

# HEALTH PROBLEMS OF PERIMENOPAUSAL AND POSTMENOPAUSAL WOMEN RESIDING IN RURAL AREA OF MANGALORE: A CROSS-SECTIONAL STUDY

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## ABSTRACT

The mean age at natural menopause is  $45.32 \pm 2.79$  years. When age at menopause was correlated with religion, education, employment status, marital status, socioeconomic status, age at menarche, parity, menstrual cycle such personal habits (tobacco/pan/ beetle nut chewing,) no significant association was found in this study.

Education did not correlate with age at natural menopause in this study. Similarly employment status did not reveal any significant relationship with age at natural menopause. No correlation was found between marital status and age at menopause. our study subjects reported mostly muscle and joint pain (39.25%), vasomotor symptoms (21%), urological symptoms (20.5%), vulvovaginal symptoms (19.25%), weight gain (13%), psychosexual symptoms (10%). Hirsutism (1.25%). Hot flashes were experienced more by postmenopausal women (64%) as compared to perimenopausal women (36%). When assessed about attitude 89.25% of the women felt that menopause is freedom from cyclical bleeding. According to 10.25%, it is a normal physiological manifestation of the ageing process. Thus 99.50% of women have a positive attitude towards menopause. This may be the reason, why overall symptoms are less compared to other studies.

Keywords – Menopause, perimenopause, postmenopause, hot flashes

## INTRODUCTION

The two most significant physiological changes in a woman's life are the onset of menstruation during puberty, which marks the start of her reproductive life, and the cessation of menstruation, which marks the end of her reproductive life.<sup>(1)</sup>

Menopause is the stage in women's life when reproductive capacity comes to end. Ovaries slow down functioning and the production of steroid and peptide hormones reduces. Symptoms that occur in the body due to cessation of ovarian function and related menopause events are sleep disruption, hot flashes, vaginal dryness and discomfort, night sweats, etc.

Natural menopause happens between the ages 45 & 55 years for the women worldwide according to WHO. In developed countries the average age at menopause is around 51 years, while in developing countries, it ranges from 43 to 49 years.<sup>(2,3)</sup>

In 1990, 40% of postmenopausal women lived in industrialized regions and 60% lived in developing countries. By 2030, the proportion of postmenopausal women living in the industrialized region will decline to 24% and 76% will be living in the developing regions, in 1990 about 25 million women worldwide reached menopause this number is expected to be doubled by the late 2030<sup>(4)</sup>.

A study based on a National family health Survey carried out in 1998 & 1999 and examined samples of more than ninety thousand married women aged between 15-49 years across 26 Indian states. The report, which was presented in Parliament, has stated that in India 3% of the women are already in menopause by the age of 30-34 years and the incidence rises to 8% for the age group of 35-39 years, with menopause setting in

quite rapidly after the age of forty. In India, the average age of menopause is 44.3 years. The study revealed that Indian women fare abysmally with reference to their menopausal health. The percentage of young menopausal women was highest in Andhra Pradesh (31%), Bihar (22%), Karnataka (20%), West Bengal (13%), Rajasthan (13%), and Kerala (12%). Overall the % of women hit by premature menopause is marginally lower in urban areas (16%) as against rural areas (18).<sup>(5)</sup>

The Reproductive and Child Health Program (RCH) "assumed a life cycle approach" in dealing with both men and women's health issues, stating that individuals of all ages, rather than focusing solely on women of reproductive ages, require equal attention. However, while analyzing the essential and additional packages provided under this program, the services for older women & women in late reproductive years are almost non-existent and therefore, the concept "Life approach" remains merely on paper. The recent health policy adopted by India also does not emphasize the issues of older women, especially during their menopausal period, adding a new dimension to the already challenging health situation, could be the rise in life expectancy & increasing number of women reaching menopause, as well as the added health & other related social consequences.<sup>(6)</sup>

