








Competencies for the promotion of sexual and reproductive health in undergraduate nursing programs

Competências para promoção da saúde sexual e reprodutiva na graduação em enfermagem

Competencias para la promoción de la salud sexual y reproductiva en el grado en Enfermería

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ABSTRACT

Objective: to identify how competencies for the promotion of sexual and reproductive health have been incorporated into undergraduate nursing education. **Method:** a qualitative thematic study conducted between July 2021 and January 2023 at three public universities in Ceará, Brazil. For data collection in the documentary dimension, the pedagogical projects of the institutions were analyzed; in the empirical dimension, interviews were conducted with 25 nursing students. **Results:** based on the theoretical framework of competencies for the promotion of sexual and reproductive health, it was found that these competencies are present in 25 courses, predominantly focused on nursing care, which was consistent with the participants' reports. **Conclusions:** competencies related to problem-solving in sexual and reproductive health still need to be incorporated, adopting an ethical, dialogical, and interdisciplinary approach to training, as well as teaching-learning strategies that foster their full development and application in the practice of future nurses.

Descriptors: Competency-Based Education; Education, Nursing; Health Promotion; Sexual Health; Reproductive Health.

RESUMO

Objetivo: identificar como as competências para promoção da saúde sexual e reprodutiva têm sido incorporadas no ensino de graduação em enfermagem. **Método:** estudo qualitativo-temático, realizado de julho de 2021 a janeiro de 2023, em três universidades públicas cearenses. Para coleta de dados na dimensão documental, analisou-se os projetos pedagógicos das instituições e, na dimensão empírica, realizou-se entrevistas com 25 acadêmicos e acadêmicas de enfermagem. **Resultados:** com base no referencial teórico de competências para promoção da saúde sexual e reprodutiva, evidenciou-se que as mesmas estão presentes em 25 disciplinas, predominantemente direcionadas ao cuidado de enfermagem, corroborando com as falas dos entrevistados. **Considerações Finais:** ainda precisam ser incorporadas competências para resolução de problemas de saúde sexual e reprodutiva na perspectiva ética dialógica e interdisciplinar da formação, bem como utilizar estratégias de ensino-aprendizagem que promovam seu pleno desenvolvimento e aplicabilidade na práxis de futuros enfermeiros e enfermeiras.

Descritores: Educação Baseada em Competências; Educação em Enfermagem; Promoção da Saúde; Saúde Sexual; Saúde Reprodutiva.

RESUMEN

Objetivo: identificar cómo se han incorporado las competencias para la promoción de la salud sexual y reproductiva en la enseñanza de grado en enfermería. **Método:** estudio cualitativo-temático, realizado de julio de 2021 a enero de 2023, en tres universidades públicas de Ceará. Para la recolección de datos en la dimensión documental, se analizaron los proyectos pedagógicos de las instituciones y, en la dimensión empírica, se realizaron entrevistas con 25 estudiantes de enfermería. **Resultados:** con base en el marco teórico de competencias para la promoción de la salud sexual y reproductiva, se evidenció que estas están presentes en 25 asignaturas, predominantemente orientadas al cuidado de enfermería, lo cual fue corroborado por las declaraciones de los entrevistados. **Consideraciones finales:** aún es necesario incorporar competencias para la resolución de problemas de salud sexual y reproductiva desde una perspectiva ética, dialógica e interdisciplinaria en la formación, así como utilizar estrategias de enseñanza-aprendizaje que promuevan su pleno desarrollo y aplicabilidad en la praxis de los futuros enfermeros y enfermeras.

Descriptor: Educación Basada en Competencias; Educación en Enfermería; Promoción de la Salud; Salud Sexual; Salud Reprodutiva.

INTRODUCTION

Health education in Brazil is one of the responsibilities of the Unified Health System (SUS), as established in Article 200 of the 1988 Brazilian Federal Constitution¹. Since then, discussions on the topic have expanded, along with efforts to improve the quality of care provided to users.

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With the enactment of the Law of Guidelines and Bases of Education (LDB) in 1996, which proposed the development of National Curricular Guidelines (DCN) for undergraduate health programs, it was established that professional training should foster a generalist professional profile with a humanistic, critical-reflective perspective, and with knowledge of the population's epidemiological profile in order to meet their health and illness needs^{2,3}.

Thus, with the aim of strengthening and consolidating the principles and guidelines of the SUS, discussions on health education emphasize the need to incorporate technical, ethical, political, social, and cultural competencies into the teaching-learning process, in order to strengthen prevention and health promotion actions targeting individuals, families, and communities², especially regarding Sexual and Reproductive Health (SRH).

Although SRH was recognized by the United Nations (UN) at the 1994 Cairo Conference as a human right and a key factor in quality of life⁴, the competency-based approach to promoting Sexual and Reproductive Health in the training of professionals working in Primary Health Care (PHC)⁵ was only proposed by the World Health Organization (WHO) in 2011 as a strategy to address challenges related to care and clinical practice⁶.

These competencies are divided into four domains: Ethics and Professional Principles; Leadership and Management; Community Work, Health and Education, Counseling and Assessment; and Care Provision, which are further subdivided into 36 specific competencies^{5,6} that should be incorporated into the curricula of education and training programs for professionals promoting SRH⁶.

