



Menopausal symptoms among middle-aged women and care providers' readiness to deliver menopausal services: an observational study in Kavrepalanchok, Nepal

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Abstract: Health care needs of menopausal women and availability of corresponding services through health systems are under-researched. This two-stage observational study examined the prevalence of menopausal symptoms among middle-aged women in four rural and semi-urban communities in Kavrepalanchok, Nepal and explored sexual and reproductive health (SRH) care providers' readiness to provide menopausal health care. We recruited 252 women aged 40-59 years in the pre-, peri- and postmenopausal phases of the menopausal transition, and interviewed 20 SRH primary care providers. The cross-sectional survey provided data on the prevalence of menopausal symptoms, disaggregated by women's socioeconomic characteristics, health behaviours and biological features, while data on the knowledge, skills and willingness of SRH care providers to deliver menopausal care were derived from interviews. Most women (84.9%) reported experiencing one or more adverse menopausal symptoms. Socioeconomically and geographically marginalised women were more likely to report experiencing severe menopausal symptoms that would require medical assistance than their more privileged counterparts. Sexual and reproductive health service providers were willing, albeit with limited knowledge and skills, to assess menopausal women's needs and provide menopausal care. They recommended incorporating menopausal care in SRH policies and training and logistics to provide the services. Culturally, economically and geographically marginalised women experienced a higher prevalence of menopausal symptoms. Sexual and reproductive health policies and programmes of the government should expand beyond women of childbearing age or adolescents to include menopausal women's needs. DOI: 10.1080/26410397.2022.2141255

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Introduction

Globally, 32.5% of women were aged 50 years or more in 2021, thus indicating a large proportion of the total female population undergoing menopausal transition. Although menopause occurs naturally as part of the human ageing process, a range of adverse health outcomes affect women in varying forms and degrees of severity during and after the menopausal transition. These include changes in the central nervous system; skin, mucosa and hair; body weight and metabolism; sexual function; urogenital system and the musculoskeletal system. The experiences

and reporting of menopausal symptoms vary considerably across global regions, influenced by the variations in physical and social circumstances in which women live in these societies.³ For example, vasomotor symptoms (hot flushes) were reported more commonly among European women (74%) than North Americans (36–50%), Latin Americans (45–69%) and Asians (22–63%).⁴

Several treatments are available for adverse health outcomes related to menopausal symptoms. Of these, hormone replacement therapy, using oestrogen (conjugated equine oestrogens, synthetic conjugated oestrogens) and

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progestogens (synthetic progestins and progesterone), remains the most widely recommended medication. Despite its effectiveness in mitigating menopausal symptoms. HRT is associated with elevated risks for several chronic conditions including stroke, venous thromboembolism, gall bladder disease and breast or ovarian cancers. and there is some debate as to whether shortterm benefits should outweigh possible longerterm consequences. 5-8 Other options exist, including non-hormonal medicines such as clonidine, citalopram, escitalopram, paroxetine, fluoxetine, desvenlafaxine, gabapentin and pregabalin; or procedures such as cognitive behavioural therapy and hypnosis. 9 Complementary and alternative medicine is also available, with limited evidence for efficacy. 10 Non-medical management of menopausal symptoms includes eating a healthy and balanced diet, regular physical exercise and maintaining a healthy body weight.^{5,7}

It is established that a continuum of care across the life course is essential to promoting optimal levels of sexual and reproductive health (SRH) in women. 11-13 However, the needs of middle-aged women receive considerably less priority than what is needed in most settings. 14 For example, SRH policies and programmes implemented by the Government of Nepal and its partners in the donor, bilateral- and multi-lateral cooperation agencies (including United Nations agencies) and non-governmental organisations, have focused on reducing maternal deaths through attention to services available at antepartum, childbirth and postpartum periods, and delivering contraceptives to adolescents. The health and social care needs of Nepali women beyond their childbearing age (nearly a fifth of all Nepali women) are excluded from governmental efforts, that focus on reproductive issues, as reflected in the Reproductive Health Strategy 1998, Safe Motherhood Policy 1998, National Health Policy 2019 and Safe Motherhood and Reproductive Health Rights Act 2018. 15,16

There is limited evidence on the health care needs of menopausal women in Nepal. In particular, there are no studies about menopausal health from the central hilly parts of the country. A few population-based studies have reported wide variations (28.8% to 98.8%) in the prevalence of menopausal symptoms. ^{17–20} Given the widely differing study designs and sampling procedures of these studies, available data are insufficient to conclusively estimate the magnitude of menopause-

related health problems in the population. Other than by age group and ethnicity, these studies have not disaggregated the prevalence of menopausal symptoms and their severity by women's biological, behavioural or social characteristics. Moreover, frontline health care workers' preparedness to respond to the health care needs of menopausal women in countries like Nepal remains under-researched.

To address these gaps, we assessed the prevalence of reported menopausal symptoms among women in all three phases of the menopausal transition and examined associations with their socioeconomic situation. We also explored the readiness of SRH service providers serving in the primary care system to provide menopausal health care.

Methods

Study design

We adopted a two-phase observational design comprising a quantitative survey followed by a qualitative exploration. The cross-sectional survey was conducted among menopausal women in January 2017, measuring the occurrence of menopausal symptoms. In the ensuing three years, we disseminated the results among policymakers and implementers in the Ministry of Health and Population and also made field observations on SRH services delivered through the government's health care system. Subsequently, from March to April 2021, we examined whether the government's SRH service providers at the primary care level were ready to provide health services responding to such needs.

Setting

We conducted fieldwork for both phases in Kavrepalanchok district of Bagmati province, Nepal. Study sites included Panauti town of Panauti Municipality, and villages of Bhumlutar in Bhumlu Rural Municipality; Patlekhet in Namobuddha Municipality, and Rayale in Panauti Municipality. According to data from the latest census in 2011, human development index for Kavrepalanchok was 0.520, thus ranking it 60th of the then 75 districts, although slightly higher than the national average of 0.49. Within the district, Panauti is one of the major cities with rapid urban development; Patlekhet is a village close to the district headquarters, while Rayale and Bhumlutar are remote villages. Together, these locations

featured a blend of rural and urban communities with diverse economic classes, ethnicities, and occupations. However, they would not necessarily represent the country.