Unless due attention is given to this emerging silent transition in a woman's life in the later stage and its associated problems in the recent RCH program, this problem may continue to grow in the coming years & affect their quality of life. Therefore primary health centers in India should be able to deliver the required health services for menopausal women, primarily because the poorest sections of society are reaching menopause early and may not be in a position to avail of services from the private sector mainly because of their high cost. Apart from the specific treatment health education should be an integral part of health care for women in their midlife years. As a community-oriented program, the husband & other family members could also be educated in this regard, so that proper support could be ensured at the family level to make the transition reasonably smooth. As a result, India may need to plan forward for the provision of necessary health services, education, and promotional efforts to meet the health needs of expanding menopausal and postmenopausal women in the future.<sup>(6)</sup>

In light of the foregoing, it is critical to address all of these menopause-related issues and implement preventative measures so that these women can live a happy and healthy life. In view of this, this cross-sectional study has been

conducted in a rural area to assess the different aspects of morbidity variables associated with a premenopausal and postmenopausal period of women's life.

## MATERIAL AND METHODS

**Study design:** A cross-sectional study

**Study setting:** Rural field practice area of K.S. Hegde medical academy, Natekal

**Study population:** The women of the age group of 40-60 years.

**Study duration:** The duration of the study was one year

The sample size is 400.

### Inclusion criteria:

1. Women in the age group of 40-60 years
2. Women who are willing to participate in the study and have given written consent.

### Exclusion criteria:

1. Women who have undergone hysterectomy.
2. Women who are not willing to participate in the study.
3. Women with psychiatric disorders

### Sampling method:

Simple random sampling.

## METHOD OF DATA COLLECTION

A pre-tested semi-structured questionnaire was used for the collection of data by interview method which includes: family composition, menstrual history, presenting health problem, past history, family history, personal history, and dietary history.

A female intern / ANM has been accompanied for the interview. The interview was conducted only after taking the written consent from the women. The interview was done in a private setting so that the confidentiality of the study was ensured. The interview was conducted in the local language Kannada / Tulu and the full confidentiality of the study was assured.

The proposal was approved by the Institutional Ethical committee. Informed Consent was taken from the participants before the interview.

**RESULTS**

Out of 400 women, 84.75% were married, 13.5% were widowed, and 1.75% were unmarried (Table-1).

**Table1: Distribution of women according to marital status**

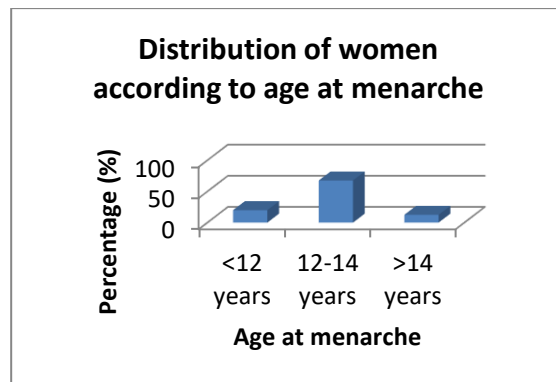
| Marital status | No of women |
|----------------|-------------|
| Married        | 339         |
| Unmarried      | 7           |
| Widowed        | 54          |
| Separated      | 0           |
| Total          | 400         |

**Table 2: Distribution of women according to duration since menopause**

| Duration since menopause | %      |
|--------------------------|--------|
| <5 years                 | 34.64% |
| 5-10 years               | 53.17% |
| >10 years                | 12.19% |

Out of 205 menopausal women, 109 achieved menopause 5-10 years back. 71 achieved menopausal less than 5 years. & only 25 achieved menopause 10 years back (Table-2).

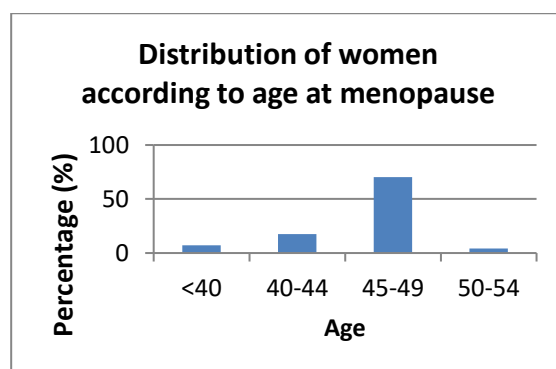
270 women out of 400 reached menarche between the ages of 12 and 14. Menarche occurred in 80 women under the age of 12 years and 50 women under the age of 124years (Graph-1).



