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# Strategies to promote the provision of sexual health services during menopause: a qualitative study from the perspective of menopausal women and healthcare providers in Isfahan city, Iran

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## Abstract

**Background** It is important to care for the sexual function of women during menopause as it can affect their quality of life. However, the services related to this area have been neglected in the health system and are not provided at the desired level. Therefore, the present study aimed to identify strategies to promote the provision of sexual health services during menopause in Isfahan city, Iran.

**Methods** Participants of this qualitative study consisted of 19 menopausal women and 15 health service providers with work experience in providing sexual health services to menopausal women, selected using purposive sampling with maximum variation in the city of Isfahan, Iran. Data were collected through in-depth semi-structured individual interviews plus field notes and analyzed using conventional qualitative content analysis.

**Results** Data analysis led to the extraction of three main categories: 1-providing comprehensive and client-centered care with five sub-categories, namely "screening and active search for recognition of sexual dysfunction", "compliance with cultural considerations in service delivery", "tailoring treatment plans for individual patients", "collaborative decision-making approach", and "improving specialty care follow-up"; 2- improving infrastructure for better service delivery with three sub-categories, namely "allocation of appropriate physical space", "strengthening teamwork and interdisciplinary cooperation", and "provision of cost-effective services"; and 3- expanding services as well as enhancing access with five sub-categories, namely "integration of sexual health services in primary health care", "using telemedicine to provide services", "expansion of intersectoral relations", "introducing sexual health services", and "conducting research on sexual health services".

**Conclusions** The results emphasize the importance of providing comprehensive and client-centered services and care, improving service delivery infrastructure, expanding services, and promoting access to sexual health to enhance the sexual function of postmenopausal women. Through these strategies, healthcare systems can significantly contribute to improving postmenopausal women's sexual functioning and ultimately their quality of life.

**Keywords** Sexual health, Menopause, Health system, Woman, Qualitative study

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## Background

Menopause is one of the most crucial and inevitable stages in women's life, subjecting them to considerable changes. The decline in estrogen levels during this period leads to a wide range of symptoms which can affect women's physical, psychological, and sexual health [1]. The World Health Organization (WHO) defines sexual health as "a state of physical, emotional, psychological, and social well-being in relation to sexuality, not merely the absence of disease, dysfunction, or infirmity". Sexual health is recognized not only as an intrinsic component of women's overall health but also as a basic and integral element of human rights. Hence, sexual health requires a positive and respectful approach to sexuality and sexual relationships, as well as the possibility of having pleasurable sexual experiences [2]. Sexual health care includes the assessment of sexual function, which should be integrated into basic health care services as an important issue. Sexual function reflects the stages of sexual response, and its evaluation can serve as a measure of sexual well-being [3]. Although sexual relations are an important part of a woman's life, sexual dysfunction is one of the most prevalent problems during menopause affecting women's quality of life, psychological health, and interpersonal relationships. However, this problem has been less addressed than other menopausal complications [4], even though women's sexual life continues until menopause and beyond, and a large part of them remain sexually active. Meanwhile, sexual function is an important aspect of life for many women, regardless of age, and is closely correlated with overall well-being [5]. However, some cultures believe that women retire sexually during menopause. Research suggests that the majority of postmenopausal women pay less attention to their sexual well-being and consider limitations for their sexual activities. They also have negative attitudes towards sexual issues and consider menopause as the end of their sexual life [6]. In general, many societies, including Iran, are reluctant to openly discuss issues of sexuality and consider it a taboo, preventing women from expressing their sexual concerns due to shame and embarrassment [6, 7]. On the other hand, most health professionals do not proactively discuss sexuality issues with service users and consider these issues unimportant [8]. According to Fairchild, many people who have raised their sexual concerns with members of the healthcare team fear that their concerns will be dismissed or considered unimportant [9].

Despite the importance of sexual health, this issue has been neglected in both the policy-making areas of care and the clinical practice of health workers due to its complex nature [10, 11], causing sexual problems in menopause to remain unsolved despite their significant

prevalence, thus resulting in a decline in quality of life [12]. The results of a systematic review revealed that in many cases, sexual counseling services are not provided as expected due to organizational and structural factors such as lack of time and resources as well as some economic, political, and cultural limitations [10]. In some cases, not only do planning and policies fail to provide sexual health services in the centers, but sometimes they are an obstacle to these services [13]. In addition to factors such as lack of time and personnel, McPhillips and Wood (2022) pointed to other factors such as lack of encouragement from management levels. They concluded that organizational and management support is necessary to change positions in dealing with patients' sexual issues [12].

Despite the provision of menopausal health services in the comprehensive adult health services program in Iran, the sexual concerns of postmenopausal women are not adequately and appropriately identified for various reasons such as incorrect cultural beliefs, clients' feelings of shame and modesty in expressing problems related to sexual function and lack of active search about clients' sexual function by healthcare providers. Several studies have emphasized the importance of addressing women's sexual concerns during menopause together with various reasons and obstacles for failure to meet this critical need in the health system [4, 5, 7, 14, 15].

Qualitative research is concerned with discovering and describing people's experiences, leading to deeper awareness, understanding, and insights of complex social phenomena [16]. Considering the differences in the cultural and social context of Iran with other countries as well as the importance of sexual health of women during menopause, this qualitative study aimed to identify strategies to improve the provision of sexual health services during menopause in Isfahan city, Iran.

