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## Impact of educational intervention on reduction of menopausal effects

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### ABSTRACT

**Introductions:** It is helpful for women to learn what to expect and what options available in transition to menopause. The objective of this study was to find out the changes in the level of awareness among premenopausal women after educational intervention.

**Methods:** Study was carried out at mothers' group of PinchhenTole Lalitpur district, Kathmandu, Nepal. One hundred and four respondents were selected using non probability convenience purposive sampling technique. Data were collected before and after educational intervention.

**Results:** The findings reveal that the total awareness score was 26.81 in pre-test and 31.97 in post test. The grand mean score of awareness was 24.81 in pre-test and 29.85 in post test. Standard deviation was 3.47 and 0.50 pre-test and post-test respectively. The overall difference in knowledge between pre-test and post-test was highly significant.

**Conclusions:** Educational intervention among premenopausal women is highly significant in establishing and strengthening awareness about menopausal symptoms and its reduction measures.

**Keywords:** awareness, menopausal effect, premenopausal women, reduction measures

### Plain Language Summary

This study was conducted to see the effect of educational intervention among pre-menopausal women regarding post-menopausal effect. There was overall difference in knowledge between pre-test and post-test.

## INTRODUCTIONS

Menopause is permanent cessation of menstruation at the end of reproductive life due to loss of ovarian follicular activity. It is the point of time when last and final menstruation occurs.<sup>1</sup> Community based study in Nepal found the most pronounced symptoms are Loss of sexual interest, Joint pain and body aches, Urinary problem, Night sweats and hot flushes.<sup>2</sup>

It is inevitable and age related phenomenon and viewed as middle life crisis for women during their middle age.<sup>3</sup> Menopausal problem is a hidden and neglected health problem among the middle aged group women.

The objective of this study was to find out the changes in the level of awareness on reduction measures of menopausal effects among premenopausal women after educational intervention.

## METHODS

The study was pre test post test design. This study was carried out in Mothers group of Pinchen Tole Patan, ward no. 8, Lalitpur Sub Municipality, Kathmandu, Nepal. The study population consisted of all premenopausal women after 40 years age of Mothers.

One hundred and four samples were selected by using non probability purposive sampling technique.

Written permission was obtained from mothers group and an informed consent was obtained verbally with the each respondent. The interview was taken by using semi-structured interview questionnaire in pre test. Soon after completion of pre-test, the educational intervention was carried out in three different groups. After a week of educational intervention, the same tool was used as a post-test to respondents who participated in the pre-test.

Data were analyzed using the statistical software package SPSS version 16. Data were expressed as percentage frequency, mean score and standard deviation. Pre and post intervention knowledge of menopausal effects was evaluated with a paired t-test.

## RESULTS

Sixty six (64%) respondents were in the age group of 40-45 years, three (2.9%) in 56 and above. All 104 (100%) of respondents were Newar community and

54 (52%) respondents were illiterate. Respondents knowledge about menopause condition leading to its symptoms and reduction measures are shown in table 1 to 4. There were significant improvements in level of awareness after educational intervention (Table 5).

**Table 1. Respondents' knowledge about introduction of menopause (n=104).**

| Introduction of menopause                 | Pre-test |      | Post test |       | P-value       |
|---|----------|------|-----------|-------|---------------|
|   | No.      | %    | No.       | %     |               |
| Meaning of menopause                      | 101      | 97.1 | 104       | 100.0 | .083          |
| Menopause usually comes at certain age    | 94       | 90.4 | 103       | 99.0  | .006          |
| Menopause is a normal condition           | 101      | 97.1 | 104       | 100.0 | .083          |
| Menopause is relation with family history | 68       | 65.4 | 102       | 98.1  | .000          |
| Menopause leads to physical problems      | 90       | 87.0 | 103       | 99.0  | .001          |
| Menopause leads to psychological problem  | 78       | 75.0 | 104       | 100.0 | .000          |
| Menopause leads to other Diseases         | 85       | 81.7 | 104       | 100.0 | .000          |
| General age group of Menopause            | 80       | 77.0 | 95        | 91.3  | .003          |
| Come at early age for some women          | 93       | 89.4 | 102       | 98.1  | .012          |
| Total mean score                          | 7.59     |      | 8.85      |       | 0.000 (>0.05) |
| Standard deviation                        | 1.36     |      | 0.37      |       |               |