However, studies have revealed challenges in incorporating SRH competencies into nursing education and practice, particularly due to the still incipient approach to this topic during training, and the need to (re)think teaching and learning strategies that broaden discussions on gender and sexuality, while respecting sexual and reproductive rights^{3,7-9}. An analysis of the nursing curricula at a university in Bahia, Brazil, from 1972 to 2006, demonstrated that course content was focused exclusively on the biological aspects of women's health¹⁰.

Given these issues and the existing gaps in scientific literature, investigating these aspects may support reflection and necessary curricular reformulations to strengthen SRH and reveal the professional profile by identifying gaps and the need for adjustments in training processes.

In this context, the objective was to identify how competencies for the promotion of sexual and reproductive health have been incorporated into undergraduate nursing education.

METHOD

This is a qualitative thematic study¹¹ conducted between July 2021 and January 2023, based on two blocks of analysis: interviews with students and analysis of the pedagogical projects of the undergraduate nursing programs (PPC). This article represents a portion of a doctoral dissertation and followed the recommendations of the Consolidated Criteria for Reporting Qualitative Research (COREQ)¹².

The selection of public state Higher Education Institutions (HEIs) in Ceará, Brazil, offering undergraduate nursing programs was carried out through the National Registry of Courses and Higher Education Institutions platform (Cadastro e-MEC), resulting in the inclusion of: Regional University of Cariri (URCA), with two campuses — Iguatu Advanced Campus (CAI) and Pimenta Campus; State University of Ceará (UECE); and State University Vale do Acaraú (UVA).

After receiving approval from the program coordinators at the HEIs¹³⁻¹⁶ and favorable opinion from the Research Ethics Committee, requests were made via email for the PPCs and for the list of students enrolled in the final semesters of the programs, as well as class representatives. These constituted the two data sources used for analysis.

A consecutive sampling approach was adopted, identifying 116 nursing students regularly enrolled in the ninth and tenth semesters (URCA-CAI = 40; URCA-PIMENTA = 35; UVA = 35; UECE = 6). Students were initially contacted via institutional email.

Due to the COVID-19 pandemic, face-to-face contact was not possible during data collection. As an additional strategy to increase student participation, class representatives were asked to share the research invitation, and, when possible, students were contacted via telephone and/or *WhatsApp*[®] to schedule the interviews. For UVA students, these alternative contacts were not available.

At this stage, data collection instruments included a participant characterization form (email, age, marital status, race/ethnicity, sex, sexual orientation, employment status [employed/unemployed]), along with information on academic activities carried out during the undergraduate program (teaching, research, and extension activities), scholarship status (e.g., tutoring, extension, scientific initiation), followed by a semi-structured interview guide. This

guide was previously developed and adjusted as needed during the pre-test phase and included the following questions: “How many and what are the competencies for health promotion?”, “What do you understand by competencies for SRH promotion?”, and “How many and what are the competencies for SRH promotion?”

The interviews were conducted individually via the Google Meet® platform, with an average duration of 30 minutes. They were conducted by two nursing students who had been previously trained by the principal investigator and who had experience in research activities within the research group. Audio and video were recorded through screen capture after obtaining consent via online signature of the authorization form for voice and image use, the Informed Consent Form, and the Post-Informed Consent Form. To ensure anonymity, participants were identified by the letter “E” followed by a numeric code corresponding to the HEI (IES-1: URCA/CAI; IES-2: URCA/Pimenta; IES-3: UECE; IES-4: UVA) and the interview sequence.

Documentary data collection from the PPCs was conducted in two stages: first, an initial reading was performed to familiarize the researcher with the theoretical framework, the general competencies outlined for the training profile, and to identify the relevant courses. Then, a form developed by the researcher was used, covering study variables such as: institution/campus, course name and modality (theoretical, practical, or theoretical-practical), workload, and excerpts from the syllabi where SRH-related domains and competencies were identified.

Data from the participant characterization form were organized in a *Microsoft Office Excel*® spreadsheet (2019 version), and the corpus from the interviews and documentary data were stored in a *Microsoft Office Word*® online document.

To organize the results based on their convergences, a colorimetric method was used to support the identification of four analytical categories, which were defined according to the domains specified by the adopted theoretical framework⁵. These categories are presented descriptively in the text and in tables.

