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## Chronic morbidity and health seeking behavior among post-menopausal women of Itahari Sub-Metropolitan City, Nepal

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### Abstract

**Introduction:** The prevalence of morbidity increases in postmenopausal period. Usually co-morbid chronic conditions and symptoms of menopause are underestimated due to low awareness thereby affecting the health seeking behavior. This study aims to find out the chronic morbidity and health seeking behavior among post-menopausal women of Itahari Sub-Metropolitan City of Nepal.

**Method:** This is a community based cross-sectional study conducted in 5 wards of Itahari sub metropolitan city, of Nepal over a period of one year (February 2018 to January 2019) among 490 post-menopausal women of 45 and above age. Ethical approval was obtained. The frequency and percentage of women with chronic morbidity and their health seeking in general was calculated. Also, percentage of health seeking for the each morbidly and postmenopausal symptoms were calculated using MS-Excel.

**Result:** Among the 490 participants 69.4% were having chronic diseases in which diabetes mellitus and hypertension had highest prevalence. Up to 98% of the women having chronic morbidity sought help from professionals. There was lowest professional health seeking for psychological symptoms and highest for somatic symptoms.

**Conclusion:** Our study shows high chronic morbidity in post-menopausal period and good health seeking behavior for them. There is less professional health seeking for vasomotor and psychological symptoms of post menstrual period.

**Keywords:** chronic morbidity, health seeking, menopause, post-menopausal symptoms

## Introduction

With the increased longevity of women, the prevalence of morbidity is expected to increase during the menopause. It has been hypothesized that hormonal dysregulation and estrogen deprivation occurring in the years preceding menopause may play a role in the initiation of risk factors for chronic diseases.<sup>1</sup> Usually co-morbid chronic conditions are underestimated among post-menopausal women because of a low awareness of their existence.<sup>2</sup>

In Nepal, chronic diseases account for 60% of the total disease burden in terms of the number of lives lost due to ill-health, disability and early death (DALYs).<sup>3</sup> According to the STEPS survey done in Nepal 67.0% of the women aged 15-69 years were on the oral anti diabetic medication.<sup>4</sup> There have been reports from Nepal regarding the increase of risk factors for chronic morbidity among post-menopausal women.<sup>5</sup>

Health-seeking behavior of an individual is defined as seeking treatment for his/her disease from any health facilities and is influenced by socio-demographic characteristics, pre-existing beliefs about the disease, type and severity of the disease, and accessibility and availability of health services.<sup>6</sup> It is important to study morbidity and health seeking behavior of the menopausal women in order to develop tailored intervention programs considering the burden of disease in this specific population. Hence, the aim of this study was to determine chronic morbidity and health seeking behavior among post-menopausal women of Itahari sub metropolitan city of Nepal.

## Method

This was a community based cross-sectional study conducted in 5 wards of Itahari sub metropolitan city, of Nepal over a period of one year (February 2018 to January 2019) among the post-menopausal women of 45 and above age. The questionnaire was

prepared on the basis of face validity after discussion with three faculties of school of public health and community medicine of BPKIHS, Dharan. Proportionate allocation technique was used to allocate the number of participants in each ward. There are 20 wards in Itahari Sub-metropolitan city<sup>7</sup> retrieved on 16 April 2018. Out of them, 5 wards were selected by lottery method and proportionate allocation was done to determine number of samples to select from each ward. After reaching the selected ward, a bottle was rotated in the main junction to select the direction of the study. We started from the house where the bottle pointed. Participants were selected from each house until the sample size was met for that respective ward. One respondent was selected from each household with more than one eligible sample by lottery method. The participant who was present at the time of data collection was only taken. Data collection was done by using the semi structured questionnaire by face to face interview.

This study considered 95% CI and 90% power for the sample size calculation. Based on the previous study the prevalence of post-menopausal women with chronic morbidity was taken as 47.3%.<sup>8</sup> With Z-value 1.96 (at 95% significance level) and margin of error of 10% of prevalence and 10% of non-response the sample size was 490.