Participants

The initial survey recruited 40–59-year-old women, chosen to include those in pre-, periand postmenopausal phases, based on the average age at onset of natural menopause among Nepali women, ranging from 47.0 to 49.9 years. ^{18,21} In the qualitative component, indepth interviews were conducted among health care workers who were directly involved in delivering routine SRH services in the government's primary care facilities located in the town and villages where the menopausal women were sampled from. Respondents included auxiliary nurse midwives,* auxiliary health workers,† health assistants,‡ staff nurses,§ and a medical officer.**

Sampling procedures and size

From Kavrepalanchok, six of the 13 wards in Panauti municipality and two of the nine wards in the three villages of Patlekhet, Rayale and Bhumlutar were sampled randomly.

At the ward level, eligible women were enumerated using the 2017 general election voter list obtained from the District Election Office. Women aged 40–59 years were then enumerated

*Auxiliary nurse midwives are trained for 18 months prior to their deployment for delivering antenatal care for pregnant women, administer tetanus toxoid vaccine, assist normal childbirth, identify signs of high-risk labour and make necessary referrals, provide Basic Emergency Obstetric Care, Family Planning services, and nutrition counseling.

[†]Auxiliary health workers are trained for a year following completion of secondary school qualification. They provide preventive and promotive health services to people in the community through a health post or primary health care centre.

[‡]Health assistants undergo a 3-year training after secondary school. They provide promotive, preventive and curative services and are in charge of health posts.

§Staff nurses are trained for 3 years after secondary school. They provide clinical care based in a health post, a primary health care centre or a hospital.

**Medical officers are trained for 5 years after post-secondary education. They provide clinical care based in primary health care centres (where they may also serve as in-charges) or hospitals.

with assistance from Female Community Health Volunteers (FCHV)†† residing and working in the respective wards. We finally applied systematic random sampling among the women thus enumerated.

Based on the prevalence of menopausal symptoms $(81\%)^{21}$ obtained from a study conducted among Nepali women in 2014, a finite population factor of 36,007 women aged 40–59 years in Kavrepalanchok, a precision of 0.05, and assuming non-response of 10%, our estimated sample size was 260. Of the 260 women approached for interviews, two were excluded as their menstruation stopped unnaturally after surgical removal of the uterus, three declined to participate, and responses from the other three were incomplete. Therefore, we included a total of 252 women in the quantitative survey.

We held in-person meetings with the Chief of the Health Office in Kavrepalanchok and subsequently with co-ordinators of the health section in all four municipal offices, soliciting information on actively serving SRH service providers in the primary health care facilities located in the sites selected for the study. Based on a discussion with the official in charge of the health facilities, we then chose for the in-depth interviews 20 health care providers who were directly involved in delivering SRH services in government primary care facilities situated in the menopausal women's residential locations. Respondents included nine auxiliary nurse midwives, four auxiliary health workers, four health assistants, two staff nurses and a medical officer.

Data collection

DA, assisted by local FCHVs and a schoolteacher, conducted structured in-person interviews in Nepali language among the women using a questionnaire that included rating scales for 11 menopausal symptoms, questions about socioeconomic characteristics, health status (including reproductive morbidities), and health behaviours related to menopause. In-depth interviews with SRH service providers in the second stage of the study were also conducted by DA, assisted by a trained

^{††}In Nepal's governmental health care system, Female Community Health Volunteers are nominated by meetings of local Mothers' Groups and work as a bridge between the community people and health care facilities in the areas of maternal, child and SRH services.

public health professional. The interviews were conducted in their respective health facilities in Nepali language, using a guideline consisting of topics on knowledge about the sexual and reproductive health of women and menopause, availability of services, barriers to service provision and readiness to provide SRH services to menopausal women. The interviews lasted between 19 and 47 minutes.

Definitions and tool used

Menopausal stages

The criteria recommended by the Staging of Reproductive Ageing Workshop (STRAW) + 10 classification²⁴ were used to define stages of menopause. Women who reported their menstruation as: "regular as before" in the past two cycles were categorised as pre-menopausal; "irregular" in the past two cycles with a difference of more than seven days, peri-menopausal; and "not menstruated" in the past 12 completed months, as post-menopausal.

Perceived health status

To define the perceived health status, respondents were asked to rate their own health as good (doing well and optimum), medium (have some feeling that their health is not perfect but do not think they need health care support) and bad (they think that they have some health problem and need health care support).

Pre-existing chronic diseases

The presence of pre-existing chronic diseases was considered as experienced by the women with or without diagnostic confirmation or undergoing medication. The following diseases were reported: diabetes, hypertension, cancer, asthma, and thyroid disorders.

Pre-existing reproductive morbidities

Pre-existing reproductive morbidities were recorded as experienced by the women, with or without diagnostic confirmation or undergoing medication. Reported conditions were: abnormal, foul-smelling discharge from the vagina, lower abdominal pain, redness and itching around the vulva, and abnormal vaginal bleeding.

Tobacco and alcohol use

Participants who reported currently consuming any one of the smoking or smokeless tobacco on a daily basis were categorised as tobacco users. Those currently consuming any form of alcohol with a frequency anywhere between once in a month to daily were categorised as alcohol users.

Use of hormonal contraceptives

Women who reported currently using one of the hormonal contraceptives among Depo-Provera, implant and oral contraceptive pills during the interview were defined as users of hormonal contraceptives.