The curricular findings were analyzed from the perspective of competencies classified into domains that follow the theoretical framework: Ethics and Principles Domain – 1. performs active listening, 2. establishes dialogue to promote knowledge sharing, 3. communicates dialogically, 4. demonstrates the ability to provide care free from prejudice and judgment, 5. demonstrates empathy, respect, and builds trust during care provision, 6. understands the ethical/bioethical foundations and humanization in person-centered and family-centered health care, 7. considers the cultural, economic, and social context of individuals, 8. respects knowledge and different cultures, 9. promotes empowerment of individuals, 10. shows initiative for problem-solving, and 11. ensures professional confidentiality; Leadership and Management Domain – 1. knows the network for possible referrals, 2. promotes continuity of care, and 3. promotes intersectorality; Community Work, Health and Education, Counseling, and Assessment Domain – 1. knows the political and legal national and international frameworks on sexual and reproductive health rights, 2. articulates interdisciplinary knowledge inherent to population health in the area of sexual and reproductive health, 3. provides counseling and referrals for cases of sexual violence, 4. promotes and encourages self-care in sexual and reproductive health, 5. articulates educational health activities addressing sexual and reproductive health of men, women, and youth, 6. promotes sexual and reproductive health of individuals, families, and communities, and 7. understands social and cultural dynamics considering aspects of gender, class, race, ethnicity, and social diversity; Care Provision Domain – 1. works with women, men, families, and communities in the preconception phase, 2. works with women, men, families, and communities in reproductive planning, 3. works with women, men, families, and communities in prenatal care, 4. works with women, men, families, and communities in labor and delivery, 5. works with women, families, and communities during the climacteric phase, 6. works with women, families, and communities during menopause, 7. guides and manages health care actions for women and men in the context of sexual and reproductive health, 8. provides pre- and post-test counseling for laboratory exams, 9. selects diagnoses according to professional scope, 10. demonstrates the ability to act resolutely regarding male and female sexual dysfunctions, and 11. demonstrates technical capacity to practice clinical care in sexual and reproductive health⁵.

It is reiterated that the research protocol was approved by the Research Ethics Committee of the proposing institution, with prior authorization from the involved institutions. All ethical principles established by the relevant Brazilian legislation were strictly followed.

RESULTS

From the contact with the students, responses were obtained from 85 participants (URCA-CAI = 30; URCA-CP = 14; UECE = 06; UVA = 35). Among these, there were two refusals (URCA-PIMENTA) and 58 discontinuations (URCA-CAI = 8; URCA-PIMENTA = 11; UVA = 35; UECE = 4), due to participants being unavailable for the interview after two contact

attempts, with a seven-day interval between them. Thus, the responses of 25 nursing students comprised the analysis corpus (URCA-CAI = 22; URCA-PIMENTA = 1; UECE = 2). No responses were obtained from UVA students.

The characterization of the interviewed students showed that their ages ranged from 18 to 31 years, with a predominance of female participants (n = 13), those who self-identified as heterosexual (n = 14), of mixed race/ethnicity (parda) (n = 10), and single marital status (n = 14). The majority were exclusively dedicated to their studies (n = 16). Regarding participation in the academic training tripod (teaching-research-extension), involvement in extension projects during undergraduate studies was the most frequent (n = 17), while seven participants reported participation in tutoring and scientific initiation projects.

Through access to the PPCs, a total of 193 mandatory and elective courses were analyzed, as presented in Table 1.

Table 1: Quantitative data on courses identified across the studied Higher Education Institutions (HEIs). Fortaleza, CE, Brazil, 2021.

Higher Education Institutions (HEIs)	Mandatory courses (n)	Elective/Optional Courses (n)
IES-1	40	5
IES-2	36	6
IES-3	36	8
IES-4	46	16

It is noteworthy that HEI-4 had the highest number of courses, and its curriculum is organized by modules with integration blocks.

Figure 1 presents the 25 courses in which competencies for SRH promotion were identified, along with the semester in which they are offered at each HEI.

HEI-1	HEI-2	HEI-4	HEI-3
Histology & Embryology (1st S)	Histology & Embryology (1st S)	Cellular & molecular Biology (1º S)	Women's Health Nursing* (6th S)
Physiology (2nd S)	Physiology (2nd S)	Adulthood* (4º S)	Collective Health Nursing* (7th S)
Pharmacology (4th S)	Pharmacology (4th S)	Pregnancy and Childbirth* (5th S)	
Nursing Care Process for Children and Adolescents* (6th S)	Nursing Care Process for Children and Adolescents* (6th S)	Primary Health Care V (5th S)	
Nursing Care Process in Mental Health* (6th S)	Nursing Care Process in Collective Health II*(7th S)	Primary Health Care VI (6th S)	
Nursing Care Process in Collective Health II* (7th S)	Nursing Care Process in Women's Health* (7th S)	The critically ill Person* (7thS)	
Nursing Care Process in Women's Health* (7th S)	Gender, Sexuality & Reproductive Health***		
Supervised Clinical Placement In Primary Health Care**(9thS)			
Supervised Clinical Placement within the Hospital network** (10thS)			
Gender & Sexuality***			

Legend: *Theoretical-Practical Course; **Practical Course; ***Optative Course (note: as elective courses, these may be taken by students in any semester); S – Semester¹¹⁻¹⁴.

Figure 1: Higher Education Institutions (HEIs) and courses encompassing sexual and reproductive health domains and competencies. Fortaleza, CE, Brazil, 2021.

Figure 2 shows excerpts from the course syllabi in which the four domains of competencies for SRH promotion were identified, listed sequentially.

