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Lexicographic qualitative approach of nurse's perspectives on men's access to sexual health care in Portugal

Alexandra Tereso✉, Alice Curado, Ana Brantes, João Fernandes, Rui Santos & Lina Antunes

The lack of visibility of men in sexual and reproductive healthcare emphasises the challenges in addressing this topic, given its personal, private, and subjective nature. Nurses can play an important role in formulating policies that promote male sexual health, contributing to the creation of health programs and defending men's rights concerning sexual healthcare access. This study aimed to analyse nurse's perspectives regarding men's sexual healthcare access in Portugal. A qualitative descriptive study was conducted. Focus group (FG) interviews with 15 nurses working in Portugal were analysed using lexicographic analysis with the support of the interface IRaMuTeQ-R. From the two FGs, 487 text segments were analysed and five classes emerged: Approach triggers between nurses and men; Therapeutic itineraries singularities; Sexual health as a subject; Issues surrounding men's sexual health; Settings for addressing men's sexual health. Nurses' perspectives about men's access to sexual healthcare revealed challenges in recognising men as legitimate recipients of such care, as well as the broader issue of men's political invisibility in this area. The importance of deconstructing simplistic notions about men and masculinity was underlined, highlighting the need to recognize diversity among men to ensure that sexual health care is truly effective. Male opportunities in sexual healthcare in Portugal require a comprehensive and inclusive approach in nurses' education, training, and practices, as well as political guidelines that can make these opportunities clear to men, nurses, and other health professionals.

Keywords Healthcare, IRaMuTeQ, Men, Nursing, Sexual health

As in other European Union countries, in Portugal, life expectancy for men is 6.1 years less than for women (84.1 versus 78.0 years). In the past two decades, this gender gap has shown little reduction[17]. Portugal's National Health Service is a universal, tax-financed healthcare system that covers all residents. Still, men's exposure to risk factors and their access to healthcare contribute to explaining the differences in longevity[17].

Men's sexual health vulnerability takes place in a context pervaded by social conditions that structure individual behaviours, reproductive public policies, and possibilities/difficulties in the access to and use of sexual health services[25].

According to the World Health Organisation (WHO), sexual health is defined as "a state of physical, emotional, mental and social well-being concerning sexuality; it is not merely the absence of disease, dysfunction or infirmity. Sexual health requires a positive and respectful approach to sexuality and sexual relationships, as well as the possibility of having pleasurable and safe sexual experiences, free of coercion, discrimination, and violence. For sexual health to be attained and maintained, the sexual rights of all persons must be respected, protected and fulfilled." ([30], p.3). In this context, we must consider men's diverse experiences and identities, with specific but diverse health needs, facing intersecting vulnerabilities and barriers to sexual health care.

WHO[30] recognized that men's sexual health needs are often neglected and that addressing these needs is crucial for improving overall public health and identified as barriers that prevent men from accessing sexual health services, stigma, cultural norms, and lack of awareness. In 2017, the report "Sexual Health and its Linkages to Reproductive Health"[30] described the need for services that are accessible and acceptable to men and emphasised that men are generally less willing to access health services or discuss issues related to sexual and reproductive health.

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In Portuguese political health scenarios, sexual health has been reduced to the issue of sexually transmitted infections prevention and diagnosis, and women's reproductive health[23]. Men's invisibility in sexual health care is a reality that crosses health policies, institutional guidelines, health professionals' education, and clinical practices[25].

Nurses' recognition of men as subjects of sexual healthcare depends on their perspectives about what it is to be a man, their specificities, their sexual health needs, and nurses' role in clinical settings providing care to their fulfilment.

Materials and methods

Aim

This study aimed to analyse nurse's perspectives regarding men's sexual healthcare access in Portugal.

Design

This study employs a qualitative descriptive design, utilising a Focus Group (FG) approach. Qualitative research is particularly relevant to perspectives research and sexuality, as it evokes the plurality of participants' experiences, paths, and life trajectories[8,24]. For gathering information, the option was the FG's interviews online. According to Morgan[15], the strengths of FG stem from the insights that emerge during the interaction among participants. For this purpose, an interview guide was developed, and the recruitment of participants was planned.

Setting

In Portugal, the role of generalist and specialist nurses in sexual care provision is organised by the Directorate General of Health (DGS), Ministry of Health. Priority health programs include sexually transmitted infections and HIV infections, and the Sexual and Reproductive Health Programme is mentioned as one of the national health programs. Comprehensive strategic guidelines and targeted intervention strategies are suggested for different societal sectors, including health, to develop effective interventions such as "Investing: promoting and protecting health", which includes sexual and reproductive health promotion as an intervention strategy[7]. In Portugal, the responsibility for sexual and reproductive health is shared among general and specialised nurses, including nurse-midwives, as well as physicians, gynaecologists, and obstetricians. The present study was conducted in Lisbon and included general and specialised primary and secondary healthcare nurses who work with men as patients.

Ethical issues

The key ethical consideration in FG is related to the fact that participants may reveal information that makes them identifiable to one another during the discussion[12,15]. There is a difference between guaranteeing confidentiality to participants and ensuring complete confidentiality protection due to the exchange of information in a group setting. Because the FGs interviews were online and the online environment made it easier for the participants themselves to capture the data without the researcher's knowledge, all participants were asked to guarantee the confidentiality of the information they shared during the FGs.