## Methods

This study is part of a mixed-method research [17] conducted between January 2023 and March 2024 via a content analysis approach.

### Settings, sample and recruitment

The participants of the present study consisted of menopausal women ( $n=19$ ) and healthcare providers ( $n=15$ ) with work experience in providing sexual health services to women in Isfahan city, Iran. The participants were accessed through health service centers, gynecology clinics of educational hospitals related to Isfahan University of Medical Sciences, sexual health clinics, and private offices of gynecologists, psychiatrists, psychologists, midwives, and reproductive health specialists. The inclusion criteria for menopausal women were: a) Iranian

nationality, b) willingness to participate in the study, c) ability to communicate and express experiences, d) at least 12 months being passed since the onset of menopause, e) age range of 40–60 years, f) education at primary level and above, g) having been married and living stably with a spouse, h) having been married for at least one year, i) no history of known psychological disorders requiring medication, j) no history of drug and alcohol use in the woman and her husband, k) absence of premature ejaculation and erectile disorders in husband, l) no history of surgery in woman and her husband such as prostatectomy, hysterectomy, oophorectomy, mastectomy and other breast surgeries, m) no history of stressful events over the past 6 months such as the death of parents, etc., n) absence of any disease that would affect sexual functioning in woman and her husband, including liver, kidney, and lung failure, cardiovascular diseases, malignant diseases, psychological disorders, mood disorders (depression, anxiety), ulcerative colitis, vasculitis, thyroid and adrenal cortex diseases, diabetes, high blood pressure, central nervous system (CNS) disorders, and sexually transmitted diseases (STD). The inclusion criteria for healthcare providers were willingness to participate in the study as well as expertise and work experience (at least 2 years) in sexual health.

The selection of menopausal women was initiated using purposive sampling and then continued with the strategy of maximum variation concerning age, education, occupation, economic conditions, and the time elapsed since menopause. The selection of healthcare providers started

through purposive sampling and continued to achieve maximum variation in work experience. Unwillingness to continue participation in the research at any stage of the study was regarded as the exclusion criterion. Participants were invited to the study through face-to-face meetings or telephone calls, and none of them withdrew from the study after enrollment. The first author (M.M) had no previous relationship with any of the participants or centers. Table 1 presents the demographic characteristics of the participants.

### Data collection

Data collection was conducted using in-depth semi-structured individual interviews and field notes. The first author (M.M) conducted the interviews and recorded field notes. She had 10 years of midwifery experience and was a Ph.D. candidate in reproductive health at Isfahan University of Medical Sciences. The other three authors had previous experience writing qualitative articles/reports and interviews. Since in qualitative studies, the researcher's thoughts, beliefs, and personal feelings about the topic can affect data collection and research results [16], prior to data collection, the first author (M.M) wrote down initial preconceptions and personal views about the study topic based on her previous working experience with menopausal women and from literature review (reflexive journal). Questions, prompts, and guides were provided, being piloted in three pilot interviews. Interviews with postmenopausal women started with questions, such as “*What do you think improves*

**Table 1** Demographic characteristics of participants

Participants	Characteristic	Number
Postmenopausal women (n = 19)	Age (years)	45–59
	Husband's age (years)	47–73
	Duration of marriage (years)	20–30 (5), 30–40 (6), ≥ 40 (8)
	Level of education	Primary or secondary school education (6) High school / Diploma (7) Bachelor's degree (5) Master's degree (1)
	Husband's level of education	Primary or secondary school education (5) High school / Diploma (6) Bachelor's degree (7) Master's degree (1)
	Occupation	Employee (4), Housewife (10), Service job (2), Freelance (3)
	Number of children	1 to 2 children (5), 3 to 4 children (14)
	The time elapsed since menopause (years)	1–19
Healthcare providers (n = 15)	Age (years)	35–59
	Gender	Female (14), Male (1)
	Work experience (years)	7–29
	Expertise	Gynecologist (2), Reproductive health specialist (4), Midwife (3), Psychiatrist (3), Psychologist (3)

*your sexual function during menopause?*”, or *“Please explain how you currently access and use menopausal sexual health services?”*, and were then guided based on the participants’ open and interpretive answers. Interviews with healthcare providers started with questions, such as *“Do you think your current approach to addressing postmenopausal women’s sexual dysfunction is effective and what changes would you suggest?”* or *“Please explain whether there are any specific strategies or interventions that you think would help improve sexual function in postmenopausal women?”*, and were then guided based on the participants’ open and interpretive answers (see Additional files 1–2 for copies of the topic guides). In the present study, no one was present in the interviews except the researcher and participant. The interviews were conducted at the places and times desired by the participants and lasted 45–90 min, and were recorded using a digital audio recorder. Observations of the participants’ non-verbal behaviors and interactions during the interview were recorded by the first author (M.M) as field notes. The interviews continued until data saturation was reached by interviewing 32 persons, with no new code being formed, and all codes previously obtained and duplicated. However, to avoid false data saturation, the researchers conducted another two interviews after repletion of codes in interview NO.32, to be more confident of achieving accurate data saturation, with no new data in the next two interviews. At this point, the researchers concluded that they would stop the data collection and analysis since data saturation had been obtained.