The menopause rating scale

Menopause Rating Scale (MRS) was developed by Berlin Centre for Epidemiology and Health Research in the 1990s to assess ageing symptoms in women and their effect on health related quality of life. It has been used widely across the world to date. MRS consists of 11 symptoms categorised as somatic, psychological and urogenital and was designed for use by non-specialists or lay women to identify and characterise their menopausal symptoms. Each symptom was scored between zero (for no complaints) to four (for very severe manifestation). Thus the total score would range from zero to 44.25 A previous study validated MRS among Nepali menopausal women and reported a cut-off score of 16 to predict the need for gynaecological assistance for menopausal symptoms. MRS was reported to have a sensitivity of 69.3% and specificity of 76.9% at the cut-off score. 18

Analysis

We first calculated frequencies and proportions of menopausal women disaggregated by each of the socioeconomic categories. Then, the prevalence of somatic, psychological and urogenital symptoms of menopause was calculated separately for preperi- and post-menopausal women. Proportions of women (with 95% confidence intervals) who were likely to require gynaecological care for their menopausal symptoms (MRS ≥ 16) and those who may not need such assistance (MRS < 16) were calculated for women grouped by socioeconomic categories. Such disaggregation allowed us to identify which groups of women were at greater risk of being affected by menopausal disorders.

Audio-recorded interviews with the health workers were transcribed in Nepali language by a trained public health professional. We scrutinised the transcriptions for accuracy and completeness and validated them with interview notes. Verified transcripts were read several times to obtain the manifest and latent meaning of the responses and to identify the content areas. Textual data were grouped into four categories, each consisting of closely related content areas. We thus developed four themes, containing a synthesis of interview responses related to (a) knowledge about menopause, (b) available services and perceived solicitation, (c) barriers to utilising services and (d) readiness and requisites for providing menopausal health care.

Data availability

De-identified data will be available from the corresponding author upon justifiable request.

Ethics statement

Research purpose, process, including techniques, the role of the respondents, estimated time required and potential risks were explained verbally to the participants. They were also advised that they may opt out of the interviews at any time without giving any reason, should they wish to do so. Those who agreed to participate were asked to sign the consent form or affix their thumbprint before starting the interviews. The collected data were anonymised, and stored securely with access to the authors only. Ethics approval for the 2017 survey was given by Institutional Review Committee. Institute of Medicine. Tribhuvan University on 14 September 2016 [92(6-11-E)2/073/074], and the Ethical Review Board of Nepal Health Research Council [68/2021 P. Ref. 2177] cleared the proposal for the 2021 round on 16 February 2021.

Results

Characteristics of the participants

Mean age of the 252 women was 48.24, with a standard deviation of ± 5.69 . A majority of them (59.1%) were below 50 years of age. A fifth of them were pre-menopausal, nearly a third were peri-menopausal and close to half were in the post-menopausal stages. Nearly half of the women belonged to the privileged castes of *Brahmin* or *Chhetri*; followed by ethnic and indigenous groups, collectively called *Janajatis*; and less than a tenth belonged to the culturally oppressed *Dalit* caste group. Most of the women were married and living with their husbands, while about a fifth were either widowed or separated. Almost two-

thirds of the women were literate (able to read and write Nepali script, without attending formal school education) or completed primary (up to 5 years of schooling) or secondary (up to 10 years of schooling) education, and the remainder had no formal education. Agriculture was the most common occupation, followed by running small retail shops for consumable goods such as groceries or clothes. Less than a tenth were formally employed in public or private organisations, and a similar proportion was informally employed as labourers.

Twenty SR health care providers, of whom 17 were women, serving in six Health Posts, a Primary Health Care Centre, and a Municipal Hospital, participated in the in-depth interviews. Eight of them had been working for less than five years, five of them from six to 10 years and seven had a long experience of 10 to 24 years.

Self-reported symptoms experienced by women during the menopausal transition

As illustrated in Table 2, of the 11 symptoms included in MRS, joint and muscular discomfort (84.9%) and sexual problems (71.8%) were the most common physical manifestations, irrespective of the stage of the menopausal transition. Similarly, the prevalence of psychological symptoms was consistently high (reported by more than 65% of the respondents) across the stages, but the nature of the problems varied slightly across the three stages. Reporting of joint and muscular discomfort (90%) and sexual problems (80%) was particularly high among pre-menopausal women. Hot flushes and sweating, dryness of the vagina, and bladder problems (including difficulty in urinating, increased need to urinate and incontinence) were among the least common menopausal symptoms.

Severity of menopausal symptoms

Considerable variations were observed in the severity of menopausal symptoms, with the MRS score ranging from zero to 40 (on a scale of zero to 44), a mean of 16.8 and a standard deviation of 8.2. A majority of the women would require gynaecological assistance to manage their menopausal symptoms, as illustrated in Tables 3 and 4. Menopausal symptoms that necessitated referral to a gynaecologist (MRS score ≥ 16) disproportionately affected underprivileged women, such as the *Dalit* caste group, women with little or no

Table 1: Socioeconomic characteristics of the women who participated in the quantitative survey (n = 252)

| Characteristics | Number | Percentage |
|---------------------------------|-----------|--------------|
| Age (in years) | | |
| 40-44 | 79 | 31.3 |
| 45-49 | 70 | 27.8 |
| 50-54 | 61 | 24.2 |
| 55-59 | 42 | 16.7 |
| Mean ±SD | 48.24 | |
| | ±5.69 | |
| Ethnicity | | |
| Brahmin/Chhetri | 123 | 48.8 |
| Janajatis | 110 | 43.7 |
| Dalit | 19 | 7.5 |
| Marital status | | |
| Married and living with | 201 | 79.8 |
| husband | 201 | 79.0 |
| Widowed | 37 | 14.7 |
| Separated | 14 | 5.6 |
| -1 1 | | |
| Educational achievement | 07 | 245 |
| Illiterate | 87 | 34.5 |
| Literate | 111 44 | 44.0 17.5 |
| Up to secondary level | 44 10 | 4.0 |
| Above secondary level | 10 | 4.0 |
| Occupation | | |
| Farmer | 111 | 44.0 |
| Shopkeeper | 53 | 21.0 |
| Housewife | 50 | 19.8 |
| Formal job holder | 18 | 7.1 |
| Wage labourer and similar other | 20 | 7.9 |

formal education, farmers and labourers, and those living in rural areas.