**Graph1: Distribution of women according to age at menarche**

145 women had onset of menopause between 45-49 years followed by 36 women between the age of 40-44 years and 15 women less than the age of 40years (Graph-2). Mean age at menopause was found to be  $45.32 \pm 2.79$  with the range of (32-54).

**Graph 2: Distribution of women according to age at menopause**



Out of 195 perimenopausal women, most of them, i.e. 140 are experiencing the moderate

type of bleeding pattern and in the majority of the women i.e. 113 (Table-3).

**Table 3: Distribution of women according to current bleeding pattern**

| Current bleeding pattern | % of women |
|--------------------------|------------|
| Heavy                    | 9.74 %     |
| Moderate                 | 71.79 %    |
| Scanty                   | 18.46%     |

In 133 of the women the average of blood flow was for 3-5 days. In 29 women average blood flow is less than 3days where as in 33 women average blood flow is more than 5 days (Table-4). (Pattern of bleeding assessed from a number of diapers to be changed).

**Table 4: Distribution of women according to days of menstrual flow**

| No of days of menstrual flow | %of women |
|------------------------------|-----------|
| < 3days                      | 14.87 %   |
| 3-5 days                     | 68.2 %    |
| >5 days                      | 16.92 %   |

Average age of menopause was also not affected by marital status which was statistically found to be non-significantly (Table -5).

**Table 5 : Relationship between mean age at menopause and marital status**

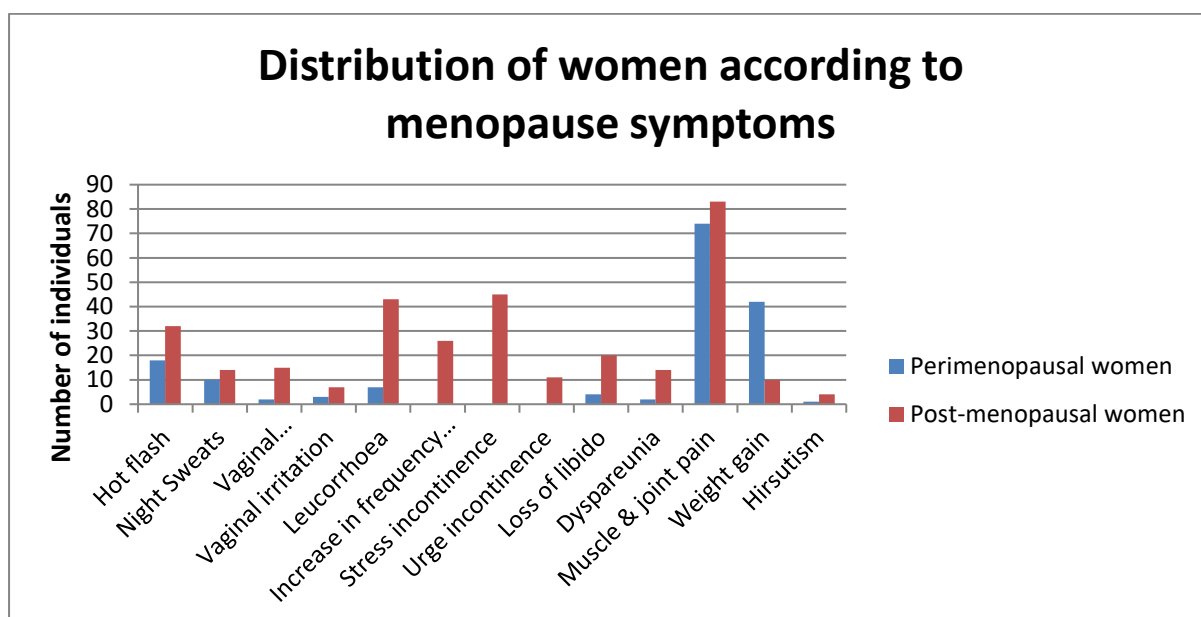
| Marital status | Mean $\pm$ SD    | F-value | p-value |
|----------------|------------------|---------|---------|
| Married        | 45.35 $\pm$ 2.75 | 0.33    | 0.8036  |
| Widowed        | 45.20 $\pm$ 3.02 |         |         |
| Total          | 45.32 $\pm$ 2.79 |         |         |