### Data analysis

Data analysis was conducted manually using the conventional qualitative content analysis method according to Graneheim and Lundman’s approach [18], with no software used. The interviews were initially transcribed verbatim and typed immediately after each interview. The interview transcripts were read several times to gain a thorough understanding and enable the first author (M.M) to code the sentences as well as phrases. Once the codes were formed inductively, collections of codes that described similar contents were grouped, creating sub-categories, which were then compared to place those conceptually related under one main category.

### Rigor and trustworthiness

In this study, Lincoln and Guba criteria, including credibility, dependability, confirmability, and transferability were used to establish the accuracy and robustness of the data [19]. To ensure data validity, coded interviews were shared with three participants (menopausal women) in different sessions, whose final comments were used for

revisions. Various methods were also used, including in-depth interviews at different times and places, choosing participants with maximum variation, and a combination of several data collection methods, such as individual interviews and field notes. To enhance the dependability and confirmability of the data, the opinions of three experts were used to match and ensure the compatibility of the findings with the statements of the participants. To augment the transferability of the data, the findings were presented to three postmenopausal women with similar characteristics to participants, who did not participate in the study, to judge the similarity of the study results to their experiences.

### Ethical considerations

The present study was approved by the ethics committee of Isfahan University of Medical Sciences (approval code: IR.MUI.NUREMA.REC.1401.165). To protect the rights of the participants, the research team explained the study objectives and assured the participants that their information would remain confidential. All participants signed written informed consent forms and were assured they could withdraw from the study at any time. In the present study, to comply with ethical considerations, participants who suffered from sexual dysfunction were referred to the relevant specialist.

### Results

Data analysis led to the extraction of 74 inferential codes, 13 sub-categories, and 3 main categories. The main categories included “providing comprehensive and client-centered care”, “improving infrastructure for better service delivery”, and “expanding services as well as enhancing access”. Table 2 reports the examples of codes, sub-categories, and main categories extracted from the data analysis.

#### Providing comprehensive and client-centered care

According to the participants, comprehensive and client-centered care is an essential aspect of providing health services, especially in sexual health. This form of care delivery recognizes the unique needs and preferences of postmenopausal women regarding sexual function and emphasizes the importance of comprehensive care beyond mere physical well-being. Through a focus on the client’s entirety and tailoring care to individual circumstances, healthcare providers can build a strong foundation for building trust, promoting engagement, and ultimately enhancing postmenopausal women’s sexual function. This main category covers five sub-categories, including “screening and active search for recognition and clinical evaluation of sexual dysfunction”, “compliance with cultural considerations in service delivery”,

**Table 2** Codes, sub-categories and main categories extracted from the data analysis

Code examples	Sub-categories	Main categories
<ul style="list-style-type: none"> <li>-Sexual function assessment as part of routine postmenopausal care</li> <li>-Considering issues related to sexual relations along with other menopausal problems</li> <li>-Using standard questionnaires and tools to evaluate sexual function</li> <li>-Performing physical examinations to evaluate the physical factors affecting sexual function</li> <li>-Obtaining a complete medical history and screening to identify underlying diseases affecting sexual function</li> </ul>	Screening and active search for recognition of sexual dysfunction	Providing comprehensive and client-centered care
<ul style="list-style-type: none"> <li>-Understanding cultural values and beliefs affecting the sexual function of postmenopausal women</li> <li>-Considering the influence of culture, religious beliefs, and social norms on sexual relations</li> </ul>	Compliance with cultural considerations in service delivery	
<ul style="list-style-type: none"> <li>-Devising strategies to manage sexual dysfunction tailored to individual needs and preferences</li> <li>-Devising individualized treatment programs aligned with women's interests and values</li> <li>-Devising an individualized treatment plan by evaluating the unique conditions of postmenopausal women</li> </ul>	Tailoring treatment plans for individual patients	
<ul style="list-style-type: none"> <li>-Providing necessary information to clients about available treatment options</li> <li>-Respecting the client's independence in selecting a treatment approach</li> </ul>	Collaborative decision-making approach	
<ul style="list-style-type: none"> <li>-Developing a referral system for sexual function problems in health and treatment centers</li> <li>-Referral to specialists such as gynecologists or sex therapists if necessary</li> <li>-Regular supervision to evaluate the effectiveness of therapeutic interventions and measures taken</li> </ul>	Improving specialty care follow-up	
<ul style="list-style-type: none"> <li>-Allocating private and comfortable rooms for sexual health counseling</li> <li>-Ensuring care service delivery in a safe and supportive environment</li> </ul>	Allocation of appropriate physical space	Improving infrastructure for better service delivery
<ul style="list-style-type: none"> <li>-Commitment to teamwork for sexual dysfunction management and treatment</li> <li>-Developing multidisciplinary teams comprising specialties such as urologists, gynecologists, psychologists, and sex therapists</li> </ul>	Strengthening teamwork and interdisciplinary cooperation	
<ul style="list-style-type: none"> <li>-Allocating financial resources by health systems to ensure all women's access to sexual health services</li> <li>-Health system investment in infrastructure, equipment, and personnel</li> <li>-Developing insurance coverage to provide sexual health counseling services</li> </ul>	Provision of cost-effective services	
<ul style="list-style-type: none"> <li>-Integrating sexual health services into health programs offered to middle-aged women</li> <li>-Integrating sexual health services into mental health services or women's health clinics</li> <li>-Integrating sexual health services into the evaluation of postmenopausal women hospitalized in different departments of medical centers, such as gynecological surgery</li> </ul>	Integration of sexual health services in primary health care	Expanding services as well as enhancing access
<ul style="list-style-type: none"> <li>-Provision of sexual health services using information technology (IT)</li> <li>-Provision of sexual health services using virtual platforms</li> </ul>	Using telemedicine to provide services	