Data collection was conducted after the study was approved by the Ethics Committee at the Nursing School of Lisbon (No. 4455/2021).

Before the FGs, the participants signed informed consent forms, and data confidentiality and pseudonymization were ensured. At the beginning of the FGs' interviews, information about the study context, objective, and method was reiterated, and permission for recording sound and images, as well as publishing excerpts and results, was requested again. The liberty of suspending their participation during the FGs was also reminded.

Because of the personal and professional acquaintance between the principal investigator and some of the participants before the FGs, particular attention was paid to safeguarding their refusal to participate in the study and their freedom to discontinue participation as they wished. All participants were contacted by one of the researchers, who was unacquainted with them, to negotiate informed consent and ensure their freedom to refuse participation. Special attention was given to prior relationships between the principal investigator and participants to reduce bias. The FGs were conducted by the principal investigator, who was not directly known to any of them.

To safeguard the anonymity of the participants, the FGs transcripts were coded with letters E1 through E15.

Participants selection

Participants were selected by a snowball (asking participants to suggest others according to socio-demographic variables, ensuring diversity), seeking access to privileged informants, considering that participation and testimonies are drawn up through the nurses' specific place related to the research object. In this case, the participants were selected based on their relevant positions regarding the object of study and their potential to provide a particular and in-depth view, which the researchers sought to capture and consider[6]. The criterion of diversity and heterogeneity underlying the assumptions of qualitative methodology[15] was considered when setting up the two FGs. Gender, context, and the length of professional practice were also considered in the selection of participants for the search for diversity, taking into account the sexual healthcare context[24]. The inclusion criteria for the FGs were professional experience as a nurse in primary and/or secondary healthcare, with a minimum of 5 years of experience providing care to men. The exclusion criterion was professional experience of less than five years in caring for men.

Data collection

Data were collected between 2021 and 2023. Activities were defined for the different stages of the FG, namely planning, preparation, moderation (introduction, development, and conclusion), data analysis, and dissemination of results[12,15]. In the FGs, interaction between the participants was sought, considering the non-directive figure of the moderator, and the relevance of the access to their experiences and opinions[15].

Two online FG interviews were conducted using the Zoom platform and a video and audio recorder. The leading researcher and one member of the project took the moderator and assistant moderator roles in the two FGs.

The first FG included nine nurses and lasted approximately 110 min, and the second included six nurses and lasted around 60 min.

The questions that guided the two FGs were the same according to the previously drawn-up script[25]:

- What possibilities/difficulties are there in the access of men to sexual health care, and what do they seek?
- What are the paths of the search for sexual health care by men? To what professional groups do they resort?
- What expectations do they have?
- Do the obtained answers meet the care needs of men?
- Do men see nurses as resources? Can you give me examples?
- How do nurses characterise the interaction between nurses and men in accessing sexual health care?
- What are the possibilities/difficulties in the interaction and nursing care delivery to men in the sexual health area?

Data analysis and treatment

For data analysis, the option fell on Descending Hierarchical Classification (DHC) and similarity analysis applied by using *Interface de R pour les Analyses Multidimensionnelles de Textes et de Questionnaires* (IRaMuTeQ)[3]. The IRaMuTeQ software version setup_iramuteq-0.7-alpha2 (https://sourceforge.net/projects/iramuteq/files/iramuteq-0.7-alpha2/setup_iramuteq-0.7-alpha2.exe/download) was used, as well as R Project for Statistical Computing, version R-4.4.2 (https://cran.r-project.org/bin/windows/base/old/4.4.2/) and the LibreOffice software version 6.0.4.2 (https://downloadarchive.documentfoundation.org/libreoffice/old/6.0.4.2/win/x86_64/).

This free, open-source software characterises textual data through vocabulary similarities. This program enables the understanding of the meaning environment of words and, simultaneously, highlights elements of the nurse's perspective[3,14]. It assumes that words used in similar contexts are associated with the same lexical world. In this way, it performs quantitative analysis of textual data based on contexts and subclasses of classes, utilising vocabulary similarity.

The corpus for lexicographic analysis was assembled based on the transcriptions of the two FGs conducted[2,3], and the DHC and similarity analyses were performed.

Analysis results of the two interviews were interpreted and discussed between the researchers who participated in the FGs and the experts in the methodology who were invited to the group[2]. The participation of these two experts made it possible to clarify the relationships between the different classes and to infer and interpret the information gathered.

For reporting the relevant findings of the research, the methods used, the contexts that were the object of study, the analyses, interpretations, and conclusions, and the checklist of the Consolidated Criteria for Reporting Qualitative Research were selected[26].

The software used, IRaMuTeQ, enabled the analysis of the text corpus resulting from the two interviews using DHC and similarity analysis for data analysis[3]. Variables of interest characterised the textual corpus: the context of professional practice (primary health care and differentiated health care) and the professional title: nurse and specialist nurse[19].

Results

The study involved 15 nurses from the Lisbon Metropolitan Area and Coimbra, with 40% of the participants being men (n=6) and 60% being women (n=9) (Table 1). The average age was 48.8 years with a standard deviation of 8.76 years. The average number of years of professional practice was 23.5 years (min=5.5 and max=32), with a standard deviation of 7.86. Regarding their work experience, 53.3% of the participants had professional experience in primary and secondary healthcare. Of the participants, 8 were nurses and 7 were specialist nurses in the following areas: mental health and psychiatric nursing (2), child health and paediatrics (1), community health (1), maternal health and obstetrics (1), rehabilitation (1), and medical-surgical nursing (1).