The study was approved by Institutional Review Committee (IRC) BPKIHS, Dharan (Ref: 137/074/075 & Code: IRC/1164/017). The purpose of the study was explained to participants or their informant when necessary (e.g. unable to comprehend) and written consent was taken before commencing the interview. Confidentiality of the participants was maintained by not including the name or any other information that can reveal their identity. No incentive was given to the participants for participating in the research.

## Result

The mean age $\pm$ SD of participants was 59.9 $\pm$ 10.7 years. Among the participants, majority 309(63.1%) were married and majority 310(63.3%) lived in nuclear family. Among the participants interviewed, about two third 330(67.3%) were illiterate. The mean age of menopause of the participant was 48 $\pm$ 3.14 y and mean duration of menopause 11.95 $\pm$ 9.91 y, table 1

Among the participants 340(69.4%) were having chronic diseases in which diabetes mellitus was seen in 165(33.6%) of the participant and hypertension was seen in 149(30.4%). 59(12.0%) had musculoskeletal symptoms while 27(7.5%) of them had gastritis. 22(4.4%) of the participants had respiratory illness while 14(2.8%) had mental and neuropsychiatric illness, figure 1.

When the questions about receiving services were asked, nearly half of the participants 219(44.7%) were using primary health services as the preferred health facility whereas 389(79.4%) were using private clinics and hospitals as well. It was seen that

52(10.6%) visited traditional healer, 150(30.6%) visited the pharmacy or used self-medication practices and 66(13.5%) use other methods like Ayurveda, homeopathy or other systems for their illness, Figure 2.

Among the participants who were having hypertension almost all (91.8%) went for the consultation with health professionals whereas only 8.7% went for non-professionals (traditional healers, family and friends). Among the participants who were having diabetes almost all (98.8%) went for the consultation with health professionals whereas only 1.2% went for non-professionals. Among the participants who were having respiratory illness only 17(70.8%) went for the consultation with health professionals whereas 29.2% went for non-professionals, table 2.

Among the different symptoms of post-menopausal period maximum help seeking 293(78.9%) from a professional would be for somatic symptoms and minimum professional help seeking would be for psychological symptoms 45(12.3%), table 3.

**Table 1. Socio demographic characteristics of the study participants (n=490)**

Variables	Frequency	Percentage
Marital Status		
Unmarried	4	0.8
Married	309	63.1
Widowed	159	32.4
Divorced/Separated	18	3.7
Type of Family	310	63.3
Nuclear	180	36.7
Joint		
Literacy		
Illiterate	160	32.7
Literate	330	67.3
Age at menopause		
Early ( $\leq$ 44)	65	13.3
Normal (45-54)	416	84.9
Late ( $\geq$ 55)	9	1.8
Mean age $\pm$ SD	59.9 $\pm$ 10.7 y	
Mean age at menopause $\pm$ SD	48 $\pm$ 3.14 y	
Mean duration of menopause $\pm$ SD	11.95 $\pm$ 9.91 y	

