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Perceptions of Community Nursing: A Comparative View Between Students and Professionals Through a Mixed-Methods Study

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Abstract

Background/Objectives: Background/Objectives: Community nursing is central to equitable, preventive care, yet its role is often underexposed in undergraduate training. We compared perceptions of community nursing between first-year nursing students and practicing community nurses, identifying convergence/divergence to inform education and workforce strategies. **Methods:** Explanatory sequential mixed-methods study in Spain. Phase I: cross-sectional online survey with sociodemographics, ad-hoc items, and the Scale on COmmunity care PErceptions (SCOPE). Phase II: Photovoice groups (two student groups, one professional group). Quantitative data used medians (IQR)/proportions with χ^2 and Mann–Whitney U (α=0.05). Qualitative data underwent participatory thematic analysis; integration used joint displays and follow-the-thread. **Results:** Sixty-seven participants (students n=48; professionals n=19). Students scored lower than professionals in SCOPE affective perception (6.2 [5.4–7.1] vs 8.3 [7.4–8.9]), perception of practices (5.4 [4.8–6.3] vs 7.8 [6.7–8.5]), and placement preferences (4.1 [3.5–5.0] vs 6.1 [5.3–7.2]) (all p<0.001). Knowledge and orientation also differed: asset-mapping knowledge (27.1% students vs 84.2% professionals; p<0.001), preference for hospital placements (89.6% vs 5.3%; p<0.001), and interest in community specialization (22.9% vs 57.9%; p=0.01). Photovoice generated seven categories (e.g., "More than techniques," "The invisible nurse," "Technology with a human face," "Learning by doing," "Care in teams") that explained students' uncertainty and professionals' multifaceted, community-embedded role. Integration showed convergence on hospital preference and low institutional visibility, and divergence between high stated importance and superficial student knowledge. **Conclusions:** A marked perception gap separates students from community nurses. Earlier, mentored community exposures and participatory pedagogies, alongside institutional strategies to increase the visibility of community nursing, may narrow this gap.

Keywords: community nursing; perceptions; photovoice; mixed methods; vocational preferences

1. Introduction

Nursing has evolved from empirical care practices to a university profession with its own scientific and ethical identity, based on values of service, respect for dignity and commitment to public health [1,2]. In the Spanish context, milestones such as the integration of the degree into the university system [3] and adaptation to the European Higher Education Area [4] consolidated a

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Bachelor's Degree in Nursing that qualifies graduates for professional practice and access to specialised and postgraduate training [5]. These changes have reinforced curriculum development, evidence-based practice and progressive disciplinary autonomy.

Within this trajectory, Family and Community Nursing is recognised normatively as a key specialty for health promotion, disease prevention and comprehensive care throughout the life course [5]. Its practice is aligned with the principles of Primary Health Care —equity, continuity, accessibility and community participation— already proclaimed by Alma-Ata in 1978 [6], and which the literature has consistently linked to better population outcomes and greater efficiency of the health system [7]. In terms of health outcomes, strengthening primary care is associated with lower mortality, better prevention and greater patient satisfaction [7].

Despite its importance, community nursing faces challenges in terms of visibility, attractiveness and staffing. Historically, this speciality has been considered secondary to hospital nursing, which has prevented the consolidation of a clear professional identity in both academic and institutional settings. In Spain, the implementation of the speciality and the availability of places are still perceived as insufficient by professionals, which puts pressure on the response capacity of primary care [8,9]. This situation translates into a limited appreciation and understanding of community nursing by students in the early stages of their training, which directly influences their interest, motivation and future career decisions. Despite including specific subjects, university curriculum design often fails to achieve the multidisciplinary integration that would enable students to develop a deep understanding of the community role. In addition, the shortage of active specialists and marked inequalities in training provision between Spanish autonomous communities limit the healthcare system's capacity to meet growing community care needs [9–12]. This imbalance contrasts with international evidence supporting the impact of nursing care in primary care: nurse-physician substitution or complementarity in this setting offers comparable or superior clinical outcomes in several processes, maintains quality, and can improve accessibility [13]. Such findings reinforce the need to attract and retain nursing talent in the community setting.