**Table 2** (continued)

Code examples	Sub-categories	Main categories
-Using common human force and resources in public and private centers -Sharing data among the public and private sectors to access evidence-based approaches	Expansion of intersectoral relations	
-Providing information about sexual health services in healthcare centers through notice boards, banners, posters, etc -Preparing and distributing educational materials such as brochures about sexual health services in healthcare facilities	Introducing sexual health services	
-Conducting research for continuous improvement of sexual health services -Evaluating the effectiveness of interventions and identifying the best practices to improve sexual function -Conducting research projects to ensure compliance between services and needs and identify gaps	Conducting research on sexual health services	

“providing tailored treatment plans”, “taking a collaborative approach to healthcare decisions”, and “referral for specialized care and follow-up”.

#### **Screening and active search for recognition of sexual dysfunction**

According to participants, healthcare providers should proactively seek and address sexual function concerns in postmenopausal women. Since women may not initiate conversations on their own, healthcare providers should ask open-ended questions and encourage women to discuss sexual function problems.

*“I think the main issue is the active search for sexual dysfunctions to primarily find them. Most of the time women are not willing or confident to talk directly about their problems.” (P23, A 36-year-old psychiatrist)*

According to the participants, clinical evaluations should include a detailed medical history, physical examination, and, if necessary, laboratory tests. Evaluations should focus on identifying any underlying medical conditions (vaginal atrophy, pelvic organ prolapse, etc.) that may contribute to sexual dysfunction; meanwhile, the women’s psychological health status and any co-morbidities also require consideration.

*“... During menopause, many women experience anxiety and depression, which can aggravate sexual dysfunction. Thus, we should also evaluate the psychological health of this population in addition to their physical conditions.” (P24, A 57-year-old psychiatrist)*

#### **Compliance with cultural considerations in service delivery**

According to the results of the present study, healthcare providers need to recognize and respect the cultural beliefs, values, and practices that may affect postmenopausal women’s sexual performance. Service providers can integrate cultural considerations into care delivery to create a supportive environment in which individuals feel understood and supported in dealing with their sexual dysfunction.

*“... If the care we provide is not in line with the clients’ values and beliefs, they may not return back to the center to seek our advice or assistance.” (P32, A 50-year-old midwife)*

*“...It’s crucial to recognize that when discussing sensitive topics such as sexual and marital relations, we should be mindful of our cultural context. Respecting clients’ beliefs and understanding what matters to them is essential for effective communication and care.” (P26, A 58-year-old psychologist)*

#### **Tailoring treatment plans for individual patients**

According to the participants, each woman’s experience of menopause and sexual function challenges is unique, highlighting the importance of interventions tailored to individual needs. Healthcare providers should offer personalized treatment plans that address the concerns of women during this time. They can tailor interventions based on individual needs and preferences to optimize treatment outcomes and enhance postmenopausal women’s overall well-being in sexual function.

*"... In practice, we should know our audience and their special needs. Therefore, there can be no pre-written instructions, because there are as many different needs and conditions as the number of people." (P28, Ph.D. in Reproductive health, 53 years old)*

*"...Each woman's experience varies depending on age, health, and preferences. Everyone should be compared to themselves as circumstances differ. This personalized approach enhances client satisfaction and improves outcomes." (P20, A 40-year-old gynecologist)*

### **Collaborative decision-making approach**

Participants believed that providers could increase treatment adherence, women's satisfaction, and success in improving sexual function by involving women in treatment discussions, considering their views and preferences, and via shared decision-making about treatment options and the best course of action.

*"... We'd better always provide opportunities for our clients to participate and make informed decisions. I introduce the alternatives to them, try to address their concerns, and illustrate the advantages and potential complications of that method. However, they are the ones who ultimately make the decision, which consequently increases the success of the treatment plan." (P21, A 59-year-old gynecologist)*

*"...Deciding on a treatment approach unilaterally, without the individual's input, removes their agency and participation. This lack of collaboration undermines the potential for genuine commitment to the plan, making it unlikely that they will follow through." (P24, A 57-year-old psychiatrist)*

### **Improving specialty care follow-up**

The participants emphasized the importance of referral for specialized care and follow-up in postmenopausal women with complex problems in sexual function. They believed that healthcare providers should facilitate referrals to specialists who can provide specialized and targeted care tailored to the unique needs and problems of postmenopausal women.

*"... Healthcare providers should refer clients to someone else, such as a psychiatrist or a psychologist in the psychosexual field whenever they cannot solve the problem themselves, or there may be a problem that needs referral to a gynecologist." (P22, A 39-year-old psychiatrist)*

*"...Early intervention can significantly improve outcomes. The initial visit is just the beginning; having a strong referral network is also crucial." (P31, Ph.D. in Reproductive health, 46 years old)*

### **Improving service delivery infrastructure**

The present study emphasized the importance of improving the infrastructure of sexual health service delivery to provide efficient services and improve postmenopausal women's sexual function. This main category covers three sub-categories, including "allocation of appropriate physical atmosphere", "strengthening teamwork and interdisciplinary cooperation", and "provision of cost-effective services".