Ethics and Principles Domain Competencies
<p>"Promotion of women's health through a humanized approach." (HEI-4 – Primary Health Care V) (IC* = 6)</p> <p>"Ethical and legal aspects in obstetric and neonatal care." (HEI-1 – Nursing in the Process of Caring for Women's Health) (IC* = 6)</p> <p>"Social construction of identity and gender markers (sexual differences)." (HEI-1 – Gender and Sexuality) (IC* = 7)</p> <p>"Social construction of identity and gender markers (sexual differences)." (HEI-2 – Gender and Sexuality) (IC* = 7, 8, 9)</p>
Leadership and Management Competencies
<p>"Understand the characteristics, structure, and functionality of health services that care for women. (...) Identify signs and symptoms indicating health issues in women during pregnancy, childbirth, and the puerperium." (HEI-3 – Nursing in Women's Health) (CI* = 1, 2)</p> <p>"Recognize care pathways and protocols for pregnant and birthing women." (HEI-4 – Pregnancy and Birth) (CI* = 1)</p> <p>"Care pathway for women, children, adolescents, and elderly individuals exposed to domestic and sexual violence." (HEI-1 – Nursing in the Process of Caring in Collective Health II) (CI* = 1)</p> <p>"Nursing processes applied to pregnancy, childbirth, and the puerperium." (URCA/Pimenta – Nursing in the Process of Caring for Women's Health) (CI* = 2)</p>
Competencies in the Domain of Community Work, Health and Education, Counseling and Assessment
<p>"Reflect on public health policies for women. (...) Understand the biopsychosocial aspects of women during the pregnancy-puerperium cycle. (...) Nursing care focused on health promotion. (...) Identify signs of violence and vulnerabilities." (HEI-3 – Nursing in Women's Health) (CI* = 1, 3, 4)</p> <p>"Translate the historicity of public policies and movements that led to the current health situation of women (...) prevention of violence." (HEI-4 – Primary Health Care V) (IC* = 1, 3)</p> <p>"Current aspects of women's health. (...) Public health policies for women (...) Female sexuality and gender. (...) Violence against women." (HEI-1 – Nursing in the Process of Caring for Women's Health) (IC* = 1, 3, 6)</p> <p>"Domestic and sexual violence." (HEI-1 – Collective Health II) (IC* = 3)</p> <p>"Pedagogical practice in sex education." (HEI-1 – Gender and Sexuality) (IC* = 5)</p> <p>"Current aspects of women's health." (HEI-2 – Nursing in the Process of Caring for Women's Health) (IC* = 1)</p> <p>"Women's Health Policies." (HEI-2 – Nursing in the Process of Caring for Women's Health) (IC* = 1)</p> <p>"Prenatal and puerperium workshop (prenatal care, oncotic cytology, clinical breast exam)." (HEI-2 – Nursing in the Process of Caring in Collective Health II) (IC* = 5, 6)</p> <p>"Access to health services for the LGBT population and use of the social name." (HEI-2 – Gender, Sexuality and Reproductive Health) (IC* = 4)</p>
Competencies in the Domain of Care Provision
<p>"Women's health care encompassing reproductive health, from the pregnancy-puerperium cycle to climacteric (...) covering contraception, the physiological aspects of reproduction, and reproductive risks (...)." (HEI-3 – Nursing in Women's Health) (IC* = 1, 2, 3, 4, 5, 7, 8, 11)</p> <p>"General principles for nursing consultations; menstrual cycle; human reproduction; climacteric and menopause; gynecological pathologies; sexually transmitted infections." (HEI-4 – Adult Life) (IC* = 1, 2, 3, 5, 6, 7, 8, 9, 11)</p> <p>"(...) Clinical nursing approach to contraception." (...) "Nursing care in conception and contraception" (...) "Approach to nursing consultation and documentation in maternity care" "Climacteric" (...) "Nursing care in the puerperium." (HEI-1 – Nursing in the Process of Caring for Women's Health) (IC* = 1, 2, 3, 4, 5, 7, 9, 11)</p> <p>"Placenta and other embryonic annex formations, main pathologies involving the placenta, delivery process." (URCA/Pimenta – Histology and Embryology) (IC = 3, 4, 9, 11)</p> <p>"Male and female reproductive and hormonal functions." (HEI-2 – Physiology) (IC = 1, 2, 7)</p> <p>"Oral contraceptives." (HEI-2 – Pharmacology) (IC= 2)</p> <p>"Early pregnancy and STDs/AIDS." (HEI-2 – Nursing in the Process of Caring for Children and Adolescents) (CI = 1, 2, 9)</p> <p>"Reproductive cycle and hormonal system of women." (HEI-2 – Nursing in the Process of Caring for Women's Health) (IC = 1, 2)</p> <p>"Childbirth complications (cesarean section, forceps, premature labor, induction and dystocia, post-term pregnancy, placental disorders, uterine atony and rupture): concept, pathophysiology, and nursing care plan (NCP)." (HEI-2 – Nursing in the Process of Caring for Women's Health) (IC = 4, 7, 9, 11)</p> <p>"Climacteric." (HEI-2 – Nursing in the Process of Caring for Women's Health) (IC = 5)</p> <p>"Prenatal practice, cytopathology screening, reproductive and sexual health." (HEI-2 – Nursing in the Process of Caring in Collective Health II) (IC = 1, 2, 3, 8, 9, 11)</p> <p>"Sexual function during pregnancy." (HEI-2 – Gender, Sexuality and Reproductive Health) (IC = 3, 7)</p>

Legend: IC* = Identified Competencies.