Text analysis resulting from the two FG indicated 20497-word occurrences distributed over 2416 forms, with an average of 8,5 words by form. The criterion used to define the threshold for inclusion of the elements in the classes of the dendrogram was showing twice the average frequency (8,5*2 = 17) in the corpus and an association with the class with $X^2 \geq 3.84$, taking into account that the calculation is defined according to degree of freedom one and with a level of significance of 95% (Marchand & Ratinaud, 2011). The selected words should predominantly have an X^2 higher than the reference value and $p < 0.0001$.

By applying DHC, 487 text segments were analysed (out of a total of 584), which accounted for 83.39% of the corpus. These segments were classified into five classes related to nurses' perspectives on men's sexual healthcare access in Portugal, as shown in Fig. 1.

Work settings	Professional level	Gender		Nursing specialization area
		Male	Female	
Primary health care	General nurses	2	2	
	Specialized nurses	1	2	Child health and paediatrics' Community health Maternal health and obstetrics
Hospital units: Oncology Urology Psiquiatry Emergency Intensive care Cardiovascular Endocrinology Palliative care	General nurses	1	3	
	Specialized nurses	2	2	Mental health and psychiatric nursing Rehabilitation Medical-surgical nursing

Table 1. Participants profile table.

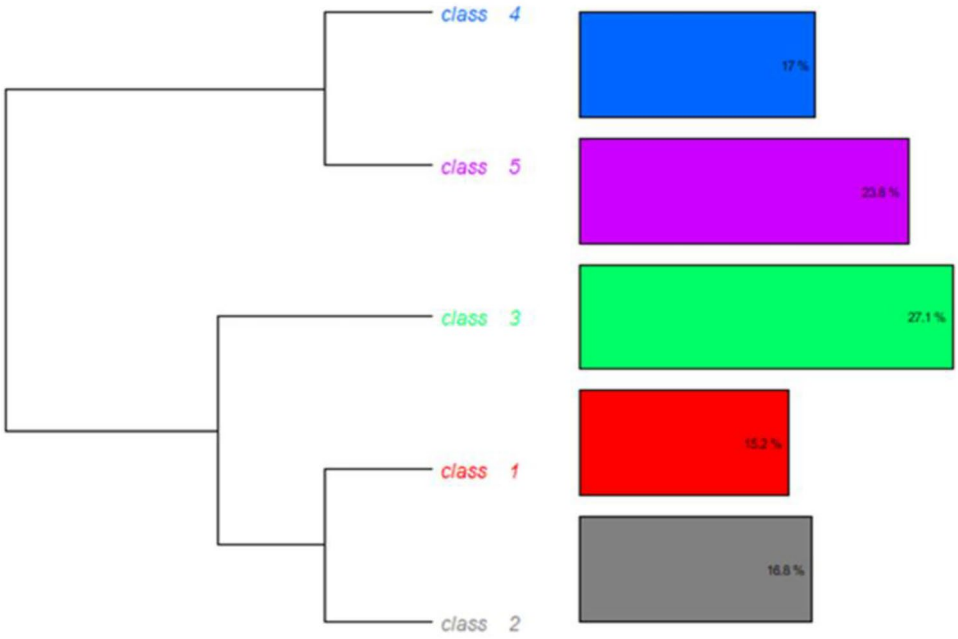

Fig. 1. Descending hierarchical classification dendrogram. Lisbon, Portugal, 2023.

Dendrogram

The DHC dendrogram (Fig. 1) enabled us to understand the expressions and words used by the nurses through an analysis of the paths of these elements and the positions they occupied in the contexts of care delivery where interactions with men occurred.

The data analysis allowed us to identify five classes, which will be presented in this article, along with the number of text segments, which we entitled:

- Class 1: Approach triggers between nurses and men with 74 text segments (15.2%).
- Class 2: Therapeutic itineraries singularities with 82 text segments (16.8%).
- Class 3: Sexual health as a subject with 132 text segments (27.1%).
- Class 4: Issues surrounding men's sexual health with 83 text segments (17.0%).
- Class 5: Settings for addressing men's sexual health with 116 text segments (23.8%) analysed in the corpus.

Figure 1 shows the interclass relationships and must be read from top to bottom and from left to right. This schematic representation indicated that classes 4 and 5 had a lower level of relationship or proximity with classes 1 and 2.

Descending hierarchical classification

The IRaMuTeQ program utilises the chi-square test (χ^2) to determine the strength of association between words and their respective classes. This associative strength is analysed when the value of the test is greater than 3.84, representing $p < 0.0001$[18].

Words	X^2	%
Health	71.38	38.71
Problem	65.37	52.83
Sexual	37.86	34.29
Men	35.77	33.98
Settle	28.19	100.0

Table 2. Class 1 – approach triggers between nurses and men (15.2%)—text segments obtained using text corpus analysis. Lisbon, Portugal, 2023.

Words	X^2	%
Urology	33.94	81.82
Ask	24.95	100.00
First	24.95	100.00

Table 3. Class 2—therapeutic itineraries singularities (16.8%)—text segments obtained using text corpus analysis. Lisbon, Portugal, 2023.