There was no statistically significant association between age at menarche and age at menopause (Table-6).

**Table 6: Relationship between mean age at menopause and age at menarche**

| Age at menarche | Mean $\pm$ SD    | F-value | p-value |
|-----------------|------------------|---------|---------|
| <12 Years       | 45.31 $\pm$ 3.18 | 0.91    | 0.4041  |
| 12-14 Years     | 45.41 $\pm$ 2.55 |         |         |
| <14 years       | 44.11 $\pm$ 3.37 |         |         |
| Total           | 45.32 $\pm$ 2.79 |         |         |

Graph 3: Distribution of women according to menopausal symptoms



9.23 % of hot flashes, 5.13 % of night sweats, 1.03 % of vaginal dryness, 1.54 % of vaginal irritation, 3.59 % of leucorrhoea, 2.05% of loss of libido, 1.03% of dyspareunia, 37.95 % of muscle & joint pain, 21.54% of weight gain, 0.51 % of hirsutism in perimenopausal women were observed.

15.61 % of hot flash, 6.83 % of night sweats, 7.32 % of vaginal dryness, 3.41 % of vaginal irritation, 20.98 % of leucorrhoea, 12.68 % of increase in frequency of maturation, 21.95 % of stress incontinence, 5.37 % of urge incontinence, 9.76 % of loss of libido, 6.83 % of dyspareunia, 40.49 % of muscle & joint pain, 4.88 % of weight gain, 1.95 % of hirsutism in post-menopausal women were observed.

## DISCUSSION

The average age at natural menopause in this study was  $45.32 \pm 2.79$  years. The mean age at menopause was 44.7 years in a study conducted by Shah R et al among women in Mumbai<sup>(7)</sup>, and 46.82 years in a study conducted by Kapur P et al among women in the Haridwar area of Uttarkhand<sup>(8)</sup>.

Sharma S et al<sup>(9)</sup> found that the average age of menopause among urban women in Jammu was 47.35 years. Kriplani A et al<sup>(10)</sup> found that the average age at menopause for northern Indian women was 46.7 years. In research by Quazi et al., the average age at menopause in Pakistani women was 47.16 years<sup>(11)</sup>.

In the Malaysian women the average age at menopause was 50.7 years<sup>(12)</sup>. The average age of menopause was 50.7 years in another study conducted by Brambilla – DJ<sup>(13)</sup> on English women.

In comparison to women in affluent nations, the average age at menopause in Indian women is lower. It differs from one country to the next, even within the same country but in different regions. These differences could be due to geographical, community, and ethical differences. Environmental, dietary, and genetic variables may all have a role.<sup>(14)</sup>

No correlation was found between marital status and age at menopause. It is supported by Kaw D et al<sup>(15)</sup>. There is hardly any literature available for comparison.

In this study, no significant association was found between age at menopause and age at menarche. This is following the observations of McKinlay et al (1972)<sup>(16)</sup> and Stanford et al (1987)<sup>(17)</sup>. Kaw D et al<sup>(15)</sup>, Bhardwaj JA et al<sup>(18)</sup>, Payer<sup>(19)</sup>, Okonofua FE, et al<sup>(20)</sup> and others, A few workers like Vankeep et al (1979)<sup>(21)</sup> did believe in the association of late menarche with earlier menopause. Beard has observed that the earlier the age at menarche the later is the age at menopause. The cause of such correlation is probably the same factors that lead to early menarche viz better nutritional status, better living conditions which also influence the age at menopause and as a result increases the overall reproductive period.