As in the case of socioeconomically disadvantaged women, those with a sub-optimal general health situation were affected by severe menopausal symptoms. Women with perceived bad general health, chronic diseases and reproductive health conditions were more likely to need health care for their menopausal disorders. However, the use of hormonal contraceptives did not affect their menopausal experience.

Sexual and reproductive health care workers' readiness to provide menopausal health care

Key informant interviews with SRH service providers yielded a wealth of information about their readiness to provide menopausal care and the barriers they perceived in providing such care. We present the findings from these interviews under four main themes:

- knowledge about menopause and menopausal care.
- available services and perceived demand for services.
- perceived barriers to providing menopausal services, and
- willingness to provide menopausal services and essential prerequisites.

Knowledge about menopause and menopausal care

While the SRH service providers were somewhat cognisant of menopause and a few related symptoms that would follow, they did not possess adequate knowledge or the skills needed to identify the unique health care needs of menopausal women.

SRH service providers possessed theoretical knowledge that menopause (which they referred to as Mahinaawaari sukne, literally meaning drying up of monthly periods) is characterised by a cessation of menstruation. However, their ability to relate adverse symptoms or outcomes to menopause remained inadequate. Only one among the twenty respondents described that menopause is said to occur when a woman's periods dry consistently over a 12-month duration. Although all participants ascribed menopause as a natural process in a woman's life which is related to hormonal changes, they were unable to explain in specific terms what "a natural process" entails, or what the common manifestations of menopause are.

"It is a natural process. As women cross the reproductive age of 15-49 years, their hormone level goes down, and that results in menopause." (Auxiliary nurse midwife from a health post)

Some of them mentioned a few somatic symptoms, such as joint pain and hot flushes, and psychological symptoms, including feelings of

| Table 2. Prevalence of self-reported | menopausal | symptoms | through | the menopausal |
|--------------------------------------|------------|----------|---------|----------------|
| transition | | | T. | |

| Menopausal symptoms | Prevalence n (%) by stages of the menopausal transition | | | | |
|----------------------------------|---|------------------------|------------------------|----------------|--|
| | Premenopause n=52 | Perimenopausal n=79 | Postmenopause n=121 | Total n=252 | |
| Somatic | | | | | |
| Hot flushes, sweating | 28 (53.8) | 48 (60.8) | 76 (62.3) | 152 (60.3) | |
| Heart discomfort | 27 (51.9) | 57 (72.2) | 85 (69.7) | 168 (66.7) | |
| Sleeping problems | 27 (51.9) | 57 (72.2) | 96 (78.7) | 179 (71.0) | |
| Joint and muscular discomfort | 47 (90.4) | 62 (78.5) | 106 (86.9) | 214 (84.9) | |
| Urogenital | | | | | |
| Sexual problems | 42 (80.8) | 60 (75.9) | 80 (65.6) | 181 (71.8) | |
| Dryness of vagina | 31 (59.6) | 54 (55.7) | 67 (54.9) | 151 (59.9) | |
| Bladder problems | 23 (44.2) | 49 (62.0) | 74 (60.7) | 145 (57.5) | |
| Psychological | | | | | |
| Depressive mood | 37 (71.2) | 68 (86.1) | 91 (74.6) | 195 (77.4) | |
| Irritability | 38 (73.1) | 67 (84.8) | 84 (68.9) | 188 (74.6) | |
| Anxiety | 37 (71.2) | 61 (77.2) | 81 (66.4) | 178 (70.6) | |
| Physical and mental exhaustion | 38 (73.1) | 20 (25.3) | 100 (82.0) | 196 (77.8) | |

depression, anxiety, forgetfulness and sleeping disorders, as resulting from menopause. However, sexual problems were not explored or discussed. When asked what types of sexual health problems they observed in menopausal women, a health worker responded:

"We have no idea about it. Women also don't talk (about it). We haven't even asked about it from our side."

(Health assistant in a health post)

Some other misdiagnosed conditions, such as increased vaginal white discharges and uterine prolapse, as the signs of menopause. Others confused menopausal symptoms with other reproductive morbidities such as sexually transmitted infections, pelvic inflammatory disease and dysfunctional uterine bleeding – and thus prescribed medicines used for treating those conditions or referred the women to better-resourced health facilities (usually higher centres).

Others lamented that diagnosing menopausal symptoms among the users of hormonal contraceptives was difficult.

Some health workers recognised that women in this stage of life need SRH care. However, they were not able to clearly explain the gravity of the problems, the type of support the women might need and how primary health care workers at the local level can support them. Others said that only a fraction of this population needs menopausal health services.

"Such health problems may affect 50–70% of women."

(Auxiliary nurse midwife working for seven years in a Health Post)

An auxiliary nurse midwife recalled a situation of not being able to provide any specific guidance and remedy for an ageing woman who sought her help for painful sexual intercourse and relationship problems with her husband: She complained of pain while having sex and problem in her relationship with her husband. That is perhaps because of vaginal dryness, but we have nothing for vaginal dryness here.

We found that the SRH service providers did not know about the nature of the health services to be