Words	X^2	%
At ease	57.4	86.67
Bit	38.39	64.0
Subject Colleagues	29.31 28.17	60.87 61.9

Table 4. Class 3—sexual health as a subject (27.1%)—text segments obtained using text corpus analysis. Lisbon, Portugal, 2023.

The selected words should predominantly have an X^2 higher than the reference value and $p < 0.0001$. However, the threshold criterion of twice the average frequency in the five classes was considered the word significance criterion.

Class 1 showed that the most significant words, whose X^2 are shown in Table 2, were: *health*, *problem*, *sexual*, *men*, and *settle*. In this class, changes in sexual health status seem to trigger the search for sexual health care services and spike the interaction between nurses and men.

where can we address **sexual health** more? only in diabetes consultations because that is when the first problems start to appear. **men** are forgotten amid this primary **health** care issue (FG1_P8).

in which they seek **health** care not for prevention but more for treatment, a curative approach when the **problem** has already been settled (FG1_P6).

I think that in hospitals they don't seek care, and it may be associated with the lack of privacy that exists in hospitals. in consultations, there is greater privacy, and there is a unique moment between the **men** and the doctor who is attending him (FG1_P1).

in my generation there was not much openness to talk about anything to do with sex. in fact, sex was taboo for **men**, even worse because then they were also instilled with the Latin male system (FG2_P11).

Class 2 showed that the most significant words, whose X2 are indicated in Table 3, were: *urology*, *ask*, and *first*. In the therapeutic pathways, urologists seem to be the professionals most valued by men facing acute sexual situations.

some family doctors don't feel very comfortable unless they are specialists. they say this is for **urology** and there is a passing of the buck (FG1_P8).

users consider doctors more of a resource than nurses. to solve problems, they go and **ask** for an appointment for an acute illness. Planning no, but acute illness they **ask** and solve the problem. in the acute illness they solve it ready (FG2_P14).

in terms of barriers, I think that these differences have a lot to do with cultural issues and also because nowadays young people are dealing with this subject even in schools and there is a lot of easy access to information through social networks and the internet (FG2_P15).

Class 3 showed that the most significant words, whose X2 are shown in Table 4, were: *at ease*, *bit*, *subject*, and *colleagues*. At the two poles of the approach, the shared experience between older nurses and being at ease in addressing sexual health can contribute to its visibility as a subject in male health care.

men look for someone who gives them a sense of security and who they feel comfortable with, and they also use the resources they have that are most accessible, so this ends up being a **bit** like access to healthcare (FG1_P3).

Words	X^2	%
Sexuality	75.99	56.67
Life	44.86	73.68
Couple	34.69	73.33
Stage	33.48	88.89

Table 5. Class 4—issues surrounding men's sexual health (17.0%)—text segments obtained using text corpus analysis. Lisbon, Portugal, 2023.

Words	X^2	%
School	37.86	92.86
Cultural	35.99	100.00
Planning	34.53	92.31
Family	32.65	100.00

Table 6. Class 5—settings for addressing men's sexual health (23.8%)—text segments obtained using text corpus analysis. Lisbon, Portugal, 2023.

that's how skills are acquired through research through experience with our peers - we have some new **colleagues**, as I have already mentioned, and it's up to us older ones to help the younger ones find skills in this area too (FG1_P3).

I notice that people always find it a little more difficult to talk. I think they are people who have always been brought up with a certain taboo around this **subject** and so they end up finding it a little difficult to talk openly about it (FG2_P14).

Class 4 showed that the most significant words, whose X2 are shown in Table 5, were: *sexuality*, *life*, *couple*, and *stage*.

Issues related to the impact of sexuality on men's lives, such as HIV, and nurses' approach to couples in a reproductive context, seem to be facilitating factors for men's access to nursing care.

Our doctors recommend psychotherapy, including **couple** therapy, and it is not well accepted. Sometimes we realise that things do not work out with the current partner, but if it is with someone else, things will work out (FG1_P3).

situations that may not have been resolved so well up until now and that, in fact, the proximity of the end of life has further complicated how these people, these families, and these **couple**s experience their **sexuality** (FG2_P13).

we worked a lot for about two years in the field of **sexuality**, but not linked to **sexuality**, linked above all to HIV (FG2_P10).

the issues of confidentiality in this area - and I never tire of saying this - are extremely important. My experience tells me that, for example, homosexual **couple**s rarely use public services (FG2_P12).

create the opportunity, as I've already said, at different **stage**s of the **couple**'s **life**, for men to be accompanied, for example, during pregnancy and postpartum take this opportunity to invite men to make greater use of health services (FG2_P15).

in my work at the unit, I do much support for **couple**s in their preparation for and recovery from childbirth, and **sexuality** is addressed, but I do not know if it is because I am a woman that I have had only demand from women (FG2_P15).

Class 5 showed that the most significant words, whose X2 are shown in Table 6, were: *school*, *cultural*, *planning*, and *family*. Culture is highlighted as a barrier to addressing sexual health. Schools are highlighted as privileged settings for nurses to approach male sexual health.

I have been working for many years in primary health care in **family planning** consultations, dealing with women, women after menopause, and pregnant women. Indeed, men are always forgotten (FG1_P8).

and it is only when they are about to leave, often at the end, that they talk, because there is a very big **cultural** barrier at this level (FG2_P12).

