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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 are 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 Pinchhen Tole 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 in 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 premenopausal 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 an 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 Pinchhen Tole Patan, ward No. 8, Lalitpur Sub Municipality, Lalitpur, 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 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 again 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 years and above. All 104 (100%) of respondents were from Newar community and

54 (52%) respondents were illiterate. Respondents' knowledge about menopause, conditions leading to it, 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 problems	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 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 after educational intervention.

## CONCLUSIONS

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

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