#### **Allocation of appropriate physical space**

According to the participants, a comfortable, pleasant, safe, and supportive physical environment with privacy helps menopausal women openly discuss their problems related to sexual function. In such an environment, healthcare providers can enhance the quality of care and ensure a satisfying and respectful experience for clients.

*"... To raise sexual issues, there must be a space with a completely closed door. The room used for this purpose should instill a sense of safety." (P33, A 35-year-old midwife)*

*"Personally, I'm not willing to ask any questions about sexual issues from the health center of our neighborhood. I don't think it is appropriate to raise these issues there. One cannot talk about private issues in public!!!" (P11, A 57-year-old postmenopausal woman)*

#### **Strengthening teamwork and interdisciplinary cooperation**

According to the participants, healthcare providers can create a teamwork culture and strengthen interdisciplinary cooperation to improve the quality, efficiency, and effectiveness of sexual health services as well as consider the physical, psychological, and emotional aspects affecting postmenopausal women's sexual function. All these can eventually lead to improved treatment results, increased sexual satisfaction, and enhanced overall well-being of postmenopausal women.

*"... What is happening now is that the gynecologist who visits the patient does not pay attention to the psychiatric aspect of sexual problems. As a psychiatrist, I do not either deal with the gynecologic aspect of sexual problems. Indeed, this should be done through teamwork to free the patient from uncertainty." (P23, A 36-year-old psychiatrist)*



*“...Integrating various specialists leads to a more thorough understanding of the client’s challenges. Each specialist provides a unique perspective, which allows us to tackle the complexities of sexual function issues more effectively.” (P28, Ph.D. in Reproductive health, 53 years old)*

#### **Provision of cost-effective services**

According to the participants, the availability of cost-effective care and ensuring postmenopausal women’s access to required services without facing financial barriers is essential. Providing cost-effective services can help enhance the participation and referral of menopausal women to receive sexual health services while improving compliance with treatment and overall satisfaction with care and ultimately increasing sexual satisfaction.

*“... With the current expenses and the cost of visits, you will not go to the doctor unless you have to. Thus, this issue (sexual problems) does not seem to be a priority.” (P18, A 56-year-old postmenopausal woman)*

*“We need to make sure that no one is deprived of these services (sexual health) because of the cost. Sexual health services are currently somehow only accessible by the wealthy people of the society, who can afford to go to a private clinic and get sexual counseling. However, we should ensure that all people with any budget and income level can access these services.” (P25, A 38-year-old psychologist)*

#### **Expanding services as well as enhancing access**

Participants in the current research emphasized the importance of expanding the scope of sexual health services and enhancing their access to enhance the sexual function of postmenopausal women. This category covers five sub-categories, including “integration of sexual health services into existing services”, “using telemedicine to provide services”, “expansion of intersectoral relations”, “introducing sexual health services”, and “conducting research on sexual health services”.

#### **Integration of sexual health services in primary health care**

According to the participants, healthcare providers can integrate sexual health services into existing health services to ensure that postmenopausal women receive comprehensive care which deals with their sexual concerns along with other medical and public health needs. The integration of services not only facilitates access to sexual health services but also helps to reduce the stigma of discussing sexual issues, ultimately resulting

in the improvement of postmenopausal women’s sexual function.

*“... One of the ways to develop sexual health services is their integration into the programs currently being implemented for menopausal women. We should use these opportunities to expand sexual health issues in the society. This will help reduce the stigma of discussing sexual topics.” (P29, Ph.D. in Reproductive health, 39 years old)*

*“...Although currently we do not have an independent sexual health clinic, the gynecology clinic serves many women undergoing perimenopause and menopause, and our psychology and psychiatry clinic is also well-positioned to incorporate sexual health services. We need to effectively utilize our existing facilities to promote sexual health and expand our services.” (P27, A 42-year-old psychologist).*

#### **Using telemedicine to provide services**

According to the participants, telemedicine is a convenient and effective method for remote access to sexual health services and dealing with barriers such as distance, transportation problems, and geographic restrictions. Healthcare providers can use telemedicine to deliver sexual health services to a wider and more diverse population of postmenopausal women, especially those in deprived or remote areas.

*“... A part of the population lives in villages, some of whom may be in remote or hard-to-reach areas, making their travel to the city difficult. Now the Internet and virtual spaces are available almost everywhere. We should also provide some part of sexual health services through these facilities.” (P20, A 40-year-old gynecologist)*

*“I am very shy about sexual issues. Somehow, I am not comfortable going to talk to a counselor. However, some time ago, I was searching on a medical website and saw an advertisement for online sexual counseling, which feels more comfortable than an in-person visit.” (P19, A 57-year-old postmenopausal woman)*

#### **Expansion of intersectoral relations**

According to the participants, cooperation between public and private sectors can contribute to sharing knowledge and expertise as well as the application of the best practices to address postmenopausal women’s sexual dysfunction. In addition, the expansion of intersectoral relationships facilitates greater coordination plus integration



of services and ensures the application of a more comprehensive approach to improving postmenopausal women's sexual function.