I don't know if a man wants to make an appointment for **family planning** - some units are already very aware of these issues, but in other units, the barrier probably starts right at the front desk (FG2_P15).

sexuality, in fact, is one of the main reasons for abandoning psychiatric medication, precisely because it interferes with sexuality - but we are full of **cultural** filters that prevent us from tackling the subject or neglecting it (FG2_P12).

but I believe, and I have two teenage children, I believe that teenagers at this time are not open to this kind of information, in other words, the professionals who go to the **school**s can talk about it (FG1_P1).

in terms of barriers, I think that these differences have a lot to do with **cultural** issues. Nowadays, young people are dealing with this topic even in **schools**, and there is much easier access to information through social networks and the internet (FG2_P15).

Fig. 2. Tree showing the co-occurrence between words in the text corpus in the FGs. Lisbon, Portugal, 2023.

Similarity analysis

Similarity analysis (Fig. 2) revealed that the main co-occurrences and connexity between the terms identified in the corpus enabled the identification of six central nuclei, represented by the words "nurse," "person," "sexual," "say," "approach," and "find." Nevertheless, this analysis highlighted the graphic centrality of the word *sexual* and its strong connexity with the branches represented by the other nuclei.

In the *approach* nucleus, the branches with the highest connexity were those related to the terms *sexual* and *issue*. These referred to classes 3 and 5, supporting the idea that the sexual health approach by nurses is related to male sexual difficulties and being at ease. School arises as a privileged setting where young men can be seen as subjects of sexual health care.

Concerning the *say* nucleus, we highlight the branches with the highest connexity: *appointment*, *want*, *colleague*, *sick*, *care*, *seek*, and *will*. These referred to class 1 and endorsed the view that being sick motivates men to seek help and triggers the search for an appointment related to an acute situation.

Concerning *finding the* nucleus, we emphasise that the branches with the highest connexity were those of the terms: *give*, *area*, *experience*, and *professional.* These referred to classes 2 and 3 and defended the perspective that men do not recognise nurses as first-rate resources. Nevertheless, nurses' professional and shared experience seems to enable them to provide sexual health care to men.

In the *person* nucleus, we note that the branches with the highest connexity were those of the terms: *situation*, *big*, *sexuality*, *shape*, *different*, *subject*, *couple*, *piece*, *get*, *maybe*, *try,* and *realise*. These referred to classes 3 and 4 and substantiated the claim that sexual health as a subject depends on the perception that men, wives, and nurses have of what may be a problem or the need to consider that kind of issue and the space that is given for the approach aimed at the couple.

For the *sexual* nucleus, the branches with the highest connexity were those related to the terms: *thing*, *woman*, *dysfunction*, *taboo*, *problem*, *important*, *lonely*, *exist*, *illness*, *think*, *relationship*, *life,* and *level*. These referred to classes 1 and 4, and advocated for the idea that sexual problems, dysfunctions or illness situations seem to play a clear role in legitimising men's access to sexual health care. Taboos related to male sexuality and women´s visibility as healthcare subjects seem to contribute to male exclusion from the sexual health approach.

Concerning the *nurse* nucleus, we underline that the branches with the highest connexity were those of the terms: *physician*, *patient*, *spend*, *time,* and *family*. These referred to classes 4 and 5, lending credibility to the idea that the interaction between men and physicians, where issues about male sexual health can be addressed, occurs in primary health care within the context of family health-centred care.

Discussion

This study aimed to explore nurses' perspectives on men's sexual healthcare access in Portugal. As a result, our discussion will be organised by the analysis classes that emerged.

Class 1—approach triggers between nurses and men

Persson et al.[21], supported by several studies, consider that men's access to sexual health services is low and that they characterise this kind of service as heteronormative and "tailored for women". These authors also noted that professional discourses often portrayed men as reluctant patients (2023).

Nurses and specialist nurses participating in our FGs mention acute health conditions as triggers to men's access to sexual health care. Nurses' discourses, interactions, and practices play an important role in reinforcing and reproducing gendered inequalities in sexual health care access. Our participants state that sexual health has traditionally been regarded as a women's issue in Portugal and that these kinds of health services are characterised by scenarios populated by lay and expert women that exclude men and emphasise reproductive priorities.

Persson et al.[21] stated that there is a growing global awareness that men should be included in sexual and reproductive programs and services, when considering information, counselling, testing, and treatment regarding sexually transmitted infections, unwanted pregnancies, sexual violence, and treatment of sexual dysfunction. Nevertheless, in Portugal, health policies still reinforce reproductive health as the focus and heterosexual women as the healthcare subjects. Tereso et al.[25], as well as Persson et al.[20], found that a lack of health professional training seems to be a barrier to men´s access to these kinds of services. In Portuguese nurses' education (bachelor's, professional specialisation, or master's), sexual health, and specifically men's sexual health, is not deepened and does not have visibility in syllabus contents. According to Persson et al.[21], "The lack of a shared approach to men's sexual health, and the absence of a professional discourse, indicate that training on men's sexual health and masculinity is missing from education. This could explain why Health Care Professionals' discourses on masculinity in Sexual Health Care were formulated about women and femininity as norms, and their private attitudes towards men and masculinity. A shared, knowledge-based discourse could enable a more consistent and shared approach to men in SHC." (p.11)

In our study, participants also highlighted older nurses as chosen professionals for men to address their sexual problems, with whom they seem to be more at ease. The specificities related to men's hospitalisation were also mentioned. Nurses' perspectives on hospital units as spaces that do not promote privacy suggest that men prefer to address this kind of issue with doctors in their offices. Another important aspect is that men seek a curative approach, and as such, the need for a prescription or intervention makes physicians the professionals most valued by men.