Figure 2: Sexual and Reproductive Health Domains and Competencies Identified in Undergraduate Nursing Courses. Fortaleza, CE, Brazil, 2023.

Figure 3 presents excerpts from the students' statements where the four competency domains in SRH promotion were identified.

Ethics and Principles Domain Competencies
<p>"[...] how to approach the patient [...]. The cultural issue, how we as students can deal with this, for example, in practice, talking to the elderly about sexuality is more complicated because it is an age group with taboos on this topic. [...] It is important to have good communication adapted to all contexts." (E.2.1) (IC* = 1; 2; 3; 4; 7; 8)</p> <p>"[...] it is about creating an environment for listening to the population, an environment of trust. [...] Thus, a qualified listening to the needs of that population [...]. To be able to plan these health promotion strategies." (E.1.3) (IC* = 5; 10)</p> <p>"[...] carrying out education-related actions so that you give autonomy to the patient [...] for them to understand important information, [...] to know their rights, [...] to have freedom of choice." (E.1.5) (IC* = 2; 4; 9)</p> <p>"[...] scientific knowledge and humanized care." (E.1.1) (IC* = 6)</p>
Leadership and Management Competencies
<p>"[...] having knowledge about the care lines, in the sense of having this conception of planning, this conception of leadership, this mindset of promoting health and developing these actions." (E.1.4) (IC* = 1)</p> <p>"[...] carrying out actions and truly changing the life of the community. Going to schools, going to recreation centers [...] for adolescents, and providing information, clarifying doubts." (E.1.5) (IC* = 3)</p>
Competencies in the Domain of Community Work, Health and Education, Counseling and Assessment
<p>"It's where you have better support to carry out health education [...] It's about equipping women and men with their rights, so it's a tool that changes lives, right? It changes stories, so it is very important." (E.1.5) (CI* = 1; 5; 6)</p> <p>"I think it would really be about educating women, and as I said, men can also be included in this aspect. In this sense, about their sexual and reproductive rights, about the right to choose whether or not to get pregnant, and truly calling this population to be aware of these issues, which are important for reproductive and sexual health." (E.1.3) (IC* = 1; 4; 6)</p> <p>"[...] it's a huge universe, especially when we move beyond the male-female standard and also consider the LGBTQIA+ community, acquiring knowledge about the countless possibilities that sexuality allows, and also having broad knowledge about the numerous contraceptive methods." (E.1.13) (II* = 1; 7)</p>
Competencies in the Domain of Care Provision
<p>"[...] We have classes on reproductive health, mainly about contraceptive methods — getting to know them, understanding what is offered and their side effects." (E.1.7) (IC* = 1; 2; 7; 11)</p> <p>"[...] I participate in an outreach project called the Nursing Clinic for Women [...] we work on the sexuality of the women who go there for preventive care (Pap smear test). [...]" (E.1.18) (IC* = 7; 8; 11)</p> <p>"It's important during pregnancy to follow up [...] with both partners. So, we carried out health education, visited the family, and talked about breastfeeding and all kinds of related topics." (E.1.5) (IC* = 3)</p> <p>"The active search for users, the performance of rapid tests, [...] conducting serological tests during prenatal care, reaching out to the partner [...] testing and early treatment in collaboration with the physician. (E.3.1) (IC* = 8)</p>

Legend: IC* = Identified Competencies.

Figure 3: Domains and competencies in sexual and reproductive health identified in the subjects of undergraduate Nursing courses from the perspective of the student(s). Fortaleza, CE, Brazil, 2023.

Regarding the competency domains for the promotion of SRH identified in the syllabi and in the statements of the students, there was an emphasis on the domain of care provision.

It was noted that competency number 4 was not identified in the statements, and number 10 was not addressed in either of the two analysis methods.

Concerning the specific competencies in the domain of "Ethics and professional principles," competencies numbers 1, 2, 3, 4, 5, 10, and 11 were absent in the syllabi, although among the students' statements, only competency 11 was absent.

In the domain of "Leadership and management," competency number 2 was not identified by the students, and competency number 3 was not identified in the syllabi. In the domain of "Community work, health and education, counseling, and evaluation," competency number 3 was not mentioned in the statements, competency number 7 was not identified in the syllabi, and number 2 was absent in the analyzed perspectives.

There was an evident lack of addressing sexual dysfunctions, interdisciplinary approaches, and a more thorough exploration of perspectives related to problem-solving and ethical aspects connected to SRH.

DISCUSSION

Overall, the findings indicated that Nursing education in the studied setting aligns with the competency domains listed in the theoretical framework as essential for developing clinical practice that promotes and ensures comprehensive SRH care.

However, there is a polarization between sexual and reproductive health practices¹⁷, justified by the strong emphasis on competencies related to preconception, prenatal care, and childbirth—primarily female aspects—both in the course syllabi of the HEIs and in the students' statements.

