



Effectiveness of structured teaching program on knowledge regarding menopausal problems and their remedial measures among middle aged women of selected areas of Jaipur (Raj)

Neha Mehta¹, Reddy GS²

¹ Nursing Tutor, Ph.D., Nursing Scholar (MVGU Jaipur), GNTC, SMS Hospital, Jaipur, Rajasthan, India

² Principal, SDPS College of Nursing, Indore, Madhya Pradesh, India.

Abstract

Introduction: Menopause is a physiologic change and is universal and unavoidable in a women's reproductive journey. In few cases symptoms of menopause sometimes does not affect daily life of women while for others it is troublesome phase with many issues. Knowing more about menopause might empower women to cope better with menopausal changes and use effective measures for its management.

Objective: The study aimed at assessing the existing knowledge and posttest knowledge regarding Menopausal problems and its remedial measures among middle aged women, determining the effectiveness of structure teaching program and finding the association between pre-test knowledge scores with selected demographic variables.

Method: The study was conducted among 240 middle-aged women of 35-50 years of age. A Quasi-experimental one group pretest- posttest, pre-experimental design was adopted. Samples were selected through consecutive sampling technique from selected areas of Jaipur. Data were obtained through structured interview Questionnaire on (day 1st), then STP was administered to the participants. On the (day 7th). Analysis of the obtained data was done by frequency, percentages, chi-square, and paired 't' test.

Result: the pretest knowledge of 85% of middle-aged women was found inadequate, 12.5% had moderate and 2.5% had adequate knowledge. In posttest 37.5% of the middle aged women gained adequate knowledge, 50% had moderate knowledge and 12.5% had inadequate knowledge regarding menopausal problems and their remedial measures. The overall pretest and posttest mean and standard deviation was found 10.92 ± 3.32 & 27.33 ± 6.25 respectively. The structured teaching program was found to be effective in terms of enhancement of knowledge regarding menopausal problems and its remedial measures from 16.40 ± 2.93 . The paired t-test value (-34.24^*) shows statistical significance at level of $p < 0.05$, establishing the effectiveness of STP. The chi-square values revealed significance at 5% level with occupation ($\chi^2 = 502^a$), age at menarche ($\chi^2 = 3.38$), religion ($\chi^2 = 5.74$), type of family ($\chi^2 = 2.05^a$).

Conclusion: There is a significant increase in the knowledge of women regarding menopausal problems and their remedial measures. The structured teaching program was found to be an effective means to increase the knowledge of women regarding menopausal problems and their remedial measures.

Keywords: knowledge, structured teaching program, menopause, menopausal problems, remedial measures, middle-aged women & chi-square

Introduction

Menopause is a physiological transitional phase in a women's midlife. During menopause the women gradually, moves from reproductive to non-reproductive stage^[1]. The World Health Organization (WHO) stated menopause as 'the permanent cessation of menstruation due to loss of ovarian follicular activity^[2]. Without any pathology, if menopause is recognized after 12 months or more of amenorrhea it is, termed as Natural menopause^[3]. Worldwide, the median age at menopause ranges from 45 to 55 years with life expectancy between 75-80 years^[4]. For women of India average age of menopause is 47.5 years with a life expectancy of 71 years. As the population of elderly people rising every year, it is estimated that by 2026, there will be 173 million people over 60 years of age of which 103 million are menopausal women. In India, the number of postmenopausal women will rise by 81% in the next 20 years from 27.1 million in 2010 to 43.0 million in

2030^[6]. Feminine issues like menarche, menopause, and reproduction are still not discussed in Indian societies. Generally females do not discuss their issues and likely they attend clinics after many months of suffering^[7]. Menopausal health demand now becomes a priority in Indian scenario due to increased life expectancy, growing population of menopausal women who live one third of their life in this hormone deficient state and recent trends of life style and health care services^[8, 9]. In common, menopausal symptoms include hot flashes, night sweats, sleep disturbances, irregular periods, and loss of libido, vaginal dryness, urinary incontinence, urgency, back pain and mood swings. Long term effects includes risk of an atherosclerosis, acute myocardial infarction, cardiovascular diseases, osteopenia, osteoporosis and Alzheimer's disease^[10]. In general, many women have low knowledge and practice about menopause transition issues, indicating the necessity to plan for interventions^[11].