Class 2—therapeutic itineraries singularities

When we endorse sexual rights, it is important to consider that they "protect all people's rights to fulfil and express their sexuality and enjoy sexual health, with due regard for the rights of others and within a framework of protection against discrimination" ([28], p. 3). Within this framework, male exclusion from sexual and reproductive healthcare in Portugal raises questions about men's exercise of sexual rights and the challenges that nurses seem to be facing.

Our participants in the FGs mentioned that in primary health care, physicians do not seem comfortable approaching sexual issues. Typically, they refer patients to urologists without proper data collection and thorough problem assessment. Nurses' perspectives of men's therapeutic itineraries highlighted that physicians pass the problem on to someone else and seem to postpone the answer to men's needs. In these settings, psychological aspects are usually undervalued, and the clinical evaluation focuses mainly on mechanical aspects related to sexual function or epidemiological concerns related to STIs.

Searching for help in an acute sexual condition takes older men to emergency services as a gateway to entering national health services. In these settings, their intimacy is sometimes not assured, which presents a significant challenge for them to disclose their problems.

Generally, our participants considered that access to and utilisation of sexual health services is easier for young men who benefited from sexual and reproductive information in schools and have more familiarity with nurses and fewer taboos to ask questions or approach this kind of issue. Digital resources were also pointed out as facilitators in seeking help when problems arise.

Sexually transmitted infections were mentioned as a complex issue to address with men because of their fear of being criticised or of moral judgments by nurses. Additionally, cultural issues related to the social perception of masculinity and the expectations of maintaining that image are considered barriers for men to seek help. Being sick translates into a state of weakness and vulnerability, which does not align with the social representations of being a man[5]. In the second FG, the critical issue of hegemonic masculinity beliefs emphasises men's sexual performance and their need to prove that they are always ready to have sex. According to Courtenay[5], social and institutional structures help to sustain and reproduce men's health risks and the social construction of men

as the stronger sex. These kinds of beliefs were considered a barrier for men to ask questions when sexual problems arise, especially in the case of homosexual or transgender men. Informal norms of masculinities seem to contribute to reinforcing male exclusion from sexual and reproductive healthcare as care subjects[4].

Globally, there is a scarcity of research conducted to understand healthcare workers' perspectives on factors affecting men's utilisation of sexual and reproductive healthcare services, with the majority focusing on women and adolescents as subjects[16]. In our research, some specialist nurses emphasised the need for an opportunistic approach to addressing men's sexual and reproductive aspects in maternal health consultations during pregnancy.

Class 3—sexual health as a subject

About this class, the difficulty of considering sexual health as a subject for men and nurses emerged. According to Klaeson et al.[11], sexual health is a concept pervaded by taboos, and scientific evidence points out that nurses feel uncomfortable talking to patients about it and therefore avoid it. These authors state that this absence forms an obstacle for nurses to promote satisfactory sexual health care to patients in general.

In our data analysis, nurses who approach sexual health in their clinical practice are perceived by their colleagues as those who have made a personal investment in developing knowledge and professional experience. Generally, older nurses are considered the best equipped to tackle the subject and are seen as the informal trainers of younger nurses. Klaeson et al.[11] considered that social norms were barriers for health professionals to feel comfortable about the subject and act professionally, and that nurses' professional attitudes and knowledge were determining factors in approaching sexual health with men. Courtenay[5] states that social behaviours that negatively impact men's health frequently reflect societal notions of masculinity and serve as tools for men to navigate social power and status. Elements like ethnicity, income level, education, sexual orientation, and social environment shape the masculinity that men create, leading to different health risks among them.

In our study, Portuguese nurses considered that the only training opportunities in continuing education were occasional training courses run by pharmaceutical companies that produce drugs for sexual dysfunctions and whose application in practice was not considered significant. Participants emphasised the need to seek knowledge individually to be able to address issues about sexual health with men that include men's cultural, gender and socio-economic specificities.

Klaeson et al.[11] found that nurses felt more confident discussing sexual health with middle-aged men, especially those with conditions like diabetes that affect sexual function. This confidence was linked to prior training focused on addressing sexual health in the context of chronic illness.

Specialist nurses who participated in the FGs, considered that men and nurses are not at ease and prepared to address sexual health as a subject. According to them, this kind of subject is considered taboo, and men prioritise security, comfort, and accessibility when considering whom to turn to in case of problems. Due to the intimate character of sexual health, security is highly valued by men and considered a condition to be at ease discussing the subject. Nurses also recognise that men appreciate the anonymity achieved through digital technologies.

Digital technologies used in sexual health contexts pose challenges for nurses and health professionals, including the privacy and confidentiality of intimate data. The WHO[30] published a technical sheet that provides a comprehensive overview of the landscape of artificial intelligence in sexual and reproductive health and rights, aiming to ensure that all individuals have access to and receive quality services and information. The WHO[30] outlines the associated risks, implications, and policy considerations. Given the fast-paced advancements in artificial intelligence (AI), this brief aims to clarify its applications in sexual and reproductive health and identify critical issues to promote the effective, inclusive, and responsible use of AI. This document is aimed at implementers, policymakers, technology developers, funding agencies, implementing partners, and researchers involved in the intersection of AI and sexual and reproductive health and rights. Its goal is to foster a shared understanding among these diverse stakeholders.