A determining factor in this gap is how undergraduate students construct their perceptions and expectations of community practice from an early stage. The literature describes how many students tend to prefer the hospital environment because they perceive it as more technical, prestigious and "challenging", while community practice is often stereotypically valued as a field of lower status and variety [12]. In a multicentre study, 71.2% of first-year students preferred the hospital for their placements, compared to 5.4% who chose community practice, associating the latter with limited opportunities for advancement and a predominantly elderly population [12]. These perceptions are formed early on, can be modulated by the curriculum and by significant experiences in primary care, and evolve throughout training, although not always in the desired direction [14].

The curriculum and clinical exposure are levers for change. Studies suggest that a more "community-oriented" curriculum and well-designed learning experiences can nuance stereotypes, improve understanding of the community role, and—when combined with real contact and mentoring—influence vocational preferences [12,14,15]. However, even with curriculum redesigns, changes in preferences are not automatic, and other variables—such as previous community work experience or membership in social groups—may explain some of the variability [15]. Hence the importance of understanding in depth what students value and how their motivations align with the requirements and opportunities of primary care.

In Spain, nursing degree curricula incorporate community-based content and practices, but the perception of their actual importance and appeal does not always match the rhetoric surrounding competencies [16]. At the same time, public health advocates are calling for stronger training in community health and greater student participation in projects with and within the community to develop skills in health promotion, equity and intersectoral work [17]. This curricular and professional policy framework positions community nursing as a strategic field for sustaining the healthcare system's response to ageing, chronicity and social inequalities in health.

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Against this backdrop, understanding and comparing the perceptions of first-year students and practising nurses regarding community nursing is essential for guiding curricular decisions, recruitment strategies and staff planning. Exploring these perceptions allows us to identify myths, information gaps and attraction/retention factors, and to inform educational and organisational interventions that align training with the needs of primary care. To this end, the present research seeks to address this need.

To address the complexity of these perceptions and the factors that influence them, qualitative research is an indispensable methodology. Its ability to explore experiences, meanings, and social contexts offers a deep understanding that complements numerical data [18–20]. In recent decades, the use of qualitative methods in health research has increased considerably, allowing us to unravel questions of "how" and "why." Although the validity and generalisability of qualitative findings have traditionally been debated, it is recognised that, through conceptual and theoretical abstraction, they can be generalised and contribute to accumulated knowledge [18,21].

Within this framework, participatory methodologies are of particular interest [22–24]. The literature supports the use of experience-centred approaches to capture meanings and representations of professional practice. Visual methods such as Photovoice have proven useful for highlighting assets and barriers in community health and for stimulating critical reflection [25–28]. This technique enables participants to express and reflect on their experiences and realities through photography [25,28,29]. This visual and narrative approach facilitates a more human and detailed understanding of experiences, applicable to both communities and professional groups.

In addition, mixed-methods research has proven to be extremely valuable in answering multifaceted research questions and enriching the understanding of the phenomena studied. The integration of data and findings from both methodologies is essential for generating more comprehensive and applicable knowledge [20,21,30].

The present study was designed to explore and compare perceptions of community nursing among first-year nursing students and practising professionals. The findings of this research aim to generate applied knowledge that can inform the design of more effective teaching strategies and improve practical training in the field of community nursing.

2. Materials and Methods

A sequential explanatory mixed-methods design was implemented to obtain a comprehensive understanding of perceptions of community nursing. The quantitative phase (Phase I) provided an overview, while the qualitative phase (Phase II) allowed for in-depth exploration. Phase II was connected to Phase I by inviting those who completed the questionnaire to participate. The final integration was achieved by merging findings (joint displays) and following threads ("follow-the-thread") to explain convergences and divergences.

For the report, STROBE was followed during the quantitative phase [31] and COREQ for the qualitative phase [32], in addition to guidelines for the integration of mixed data [33–35].

2.1. Scope and Context

The study was conducted in the Vigo Health Area (Spain), covering nursing schools for students and health centres for professionals.

2.2. Participants, Eligibility and Sample Size

The target population was divided into nursing students and active nursing professionals. The main inclusion criteria were: (a) belonging to a Nursing Degree programme in the Spanish university system (students) or being a practising nurse in a Health Centre in the Vigo Health Area (professionals); (b) having an adequate level of language skills for data collection; and (c) accepting the informed consent to participate.

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The exclusion criteria were defined as: (a) students with previous work experience in health services or who had already completed internships in primary care; (b) professionals who were not working in the field of community nursing; (c) being on leave, furlough or sick leave during the study period; and (d) the inability to complete the study within an arbitrary period of 6 months.