*"... We should be able to use the capacities of the private sector. We can ask the sex therapist who works only in the private sector to cooperate in the governmental clinic for at least one day, thereby trying to address these problems in the best possible way." (P34, A 51-year-old midwife)*

*"...Enhancing communication and collaboration between public and private healthcare sectors would greatly improve the provision of comprehensive sexual health services. This relationship is mutually beneficial, allowing both sectors to utilize each other's expertise and resources to enhance services." (P24, A 57-year-old psychiatrist)*

#### **Introducing sexual health services**

According to the participants, the introduction of sexual health services can help postmenopausal women feel understood, respected, empowered, and supported in seeking sexual healthcare, ultimately leading to improved outcomes and enhanced access to services. Healthcare providers can introduce sexual health services in health centers and boost clients' awareness of issues related to sexual function, thereby promoting a culture of discussion about sexual problems. Introducing sexual health services can also attract clients who might not otherwise seek to address their sexual dysfunction.

*"... Once I went to the health center for a pap smear, and I saw a banner in the hall about sexual education. It was quite new for me. I did not know that they deal with such issues in health centers. It's imperative to provide information in these areas." (P17, A 49-year-old postmenopausal woman)*

*"Health centers should introduce their programs. For example, the banner introducing the services provided in the field of sexual health should be exposed to the public." (P27, A 42-year-old psychologist)*

#### **Conducting research on sexual health services**

According to the participants, healthcare providers can conduct research and evaluate the effectiveness of different approaches to sexual healthcare and service delivery to improve service quality, introduce evidence-based practices, and drive innovation in service delivery. Research can also help identify gaps in care, guide resource allocation, improve planning and service

delivery, and ultimately ensure better access to sexual health services.

*"Research in sexual health is critical. Research projects should be carried out on the measures taken in this field to make sure that the services provided and measures taken are tailored to the needs of the society and actively identify the potential problems or defects." (P30, Ph.D. in Reproductive health, 45 years old)*

*"Research in sexual health helps us remain up to date and ultimately improves the quality of our services while giving us a more comprehensive view of the diverse needs of our clients." (P22, A 39-year-old psychiatrist)*

#### **Discussion**

The present study sought to identify strategies to improve the provision of sexual health services during menopause in Isfahan city, Iran. Based on the research findings, it is necessary to provide comprehensive and client-centered services as well as care to improve sexual function during menopause. In the health system, quality is defined as safe, timely, effective, efficient, fair, and person-centered care provision. Person-centered care (PCC) is one of the six areas expressed about the quality of the health system and a vital issue in the development of care quality, which is currently a global concern [20]. While sexual healthcare is an important part of comprehensive care, healthcare providers and patients do not routinely discuss patients' sexual problems [21]. According to the results of the present study, healthcare providers should incorporate routine screening protocols and proactively look for signs of sexual dysfunction to identify potential problems in the early stages as well as provide appropriate support and treatment. Early diagnosis of disorders can also lead to timely interventions and better results, highlighting the importance of preventive identification and evaluation of sexual dysfunction in postmenopausal women, which represents a research gap. A review study by Ezhova et al., (2020) revealed that barriers to seeking and receiving advice and treatment for sexual health in later life clearly exist and are both related to cultural and social factors, including cultural and social views and beliefs about sexual health, stigma, embarrassment, discrimination, lack of education, and the quality of the relationship between patients and are health professionals [22].

Ghazanfarpour et al., (2017) indicated that several factors such as traditional, cultural, and religious beliefs act as an inhibitory force for menopausal women to ask

physicians and midwives for help regarding their sexual concerns [15]. Khadivzadeh et al., (2018) found that as midwives become more experienced, their own or their patient's shame could have less influence on the midwives' hesitance to address the respective issues for their patients. The subjects believed that menopausal women called healthcare providers only when they reach the acute stages of physical problems such as pelvic organ prolapse, severe vaginal dryness, or emotional stresses such as marital infidelity [7]. The results of the present study also demonstrated that postmenopausal women usually do not refer to gynecology or psychology clinics for sexual dysfunction evaluations and such disorders are detected during their visits for other reasons. Note that failure to initiate a sexual health assessment by the healthcare provider due to the patient's inability to express this need will lead to neglect of this vital component of health [23]. Thus, healthcare providers should use a proactive, integrated, and client-centered approach to sexual health and start the conversation by asking clients to talk about sexual issues. Using sexual history to discuss and address sexual health status allows clients to express their concerns without embarrassment [24].

Several definitions of PCC have been presented, one of which is the definition of the Medical Institute, which means providing care that is respectful of and responsive to individual patient preferences, needs, and values and ensuring that patient values guide all clinical decisions [20]. The findings of the present study revealed that understanding and respecting the cultural background and diverse beliefs of postmenopausal women is vital for strengthening trust and ensuring respectful service provision tailored to individual needs. Atallah et al. also reported that the lack of awareness of different cultural customs, along with factors such as traditionalism, religion, polygamy, machismo, and feminism influence sexuality and cultural ideas about sex roles and behaviors. Thus, service providers should assess patients and their sexual partners in the cultural context, where both physicians and researchers need to develop culturally sensitive assessment skills and tools [25].