| Table 3. Severity of self-reported menopausal symptoms by women's socio-demo- | | | | | |
|--|---|--|--|--|-----------------------|
| graphic characteristics (n= | MRS score <16 (Not likely to require health care support) n (%) | 95% CI | MRS score ≥16 (Likely to require health care support) n (%) | 95% CI | Total |
| Age 40-49 50-59 | 86 (57.7) 42 (40.8) | 49.8, 65.6 31.3, 50.3 | 63 (42.3) 61 (59.2) | 34.4, 50.2 50.5, 69.4 | 149 103 |
| Menopausal stage Premenopausal Perimenopausal Postmenopausal | 34 (65.4) 34 (43.6) 60 (49.2) | 52.5, 78.3 32.6, 54.6 40.3, 58.1 | 18 (34.6) 44 (56.4) 62 (50.8) | 21.7, 47.5 45.4, 67.4 41.9, 59.7 | 52 78 122 |
| Ethnicity Brahmin/Chhetri Janajatis Dalit | 60 (48.8) 62 (56.4) 6 (31.6) | 40.0, 57.6 47.2, 65.7 10.7, 52.5 | 63 (51.2) 48 (43.6) 13 (68.4) | 42.4, 60.1 34.4, 52.9 47.5, 89.3 | 123 110 19 |
| Marital status Married and living with husband Not living with husband (divorced, separated, widowed) | 104 (51.7) 24 (47.1) | 44.8, 58.6 33.4, 60.8 | 97 (48.3) 27 (52.9) | 41.4, 55.2 39.2, 66.6 | 201 51 |
| Residential location Rural Urban | 76 (45.8) 52 (60.5) | 38.2, 53.4 50.2, 70.8 | 90 (54.2) 34 (39.5) | 46.6, 61.8 29.2, 49.8 | 166 86 |
| Educational attainment Illiterate Literate and up to primary level completed Secondary and post-secondary level qualifications | 45 (51.7) 60 (46.2) 23 (65.7) | 41.2, 62.2 37.7, 54.8 50.0, 81.4 | 42 (48.3) 70 (53.8) 12 (34.3) | 37.8, 58.8 45.3, 62.4 18.6, 50.1 | 87 130 35 |
| Occupation Farmer Shopkeeper Housewife Formal job holder | 50 (45.0) 33 (62.3) 23 (46.0) 12 (66.7) | 35.8, 54.2 49.3, 75.3 32.2, 59.8 44.9, 88.5 | 61 (55.0) 20 (37.7) 27 (54.0) 6 (33.3) | 45.8, 64.2 24.7, 50.7 40.2, 67.8 11.5, 55.1 | 111 53 50 18 |

10 (50.0)

28.1, 71.9

provided for menopausal problems. Some reported that they counselled menopausal women, which they described as telling them that menopause is a natural phenomenon. They referred women who would present with symptoms beyond the attending health workers'

Wage labourer and similar other

comprehension to a gynaecologist in a larger hospital without performing a clinical examination, a diagnostic test or probing medical history. A medical officer and a senior auxiliary health worker were aware, and a few others were curious, about hormonal treatment as an option to quell

10 (50)

28.1, 71.9

20

menopausal symptoms. However, they did not know if such medicines were available through the governmental health service delivery system or for purchase in the market in Nepal.

A health post in-charge asked the question while expressing her interest in providing such treatment for women who have severe menopausal problems: I have heard and read that in foreign countries, once menstruation becomes irregular in ageing women, they use the hormone to treat it. Is that also available and possible in Nepal?

Available services and perceived demand

Health services specifically targeted at menopausal women were not available at the primary health care facilities. The attending health workers complained that menopausal women were also reluctant to seek health care for their symptoms.

SRH service providers reported that they were delivering a spectrum of SRH services for women aimed at meeting select priorities set by the government. These were focused predominantly on reducing maternal and child mortality through (a) increased usage of basic and emergency services during pregnancy, childbirth and post-delivery and neonatal periods; (b) morbidities, particularly sexually transmitted infections, through the use of barrier contraceptives and post-exposure medicines; (c) birth control by application of hormonal contraceptives; and (d) clinically assisted abortion. Specific health needs of menopausal women had not been considered when designing these services.

Further, the SRH service providers reported that they experienced a very low demand for menopause-related health care in their facilities. Although most of the SRH service users were women, nearly all were of childbearing age, with only a few women above the age of 40. Further, older women who may have gone through menopausal transition sometimes arrived at the health facilities for either birth control or seeking to rule out a pregnancy. They usually sought treatment for other illnesses such as headache, gastritis, raised blood pressure, general fatigue and similar ailments.

"In the village, women of this age do not come to a health facility with sexual and reproductive health problems ..."

(Auxiliary health worker)

The SRH service providers reported that some of the women with climacteric symptoms used self-made concoctions of local plants while others washed their vulva frequently to reduce dryness and itching, and a few directly visited a referral hospital to consult with a gynaecologist. But in their experience, most women did not seek care at the primary care level for their menopauserelated symptoms until they got severely ill from those manifestations. Women who arrived at their facilities to access any sort of SRH services, including those related to menopausal symptoms. were among the poorest and underprivileged in their communities who could not afford to go to better facilities or speciality care hospitals in the district headquarters Dhulikhel or the capital city of Kathmandu.

Perceived barriers to providing menopausal services

A plethora of factors related to the women, their community and the health care system impeded their access to the existing, and limited, SRH services for menopause-related symptoms. Some of the reasons described by the respondent health workers included: normalising and trivialising menopausal symptoms as not requiring health care attention; hesitancy among women in discussing sexual health matters; their competing priorities in family, work and social roles; assumption by health workers and people in the community that older women are asexual beings: lack of public dissemination, and thus limited awareness on the range of available services; distance and cost of reaching a health facility. including opportunity cost; and the limited hours during which health facilities were open for providing services.

SRH service providers perceived that the women did not seek help from health facilities either because they felt shy to share or did not take the problems seriously and could not prioritise them. Also, they may have been influenced by older women in their families and community to believe that the problems were normal and would subside with the passage of time.

"We also don't focus much on menopausal problems. We tend to take it as normal and ignore it. Women also might have problems, but we advise it as normal and send them back home."