Two important aspects must be considered regarding the connection and separation of sexual and reproductive practices: for some individuals, these experiences occur simultaneously; for others, they happen separately. This distinction creates two perspectives: one positive, which allows for the consideration of the specificities of each dimension, and another negative, which separates aspects of life that are, by nature, essentially integrated¹⁸.

Although comprehensive SRH care assumes attention to individuals and groups regardless of gender, while considering their singularities and complexities^{5,18}, the training process has reinforced the fragmentation of care into specific groups. Even though some students mentioned it in their interviews, only one HEI offers an elective course addressing gender topics, and none offer courses specifically dedicated to men's health, which undermines the implementation of existing policies and practices for these populations^{19,20}.

The literature highlights that SRH discussions are tied to the configuration of gender roles and how men and women experience them, reinforcing the principle that both have the right to information and healthcare that ensures a healthy and satisfactory sexual and reproductive life. However, the reality studied does not broadly incorporate this approach.

The fragility in nursing training regarding comprehensive gender approaches may lead to fragmented and reductionist care practices that contradict the logic of comprehensive care²¹. It is important to emphasize that the concept of comprehensiveness adopted here incorporates the individual's worldview, considering them as a whole during nursing consultations in SRH, without disconnecting them from the social and cultural dimensions that permeate their lives²²—this being the fundamental premise for providing care that meets their demands.

Comprehensive care is also one of the key aspects emphasized by Resolution No. 573 of January 31, 2018²³, which establishes undergraduate education as a setting for developing such practice in future professionals, in alignment with the National Curriculum Guidelines for the course.

Moreover, the training practices analyzed revealed a perception that care practices are centered primarily on contraception and reproductive planning, which reinforces a logic of medicalization and control over bodies, especially female bodies¹⁷, while sexual health care receives little attention for adolescents, men, and older adults.

Reflections on the medicalization of health indicate that behavioral aspects, previously not considered medical issues, have increasingly been addressed pharmacologically²⁴. This premise reflects health training processes that focus on teaching methodologies prioritizing material resources and preventive or curative approaches to health problems, limiting the (future) professionals' perspective regarding care intervention possibilities in SRH.

Barriers to the effective implementation of SRH practices in health services result, among other factors, from insufficient discussions on the topic during training^{17,21}. However, educational gaps go beyond this topic⁹ and demand broader evaluations concerning the implementation of SRH actions, particularly in Primary Health Care (PHC), as a priority area²⁵.

In this regard, it is proposed that guiding documents for professional training promote the development of knowledge, skills, and attitudes necessary to act in SRH promotion, regardless of gender or life cycle stage, from an integrative and interdisciplinary perspective. This perspective remains underexplored, as interdisciplinarity and longitudinality were not simultaneously identified in the course syllabi and in students' perceptions.

Considering the need to broaden the scope of actions and the involvement of students in the field of SRH, the challenge of effectively developing competencies that promote interdisciplinary and interinstitutional work within the teaching-learning process²⁶ becomes increasingly urgent.

The participants' statements indicated that health education actions are strategies for SRH promotion present in their theoretical and practical experiences. This perspective was also evident as they emphasized the importance of dialogical communication and recognized the need to incorporate health education activities as a strategy that enhances the management of care practices.

It is known that education in SRH, beyond fostering individuals' autonomy and empowerment in the health-illness process, is also a healthcare tool that can expand the possibilities for integration and articulation of these professionals with other sectors and disciplines.

In this context, the challenge for educational processes is to advance in the development of intra- and intersectoral educational actions based on integrated and collaborative work, especially when considering the multiple social determinants that impact people's sexual and reproductive health.

Regarding competencies, the results showed that the cognitive dimension stands out over the other components, which may indicate weaknesses in nurses' performance in healthcare delivery. It is emphasized that, in health education, the use of training that integrates knowledge, skills, and specific attitudes, while fostering the development of critical-reflective thinking and decision-making abilities in the face of challenging and conflicting situations²⁷, is essential. Such training allows for the integration and mobilization of the clinical, scientific, and humanistic dimensions of care, enabling the development of professionals capable of providing efficient and high-quality care, resulting in improvements across all levels of healthcare^{28,29}.

For comprehensive SRH care, it is necessary to expand the scope of nursing education and incorporate into course syllabi approaches, strategies, and initiatives aimed at problem-solving, including issues related to sexual dysfunctions, unsafe abortion, infertility, sexual and reproductive health issues of transgender individuals, and an interdisciplinary perspective. Additionally, the teaching-learning process must strengthen the competencies that were not identified in the analysis.

In this context, it is essential to (re)consider the structuring of curricula and teaching-learning processes in order to broaden strategies and care perspectives that take into account life cycles, social markers of difference—including gender differences and inequalities—and their relationship with the health-disease process. This would contribute to advancing the development and implementation of comprehensive, universal, and equitable care that includes effective actions in the field of sexual health and ensures the inclusion of marginalized populations.

Study Limitations

Although the analyses performed allowed for the identification of competencies for the promotion of SRH in the training of nurses, a deeper understanding of the approaches and applicability of these competencies in teaching and learning requires an expanded student sample, analysis of course syllabi, and teaching practices, including an examination of the faculty perspective.