2.3. Variables, Instrumentos y Materiales

2.3.1. Phase I Quantitative

A self-administered questionnaire was designed with three sections:

- Sociodemographic variables such as gender, age and year of commencement of studies (for students) or years of experience in primary care and route into employment (for professionals).
- Multiple-choice questions on knowledge and perceptions of community nursing, and preferences and attitudes towards this field (see Appendix 1). The content of this section was validated by a committee of independent experts.
- The Scale on COmmunity care PErceptions (SCOPE), which assesses students' perceptions of community nursing in three domains: affective perception, perception of practices, and location preferences [11]. Each item is rated from 1 to 10, and mean scores are calculated for each domain and a total score. SCOPE achieved adequate reliability coefficients (Chronbach's $\alpha = 0.89$ overall) in its original study. The original scale was retained in its English version.

2.3.2. Phase II Qualitative

Photovoice was used as a participatory methodology to explore meanings and practices in the community from the perspective of students and professionals. This technique enables participants to express and reflect on their experiences through photography [26,28]. Three working groups were formed (two with students, one with professionals), each with four weekly sessions. The sessions combined framing and image ethics, photographic production by the participants themselves, guided discussion using the SHOWED guideline ("What do you see? / What is happening? / How does it relate to our lives? / Why does it exist? / What can we do?"), and a group synthesis with selection of photographs and construction of categories. Audio recorders and colour printers were used for this part of the study [26].

2.4. Procedimiento

Participant recruitment was organised in October 2024 through the usual institutional channels for each group. Those interested received a link/QR code to an initial online questionnaire. Before the first question, a clear explanation of the purpose and conditions of participation was provided, emphasising that participation was voluntary. To begin, participants had to tick a mandatory checkbox to accept the informed consent and privacy policy.

The questionnaire was self-administered and took approximately 10 minutes to complete. At the end, participants were given the option to express interest in participating in the qualitative phase, reminding them of the need to attend all four sessions to ensure continuity.

The qualitative phase was planned as a progressive four-week itinerary per group:

- First session: The methodological and ethical framework was discussed, including safety guidelines for taking photographs (avoiding identifiable faces without consent) and handling materials. The photographic assignment was established.
- Second and third sessions: Participants presented their photographs and a critical dialogue was developed, guided by the SHOWED guideline. The conversations were audio recorded for analytical purposes, with no personal identifications in the transcripts. The images were printed to facilitate the work.
- Fourth session: This was devoted to collaborative synthesis. The group selected the most representative photographs and, based on these, constructed thematic categories and agreed-

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upon descriptors. With this material, the principal investigator developed an integrative analysis that preserved the participants' voices.

2.5. Data Analysis

Quantitative analysis was performed using R (v4.3.1). Qualitative variables were summarised in absolute frequencies and percentages, while quantitative/ordinal variables were expressed as median and interquartile range (IQR) due to their non-parametric distribution. For the comparison between students and professionals, Pearson's chi-square test (χ^2) was applied to categorical variables and the Mann–Whitney U test when appropriate. A confidence level of 95% was used, and $p < 0.05$ was considered the threshold for significance. The internal consistency of the SCOPE scale was calculated using Cronbach's α.

The qualitative analysis focused on the Photovoice products (photographs, narratives, recorded discussions, and agreed-upon thematic map). The relevant audio segments were transcribed verbatim. A participatory thematic analysis was developed, consolidating emerging categories defined by each group and producing a cross-sectional reading that connected them with the visual narratives and questionnaire patterns. The report was aligned with COREQ and criteria of credibility, transferability, dependability, and confirmability [32,36,37].

The mixed integration was articulated in two complementary stages [34,35,38]:

- Connecting: The descriptive results of the questionnaire informed the selection and focus of the Photovoice groups, prioritising topics that required further exploration.
- Merging: Joint displays were constructed that aligned quantitative SCOPE patterns with qualitative categories/fragments to locate convergences, divergences, and expansions.
- Weaving ("follow-the-thread"): The interwoven narrative synthesis followed the "follow-the-thread" approach, tracing each strong finding in one phase to the other until plausible explanations were exhausted, favouring integrated inferences.

2.6. Quality Assurance and Biases

The study acknowledged the limitations of non-probability sampling. Recruitment through institutional channels sought to maximise coverage and reduce self-selection bias, although voluntary participation and belonging to a single health area restrict the generalisation of the results.

To address information bias in the quantitative phase, the questionnaire was self-administered, with standardised instructions and a short response time to minimise fatigue. Anonymity and confidentiality were reinforced from the outset to reduce social desirability.