Barriers to technology and connectivity remain a significant challenge, particularly in low- and middle-income countries. Reports reveal disparities in mobile ownership and internet usage, highlighting that women in rural areas face the most limited access.

Class 4—issues surrounding men's sexual health

Sexual health encompasses a multiplicity of issues that cross several areas of knowledge. Some of the participants represent sexuality globally as a life concern and emphasise the relevance of health professionals' interventions to identify the impact of some therapeutics, and mental and chronic diseases, on them.

In our study, nurses highlighted three issues regarding men's sexual health approach: reproductive issues, prevention and diagnosis of sexually transmitted infections (HIV in particular because of the threat it poses to couples' lives), and sexuality in palliative care.

Our participants mentioned unsuccessful attempts to improve men's access to sexual healthcare through the opportunistic approach to men during prenatal and postnatal appointments. They wonder if the fact of these appointments being sought out by women can be considered a barrier to men's access. Specialist nurses who work in prenatal care shared examples of sexual and reproductive healthcare addressed to men and that are considered by peers to be good practices, one healthcare project that aimed to include men as women and children's caregivers during pregnancy and postpartum, and one prenatal class only for men during prenatal care that is organized in one primary health care institution in Lisbon.

As factors that can be considered as barriers to a more comprehensive approach to sexuality, they mentioned age as a taboo – older people are seen by health professionals as asexualized and that includes older men; multicultural and communication barriers for nurses to addressing sexual health; nurses' lack of preparation to deal with sexual diversity; and lack of visibility of sexuality and nursing interventions related to it, in most software's used for electronic clinical records. Due to the private nature of sexual health, the fear of a lack of

confidentiality was mentioned as a heavy barrier for men to access public sexual health services, especially for homosexuals.

From another perspective, specialist nurses whose professional practice was mainly in palliative care emphasised the need to help couples at the end of their lives to live out their sexuality and the relevance that they give to this kind of help. Despite the taboos surrounding sexual issues in healthcare, Benoot et al.[1] stated that in palliative care, patients and their partners might experience dramatic changes in their sexuality and expect to have support from nurses to deal with it[1,13]. These authors consider that scientific evidence points out that the approach to sexual issues with patients/partners is still challenging for nurses. According to Saunamäki and Engström[22], on the one hand, nurses feel obligated to do so, but on the other hand, they experience fear and embarrassment. Higgins et al.[10] stressed that a lack of knowledge and skills contributes to nurses' feelings of insecurity when addressing sexual issues, leading them to avoid these kinds of issues. Klaeson et al.[11] mentioned that nurses in primary care expressed a need for additional education and knowledge about sexual health, and that healthcare organisations should be reformed to focus on this subject.

For nurses to be effectively prepared for the complexities of sexual healthcare, training must evolve beyond clinical proficiency to also cultivate advocacy and cross-sector collaboration. Ensuring equitable access to sexual health care requires nursing education to fully integrate critical topics such as the social determinants of health, health equity, and culturally competent care.

Also, adopting an intersectional approach—one that considers factors such as race, socioeconomic status, and sexual orientation—is essential for equipping nurses to recognize and address the unique barriers faced by diverse populations.

The World Health Organisation[27] stated that improving sexuality-related counselling entails political and institutional investment in nurses' and other health professionals' training that clarifies and positively influences service providers' values, with demanding follow-up supervision and support.

Class 5—settings for addressing men's sexual health

From the participants' perspectives, the symbolic charge of the spaces for men to access sexual health care and nursing care was also highlighted. In the national context, schools are highlighted as privileged settings for nurses to address the sexual health of boys and girls. In this approach, the so-called "question box" is underlined as an interesting and facilitating resource for responding to adolescents' information needs.

However, there is no consensus on the nurses' perspectives of schools as places to address sexual health. Some nurses find the approach taken in schools superficial. In contrast, others find it interesting because it is an everyday space for adolescents, outside of healthcare institutions, which seems to make it easier to discuss. In this context, and despite not describing joint actions with teachers, nurses recognise the contribution of teachers in the sexual education of adolescents. Another aspect that was only mentioned by specialist nurses concerned cultural and religious issues (as Muslim and Evangelical religions), which are represented as barriers to addressing some aspects of sexual and reproductive health.

Regarding the institutional settings in primary healthcare contexts such as sexual healthcare, nurses mentioned that often the barriers start right at the entrance, with questions from female managers. Our study, as the research conducted by Persson et al.[21], illustrates how the discourses in the waiting room portray men and masculinity as mismatched.

Persson et al.[21] stated that "In relation to the organizational discourse, men were depicted as unaware of their sexual health needs, and HCPs were doing men a favor by helping them. Participants described coaxing men to give them the necessary information. They described men as being blunt, unaccustomed to the situation, and untrained in terms of talking about sexual health and sexuality." (p.9).

In Portugal, sexual and reproductive health settings exclude single men and are directed to a heterosexual population. According to our participants, men are only included as part of a couple, and nurses have clear reproductive goals to fulfil. They stated that some years ago, the designation of this kind of service was 'family planning," and that the fact that has been replaced by "women's health" translates more unequivocally as men's exclusion from this setting.