The specified limitations indicate possible directions for future research aimed at more deeply identifying how these competencies are facilitated in the training process, not only in the teaching dimension but also in the experiences encountered in extension and research activities.

FINAL CONSIDERATIONS

The domains and competencies for the promotion of SRH are, for the most part, present in the analyzed educational processes, indicating training aligned with current references in the field and with the political and organizational principles of the SUS. However, this does not guarantee their full development, since the applicability of these competencies goes beyond theoretical aspects.

The reflections on competencies for the promotion of SRH in undergraduate Nursing presented here are important because they allow for (re)thinking local training practices, signaling paths and possibilities for qualifying the nursing professional profile, with a view to acting in public health, timely in light of the New Curriculum Guidelines to be published.

REFERENCES

1. Brasil. Constituição da República Federativa do Brasil. Brasília: Governo Federal do Brasil; 1988 [cited 2023 Feb 13]. Available from: <http://www.planalto.gov.br/legislacao/>.
2. Martins ACP, Vieira MA, Lima CA, Domenico EBL. National curriculum guidelines for the nursing graduation course: implications and challenges. *Rev. Pesqui.* 2021 [cited 2025 Mar 24]; 12:1099-104. DOI: <https://doi.org/10.9789/2175-5361.rpcfo.v12.8001>.
3. Xavier SPL, Machado LDS, Moreira MRC, Martins AKL, Machado MFAS. Professional competencies to promote health in nursing and physical education undergraduate courses. *Rev. Bras. Enferm.* 2021 [cited 2023 Mar 26]; 74(2):e20200617. DOI: <https://doi.org/10.1590/0034-7167-2020-0617>.
4. Martins R. 30 anos da CIPD 1994: saúde, direitos sexuais e direitos (pós)reprodutivos na constituição da agenda de população e desenvolvimento. *Rev bras estud popul.* 2024 [cited 2023 Mar 26]; 41:e0284. DOI: <https://doi.org/10.20947/S0102-3098a0284>.
5. Telo SV, Witt RR. Sexual and reproductive health: team competences in Primary Health Care services. *Ciênc saúde coletiva.* 2018 [cited 2023 Mar 26]; 23(11):3481-90. DOI: <https://doi.org/10.1590/1413-812320182311.20962016>.