As highlighted in the present study, healthcare providers should adopt a comprehensive approach to address sexual dysfunction through a treatment plan based on individual needs at this stage of life. Each individual has a unique experience with menopause and sexual function issues, and treatment plans should be tailored to their specific needs and preferences. Healthcare providers can boost the effectiveness of interventions by tailoring interventions to align with individual goals and concerns. However, this requires a deeper understanding of the complexities of menopause and its impact on sexuality in women. The results of a systematic review revealed that

the experience of menopause is influenced by the beliefs and values common in the socio-cultural environment, background, and ways of addressing changes in this stage of life. Irrespective of the circumstances involved, women experiencing menopause need to have their care needs and corresponding support identified based on their personal and contextual perspectives and tailored to individual needs, preferences, and expectations [26].

Based on the present study, shared decision-making and referral for specialized care highlight the need for a personalized approach to the management of sexual dysfunction during menopause. Effectively engaging women in the decision-making process enables them to actively participate in their care and ensures that the interventions employed are aligned with their values and preferences. These findings are in line with the definition of PCC, which involves putting people at the center of their healthcare and making them equal partners in decision-making to achieve better results with professionals. PCC is not only about giving information to the patients, but also paying attention to their wishes, values, family conditions, social status, and lifestyle to find the most appropriate care provision strategy [27]. In this regard, Ahmed et al., (2022) stated that the core of achieving PCC is informing and engaging people in healthcare, shifting the focus of healthcare from the disease to the patient, and subsequently promoting their well-being. In addition, a person-centered approach can help reduce information asymmetry among patients and doctors, leading to more effective health care. In the person-centered approach, the doctor provides more information about the treatment plan to the patient, thus filling the information gap between the patient and the doctor and leading to better decision-making [28].

The present study emphasized the importance of infrastructure improvement for providing sexual health services, revealing that appropriate physical space is essential to create a pleasant and private environment for sexual health service provision. The participants believed that providing private counseling rooms and a pleasant, supportive, and comfortable environment could help enhance their willingness to discuss sensitive topics such as sexual function. A qualitative study conducted to explain the factors related to the provision of sexual health services by midwives in comprehensive health centers in Iran found the limitations of providing sexual health services as one of the main themes. The participants believed that problems such as lack of time, a large number of clients, and inappropriate space for sexual counseling as well as discussion were obstacles to providing sexual health services to the clients of health centers [13]. According to Moghaddam-Banaem et al., (2018) countless structural

problems of health centers, such as the lack of a special counseling room and the presence of several employees in one room, demonstrate the ineffectiveness of these centers in responding to the sexual concerns of clients. Hence, the majority of employees and clients did not consider the environment of the centers suitable for raising sexual issues [14].

Based on the present study, strengthening team performance and interdisciplinary collaboration is imperative to provide efficient sexual health services. According to the participants, healthcare providers can foster a team approach and collaboration among specialists from different disciplines, including gynecologists, psychologists, psychiatrists, and other specialists, to take advantage of different expertise and perspectives to address the complex and multifaceted nature of menopausal sexual dysfunction. Although sexual health is inherently interprofessional, the lack of interprofessional care is a common criticism of education and treatment in this area which has historically received scant attention [29]. McCabe et al., (2010) believed that in many cases, neither psychotherapy nor medical intervention alone is sufficient for persistent resolution of sexual problems, necessitating collaboration between doctors from different disciplines in assessing, treating, and educating on sexual dysfunction issues [30]. Interprofessional Collaboration (IPC) requires health professionals to take a holistic view of their clients' concerns, especially regarding multifaceted problems such as sexual dysfunction [29]. Chua et al., (2019) also argued that female sexual dysfunction is a multifactorial condition that requires a biopsychosocial approach for holistic management. IPC improves patient satisfaction in the management of sexual dysfunction and helps develop a standardized care plan. In addition, Interprofessional Education (IPE) is necessary to ensure effective collaboration between different healthcare professions [31]. It is obvious that when IPE is integrated into the education of students from diverse health professions, future professionals can be better equipped to collaborate more comprehensively and effectively.

According to the present research, it is imperative to ensure the cost-effectiveness of sexual health services for postmenopausal women. The participants believed that health organizations should identify opportunities to reduce costs while implementing strategies to simplify processes and improve the efficiency plus cost-effectiveness of sexual health services for postmenopausal women. Moghaddam-Banaem et al., (2018) also found that economic poverty is one of the explanations for women's reluctance to attend health centers to receive sexual health services. The participants stated that the high costs of diagnostic and treatment evaluations were one of the main reasons for their non-referral [14].

The results of the present study emphasize the importance of expanding services and enhancing access as a solution to improve sexual function during menopause. According to the findings, healthcare providers can expand the clients' access to services and improve the quality of care by integrating services into existing ones, using telemedicine, strengthening intersectoral relations, introducing sexual health services, and conducting research on sexual health services. Overall, the expansion of services helps to boost the effectiveness of interventions and ultimately enhance postmenopausal women's sexual function. According to the present study, healthcare providers can integrate sexual health services into existing health services to ensure postmenopausal women's access to comprehensive care that addresses both their general health needs and their sexual health concerns. Further, the integration of sexual health assessments and interventions in primary care facilitates early diagnosis and management of sexual dysfunction during menopause. In this regard, a study found that the "linkage" of providing sexual and reproductive health services and integrating them into the primary health care (PHC) system is among the priority strategies for health centers to respond to issues related to women's sexual health, through which the improvement of the services of the centers will be realized while providing full sexual needs [14, 32].