In the qualitative analysis, the risk of dominant group dynamics was addressed with a stable script for four sessions and the use of SHOWED to focus the analysis on common images and questions. Recordings were deleted once used, and image rights were managed when identifiable people appeared in the photos. The consensual selection of photographs and the construction of categories in the final session underpinned the quality of the analysis.

2.7. Ethical Considerations

The study protocol complies with international declarations (UNESCO Universal Declaration on Bioethics and Human Rights, Oviedo Convention, Declaration of Helsinki) and applicable legislation in the EU and Spain. In accordance with current regional legislation, observational studies without intervention (quantitative phase) and qualitative studies focused on perceptions (Photovoice) did not require specific authorisation from a research ethics committee. However, institutional support was provided by the University of Vigo and the Nursing Department of the Vigo Health Area.

Informed consent was obtained before starting the questionnaire by means of a mandatory checkbox confirming understanding of the information and acceptance of the privacy policy. The voluntary nature of participation, the possibility of withdrawal without repercussions, and the

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commitment to anonymity and confidentiality were emphasised. In Photovoice, specific consent was requested for audio recording, indicating its exclusive use for analysis and its subsequent deletion after transcription.

3. Results

The total sample consisted of 67 participants, divided into 48 first-year nursing students and 19 practising community nurses. In both subgroups, females predominated (91.7% among students and 94.7% among professionals). The average age of the students was 19 years (IQR: 18–20), while among the professionals, the median age was 42 years (IQR: 36–52).

3.1. Phase I

In general terms, students expressed a positive assessment of community nursing (CN), although this was limited by an incipient understanding of the professional role. Three out of four students (75%) stated that they had basic or intermediate knowledge of CN, and 68.8% considered it very important for the promotion of public health. However, only 27.1% were familiar with the concept of community asset mapping, and less than a quarter (22.9%) expressed interest in specialising in this field. The vast majority (89.6%) expressed a clear preference for conducting their clinical practice in a hospital setting. This choice is in line with the low scores on the SCOPE scale for affective perception (median: 6.2; IC: 5.4–7.1), perception of practices (median: 5.4; IC: 4.8–6.3) and, especially, location preferences (median: 4.1; IC: 3.5–5.0).

Working professionals presented a more consolidated and critical profile with regard to community nursing. 100% reported basic or intermediate knowledge of CN, and 94.7% rated it as very important in public health. In addition, 84.2% were familiar with community asset mapping, and more than half (57.9%) expressed interest in continuing to develop in this field. Unlike the students, only 5.3% of the professionals preferred to practise in a hospital setting. The SCOPE scale scores were higher in all domains for professionals: affective perception (median: 8.3; IRC: 7.4–8.9), perception of practices (median: 7.8; IRC: 6.7–8.5) and location preferences (median: 6.1; IQR: 5.3–7.2), suggesting a more favourable and informed view of community work.

Table 1 summarises the main sociodemographic and perceptual variables collected in Phase I.

Table 1. Summary of characteristics and perceptions of community nursing among students and professionals (Phase I).

Variable	Students (n = 48)	Professionals (*n* = 19)
Age (median [IQR])	19 [18–20]	42 [36–52]
Female gender (%)	91.7%	94.7%
Knowledge of CN: Basic or intermediate (%)	75.0%	100.0%
Importance of CN in public health: Very important (%)	68.8%	94.7%
Knowledge of asset mapping (%)	27.1%	84.2%
Preference for hospital practices (%)	89.6%	5.3%
Future interest in CN: Yes (%)	22.9%	57.9%
Affective perception of SCOPE (median [IQR])	6.2 [5.4–7.1]	8.3 [7.4–8.9]
Perception of SCOPE practices (median [IQR])	5.4 [4.8–6.3]	7.8 [6.7–8.5]
SCOPE location preferences (median [IQR])	4.1 [3.5–5.0]	6.1 [5.3–7.2]

n = number of participants; IQR = interquartile range; CN = community nursing; SCOPE = SCale on COmmunity care Perceptions.