(Staff nurse with 16 years' work experience)

Table 4. Severity of menopausal symptoms by the women's health status and health behaviours (n=252).

| bellaviours (II-232). | | | | | |
|--|--|------------|--|------------|-------|
| Characteristics | MRS score <16 (Not likely to require health care support) n (%) | 95% CI | MRS score ≥16 (Likely to require health care support) n (%) | 95% CI | Total |
| Perceived health status | | | | | |
| Good | 63(69.2) | 59.7, 78.7 | 28 (30.8) | 21.3, 40.3 | 91 |
| Medium | 32 (41.0) | 30.1, 51.9 | 46 (59.0) | 48.1, 69.9 | 78 |
| Bad (need health care) | 33 (39.8) | 29.3, 50.3 | 50 (60.2) | 49.7, 70.7 | 83 |
| Pre-existing chronic diseases ^a | | | | | |
| Yes | 35 (37.2) | 27.4, 47.0 | 59 (62.8) | 53.0, 72.6 | 94 |
| No | 93 (58.9) | 51.2, 66.6 | 65 (41.1) | 33.4, 48.8 | 158 |
| Pre-existing reproductive morbidities ^b | | | | | |
| Yes | 38 (37.6) | 28.2, 47.0 | 63 (62.4) | 53.0, 71.9 | 101 |
| No | 90 (59.6) | 51.8, 67.4 | 61 (40.4) | 32.6, 48.2 | 151 |
| Tobacco use ^c | | | | | |
| Yes | 31 (43.7) | 32.2, 55.2 | 40 (56.3) | 44.8, 67.8 | 71 |
| No | 97 (53.6) | 46.4, 60.9 | 84 (46.4) | 39.2, 53.7 | 181 |
| Alcohol use ^d | | | | | |
| Yes | 74 (50.0) | 42.0, 58.0 | 74 (50.0) | 42.0, 58.0 | 148 |
| No | 41 (53.2) | 42.1, 64.3 | 36 (46.8) | 35.7, 57.9 | 77 |
| Use of temporary hormonal contraceptive ^e Use | | | | | |
| Yes | 25 (52.1) | 38.0, 66.2 | 23 (47.9) | 33.8, 62.0 | 48 |
| No | 103 (50.5) | 43.7, 57.3 | 101 (49.5) | 42.7, 56.3 | 204 |
| | (/ | 1, | (, | | |

- a. diabetes, hypertension, thyroid disorders, asthma or cancer that had been diagnosed by a health professional b. abnormal, foul-smelling discharge from the vagina; lower abdominal pain; redness and itching around the vulva; abnormal vaginal bleeding
- c. currently consuming smoking or smokeless tobacco on a daily basis
- d. currently consuming any form of alcohol with frequency ranging between once in a month to daily
- e. currently using Depo-Provera or implant or the oral contraceptive pill

Unspoken social norms of asexuality also affected menopausal women's ability to share sexual and reproductive health issues with health workers, thus preventing their utilisation of services available at the local health facilities. One of the respondents mentioned that women themselves take it as an abnormal thing to discuss such issues, including menstrual irregularities and sexual problems after they have crossed 40 years.

"I think menopausal women do not come to consult with us because there is a concept that older women should not be talking about menstruation and other reproductive health concerns. They might be thinking, "what others will say" if someone knew that they visited a health post to share their problem about menstruation, being a woman above 40 years." (Auxiliary nurse midwife in a health post with 7 years' work experience)

On the other hand, subtle forms of denial of services based on health workers' personal beliefs were also found. Some of the participants described with surprise that women asked for temporary contraceptives such as condoms, injectables and hormonal implants, even though they were not menstruating. The health workers then persuaded the women to stop using contraceptives, assuming that they were no longer sexually active.

"... menopause is a complete closure of the reproductive system in our body ... when I tried to convince the women who crossed their reproductive years they would no more need to use contraceptives, they did not agree ... A few days ago, a 58-year-old woman asked for condoms, and I recommended that she would not need them, but she insisted and, so, got a packet of 100 condoms, telling me that she feels better using a condom during sex. ... I had never met such a nymphomaniac woman in my work life ..."

(Senior auxiliary health worker with 26 years of experience, also working as a health- post- incharge)

SRH service providers, hampered by inadequate knowledge of menopausal health-care needs, were confused about the scope of SRH services related to menopausal symptoms. About half of the participants opined that physical and psychological symptoms of menopause were normal with women's ageing and that they would disappear gradually without the need for specific health care. A majority of auxiliary nurse midwives thought that the only thing menopausal women needed was counselling. For those who needed further care, they believed that only a person trained in gynaecology would be able to treat menopausal symptoms.

"I think we cannot do much without a gynaecologist. Only they can identify women's problems. We can do counselling and give medicines that are available here."

(Auxiliary nurse midwife in a health post)

Such a situation reflected the medicalisation of menopause and thus a missed opportunity to provide appropriate health care through primary health care facilities. As a result, women had to either suppress the symptoms or seek services with specialists such as gynae-cologists and endocrinologists in the private health care market, where some gynaecological procedures and hormonal products could be purchased.

At times, the services available for different kinds of health needs or problems were divided into separate compartments within health facilities and assigned to specified staff, despite official requirements for an integrated approach. Menopausal symptoms were not accommodated in any of these sections and thus fell through the cracks. Consequently, menopausal symptoms were either overlooked or directed to the outpatient unit of the facility, where the provider, in most cases, was a man with whom menopausal women were not as keen to seek health care as with a woman health-care provider.

"I haven't served older women who come with sexual problems yet. Usually, they come with other complaints, and we perform a clinical examination for that and treat them as needed. I (being a male) hadn't taken history as the issues of sexual and reproductive health are managed by our auxiliary nurse midwives in the outpatient department."

(Male senior auxiliary health worker who is the in-charge of a health post)

Willingness to provide menopausal services and essential prerequisites

SRH service providers were willing to deliver services to menopausal women. However, they felt that the inclusion of menopausal health needs and corresponding services in the government's health policies and programmes were essential for menopausal health care to become available. Currently, they do not feel fully prepared to deliver menopausal care because of inadequate understanding of the sexual and reproductive health needs of menopausal women, exacerbated by the lack of operational directives, guidelines and supporting materials, including information products.

"I am willing to offer health care for menopausal women's health issues. But what to give them? The only thing we have is to counsel them that theirs is a normal process. I don't know if treatment does exist."

(Staff nurse in a municipal hospital who has worked for the past 16 years)

"I wish the government would provide all of us with training on menopause [referring to all health workers at the facility]. Perhaps in the future, they will produce new guidelines or regulations and also help us learn to deliver services for ageing women affected by menopausal problems. In that situation, we will be happy to provide the services." (Auxiliary nurse midwife working in a health post who served for 18 years)

A common list of the requisites they cited were: policies, directives, guidelines and learning/training materials from the federal health ministry; training on menopause and treatment of the worrisome symptoms; a separate space for consultation (ensuring privacy) at the health facility; relevant medical supplies and logistics; and raised awareness on menopausal symptoms and related health-care among women in the community.

