

# Effectiveness of Education and Information Technology on Menopausal Syndrome among Rural and Urban Premenopausal Women

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## Abstract:

**Background:** Menopause is defined as the point in time when menstrual cycles permanently cease due to the natural depletion of ovarian oocytes from aging. The diagnosis is typically made retrospectively after the woman has missed menses for 12 consecutive months. Pre-menopause is a biological stage in a woman's life when she is no longer fertile and is marked by the cessation of menstruation. The study aimed to assess the effectiveness of education and information technology on menopausal syndrome among rural and urban premenopausal women.

**Methods:** Pre experimental research design was used with 50 rural premenopausal women and 50 urban premenopausal women samples who matched the inclusion criteria were selected by simple random sampling technique. Demographic variables were collected by self structured questionnaires. The results of the study are in rural, 31(62%) women had adequate knowledge in pre test and 40(80%) in post test, 15(30%) women had moderate knowledge in pre test and 10(20%) in post test, 4(8%) women had adequate knowledge in pre test. In urban 42(8%) women had adequate knowledge in pre test and 39(78%) in post test, 7(14%) women had moderate knowledge in pre test and 11(22%) in post test, 1(2%) women had adequate knowledge in pre test on menopausal syndrome among rural and urban premenopausal women.

**Conclusion:** The study concludes that majority of the women had a negative outlook towards premenopausal syndrome and their management. After providing information regarding premenopausal syndrome and management women had a positive outlook.

**Key Words:** Education and Information Technology, Premenopausal Syndrome, Management and Menopause

## Introduction

**Menopause** is defined as the point in time when menstrual cycles permanently cease due to the natural depletion of ovarian oocytes from aging. The diagnosis is typically made retrospectively after the woman has missed menses for 12 consecutive months. It marks the permanent end of fertility and the average age of menopause is 51 years. It is a natural process just as puberty is natural. Puberty prepares a girl and bear children and menopause prepares women to cease to be able to conceive. Both cause sudden changes in one's body, puberty by introducing hormones and menopause by withdrawing them<sup>1-2</sup>.

The term menopause is derived from two Greek words 'meno' and 'pause' meaning "month" and "stop". Thus it is perm Menopause is the permanent cessation of menstruation at the end of a woman's reproductive life due to loss of ovarian follicular activity. It is the point of time when the last and final menstruation occurs. The clinical diagnosis is confirmed following stoppage of menstruation (amenorrhea) for twelve consecutive months in absence of any other pathology<sup>3-5</sup>.

Pre menopause is the physiological termination of normal menstrual cycles. Pre menopause is generally caused more early than the normal age which is associated with the cessation of the menstrual cycles<sup>6,7</sup>. Pre menopause occurs when the ovaries virtually stops

producing the estrogen which generally leads the fertility aspect of the women to shut down. Because pre menopause is a very important period in women's life; informed knowledge of what to expect will go a long way to prepare a woman for what is to come during menopause proper, especially because each woman's transition from pre menopause to menopause may differ drastically due to the difference in the amount of the male hormone androgens that may be produced, which accounts for the devastating secondary male characteristics often exhibited by menopausal women<sup>8</sup>.

Perimenopause or menopausal transition is the stage of a women's reproductive life that begins several years before menopause, when the ovaries gradually begin to produce less estrogen. It usually starts in the women's forties. Perimenopause lasts up until menopause, the point when the ovaries stop releasing eggs. In the last one to two years of perimenopause, the decline in estrogen accelerates. At this stage, many women experience menopausal symptoms. Since menopause is due to the **depletion of ovarian follicles/oocytes** and severely reduced functioning of the ovaries, it is associated with lower levels of reproductive hormones, especially estrogen. Low estrogen can result in vasomotor instability (such as hot flushes and night sweats), psychological changes (such as mood swings, depression, and difficulty concentrating), insomnia, genital tract atrophy (such as vaginal dryness, painful intercourse, and urinary incontinence), and skin changes (such as thinning and decreased elasticity). Lower androgen levels (male hormones) can contribute to the loss of sex drive. Any abnormal vaginal bleeding should be reported immediately to your doctor, since this may represent a precancerous or cancerous condition of the uterus or endometrial lining<sup>9-12</sup>.

In general, menopausal symptoms are burdensome to many women who suffer from them. Although the impact of these symptoms on health-related quality of life has been reported across a variety of populations incorporating different instruments, the burden these symptoms pose to society through increased healthcare utilization and lost productivity and wages has not been well established<sup>13</sup>. The objective of this study was to evaluate the impact of menopausal symptoms on health-related quality of life and productivity and quantify the economic burden. Though studies exist on

menopausal women, only a few focused on the health of these women. Midlife is thus a time to focus on oneself and to seek resources from within the family and community to maintain and enjoy equilibrium. Women need knowledge about what to expect and how to cope with changes during menopause. Hence the investigator has planned to conduct a comparative study to assess the level of knowledge and intervention on signs, symptoms and management of menopausal syndrome among rural and urban premenopausal women.

## Material and Methods

A pre experimental study was chosen to assess the effectiveness of education and information technology on menopausal syndrome among rural and urban pre menopausal women. The study was conducted in two different settings one in Singanodai Village (rural) and another in Thirukkadaiyur (urban). 100 samples 50 samples from rural pre menopausal women and 50 samples from urban premenopausal women (40-55 years) who meet the inclusion criteria were selected by using simple random sampling technique. The data to assess the knowledge was collected by using the self structured questionnaire. The collected data were analyzed by using descriptive and inferential statistics.