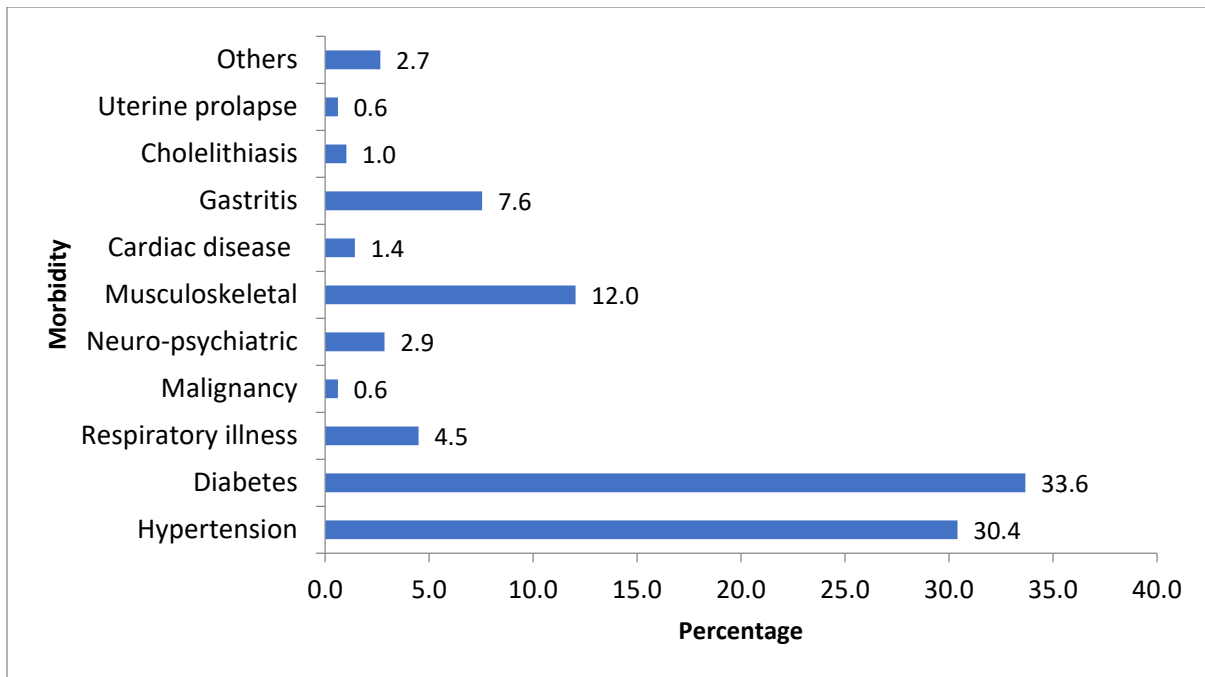


Figure 1. Chronic morbidity among the study participants (n=490), multiple choices

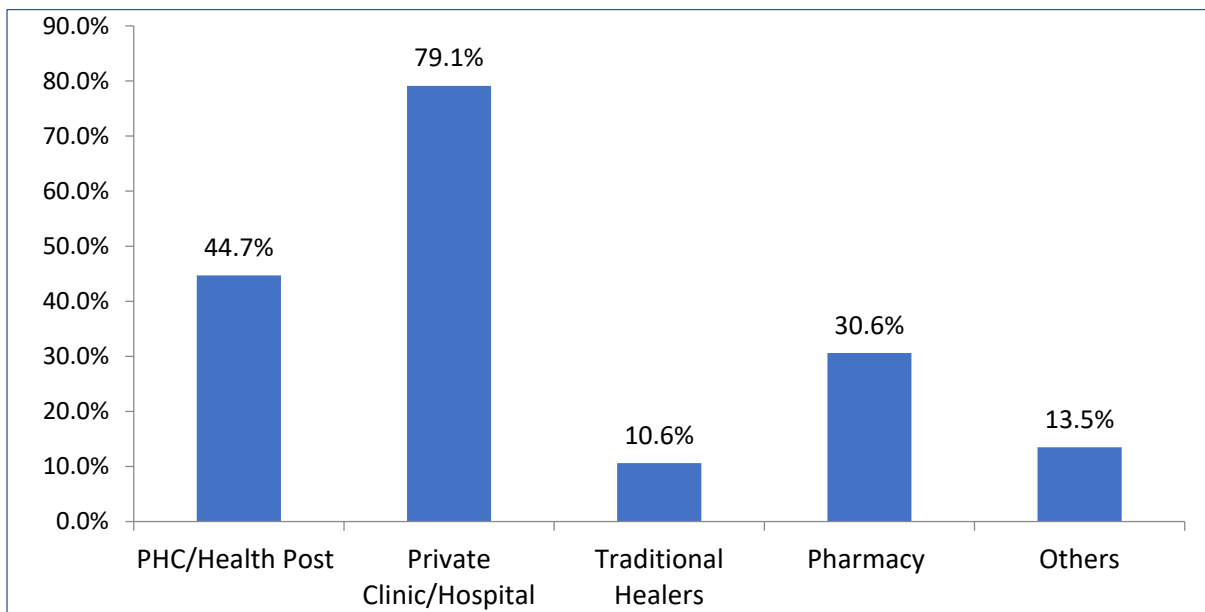


Figure 2. Preferred health facility for seeking care among the participants (n=490) multiple choices