One health worker suggested the need to include menopausal health care in the government's health policy:

"It should be clearly written in our national policy what we are supposed to do to these menopausal or postmenopausal women."

(Health assistant and in-charge of a Health Post)

Another proposed a dedicated programme, within the SRH framework, for menopausal health matters:

"What I really want to put forward is that we have a separate programme for adolescents. Likewise, we also need to make policies and programs and bring the whole package, including IEC materials, to work on menopause."

(Auxiliary health worker in charge of a Health Post)

Discussion

We found that a majority of the middle-aged women reported experiencing one or more adverse outcomes associated with the menopausal transition. Adverse forms of menopausal symptoms occurred more commonly than reported previously in other parts of Nepal. ^{18,19,21} We detected higher proportions of musculoskeletal, somatic and genito-urinary symptoms than vascular symptoms, which confirms findings from previous studies conducted in Nepal. Elsewhere, vascular symptoms were lower among Asian women compared to western populations. ^{2,4}

experiences menopause How a woman depends on her social, cultural and economic context. Women from lower socioeconomic groups, with weaker general health status, pre-existing chronic diseases or reproductive morbidities. were more likely to require medical assistance for their menopausal symptoms compared to their privileged counterparts, as depicted by a higher MRS score. Elsewhere too, menopausal disorders were found to disproportionately affect women with varying socioeconomic backgrounds and experiences through life. 26-29 Also, socially and economically disadvantaged women with menopause were less likely to utilise available clinical care, such as hormone replacement therapy, in a variety of settings across countries. 30–33 Socioeconomic inequalities in access to and utilisation of general health-care, 34 as well as care for women, such as maternal health services,³⁵ continue to persist, although they have decreased with policy reforms, such as removal of user fees, implemented in the health care delivery system. 36 It is, therefore, very likely that socioeconomically disadvantaged women will need special mechanisms to ensure that they have unrestricted access to menopausal health services when they become available through the primary health care system.

Impoverished and marginalised women's health care needs should best be served by ensuring access to menopause-specific health care that enables a smooth transition during middle-age without having adverse effects on their health, social roles and work productivity. Unlike the wealthy and powerful, they are unable to purchase expensive services in the private health care market. And in the absence of menopausal health care through the governmental system, the health conditions of over a third of Nepali women are expected to worsen further.

SRH service providers serving in the government were willing to deliver menopausal care,

albeit with inadequate knowledge and skills, thus limiting their ability to distinguish menopausal disorders from other reproductive health conditions. Policymakers and programme managers in sexual and reproductive health at the federal health ministry were receptive to proposals for incorporating menopausal care in SRH services for women. However, they were also concerned about the amount of preparatory work necessary before service delivery would commence.

Menopausal women's health rights enshrined in several international declarations that are endorsed by the Government of Nepal. The United Nations General Assembly adopted a resolution in its sixtieth session (2005), thereby declaring Member States' obligation to ensure egual access to sexual and reproductive health care for all people regardless of age (life stage) and other characteristics.³⁷ The Programme of Action from the International Conference on Population and Development in Cairo (1994) recommended the development of health and social care systems for all people, including middle-aged and older women, to meet their unique general and sexual and reproductive health needs.³⁸ The fourth World Conference on Women, Beijing, 1995, reaffirmed commitments to women's rights and women's health care rights as human rights and recommended governments to fully ensure services for protecting and promoting the health and well-being of women throughout all stages of the life course.³⁹ The United Nations Office of the High Commissioner for Human Rights reiterated earlier commitments to assuring access to sexual and reproductive health services for all women so as to realise their full potential for healthful living and contributions to societal development. 40 The World Health Organization urged its member states in the South East Asia region to provide access to sexual and reproductive health services to all women.⁴¹

Notwithstanding these commitments, the Nepal government's sexual and reproductive health situation assessment and corresponding health services continue to focus on fertility and reproductive health conditions among women in their adolescence or childbearing age. This has rendered the health and health care needs of middle-aged women to be out of sight and out of mind. 16,42,43 This chasm between

international commitments and the situation on the ground is not only reflected in Nepal's suboptimal performance in meeting women's health and human rights but also may inadvertently allow room for unnecessary commercial marketing of pharmaceutical products to quell the adverse health outcomes that occur along the menopausal transition, like the sale of sexual enhancement pills in the absence of sexual health services for older people. ^{14,44}

We emphasise that menopausal women's health care and social support needs should be adequately addressed by publicly financed and universally accessible care systems. We also caution against the usage of this recommendation as a pretext for unnecessary medicalisation of what fundamentally constitutes a special situation in women's life course, thereby limiting women's ability to experience liberation from presentations and consequences of menstruation, pregnancy and contraception, in addition to adding up to medicines and cost related anxieties.8 Rather, we urge that the health care systems be re-oriented to embrace both the challenges and opportunities that come with addressing menopausal women's needs. Such an inclination would encourage women's passage through menopause naturally by preventing unnecessary medication and the unintended effects that follow, and promoting balanced diet, exercise and related behaviours responding not only to bodily changes but also a transitioning social role of menopausal women. Such carefully designed support would help women overcome the fear of the unknown regarding menopausal transition and inhibitions to discuss problems and solutions as individuals and in groups. It is also important to assist women through relational crises with their husbands or intimate partners owing to a changed sexual desire or performance. Special care should be provided to women with reproductive co-morbidities during menopause as these exacerbate the health problems related to the menopausal transition.