**Table 2. Respondents' knowledge: condition leading to early menopause.**

| Conditions        | Pre-test |         | Post-test |         |
|-------------------|----------|---------|-----------|---------|
|                   | Number   | Percent | Number    | Percent |
| Malnutrition      | 17       | 16.34   | 85        | 81.73   |
| Smoking           | 1        | 0.96    | 38        | 36.53   |
| Heredity          | 13       | 12.57   | 46        | 44.23   |
| Disease condition | 21       | 20.19   | 0         | 0.00    |
| Cancer drugs      | 0        | 0.00    | 11        | 10.57   |

**Table 3. Respondents Awareness: physical symptoms related to menopause (n=104).**

| Physical symptoms                     | Pre test |      | Post-test |       | P-value       |
|---------------------------------------|----------|------|-----------|-------|---------------|
|                                       | No.      | %    | No.       | %     |               |
| Hot flushes                           | 66       | 63.5 | 104       | 100.0 | .000          |
| Night sweats                          | 77       | 74.0 | 104       | 100.0 | .000          |
| Vaginal dryness & difficult to coitus | 72       | 69.2 | 104       | 100.0 | .000          |
| Loss of interest in sex               | 97       | 93.3 | 104       | 100.0 | .008          |
| Palpitation                           | 82       | 78.8 | 104       | 100.0 | .000          |
| Tingling sensation of limbs           | 65       | 62.5 | 104       | 100.0 | .000          |
| Weight gain                           | 37       | 35.6 | 94        | 90.4  | .000          |
| Mean score.                           | 4.7692   |      | 6.9038    |       | 0.000 (<0.05) |
| Standard deviation                    | 1.80738  |      | 0.29623   |       |               |

**Table 4. Respondent's Awareness: Reduction Measures of Menopausal Symptoms (n=104).**

| Reduction measures                         | Pre-test |      | Post-test |       | P-value    |
|--|----------|------|-----------|-------|------------|
|  | No.      | %    | No.       | %     |            |
| Increase Fluid Intake                      | 96       | 92.3 | 104       | 100.0 | .004       |
| Consumption Of Green Vegetables And Fruits | 94       | 90.4 | 104       | 100.0 | .000       |
| Consumption Of Soy Products                | 62       | 59.6 | 104       | 100.0 | .000       |
| Exercise, Yoga, Meditation                 | 89       | 85.6 | 104       | 100.0 | .000       |
| Recreational Activities                    | 89       | 85.6 | 103       | 90.0  | .000       |
| Decrease / Stop Alcohols                   | 101      | 97.1 | 104       | 100.0 | .083       |
| Decrease/ Stop Smoking                     | 101      | 97.1 | 104       | 100.0 | .083       |
| Cold Water Bathing                         | 64       | 61.5 | 104       | 100.0 | .000       |
| Hormone Replacement Therapy                | 103      | 99.0 | 104       | 100.0 | .320       |
| Mean score                                 | 7.6827   |      | 8.9904    |       | .000 <0.05 |
| Standard deviation                         | 1.16806  |      | .09806    |       |            |

**Table 5. Scoring awareness level as whole(n=104).**

| Awareness level | Pre test |       | Post test |     | P- value |
|-----------------|----------|-------|-----------|-----|----------|
|                 | No.      | (%)   | No.       | (%) |          |
| Low (<50%)      | 2        | 1.92  | -         | -   |          |
| Average (50-70) | 20       | 19.23 | -         | -   | 0.000    |
| High (>70)      | 82       | 78.84 | 104       | 100 |          |

## DISCUSSIONS

The awareness about menopause was 7.59 in pre test was increased to 8.85 in post-test (p-value<0.05).

In regard to reduction measures, the mean awareness was 7.68 in the pre-test, which changed to 8.99 in the post-test. Similarly, studies have shown that most women do not require specific medical management but the concern raised by premenopausal changes provides an opportunity for health care providers to discuss lifestyle issues including smoking, exercises, diet, high calcium intake, weight maintenance and stress reduction etc.<sup>4-5</sup> The respondents awareness level increased to post test.

## CONCLUSIONS

There were significant positive changes in awareness about menopause after educational intervention.

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