What do women in rural Bareilly think about postmenopausal bleeding? A mixed-method study

Medhavi Agarwal*, Deepak Upadhayay, Rashmi Katyal

INTRODUCTION

Menopause is a natural phenomenon, defined generally as “cessation of periods for 12 months or a period equivalent to three previous cycles or as time of cessation of ovarian function resulting in permanent amenorrhoea.”¹ With increasing life expectancy of women due to advancements in medical facilities and decreasing age at menopause, the Indian women spend nearly one third of their lifespan in the postmenopausal phase.² Several symptoms experienced during this phase are crucial for diagnosing certain underlying life-threatening condition. But, unfortunately these symptoms are largely neglected by the women due to ignorance and shyness. One such vital symptom experienced by the menopausal women is postmenopausal bleeding (PMB).³

Postmenopausal bleeding is defined as “any bleeding that occurs from the genital tract after one year of amenorrhoea in a woman who is not receiving Hormone Replacement Therapy (HRT).”³ It is an alarming sign of a probable underlying cervical/endometrial cancer. Reporting to health facility at early stages will provide an opportunity to women with PMB to get detected at early stages.
stages which in turn will increase their chances of survival and also improve their quality of life.\(^4,5\)

Perception of women about menopause and postmenopausal bleeding varies across different social, cultural and economic settings and it may have a greater influence on their treatment seeking behavior.\(^6\) Only a very few studies have tried to explore the perception of women about PMB. Since last 5 years, we are undertaking cervical cancer screening programme at our Rural Health Training Centre, RMCH Bareilly. We observed that the uptake of screening is far from satisfactory. The previous study done in the same area showed that only 5.6% of the postmenopausal women underwent screening for cervical cancer.\(^7\) Most often health care seeking depends on the perceptions of women. In addition to this, the understanding of these perceptions forms the base for planning behaviour communication for the desired change in the practice.

Hence the current study was planned with the objective to explore the perceptions of causes and treatment of postmenopausal bleeding among menopausal women and to quantify the various perceived reasons for PMB.

**METHODS**

**Study setting**

The study was conducted in the field practice area of Rural Health Training Centre, Rithora of Rohilkhand Medical College and Hospital, Bareilly which constitutes of 30 villages with a population of 63,921.

**Study design**

It was a sequential exploratory mixed methods study design, where group interviews were conducted in qualitative phase, followed by questionnaire survey in quantitative phase.\(^8\) Postmenopausal women (≥30 years) were included in the study. Data collection was done between October and December 2018.

**Selection of participants, data collection and analysis**

**Qualitative phase**

This study was conducted after obtaining clearance from Institutional Ethics Committee (IEC/41/2018/OCT). After obtaining informed consent, two group interviews were conducted with eight postmenopausal women (≥30 years of age) in each group, who were purposively selected to explore their perceptions about postmenopausal bleeding and local terms for causes of PMB.\(^9\) The group interviews were conducted by a trained female MSW in a pre-fixed date, time and venue using semi structured interview guide containing broad open ended questions. Each interview lasted for around 30 minutes. To improve the validity of the study, at the end of each interviews, the interviewer presented the summary of findings to the participants to get their affirmation whether it reflected their views. The interviews were audio recorded and important points were noted down in the diary. The transcripts were prepared in verbatim in English language on the same day of the interview. Thematic analysis of the transcripts was done manually by a trained female MSW.\(^10\)

Descriptive codes were derived from the transcripts. Similar codes were merged to form the categories. Later, similar categories were combined to form major themes. The findings of the qualitative phase were used for questionnaire development, which was used in the quantitative phase of the study.

**Quantitative phase**

A community based questionnaire survey was conducted in this phase with a representative sample of 1530 postmenopausal women more than or equal to 30 years of age who attained menopause at least one year before the date of the survey, selected by two stage cluster sampling. The details of the sample size calculation and sampling procedures for primary purpose of the study has been reported elsewhere.\(^7\)

The sample size for the present purpose was adequate enough for assumption of p-50%, design effect-2 and 95% Confidence Interval. Informed written consent was obtained from all the participants. A trained team of female medical interns lead by a female postgraduate collected data in the field by making house-to-house visits. The data was entered and analysed in Epi Data (version 7) software package. The data was presented as frequency and percentages.