The bivariate analysis showed statistically significant differences between students and professionals in most variables. Professionals demonstrated a significantly higher level of knowledge ($p < 0.01$) and attributed greater importance to CN in promoting public health (94.7% vs. 68.8%; p =

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0.03). Recognition of community asset mapping was also significantly higher among professionals (84.2% vs. 27.1%; p<0.001). One of the most striking differences was the choice of preferred setting for practical training, with 89.6% of students opting for the hospital compared to 5.3% of professionals (p<0.001). Only 22.9% of students showed interest in specialising in CN, compared to 57.9% of the professional group (p = 0.01), suggesting that vocational choice is conditioned by experience and exposure.

SCOPE scale scores also revealed significant differences in all three domains:

- Affective perception of community work: Professionals 8.3 (IQR: 7.4–8.9) vs. students 6.2 (IQR: 5.4–7.1) (p < 0.001), indicating greater emotional and vocational identification.
- Perception of community practices: Professionals 7.8 (IQR: 6.7–8.5) vs. students 5.4 (IQR: 4.8–6.3) (p < 0.001), suggesting a more technical and versatile perception of the field.
- Location preferences: Professionals 6.1 (IQR: 5.3–7.2) vs. students 4.1 (IQR: 3.5–5.0) (p < 0.001), confirming the hospital-centric bias of the student body.

These quantitative results reveal a structural pattern of divergence, whereby students value CN in a vague manner and find it less appealing, while professionals build their perception on an experiential, critical and strategic basis. Both groups agreed in identifying academic deficits and low institutional visibility of CN as significant barriers. Table 2 shows the comparison of scores on the SCOPE Scale.

Table 2. Comparison of SCOPE Scale scores between students and professionals.

SCOPE domain	**Students (Median [IQR])**	**Professionals (Median [IQR])**	***p* value**
Affective perception	6.2 [5.4–7.1]	8.3 [7.4–8.9]	<0.001
Perception of practices	5.4 [4.8–6.3]	7.8 [6.7–8.5]	<0.001
Location preferences	4.1 [3.5–5.0]	6.1 [5.3–7.2]	<0.001

These quantitative results allow us to identify not only a difference in degree, but also a structural pattern of divergence between the two groups. While students tend to view CN from a more diffuse, emotional perspective and with less professional appeal, professionals build their perception on an experiential, critical and strategic basis, which is evident in their recognition of the preventive, community and longitudinal value of this field.

In terms of convergence, both groups agreed in identifying academic deficits and low institutional visibility of CN as significant barriers to its development. This shared assessment will be expanded in the qualitative phase, where the discourses that explain these perceptions will be explored.

3.2. Phase II

The qualitative phase, using Photovoice, allowed for an in-depth exploration of the representations and meanings associated with community nursing. Three working groups were formed (two of students, one of professionals) which generated 73 photographs, visual and verbal narratives, and a thematic map agreed upon by each group. From the integration of this material, seven main thematic categories emerged, shared to a greater or lesser extent by both groups.

3.1.1. "More Than Techniques": Redefining Care from Proximity

Both students and professionals agreed that community nursing involves a different form of care, less technical but more personal. The images chosen symbolised spaces in the home, everyday gestures and neighbourhood streets. The sessions gave rise to a narrative about personalised care, long-term relationships and the ability to adapt to different realities.

"In hospital, everything is faster and more punctual. Not here. Here, you have to listen before you act. There isn't always a formula." (Professional)

"It's like accompanying people, not just healing them. That's nursing too." (Student)

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This category challenges the stereotype that community nursing is 'less clinical' or 'more boring', positioning it as a complex exercise in relational and contextual management.

3.2.2. "The Invisible Nurse": Low Institutional Visibility of the Community Role

The feeling of invisibility was recurrent. The professionals expressed feeling underappreciated by health and social structures. Some images showed closed doors, endless waiting lists, or empty offices. The students, for their part, also pointed out that they did not clearly understand what specific functions nurses performed in health centres.

"They see us as the ones who give injections and little else. But we do so much more." (Professional)

"Before this, I didn't know that community nurses did health education or workshops. I thought they just gave vaccinations." (Student)

This category is linked to the quantitative findings regarding low scores in the dimension of perception of practices and location preferences..

3.2.3. "Technology with a Human Face": Innovation without Dehumanisation

An emerging category among professionals was the strategic use of digital tools to improve care without losing human contact. Mobile phones, electronic folders and tablets on desks were photographed. This technology was seen as an ally for connecting, planning and following up at home.

Community nursing adapts. It is not about white coats and clinics, it is about comfortable shoes and a mobile phone in hand. (Professional)

In contrast, female students did not discuss technology in any meaningful way, reflecting a still largely non-instrumental or non-applied view of their daily work.