Although hot flashes are the most common symptom reported by many other Indian and Western studies, our study participants mostly reported muscle and joint pain (39.25%), vasomotor symptoms (21%), urological symptoms (20.5%), vulvovaginal symptoms (19.25%), weight gain (13%), psychosexual symptoms (10 %) and hirsutism (1.25 %).

Neslithan<sup>(22)</sup> from Turkey also reported a higher rate of complaints related to the musculoskeletal system (82.3%) as compared to hot flashes (73.9%).

Kapur P et al<sup>(8)</sup> also found the most prevalent symptom as muscle and joint pains (55.81%), followed by feeling tired or lack of energy (51.19%), eye problems (49.61%), headache (43.41%), and feeling unhappy or depressed (36.43%).

Loh FH et al<sup>(23)</sup> also found muscle and joint ache as the most commonly reported symptom (52.6%). Although the prevalence of significant hot flashes in the general study population was low (3.9%), it was the most commonly reported complaint by peri-menopausal women (14.6%).

The prevalence of vasomotor symptoms (hot flashes and night sweats) is much lower than that of western countries. The hot climate of our country may mask the similar symptoms associated with the climacteric.

In our study, hot flashes were experienced more by postmenopausal women (64%) as compared to perimenopausal women (36%), but the majority of the postmenopausal women experienced it within 1-3 years after menopause i.e. in the early menopausal period. 66.22% of women

in the age group of 45-49 experienced it while 27% experienced it in the 50-54 age group, which indicates that the rate of hot flashes declines in the late postmenopausal period. Our findings coincide with the Massachusetts Women's Health Study in which the incidence of hot flashes increased from 10% during the premenopausal period to about 50% just after cessation of menses. By approximately 4 years after menopause, the rate of hot flashes declined to 20 %<sup>(24)</sup>. In a community-based Australian Survey, 6% premenopausal women, 26% perimenopausal women & 59% postmenopausal women complained of hot flushing while in many other studies, von Muhlen – Dg<sup>(25)</sup> on Irish women, Survey conducted on Filipino women and study by Tang GW, Loutfy F. et al<sup>(26)</sup> and in many other studies, incidence and frequency of vasomotor symptoms were highest in perimenopausal women.

Urinary problems, such as increased frequency of micturition, stress incontinence, and urge incontinence, are the next significant symptom experienced by the study population. 31.7 percent reported increased micturition frequency, 54.88 percent reported stress incontinence, and 13.41 percent reported urge incontinence. In the age range of 50-54 years, all urinary symptoms were prevalent. The prevalence of urinary incontinence was determined to be 26.4 percent in a study conducted by RekersH<sup>(27)</sup>. The study's multivariate analysis revealed that menopause was the only factor that substantially influenced the start of incontinence.

Vulvovaginal symptoms were next in the frequency (19.25%). Out of this Vaginal dryness was present in 22.07%, vaginal irritation was present in (12.98%) and Leucorrhoea in 64.93% & psychosexual symptoms including loss of libido & dyspareunia was present in 10% out of which 60% complained of loss of libido & 40% experienced dyspareunia. Psychosexual symptoms were more common in postmenopausal women (85%) than perimenopausal women (15%).

According to a study conducted by Jahanfar S et al (28) among Malaysian women, 42.8 percent of menopausal women reported vaginal dryness (including sensations of dryness or burning in the vagina, difficulty in the sexual intercourse), but only 21.4 percent reported sexual problems (including changes in sexual desire, sexual activity, and satisfaction). This appears to be

best explained by physical changes. 13% of women in our study had a history of weight gain perimenopausal women (80.77%) gained more weight than postmenopausal women (19.33%). In a study conducted by Von Mullen <sup>(25)</sup> on menopausal women, 45% of women had a propensity to gain weight. In another study conducted by LEY – CJ <sup>(29)</sup> showed that postmenopausal women had 20% greater body mass than premenopausal women. This is contradictory to our findings.

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