**RESULTS**

**Qualitative**

Sixteen codes identified from the group interviews were grouped under four broad categories namely normal phenomenon, abnormal pathology, native treatment and barriers for treatment. Later, these categories were grouped into two major themes (perception about the cause of PMB and perception about treatment) (Table 1).
The average age at menopause of the respondents was 46.47±5.06 years. Of the 1530 responding women, majority 1017 (66.5%) were between 50-69 years age group, illiterates 1155 (75.5%) and were housewives 1074 (70.2%). Most of the respondents, 1491 (97.4%) followed Hindu religion, were married 965 (63.1%) and lived in nuclear families 816 (53.3). Among the postmenopausal women 645 (42.2%) of them possessed health insurance and only 210 (13.7%) of them were members in Self-help groups of the total 1530 respondents, 330 (21.6%) women perceived bleeding after menopause as normal, 555 (36.3%) women believed it to be abnormal and the remaining (42.1%) respondents were not sure of its normal or abnormal nature. Among 1530 women, majority 625 (40.8%) of them didn’t know the cause for bleeding after menopause. About 17.6% of women were able to attribute PMB to some problems in the uterus. Exact medical causes of PMB such as cancer and prolapse uterus were stated by 16.8% and 3.9% of the respondents, 330 (21.6%) women perceived bleeding after menopause as normal, 555 (36.3%) women believed it to be abnormal and the remaining (42.1%) respondents were not sure of its normal or abnormal nature. Among 1530 women, majority 625 (40.8%) of them didn’t know the cause for bleeding after menopause. About 17.6% of women were able to attribute PMB to some problems in the uterus. Exact medical causes of PMB such as cancer and prolapse uterus were stated by 16.8% and 3.9% of the

### Table 1: Perceptions about postmenopausal bleeding among rural postmenopausal women (qualitative).

| Theme 1: Perception about causes of PMB | Category 1: Normal phenomenon | Category 2: Abnormal pathology |
|----------------------------------------|---------------------------------|--------------------------------|
| Improved nutrition | Women felt that their periods usually stop (menopause) when they are undernourished. Once they start eating and when the nutritional status improves, they will again get their periods (PMB) | Problem in uterus | Participating women perceived that postmenopausal bleeding occurs due to some underlying pathology in the uterus |
| Old age | According to the respondents, aging process is the main reason for postmenopausal bleeding | Cancer | Cancer was perceived as one of the reason for PMB. But they were not able to specify the type of cancer |
| Body nature | The respondents perceived that attaining menopause and getting PMB depends on the nature of one’s body | Sudden liberation of stagnant blood from the uterus | Women had a perception that after attaining menopause, the blood gets stagnated in the uterus. Later the stagnant blood along with uterus will roll back into the abdomen leading to nausea and vomiting. When this breaks, it will lead to bleeding (PMB). They also feel that once the bleeding occurs, the person will eventually die. |
| Ill fate | Women perceived that those who are unlucky and had done some sins in their previous life are destined to get this condition | Prolapsed uterus | Few people perceived that uterus protruding outside will be susceptible to injury, leading to bleeding |

### Theme 2: Perceptions about treatment for PMB

#### Category 1: Native treatment for PMB

| External use | Few women opined that bleeding occurs due to wounds in genital area and suggested native treatment such exposing the genital area to vapour arising from freshly boiled paddy. Other treatment suggested by them was putting the poppy seeds in burning charcoal and showing the vapours arising from it in the genital area |
| Oral intake | Some participants suggested intake of lemon/ vinegar to stop the bleeding. Addition of coconut oil to diet was also recommended by one elderly women. Intake of juice of drumstick leaves and eating petals of hibiscus flower were stated as remedy was genital bleeding by the participants |

#### Category 2: Barriers for treatment seeking

| Not feeling the need for treatment | Some women were of the view that discharges and abnormalities in postmenopausal period were more or less normal and does not require any specific treatment or care and a few participants also opined that pain and abnormalities related to reproductive organs were always a part of their life so they may not take postmenopausal problems seriously |
| Unaware of the problem | They considered it a taboo to look in one’s own private parts or never tried to observe such abnormalities. They also felt that all things related to genitilia are dirty and didn’t feel any difference |
| Not comfortable with disclosing the illness | They don’t want others (doctors) to look into their private area and they also fear that the results might reveal some grave illness |
| Ignoring the symptoms due to lack of seriousness | People neglect the symptom since it happened only once/only mild dirty discharge was seen (no fresh bleeding) or bleeding occurred a long time ago. |
| Social stigma | Fear that if others know about such treatments that will affect the marriage of young women in the family |
| Lack of resources | The potential burden of any treatment on already poor financial status of the family might prevent them from approaching for treatment (lack of money). Currently lack of women doctors in the area hinders approaching for checkup (lack of health care professionals). Their family members and they themselves can’t sacrifice work and take them to distant place for treatment (lack of time) |

### Quantitative

The average age at menopause of the respondents was 46.47±5.06 years. Of the 1530 responding women, majority 1017 (66.5%) were between 50-69 years age group, illiterates 1155 (75.5%) and were housewives 1074 (70.2%). Most of the respondents, 1491 (97.4%) followed Hindu religion, were married 965 (63.1%) and lived in nuclear families 816 (53.3). Among the postmenopausal women 645 (42.2%) of them possessed...
women respectively. Only 8.7% of women acknowledged sudden liberation of stagnant blood from the uterus after menopause as a reason for PMB.

Improved nutritional status, old age and body nature were perceived as reasons by 15.8%, 13.2% and 7.1% of women respectively (Table 2).