3.2.4. "The Community as an Ally": Networks, Support and Environment

A key category shared by both groups was the recognition of community value understood as a network. The images showed parks, civic centres, neighbourhood shops, and benches in a square. The emphasis was on interdependence and the role of the nurse as a "connector" between services, people, and resources.

"Here, everything is done with the people. It's not about imposing from above, it's about understanding what's going on and helping from there." (Professional)

"Sometimes the most important thing is not a cure, but knowing which association can help that person." (Student)

This finding reinforces the socio-political component of community care, which goes beyond the individual clinical act.

3.2.5. "Learning by Doing and Sharing": The Need for Situated Training

The student group in particular highlighted experiential learning as a motivating factor. The images captured empty classrooms contrasting with bustling streets, symbolising the gap between theory and practice. The students expressed a desire to learn through real contact with people and the local area.

"I don't know if I want to be part of the community because I haven't really experienced it. In class, everything is very general." (Student)

For their part, the professionals expressed that the development of community skills requires continuous training, reflection and joint work.

"Sometimes you don't know if you're doing it right. There is no clear protocol, each case is different." (Professional)

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3.2.6. “Be a Socialising Agent, not just a Healthcare Agent”

A specific category of professionals revolved around the figure of the nurse as a socio-cultural reference point and mediator. The photographs showed campaign posters, meeting spaces with groups, and handwritten notes from patients. This dimension involved taking on an educational, community-based, and sometimes activist role.

"We are often the only contact that person has with the system. We have to go beyond the diagnosis." (Professional)

This category broadens the scope of nursing work, showing it as a political and pedagogical practice as well.

3.2.7. “Caring as a Team”: The Value of Support Among Professionals

Finally, both students and professionals valued teamwork as a protective factor against overload. The images included intertwined hands, whiteboards with shifts, and shared coffees. The importance of camaraderie and mutual recognition as a basis for sustaining care was emphasised.

"You can't care for others if you're broken. The team is what keeps you whole." (Professional)

"I imagine learning with someone to guide me. Not alone." (Student)

This category links to the need for mentoring, emotional support, and a healthy organisational culture.

3.3. Integration of Quantitative and Qualitative Results

The integration allowed for a more comprehensive reading of perceptions. One of the areas with the greatest consistency was the students' preference for the hospital environment (89.6% in Phase I, low SCOPE score, and qualitative narrative of uncertainty about the community field). There was also consistency in the perception of the visibility of the community role; low knowledge of asset mapping (27.1%) and low perception of student practices was qualitatively translated into the category "The invisible nurse". Despite their high SCOPE scores, professionals also felt underrepresented in institutional discourse.

Significant divergences were identified. Although 68.8% of students considered CN "very important" and 75% said they had basic/intermediate knowledge, the Photovoice accounts showed that this knowledge was superficial and care-oriented, without a deep understanding of strategic functions, suggesting a formative dissonance.

The qualitative results provided elements that broadened the scope of analysis. The category "Technology with a human face" among professionals, not considered quantitatively, revealed a contemporary reinterpretation of community work, suggesting that including it in initial training could make the role more attractive. Another notable expansion was the role of the nurse as a socialising agent, educator and community reference point, a function that professionals clearly described and which broadens the scope of the profession, challenging current training that tends to favour a technical-clinical model. Finally, the importance of the team as a resource for sustaining care, although not measured quantitatively, emerged in both phases as key to adherence to the role and the prevention of burnout, being strategic for the retention of professionals.

This analysis highlights the gap between the students' training expectations and the actual practice of community professionals, highlighting academic deficits and relational and technological assets that underpin primary care practice.

4. Discussion

This research reveals a substantial divergence in the construction of perceptions about community nursing (CN) between first-year students and practising professionals, a gap that transcends mere knowledge and affects the deep understanding of the role, vocational motivation and symbolic articulation of the community in the professional imagination.

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Quantitatively, students scored significantly lower on the SCOPE scale in the domains of affective perception (median: 6.2), perception of practices (5.4), and location preferences (4.1). In contrast, active professionals obtained higher medians in these same domains (8.3, 7.8 and 6.1, respectively). These differences were not limited to the SCOPE scale, but were also reflected in declared knowledge, interest in specialisation and familiarity with community tools such as asset mapping. The convergence of these results suggests that, in the absence of meaningful training experience, CN remains an ill-defined, invisible and unattractive field for students.