## Result

The present investigation in rural area brings about that majority of the women belong to age bunch between 46-50 years who moderately replied (90%), dominant part of them belong to Hinduism(84%), a large portion of the women had grade school education (56%), larger part of them were hitched (74%), most of them share joint family is(68%), the greater part of the ladies were right now not working(76%), the vast majority of them accumulated wellspring of data from wellbeing camp(72%), majority of family income is lesser than 10000 (86%).

The present study results in urban area depicts that women with age bunch of 40-45 years answered moderately (88%), majority of them were Hindus (74%), most of the people had high school and primary school (28%), majority of them were married (72%), majority of them reside joint family (54%), most of the people were currently not working (72%), the vast majority of them accumulated source of information from community

health nurse (64%), majority of them had family income between 11000-30000 is (68%).

**Table 1: Distribution of level of pre and post test knowledge and practice on menopausal syndrome among rural premenopausal women.**

Level of Knowledge	Rural women(N=50)			
	Pre-test		Post-test	
	N	%	N	%
Adequate knowledge	31	62%	40	80%
Moderate knowledge	15	30%	10	20%
Inadequate knowledge	4	8%	-	-

**TABLE 1** shows that pre test data in rural area, 31(62%) has adequate knowledge, 15(30%) has moderate knowledge and 4(8%) has inadequate knowledge. The post test data revealed that in rural area, 40(80%) has adequate knowledge and 10(20%) has moderate knowledge.

**Table 2: Distribution of level of pre and post test knowledge and practice on menopausal syndrome among urban premenopausal women.**

Level of Knowledge	Urban women(N=50)			
	Pre-test		Post-test	
	N	%	N	%
Adequate knowledge	42	84%	39	78%
Moderate knowledge	7	14%	11	22%
Inadequate knowledge	1	2%	-	-

**TABLE 2** shows that the pre test data in urban area, 42(84%) has adequate knowledge, 7(14%) has moderate knowledge and 1(2%) has inadequate knowledge. The post test data revealed that in urban area, 39(78%) has adequate knowledge and 11(22%) has moderate knowledge.

**TABLE 3: Mean and standard deviation for the effectiveness of pre – test and post – test of menopausal syndrome among rural premenopausal women. (N=100).**

Level of pre- test and post – test.	Mean	Standard Deviation	Wilcox on rank sum Test
Pre – test	32.2	7.011	Z= – 5.9683 W-564 P - <0.00001 <b>POSITIVE (S)</b>
Post – test	26.94	2.216	

**TABLE 3** Show that the overall effectiveness of pre test mean value is 32.2 and standard deviation is 7.011. Post test mean value is 26.94 and standard deviation is 2.216 and Wilcoxon rank sum test value is  $Z = -5.9683$ ,  $W = 564$ ,  $P < 0.00001$ , it will be Positive and significant.

**TABLE 4 : Mean and standard deviation for the effectiveness of pre – test and post - test of menopausal syndrome among urban premenopausal women.**

Level of pre- test and post – test.	Mean	Standard Deviation	Wilcoxon rank sum Test
Pre – test	28.22	9.751	$Z = -5.7115$ $W = 473$ $P < 0.00001$ <b>POSITIVE</b> <b>(S)</b>
Post – test	26.1	3.360	

**TABLE 4** Show that the overall effectiveness of pre – test mean value is 28.22 and standard deviation is 9.751. Post – test mean value is 26.1 and standard deviation is 3.360 and Wilcoxon rank sum test value is  $Z = -5.7115$ ,  $W = 473$ ,  $P < 0.00001$ , it will be Positive and significant.

**Table 5: Association between post test knowledge and demographic variables of urban premenopausal women.**

Demographic variables	Adequate		Moderate		Chi Square
	N	%	N	%	
Types of family					$X^2 = 11.18$ $df = 1$ <b>S</b>
· Nuclear	36	72%	-	-	
· Joint	10	20%	4	8%	

**TABLE 5** showed that there was statistically significant found between the types of family and the level of knowledge and intervention on menopausal syndrome among urban premenopausal women in Thirukkadaiyur.

## Discussion

The present study in rural area the pre test data shows that, 31(62%) has adequate knowledge, 15(30%) has moderate knowledge and 4(8%) has inadequate knowledge. The post test data revealed that in rural area, 40(80%) has adequate knowledge and 10(20%) has moderate knowledge. The present study in urban area the pre test data shows that, 42(84%) has adequate knowledge, 7(14%) has moderate knowledge and 1(2%)

has inadequate knowledge. The post test data revealed that in urban area, 39(78%) has adequate knowledge and 11(22%) has moderate knowledge.

This study is supported by Paudyal et al. (2014) who conducted the study to assess the Knowledge on perimenopausal symptoms among women attending Lumbini Medical College Teaching Hospital his results depicts that 63.4% of respondents had poor, 33.8% had fair and only 2.8% had good level of knowledge

regarding menopause. The reason behind the poor knowledge may be due to less appropriate source of information as majority of the women (81.2%) discuss their problems with their friends or relatives but not with doctors or nurses. Concerning hot flushes as a perimenopausal this study revealed that, almost half of the respondents (49.3%) answered that it is a one of the perimenopausal symptom<sup>14</sup>.

According to Park and Lee, 2011 Korean postmenopausal women had more negative attitudes toward menopause and a low level of performing health promoting behaviors. Hot flush is one of the most commonly reported symptoms during menopause and it is referred to as vasomotor symptoms along with night sweats<sup>15</sup>.

### Conclusion

The study concludes that majority of the women had a negative outlook towards premenopausal syndrome and their management. After providing information regarding premenopausal syndrome and management women had a positive outlook.

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