According to the present study, expanding services and enhancing access highlight the importance of implementing innovative strategies to increase the provision of sexual health services in the health system. The use of telemedicine for service delivery underscores the potential of technology to expand access to sexual health services for postmenopausal women, particularly those in deprived or remote areas. The participants believed that telemedicine platforms would allow healthcare providers to offer virtual counseling, follow-ups, and education related to sexual function, overcoming barriers related to geographic distance, mobility limitations, and stigma. Health systems can use telemedicine to improve women's access, convenience, and participation in receiving sexual health services. However, according to Dooley et al., (2020), although telemedicine plays a vital role in the diagnosis and treatment of people with sexual dysfunction, currently only a few urologists, sex therapists, social workers, psychiatrists, obstetricians and gynecologists, and emergency specialists utilize this technology. Nevertheless, this technology will quickly replace other methods soon thanks to its countless advantages, including saving time, energy, and money, encouraging many service providers to integrate it into sexual medicine [33].

As emphasized by the present study, healthcare providers can introduce sexual health services that focus

on prevention, education, evaluation, and treatment of issues related to sexual function, promoting the necessary information in this field and enhancing postmenopausal women's interest in the existing services and programs. Shirpak et al., (2010) highlighted the lack of clients' awareness of the sexual health service provision in health centers and indicated that in Iran, a significant part of reproductive health care includes family planning, pre-marital counseling and education, etc. However, all these services are provided in the form of reproductive and family health units, failing to mention sexual health services under these areas, which is potentially why the participants in this study did not know that they could receive sexual health services from these centers [34]. Therefore, the introduction of sexual health services reflects the commitment to address this vital aspect of health and quality of life during menopause. The results emphasize the importance and value of continuous research and evaluation of sexual health services. Health systems can research the effectiveness of interventions and models of health care delivery to continuously improve their practices and provide services tailored to the needs of postmenopausal women seeking to address their sexual dysfunction. Research also contributes to the advancement of knowledge in this field while providing evidence-based practices and policies.

### Strengths and limitations

The present study for the first time provided a clear insight into the solutions related to service delivery in the health system to improve the sexual function of postmenopausal women in Iran, ultimately contributing to the design of necessary interventions in this neglected area of health. One of the strengths of the current study was that it used the opinions of postmenopausal women in addition to the views of healthcare providers to derive effective solutions. However, the mentioned potential barriers to implementing the proposed strategies in the provision of sexual health services that could affect their feasibility and effectiveness have not been addressed, leading to possible limitations. Also, in the present study, participants' answers regarding alcohol and drug use were relied upon, which can be considered as a limitation.

### Implications and recommendations

Identifying strategies to improve the provision of sexual health services throughout menopause can facilitate evidence-based policymaking and provide the grounds for planning and making necessary changes in the health system. In addition, the results can contribute to informing healthcare providers as well as drawing their attention to understanding and evaluating the sexual dysfunction of

postmenopausal women. Healthcare providers can use the proposed solutions to deal with women's problems and enhance their sexual function, thus improving their quality of life during this period. The results can also set the grounds for further research in this field, leading to the identification of novel research areas.

### Conclusion

The current study highlighted the importance of providing sexual health services to improve postmenopausal women's sexual function through strategies such as providing comprehensive and client-centered care, improving service delivery infrastructure, and expanding services and increasing access. Healthcare providers and policymakers can employ these results to deal with the problems of postmenopausal women's sexual dysfunction, consequently contributing to policymaking, planning, and designing successful interventions in this field.

### Abbreviations

WHO	World Health Organization
CNS	Central Nervous System
STD	Sexually Transmitted Diseases
PCC	Person-Centered Care
IPC	Interprofessional Collaboration
IPE	Interprofessional Education
PHC	Primary Health Care

### Supplementary Information

The online version contains supplementary material available at <https://doi.org/10.1186/s12913-025-12278-8>.

Supplementary Material 1.

Supplementary Material 2.

### Acknowledgements

We should thank the Vice-chancellor for Research of Isfahan University of Medical Sciences for their support.

### Authors' contributions

MM, MN, FM and MB contributed to the conception and design of the study. MM drafted the first version of the manuscript. MN, MB, FM revised the manuscript. MN critically reviewed the manuscript for important intellectual content. All authors approved the final version.

### Funding

Financial support by Isfahan University of Medical Sciences, Research proposal No: 3401565.

### Data availability

The datasets generated and/or analyzed during the current research are not publicly available as individual privacy could be compromised but are available from the corresponding author on reasonable request.

### Declarations

#### Ethics approval and consent to participate

The Ethics Committee of the Isfahan University of Medical Sciences in Isfahan, Iran approved the protocol of this study (code number: IR.MUI.NUREMA.REC.1401.165). Written informed consent is taken from each participant. In



this study, all methods were carried out in accordance with the Declaration of Helsinki.

# Consent for publication

Not applicable.

# Competing interests

The authors declare no competing interests.

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Received: 13 September 2024 Accepted: 15 January 2025

Published online: 20 January 2025

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