A positive approach to sexuality is not restricted to sexually transmitted infections but also covers them. As far as these are concerned, in Portugal, we have seen a significant increase in STIs (such as gonorrhea, lymphogranuloma venereum, and syphilis) and a larger number of men infected than women. WHO[29] states that increasing evidence suggests that men are increasingly concerned about their health and wish to utilise health services. However, health systems organisations and the services offered often limit men's access to HIV and related services. Specifically in sexual health, it is fundamental that health systems consider inclusive settings and strategies targeted at men and address male-specific barriers to care by providing person-centred services specific to men's needs[9].

Although Portugal's healthcare landscape demonstrates strengths, such as its aim for universal coverage and encouragement of continuous professional development, current policies appear weak in addressing social factors that influence health, particularly for vulnerable groups, resulting in persistent disparities in access and health outcomes.

WHO[29] highlighted that overarching strategies to address men are centered on three pillars: easy access to care (routine entry points, community-centered services, and flexible facility-based services), quality services (positive interactions with health care workers and integrated services) and supportive services (comprehensive counselling and facility navigation, peer services, and virtual interventions).

Misinformation and targeted disinformation must be contemplated when considering the Web as a setting to address sexual health. A key obstacle in employing AI for promoting men's sexual health is the risk of misinformation, as AI models are trained on extensive datasets from the internet and social media, which often contain low-quality data and various biases[30].

The responsible use of AI raises a set of ethical, legal, and human rights implications related to data governance, transparency, explainability, inclusiveness, equity, responsibility, and accountability[29]. Although these challenges exist in all healthcare sectors, the norms and power dynamics that influence decision-making in sexual and reproductive health highlight these concerns even more intensely.

Study limitations

This study faces several methodological constraints, primarily related to participant recruitment. Although efforts were made to ensure participant diversity, the use of referral-based recruitment may have introduced bias, as individuals often refer to others with similar backgrounds or viewpoints. As a result, the range of viewpoints represented here might be narrower than intended.

The decision to conduct focus groups online provided logistical convenience and broader accessibility. However, it also introduced challenges, especially with group interaction, keeping participants engaged, and noticing non-verbal communication. Even though participants seemed involved and shared their views openly, the online setting made it more challenging to pick up on subtle body language and other cues that are typically important in qualitative research, even when cameras were switched on.

Although IRAMUTEQ provides useful statistical tools for text analysis, like dendrograms, the results are not straightforward to interpret. Turning these statistical patterns into meaningful qualitative insights requires careful consideration and a more nuanced interpretation. To address this, the research team worked carefully to avoid oversimplifying complex ideas and ensured that the analysis remained rigorous throughout the process.

Conclusions

The results of this qualitative study indicate that, although professionals recognize sexuality as an important aspect of men's health, there are notable challenges in prioritizing sexual health within the broader context of men's healthcare.

Professional interventions are often reactive, aimed at addressing acute issues rather than proactively promoting sexual health literacy or supporting the development of a holistic understanding of sexuality. A recurring theme in the discussions was the need to dismantle simplistic and stereotypical views of men and masculinities. Emphasizing the diversity among men was seen as essential for delivering effective and inclusive sexual health care. Social expectations about masculinity and social stereotypes about men and their sexuality contribute to producing and reproducing barriers.

The findings of this study support the recommendation that both undergraduate and postgraduate nursing education curricula should include dedicated content on men's sexual health. This inclusion is essential for preparing nurses with the competencies needed to address the specific sexual health care needs of men effectively.

The traditional training structure for healthcare professionals, including nurses, often emphasises technical and biomedical expertise. This can mean less attention is paid to cultural competence, social justice, and teamwork across different fields, including men's sexual health. In clinical practice, there is a pressing need to invest in targeted male sexual health programs. These should be integrated into broader health surveillance initiatives across all age groups—children, adolescents, adults, and older adults—to promote sexual health literacy and foster a more comprehensive understanding of sexuality throughout the life course.

From a policy perspective, the development of national and international programs and guidelines is essential. Such frameworks would support healthcare professionals and decision-makers in implementing best practices in men's sexual health, ensuring consistency, quality, and equity in care delivery.

Sexual health should be treated as a clear and visible priority in healthcare. This involves incorporating it into daily care routines, integrating it into physical spaces, and reflecting it in the language and practices of nursing staff. A positive approach to sexuality in care settings requires several key actions:

Comprehensive education that goes beyond risk prevention, including themes like consent, intimacy, and the value of sexual expression.

Training opportunities so nurses and other health professionals feel confident discussing sexuality with patients.

Provision of resources and materials, as well as private and safe spaces, along with secure and private spaces for sexual health care.

Facilitation of community dialogues aimed at promoting positive sexuality literacy.

Although the study was conducted in a specific context, namely Portugal, the literature highlights aspects identified at an international level. From a policy standpoint, there is an urgent need for the development of national and international programs and guidelines to support healthcare professionals and decision-makers in implementing best practices in men's sexual health. Furthermore, sustained support for research in this area is crucial to advancing inclusive, evidence-based approaches to sexual healthcare.

Data availability

The datasets generated and analysed during the current study are not publicly available due to privacy and ethical restrictions but are available from the corresponding author on reasonable request.

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Declarations

Competing interests
The authors declare no competing interests.

Informed consent
Informed consent was obtained from all subjects involved in the study.

Institutional review board
The study was conducted in accordance with the Declaration of Helsinki and was approved by the Institutional Ethics Committee of the Nursing School of Lisbon (protocol code: nº 4455/2021).

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