Table 2. Health seeking behavior among the participants with chronic morbidity

Disease	Non professional		Professional	
	Frequency	Percentage	Frequency	Percentage
Hypertension (n=149)	13	8.7	136	91.8
Diabetes Mellitus (169)	2	1.2	163	98.8
Respiratory (24)	7	29.2	17	70.8
Musculoskeletal (59)	5	8.5	54	91.5
Gastritis (39)	4	10.8	33	89.2
Others (45)	8	17.7	37	82.2

**Table 3. Health seeking behavior of the participants with PMS**

Postmenopausal Symptoms	Non professional		Professional	
	Frequency	Percentage	Frequency	Percentage
Vasomotor Symptoms 375(76.5%)	266	70.9	109	29.1
Somatic Symptoms 371(75.7%)	78	21.1	293	78.9
Psychological Symptoms 363 (74.1%)	318	87.7	45	12.3

## Discussion

In this study majority of the participants were from age group 45 to 55 years in which the mean age  $\pm$ SD of menopause was  $48\pm 3.14$  years which is similar to the study conducted in Kaski district of Nepal in which the mean age at menopause was  $49.9\pm 5.6$  years.<sup>9</sup> Similarly two third of the participants (67.3%) were illiterate which can be compared to the study done in Rupandehi where 82.3% were illiterate.<sup>10</sup> In our study, 63.1% of the participants were married and 32.4% were widow but in the study conducted in the Rupandehi district of Nepal showed more than three quarters of the female (78.3%) were married and 20% were widowed.<sup>10</sup> This could be due to difference in age distribution of the sample collected.

Our study showed that 69.3% of the participants had at least one chronic disease which is similar to the study done in Kerala of India which showed 63.8% of the participants had chronic disease.<sup>11</sup> Among the participants the prevalence of diabetes mellitus in our study was 33.6% while it was 26.7% in the study done in Kerala of India<sup>12</sup> but the study done in Rupandehi district of Nepal showed 17.7% had diabetes mellitus as the chronic problem in post-menopausal females.<sup>10</sup> There may be over diagnosis of the disease and over treatment of the disease at the same time which increased the prevalence of diabetes in the study participants.

The present study showed the prevalence of hypertension among the study participant was 30.4% while the study done in Kerala of India showed 38.8% of the population had hypertension.<sup>12</sup> but the study in Rupandehi showed 19% had hypertension.<sup>10</sup> The difference in the prevalence of the

hypertension may be due to the differences in the age group of the study population as they included the women of premenopausal phase and age group of above 40 years.

Among the participants 69.4% were having chronic diseases among which half of the participants received service in private health facility whereas the only 7.6% had Primary Healthcare Centre (PHC) as the place service of the disease. This finding in contrast to the finding of the study done in Kerala India in which 22.4% took care from PHC and 32.1% took care from private health facility.<sup>11</sup> This could be due to reason that Kerala has very robust primary health system and the government has focused on universal health coverage care in all government setup. Hence, more people are attracted to visit PHC for treatment and care. Among the participants who were having hypertension 91.8% went for the consultation with health professionals whereas 8.7% went for non-professionals (traditional healers, family and friends) This finding is comparable to the STEPS survey of Nepal 2013 where 11.0% went for traditional healer among the hypertensive participants.<sup>4</sup> Having the health facilities around the residential area of Itahari people still have strong belief in faith healing. Among the participants who were having diabetes 98.8% went for the consultation with health professionals whereas only 1.2% went for non-professionals. Similarly, 6.4% went for traditional healer in STEPS survey for diabetic care.<sup>4</sup>

Among the participants 76.5% had vasomotor symptoms, 75.7% had somatic symptoms and 74.1% had psychological symptoms whereas in the study done in Kerala of India showed 55.95% had vasomotor symptoms 89.28% had somatic symptoms and 86.90% had

psychological symptoms.<sup>11</sup> There is differences among the prevalence of the group of symptoms in the post-menopausal period in different countries and even within same country of different culture.<sup>13,14, 15,16,17</sup> These variation in the postmenopausal symptoms in different study in Nepal and other countries may be due to the difference in living style, cultural belief, understanding of symptoms and the different other socio demographical factors.