6. World Health Organization (WHO). Sexual and reproductive health core competencies in primary care: attitudes, knowledge, ethics, human rights, leadership, management, teamwork, community work, education, counselling, clinical settings, service, provision. Geneva: WHO; 2011 [cited 2023 Mar 3]. Available from: http://apps.who.int/iris/bitstream/10665/44507/1/9789241501002_eng.pdf.
7. Machado LDS, Xavier SPL, Leite PL, Moreira MRC, Silva MRF, Machado MFAS. Competências em promoção da saúde: conformações e recursos mobilizados na residência multiprofissional. *Esc. Anna Nery*. 2022 [cited 2023 Mar 26]; 26:e20210089. DOI: <https://doi.org/10.1590/2177-9465-EAN-2021-0089>.
8. Silva JM, Pilger CH, Lipinski JM, Prates LA, Bonetti AL. Conhecimentos e vivências de estudantes de enfermagem sobre as questões de gênero e sexualidade. *Rev. Bras. Sex. Humana*. 2024 [cited 2025 mar 10]; 35:1167. DOI: https://www.rbsh.org.br/revista_sbrash/article/view/1167.
9. Silva JM, Pilger CH, Lipinski JM, Prates LA, Bonetti A. Nursing students' knowledge and experiences of gender and sexuality issues. *RBSH*. 2024 [cited 2023 Mar 26]; 35:e1167. DOI: <https://doi.org/10.35919/rbsh.v35.1167>.
10. Silva JMQ, Marques PF, Paiva MS. Saúde sexual e reprodutiva e Enfermagem: um pouco de história na Bahia. *Rev Bras Enferm*. 2013 [cited 2025 Jun 4]; 66(4):501-7. DOI: <https://doi.org/10.1590/S0034-71672013000400006>.
11. Sandelowski M, Barroso J. Classifying the findings in qualitative studies. *Qual Health Res*. 2003 [cited 2023 Mar 26]; 13(7):905-23. DOI: <https://doi.org/10.1177/1049732303253488>.
12. Souza VRS, Marziale MHP, Silva GTR, Nascimento PL. Tradução e validação para a língua portuguesa e avaliação do guia COREQ. *Acta paul enferm*. 2021 [cited 2023 Mar 26]; 34:eAPE02631. DOI: <https://doi.org/10.37689/acta-ape/2021A002631>
13. Universidade Estadual do Ceará. Reconhecimento do curso de graduação – Enfermagem (bacharelado). Projeto pedagógico. Fortaleza, Ceará, 2007.
14. Universidade Regional do Cariri. Projeto pedagógico do curso de bacharelado em Enfermagem. Iguatu, Ceará, 2017.
15. Universidade Regional do Cariri (URCA). Projeto pedagógico do curso de bacharelado em Enfermagem. Crato, Ceará, 2019.
16. Universidade Estadual Vale do Acaraú (UVA). Projeto pedagógico do curso de graduação em Enfermagem. Sobral, Ceará, 2020.
17. Nasser MA, Nemes MIB, Andrade MC, Prado RR, Castanheira, ERL. Assessment in the primary care of the State of São Paulo, Brazil: incipient actions in sexual and reproductive health. *Rev Saude Publica*. 2017 [cited 2023 Mar 26]; 51(s.1):77. DOI: <https://doi.org/10.11606/s1518-8787.2017051006711>.
18. Ribeiro TN. Saúde reprodutiva e sexual masculina em Francisco Morato, SP: o discurso de profissionais, gerentes e gestores de saúde. *Saude soc*. 2019 [cited 2023 Mar 26]; 18(4):695-706. DOI: <https://doi.org/10.1590/S0104-12902009000400013>.
19. Marques ACS, Moraes AIS, Silva SCAU. Fragilidades e fortalezas da assistência à saúde do homem na atenção primária à saúde. *Recien*. 2020 [cited 2025 mar 2025]; 10(32):53-61. DOI: <https://doi.org/10.24276/rrecien2020.10.32.53-61>.
20. Sousa AR, Oliveira JA, Almeida MS, Pereira Á, Almeida ÉS, Escobar OJV. Implementation of the national policy for comprehensive attention to men's health: challenges experienced by nurses. *Rev esc enferm USP*. 2021 [cited 2023 Mar 26]; 55:e03759. DOI: <https://doi.org/10.1590/S1980-220X2020023603759>.
21. Lima ACS, Alves MJH, Pereira EV, Pereira AP, Albuquerque GA, Belém JM. Gender and sexuality in the training of nurses in Brazilian public higher education: a documentary study. *R. Enferm. Cent. O. Min*. 2021 [cited 2023 Mar 26]; 11(s.1):3877. DOI: <http://doi.org/10.19175/recom.v11i0.3877>.
22. Melo CB, Freitas RFS. Percepção de enfermeiras sobre a consulta de enfermagem em saúde sexual e reprodutiva. *Rev. Enferm. Digit. Cuid. Promoção Saúde*. 2020 [cited 2023 Mar 26]; 6:1-9. DOI: <https://doi.org/10.5935/2446-5682.20210073>.
23. Ministério da Saúde (Br). Conselho Nacional de Saúde. Resolução 573 de 31 de janeiro de 2018. Recomendações do Conselho Nacional de Saúde (CNS) à proposta de Diretrizes Curriculares Nacionais (DCN) para o curso de graduação Bacharelado em Enfermagem. Brasília: Diário Oficial da União; 2018 [cited 2023 Mar 26]. Available from: <https://www.gov.br/conselho-nacional-de-saude/pt-br/atos-normativos/resolucoes/2018/resolucao-no-573.pdf/view>.
24. Filardi AFR, Passos ICF; Mendonça SAM, Ramalho-de-oliveira D. Medicalização da vida nas práticas vinculadas à estratégia saúde da família. *Rev latinoam psicopatol fundam*. 2021 [cited 2023 Mar 26]; 24(2):421-45. DOI: <https://doi.org/10.1590/1415-4714.2021v24n2p421.10>.
25. Paiva CCN, Caetano R. Evaluation of the implementation of sexual and reproductive health actions in Primary Care: scope review. *Esc. Anna Nery*. 2020 [cited 2023 Mar 26]; 24(1):e20190142. DOI: <https://doi.org/10.1590/2177-9465-EAN-2019-0142>.
26. Santos PAF, Batista RCN, Coutinho VRD, Rabiais ICM. Interdisciplinary and interinstitutional simulation and cooperation: development of nursing students competencies in disaster. *Esc Anna Nery*. 2023 [cited 2023 Mar 26]; 27:e20220077. DOI: <https://doi.org/10.1590/2177-9465-ean-2022-0077pt>.
27. Mendonça SFAF. "Dez novas competências para ensinar", de Philippe Perrenoud: percepções e paralelos com autores conceituados do campo educacional. *Rev. Educação pública*. 2023 [cited 2023 Mar 26]; 23(9). Available from: <https://educacaopublica.cecierj.edu.br/artigos/23/9/dez-novas-competencias-para-ensinar-de-philippe-perrenoud-percepcoes-e-paralelos-com-autores-conceituados-do-campo-educacional>.
28. Carvalho PO, Andrade L, Oliveira W, Masson L, Silva JL, Silva MAI. Essential health promotion competencies in nursing training: an integrative review. *Acta paul enferm*. 2021 [cited 2023 Mar 26]; 34:eAPE02753. DOI: <https://doi.org/10.37689/acta-ape/2021A02753>.
29. Romão GS, Sá MFS. Competency-based Training and the Competency Framework in Gynecology and Obstetrics in Brazil. *Rev Bras Ginecol Obstet*. 2020 [cited 2023 Mar 26]; 42(5):272-88. DOI: <https://doi.org/10.1055/s-0040-170888>.



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Use of artificial intelligence tools

Authors declare that no artificial intelligence tools were used in the composition of the manuscript "*Competencies for the promotion of sexual and reproductive health in undergraduate nursing programs*".