Table 2: Quantification of perceptions of respondents about postmenopausal bleeding (N=1530) (multiple response).

| Variables                              | N (%) |
|----------------------------------------|-------|
| Perceptions about bleeding after menopause |       |
| Perceived as normal                    | 330 (21.6) |
| Perceived as abnormal                  | 555 (36.3) |
| Not sure                               | 645 (42.1) |
| Perceived causes of postmenopausal bleeding |       |
| Don’t know                             | 625 (40.8) |
| Normal phenomenon                      |       |
| Improved nutrition                     | 242 (15.8) |
| Old age                                | 202 (13.2) |
| Body nature                            | 109 (7.1) |
| Ill fate                                | 53 (3.5) |
| Abnormal pathology                     |       |
| Problem in uterus                      | 269 (17.6) |
| Cancer                                 | 257 (16.8) |
| Sudden liberation of stagnant blood from the uterus | 133 (8.7) |
| Prolapsed uterus                       | 60 (3.9) |

DISCUSSION

In the qualitative phase, perception of women about cause of PMB varied from perceiving it as a normal phenomenon due to improved nutritional status, old age, body nature to perceptions as an abnormal phenomenon occurring due to some problems in the uterus, cancer and prolapse uterus. The main barriers for treatment perceived by these women were lack of awareness, lack of seriousness about the symptom, shyness to expose the private body part, social stigma, and lack of resources. However, in the quantitative phase 21.6% of women perceived it as a normal phenomenon, 36.3% felt it as an abnormal occurrence and 42.1% were not sure about its nature. About 40.8% of the women were not able to state even single medical cause of PMB.

Health care belief model (HBM) which a framework for planning behaviour change, suggests that people’s beliefs about health problems, perceived benefits of action and barriers to action and self-efficacy explain engagement or lack of health promoting behaviour. Perceived threat is at the core of the HBM and it is linked to person’s readiness to take action. But unfortunately in our study nearly 21.6% of women perceived it to be a normal occurrence, attributing it to nutrition, old age and body nature. Since they consider it as a normal condition, their chances of seeking health care and getting detected at early stage for any underlying pathology becomes almost nil. Hence it is essential to break their misconception by awareness generation about PMB through mass media (TV, radio and newspaper, displays in public places, pamphlet distribution). Since majority of women in our study are illiterates, cartoon based IEC materials with simple messages based on the components of Health Belief Model will be useful to break the myths and misconceptions about PMB. Once they reach the stage of cognitive dissonance, explaining the benefits of seeking health care for PMB at early stage to them by a woman who is a survivor of ca cervix/have undergone cervical cancer screening and benefited by it, will aid them in the change process.

Nearly 40.8% of the respondents had no idea about the cause of PMB. Knowledge is the base for action and people tend to seek treatment for PMB only if they are aware of its cause and graveness of the symptom. Creating awareness about the cause of PMB, importance of seeking treatment for PMB will serve as a crucial factor to bring about behavioural change in these people. One of the promising way to bring about this change is use of peer educators to deliver culturally appropriate and acceptable information about PMB to these women. Women SHG leaders and NGO outreach workers in these areas can be trained as peer educators to disseminate information related to PMB.

Encouragingly 36.3% of the women perceived it as an abnormal phenomenon and some women were even able to state the exact etiology of PMB. Though the concept of sudden liberation of stagnant blood from the uterus is scientifically unacceptable, these women are at least aware that PMB is an abnormal phenomenon, which may lead to fatality.

Though these people are aware of the causes of PMB, it still does not ensure that they will seek treatment. Hence constant motivation, reinforcement of benefits of seeking early treatment and social support are needed to help them to overcome the other barriers for treatment seeking such as shyness and social stigma. Information regarding availability of cervical cancer screening facilities in government and private sectors in their area and importance of screening should be emphasized to these postmenopausal women and they should be encouraged to undergo cervical cancer screening even in the absence of any symptoms.

To the best of our knowledge, this is the first community based mixed methods study to explore the perceptions of women about postmenopausal bleeding and quantify the responses of respondents. Use of context specific questionnaire and a representative sample, sample size were the major strengths of the study.

However when compared to cross-sectional design, being a mixed methods research, the research process was complex and a bit time consuming.
CONCLUSION

Most of the women did not know the reason for PMB and lacks seriousness about the condition. Hence creating awareness is crucial to make the women to seek health facility in case of PMB and get detected of any underlying pathology at an early stage. This early detection will prevent deaths due to cervical cancer and help to improve the quality of life among affected women.

ACKNOWLEDGEMENTS

I would like to thanks all the seniors, my colleagues, MSW who helped me in this study and in the last but not the least to all the participants who have come out and helped in completing this work.

Funding: No funding sources
Conflict of interest: None declared
Ethical approval: The study was approved by the Institutional Ethics Committee IEC/41/2018/OCT

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Cite this article as: Agarwal M, Upadhyay D, Katyal R. What do women in rural Bareilly think about postmenopausal bleeding? A mixed-method study. Int J Community Med Public Health 2021;8:812-6.