The qualitative phase, using the Photovoice technique, deepened these findings by revealing the students' ambivalence: although they expressed an ethical and social appreciation of community practice, they acknowledged a lack of real contact and a limited understanding of their roles. This dissonance between desire and educational reality is consistent with previous studies that observe an initial idealisation of the community role that fades in the absence of solid experiential or institutional references [12]. Students' limited exposure to CN limits the development of a comprehensive understanding of the community role, keeping it as an abstract, instrumentalised or subordinate figure. International research, including recent studies [39,40], suggests that early, tutored training experience linked to real community projects can act as a catalyst for vocational interest and increase preference for CN. This highlights the need to introduce more immersive educational practices from the beginning of the degree, thus challenging hospital-centred training.

In contrast, active professionals demonstrated a more consolidated identity development, forged in daily practice rather than in initial training. Their discourses integrated clinical, relational, educational and community aspects, showing nursing as an intersectoral, technological and emotionally committed practice. Professional experience emerges as the main environment in which functional, critical and ethical knowledge about community work is constructed, especially in the absence of prior solid training. Emerging qualitative categories, such as "Technology with a human face" and "Being a socialising agent and not just a healthcare provider", reveal a contemporary reinterpretation of community work and an expanded role for nurses as sociocultural references and mediators. This challenges the stereotype of "outdated care" that some students implicitly expressed and broadens the horizon of professional practice beyond a technical-clinical model, directly challenging training. Likewise, the importance of teamwork, condensed into the category "Caring as a team," was identified across the board as a key resource for mutual support and burnout prevention, essential for retention in a field that can be lonely.

Beyond the training dimension, our findings reveal a structural invisibility of the role of the community nurse, both in the professional imagination and in organisational recognition. The qualitative category "The invisible nurse" illustrated this situation through images of impersonal spaces, reflecting the sense of anonymity that accompanies community work and the lack of representation in the media or institutional decision-making processes, despite their key roles in prevention, health promotion and intersectoral coordination. This perception is not anecdotal, but a constant documented in multiple healthcare contexts [41,42]. Furthermore, this invisibility is intertwined with precarious working conditions—such as lack of stability, overload, and excessive bureaucratisation—which hinder retention and increase the risk of burnout [43]. The low intention of students to specialise in PC (22.9%) and their clear preference for the hospital environment (89.6%) should not be interpreted as disinterest per se, but rather as the result of professional socialisation that privileges the hospital as a model of clinical excellence, relegating the community to a secondary operational role that is poorly defined and has little symbolic weight. This trend has also been described in European studies [44].

The central paradox that emerges is revealing: while primary care is recognised in institutional and academic discourse as the backbone of the healthcare system due to its decisive, preventive and community-based nature, its representation in training and the professional imagination remains marginal. This tension is empirically supported by students' low preference for primary care as a training environment (only 10.4% chose this environment) and a low intention to specialise in it in the future (22.9%), despite valuing its social impact. This contradiction reflects a training logic that,

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by prioritising hospital teaching as a benchmark of technical excellence, reproduces healthcare hierarchies that disadvantage the community. As the professionals' discourses show, it is in actual practice—not at university—that community practice acquires meaning, agency and legitimacy.

The results reinforce the urgent need to reformulate nursing curricula to introduce early training practices, direct mentoring with community professionals, and active participation in real health projects with the population. It is crucial that training avoids reducing community nursing to a normative discourse without roots or transfer, which not only hinders the recruitment of new professionals but also compromises the equity and effectiveness of the healthcare system at its primary level of care. Furthermore, it is imperative to recognise and institutionally highlight the strategic value of community nursing, invest in fair working conditions and promote models of distributed leadership in the discipline, in order to reverse the current gap between institutional discourse and healthcare reality.

Strengths and Limitations of the Study

One of the main strengths lies in the design of mixed methods with a sequential explanatory approach. This approach allowed not only to quantify the differences in perceptions of community nursing between students and professionals, but also to explore them in depth, offering a situated and meaningful understanding of the participants' discourses. This integration of methodologies facilitated the triangulation of findings and allowed multifaceted questions to be addressed that a single approach could not effectively resolve. Additionally, the implementation of the Photovoice technique in the qualitative phase was a highly effective and participatory resource for the production of collective knowledge. This methodology allowed participants to express their experiences and realities through photography, promoting critical dialogue and highlighting meanings and dimensions of the training and professional experience, such as the symbolic value of equipment, the relationship with technology, or the political role of care, which would otherwise have gone unnoticed in structured questionnaires. The diversity of the sample, which included both first-year students with no clinical experience and active nursing professionals in different practice settings, allowed for a comparison of generational and organisational perspectives, enriching the interpretation and depth of the analysis.