Among the participants who had vasomotor symptoms 29.1% went to health professionals for the consultation regarding their health whereas 70.9% went for non-health professionals like family, relatives, traditional healers etc. The study done in India showed that 33 % had the vasomotor symptoms among which only 27.3% women sought care mainly in private secondary and 21.2% in the private clinics.<sup>11</sup> Among the participants who had somatic symptoms 78.9% went to health professionals for the consultation regarding their health whereas 21.1% went for non-health professionals. Somatic symptoms were present in 49.7% participants and 22.6% of the participants sought care from Ayurvedic and alternative medicine ,18.8% from private secondary facility and 15.6% from public primary and 13.4% from public secondary facility.<sup>11</sup> Among the participants who had psychological symptoms only 12.3% went to health professionals for the consultation regarding their health whereas more than three quarters (87.7%) went for non-health. Similarly, the study conducted in India showed that 19.1% sought care for psychological symptoms, majority of the women went to public secondary (20%), private Clinic (20%) and public primary (18.6%) health center.<sup>11</sup> Also a study from USA among 4402 women has shown healthcare seeking for menopausal symptoms in 60% only.<sup>18</sup> In the sub-group only 12.3% of participants seeking professional help for psychological symptoms further emphasizes the stigma present around the mental health issues around the South East Asian countries and Nepal.<sup>19,20</sup>

There is a marked discrepancy among the post-menopausal women who have health seeking for chronic morbidity and symptoms of menopause. The health seeking from a professional for diabetes is as high as 98.8% whereas for symptoms of menopause is maximum of 78.9% and 12.3% for somatic and psychological symptoms of menopause. A cross sectional study among 160 menopausal women in Nepal has shown that more than two third of postmenopausal women had inadequate awareness of menopausal symptoms and more than half had effect on daily life.<sup>21</sup> This highlights the need of awareness regarding the symptom profile, need of help seeking and availability of services.

Though this is one of the few studies conducted among post-menopausal women there are some limitations to it. The cross sectional design of the present study does not allow the analysis of causal relationship. It does not exclude other confounding effects of the natural ageing process that may influence the experience of menopausal symptoms. We could not exclude the recall bias as the women were asked to provide some retrospective information such as age at menopause, duration since menopause and symptoms experienced since menopause. As the data collection was done in the summer season there may be over estimation and under estimation of the information. The seasonal onset of some menopausal symptoms like sweating might be a confounding factor as the weather of the region is hot and humid and women may not distinguish between the sensations of heat and sweating caused by hot weather.

We recommend further studies to verify possible predicting factors of menopausal symptoms, in order to allow the increase of preventive actions and therapeutic approaches, to provide women with the best quality of life in such important phase. The combined effort of educational programs and health care providers would help in increasing public awareness. This may result in significant improvement in both life



expectancy and quality of life of women in future. We also recommend health facility to be made women friendly so that the health seeking behavior of the women of the menopause can be increased as well as the knowledge of importance of timely health check up in the post menopause phase can be explained.

## Conclusion

Among the participants of 490 postmenopausal women 69.4% were having chronic diseases in which diabetes mellitus and hypertension had highest prevalence. Up to 98% of the women having chronic morbidity sought help from professionals and among the post-menopausal symptoms somatic symptoms had highest help seeking from professionals.

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## Conflict of Interest

None

## Funding

None

## Author Contribution

Concept, design, planning: PP, AG; Literature review: PS, AG; Data collection: PS; Data analysis: PS, AG; Draft manuscript: PS; Revision of draft: PS, AG; Final manuscript: PS, AG; Accountability of the work: PS, AG.

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