van de Mortel, 2020, Needham and Van de Mortel, 2020).

5. Limitations

The interpretation of these findings requires consideration of specific limitations. First, the study relied on a small, self-selected sample of second-year nursing students from a single university who voluntarily chose to participate in the SL project. This recruitment strategy may have introduced selection bias, as students with higher intrinsic motivation or openness to non-traditional learning environments were likely overrepresented, potentially limiting the generalizability of the results to the broader student population. Second, the research was conducted within a single correctional facility characterized by specific organizational policies and cultural dynamics. Although detailed contextual descriptions were provided to enhance transferability, the findings may not be fully applicable to other penitentiary settings, countries, or educational systems.

It is also important to acknowledge the conceptual challenge of disentangling the effects derived specifically from the Service-Learning framework from those associated with experiential learning in correctional settings more broadly, as both elements are closely interrelated in practice.

Finally, the study captured students' perceptions immediately following the experience, without longitudinal follow-up. Consequently, it is not possible to determine whether the reported personal, ethical and professional impacts were sustained over time or how they influenced students' subsequent clinical practice and career development. Future investigations should address these constraints by employing larger, diverse samples across multiple settings and using longitudinal designs to evaluate the enduring educational impact of SL in non-traditional environments.

6. Conclusions

This study suggests that Service-Learning in complex settings such as correctional environments supports nursing students' personal, professional and ethical development. While exposure to vulnerable populations contributes to awareness of social inequities and healthcare realities, the findings indicate that the main educational value derives from the pedagogical structure of Service-Learning.

In particular, structured reflection, reciprocity and active student participation in the design and implementation of interventions are key mechanisms that transform experiential exposure into meaningful learning. Through these processes, students develop essential non-clinical competencies and strengthen their professional identity as socially responsive practitioners.

CRediT authorship contribution statement

Leyva-Moral Juan Manuel: Writing – review & editing, Writing – original draft, Methodology, Investigation, Conceptualization. **Mariela Aguayo-González:** Writing – review & editing, Writing – original draft, Resources, Methodology, Funding acquisition, Formal analysis, Data curation, Conceptualization. **San Rafael-Gutiérrez Sabiniana:** Investigation, Data curation, Conceptualization. **Planella- Jiménez Alba:** Methodology, Formal analysis, Data curation. **Daniel Gómez García:** Resources, Investigation, Data curation.

Declaration of Generative AI and AI-assisted technologies in the manuscript preparation process

During the preparation of this work the author(s) used [Chat GPT] to improve the writing and coherence of ideas. After using this tool/service, the author(s) reviewed and edited the content as needed and take (s) full responsibility for the content of the published article.

Declaration of Competing Interest

The authors declare that they have no known competing financial interests or personal relationships that could have appeared to influence the work reported in this paper. This project is funded by the Solidarity Action Fund of the Autonomous University of Barcelona (FAS).

Appendix A. Supporting information

Supplementary data associated with this article can be found in the online version at doi:10.1016/j.nepr.2026.104890.

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