However, the study also has significant limitations. First, the non-probabilistic and intentional sampling, limited to a single teaching unit and a small number of professionals, restricts the generalisation of the results to other institutions or regions with different characteristics. Although qualitative and mixed-method studies prioritise transferability over statistical generalisation, territorial and curricular variability in nursing education could generate divergent experiences not captured in this specific context. Secondly, voluntary participation in the qualitative phase may have introduced a self-selection bias towards more motivated profiles or those with more defined positions on the subject. Likewise, the presence of a researcher moderating the groups may have influenced the discursive dynamics, especially in the case of the students, potentially inhibiting the expression of more critical or emotionally vulnerable opinions. Finally, the limited representation of students in advanced courses restricts the possibility of establishing evolutionary inferences about the progression of perceptions towards community nursing throughout the degree programme. Although exposure to this field tends to increase in higher-level courses, this study was unable to capture this longitudinal evolution. Despite these limitations, the robust methodological design and analytical depth give this study significant value for understanding the barriers and opportunities in community nursing education.

5. Conclusions

This study reveals a significant perceptual gap between first-year students and active community nursing professionals, which is expressed not only in the quantitative scores on the SCOPE scale, but also in the narratives constructed using Photovoice. The lack of real contact with primary care during the early stages of the degree programme conditions students' understanding of

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the community role, promoting stereotypical, hierarchical and dysfunctional views. In contrast, the participating professionals articulate a more complex and situated identity, the result of prolonged, autonomous and critical experience within the primary care setting.

These findings reinforce the urgent need to reformulate nursing curricula to introduce early training practices, mentoring in community settings and participatory methodologies that promote meaningful learning. It is also necessary to recognise and institutionally highlight the strategic value of community nursing, not only to attract new vocations, but also to ensure effective, equitable and sustained primary care. By integrating a mixed approach with visual and quantitative tools, this research contributes to a deeper understanding of the factors that influence motivation, knowledge, and representation of community work in nursing today.

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Appendix A

Block	Item	Question	Response options
Block A. Knowledge and perceptions in community nursing	A1	How much do you know about community nursing?	None / Basic / Intermediate / Advanced
	A2	Which of the following activities do you think are part of community nursing? (multiple choice)	Health education - Home care - Vaccination and preventive programme management - Chronic disease control and monitoring - Hospital emergency care - Organising health promotion workshops - Collaborating with neighbourhood associations - Establishing links with the local council and other local services - Making home visits - Facilitating community support networks
	A3	How important do you think community nursing is in promoting public health?	Very important / Important / Not very important / Not important at all
	A4	Do you think community nursing helps prevent disease in the community?	Yes / No / Not sure

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	A5	What do you think is the biggest challenge for community nursing in a health centre?	Lack of resources / Lack of staff / Lack of awareness among the population / Limited institutional support / Other
	A6	Do you know what community asset mapping is?	Yes / No / Not sure
	A7	Do you think it is important for community nursing to identify the resources and assets available in the community? (e.g. associations, municipal services, support groups)	Very important / Important / Not very important / Not important at all
	A8	How much do you know about community nursing?	Essential / Relevant but not essential / Secondary / Not relevant
	A9	Which of the following activities do you think are part of community nursing? (multiple choice)	Essential for providing adequate care / Useful but not essential / Not important
	A10	How important do you think community nursing is in promoting public health?	Yes, always / Only in specific cases / Not necessary
	A11	Do you think community nursing helps prevent disease in the community?	Yes / No / Not sure
Block B. Preferences and attitudes towards community nursing	B1	How important do you think it is to be cared for by the same nurse rather than by different professionals?	Very important / Quite important / Not very important / Not important at all
	B2	If you had to choose, in which setting would you prefer to practise nursing?	General hospital / Primary care
	B3	What do you think about the community nursing training offered in nursing degree programmes?	Very adequate / Adequate / Not very adequate / Not adequate at all
	B4	Are you interested in specialising in community nursing in the future?	Yes / No / Not sure
	B5	Do you agree with nurses prescribing medication?	Strongly agree / Agree / Disagree

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