Limitations

We urge that our findings are interpreted with caution. The sample on which the quantitative assessment of occurrence and proximal determinants of menopausal symptoms is based was derived from semi-urban and rural communities in central Nepal, within 35–70 kilometres of the capital city Kathmandu. The situation may be even worse in far-flung remote mountains, the inner valleys along the mid-hills and also the towns and villages of the Terai plains, where much stigma and restrictions around women's bodily integrity and sexual health prevails in conjunction with undernourishment, micronutrient deficiencies and non-communicable diseases. ^{45,46}

Thus, some of the menopausal symptoms may have been underestimated by our study. Likewise, rich and educated women in the cities access hormone replacement medicines by purchasing in the local or international markets. even in the absence of menopausal care through a governmental health care delivery system. Our study did not examine such usage patterns from the commercial markets. Second, the statements on low demand for menopausal health care by the women did not come directly from the women themselves but were perceived by the SRH service providers based on their experience of delivering routine SRH services. Third, the list of requisites, as opined by the SRH service providers, was not a product of a thorough analysis of needs but rather a spontaneous reaction to a hypothetical situation – what if they were to provide menopausal care, and what would they want to be in place to enable them to do so. While health care workers reported that they were willing to provide menopausal care and that all that they need is policies, training, and facilities in place, the policymakers and programme managers for sexual and reproductive health and health care were concerned about whether they would be able to create such a conducive environment.

Conclusion

Adverse menopausal symptoms affected a majority of women, particularly those with fragile health and in disadvantaged socioeconomic situations. Menopausal health care needs were missing in existing sexual and reproductive health services provided by the primary care system. However, health care providers were willing to deliver such services, with limited skills and resources to do so. Menopausal health care should

be included as an integral part of sexual and reproductive health services in the governmental health care delivery system. Further research is necessary to explore prerequisites and procedures for the health care system to incorporate menopausal health care in a way that fulfils agreed human rights obligations.

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Author contributions

DA conceptualised, designed, collected and analysed data; AB contributed to designing and analysing data from the 2017 phase (survey) of the research. AB, with DA inputs, conceptualised and designed the 2021 phase (examination of care providers' readiness); DA conducted fieldwork and analysed data with AB's contributions. AB wrote the first draft; AB and DA revised the

manuscript. DA and AB contributed equally and are the guarantors.

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Résumé

Les besoins en soins de santé des femmes ménopausées et la disponibilité de services correspondants par le biais des systèmes de santé font l'objet de trop rares recherches. Cette étude d'observation en deux étapes a examiné la prévalence des symptômes de la ménopause chez les femmes d'âge moven dans quatre communautés rurales et semi-urbaines de Kavrepalanchok, Népal, et a exploré la disponibilité des prestataires de soins de santé sexuelle et reproductive (SSR) à assurer une prise en charge de la ménopause. Nous avons recruté 252 femmes âgées de 40 à 59 ans en phase pré-ménopausique, péri-ménopausique ou post-ménopausique, et nous avons interrogé 20 prestataires de soins primaires de SSR. L'enquête transversale a fourni des données sur la prévalence des symptômes de la ménopause, ventilées par les caractéristiques socio-économiques des femmes, leurs comportements de santé et leurs caractères biologiques, alors que les données sur les connaissances, les compétences et la disponibilité des prestataires de soins de SSR à fournir une prise en charge de la ménopause étaient obtenues à partir des entretiens. La plupart des femmes (84.9%) ont indiqué qu'elles présentaient un ou plusieurs symptômes indésirables de la ménopause. Les femmes marginalisées du point de vue socio-économique et géographique avaient plus de probabilités que les femmes plus privilégiées de faire état de symptômes graves de la ménopause nécessitant une assistance médicale. Les prestataires de services de santé sexuelle et reproductive étaient disposés, avec cependant des connaissances et des compétences limitées, à évaluer les besoins des femmes ménopausées et à leurs prodiguer des soins. Ils ont recommandé d'inclure les soins de la ménopause dans les politiques sur la SSR et de prévoir une formation et une logistique pour assurer les services. Les femmes marginalisées du point de vue culturel, économique et géographique présentaient une

Resumen

Se han realizado pocas investigaciones sobre las necesidades de atención médica de las mujeres menopáusicas y la disponibilidad de servicios correspondientes por medio de sistemas de salud. Este estudio observacional en dos etapas examinó la prevalencia de síntomas menopáusicos en mujeres de mediana edad en cuatro comunidades rurales y semiurbanas de Kavrepalanchok, Nepal, v exploró la preparación de prestadores de servicios de salud sexual y reproductiva (SSR) para brindar atención en la menopausia. Reclutamos a 252 mujeres entre 40 y 59 años en las fases pre, peri y posmenopáusicas de la transición menopáusica, y entrevistamos a 20 prestadores de servicios de SSR en el primer nivel de atención. La encuesta transversal proporcionó datos sobre la prevalencia de síntomas menopáusicos, desglosados por características socioeconómicas, comportamientos de salud v características biológicas de las mujeres. y los datos sobre los conocimientos, habilidades y disposición de los prestadores de servicios de SSR para brindar atención en la menopausia fueron derivados de entrevistas. La mayoría de las mujeres (84.9%) relataron presentar uno o más síntomas menopáusicos adversos. Las mujeres marginadas socioeconómica y geográficamente eran más propensas a presentar graves síntomas menopáusicos que necesitarían atención médica, comparadas con las mujeres más privilegiadas. Los prestadores de servicios de salud sexual y reproductiva estaban dispuestos, aunque con limitados conocimientos y habilidades, a evaluar las necesidades menopáusicas de las mujeres y brindarles atención en la menopausia. Recomendaron incorporar la atención menopáusica en las políticas sobre SSR, así como capacitación y logística para proporcionar los servicios. Las mujeres marginadas cultural, económica y geográficamente presentaron mayor prevalencia de síntomas menopáusicos. Los programas y políticas del gobierno relacionados con la salud sexual y prévalence plus élevée de symptômes de la ménopause. Les pouvoirs publics ne devraient pas circonscrire les politiques et programmes de santé sexuelle et reproductive aux femmes en âge de procréer ou aux adolescents et y inclure les besoins des femmes ménopausées. reproductiva deben ampliarse más allá de las mujeres en edad reproductiva o de las adolescentes para incluir las necesidades de las mujeres menopáusicas.