With better information about menopause, consequences of the phenomenon are less. As menopause is a natural phenomenon, every woman will face menopause but awareness regarding its problems faced during menopause needs to be addressed. If a woman may not be aware of what's happening to her during this periods and it leads a stressful postmenopausal period. That's why awareness of the signs and symptoms of menopausal periods is so important. By having proper knowledge some of the stress that accompanied it can be minimized. Proper treatment can be taken to reduce the severity of some of the symptoms faced by the drastic hormonal changes in female body. So, the present study address that structured teaching program is one of the most important factors in raising women's awareness and improving their performance to improve their health status ^[12].

Materials and Methods

The present study aimed to assess the effectiveness of structured teaching program on menopausal problems and their remedial measures. Quasi-experimental one group pretest-posttest, pre-experimental research design had found appropriate for the study. 240 middle-aged women between 35-50 years of age were selected under study. Sample collection was through consecutive sampling technique and the data collected through structured interview technique using pre-tested and pre-designed questionnaire. Areas on which data collected were socio demographic information, knowledge regarding menopause, its symptoms and their remedial measures.

Inclusion criteria

1)The women who were willing to participate,2) were between ages 35-50 years, 3)present at the time of data collection, 4) approach menopause naturally, 5) who could speak Hindi & English were included in the study.

Exclusion Criteria

1)Women with surgical menopause, 2) who were unwilling to participate, 3) severely ill, 4) not present at the time of data collection,5) cannot speak Hindi & English were excluded from the study.

The tool was divided into two sections. Section A include socio demographic data (Age, Religion, No of Children, Type of Family, Age of Menarche and Marriage, Previous Source of Information, Marital Status, Qualification, Occupation, Monthly Income) and section B include structured interview

schedule on menopausal problems and their remedial measures. 08 experts established the validity of the tool and the reliability was obtained by split half method and was found 0.97 for the present study.

Formal written permissions had obtained from concerned authorities before data collection. The data had collected from September to October 2016. Written informed consent had taken from the middle-aged women after explaining the purpose of the study. The data was collected in three phases. Phase I included pretest on 1st day by administering structured interview questionnaire on 240 middle aged women. Phase II included administration of structured teaching program regarding menopausal problems and its remedial measures to the subjects, clearing their doubts on the same day of pretest. Phase III Included posttest on 7th day after administration of the structured teaching program; the same structured knowledge questionnaire was used. Statistical Analysis: The data analyzed by using social science statistics. Both descriptive and inferential statistics including frequency, mean, mean percentage and standard deviation, SD %. The effectiveness of structured teaching program was analyzed by paired't' test. Association between mean pre-test knowledge scores with selected demographic variables were analyzed by chi-square test. Ethical Consideration: Written permission from the institutional authorities and informed consent from the subjects were obtained before conducting the study. No ethical issue was met while conducting the study.

Results

Table.1 presents baseline demographic variables. From Table.2 and Fig.1 it is evident that the pretest knowledge scores of majority of middle aged women (85%) had inadequate (< 50%) scores, (12.5%) had moderate knowledge (51-75%) scores and only (2.5%) had adequate knowledge (>75%) scores. The overall pretest mean knowledge scores for the present study was found to be 10.92±3.32. The aspect wise pretest mean scores is shown in [Table.3].

After administration of the pretest and structured teaching program the post test results showed that majority of middle aged women (50%) gained moderate knowledge, 37.5% gained adequate knowledge and 12.5% had still inadequate knowledge level scores[Table.2/Fig.1]

The overall posttest mean knowledge scores was found to be 27.33±6.25. The aspect wise posttest mean score is shown in [Table.3].

Table 1: Demographic characteristics of the middle aged women

Characteristics	Number (percentages)
Age group	
35-40	54(22.5)
40-45	104(43.4)
45-50	82(34.2)
Marital status	
Married	218(87)
Widow	15(6.25)
Separated	05(2.08)
Single	02(0.83)
Occupation	
Housewife	183(76.2)

Working	57(23.7)
Qualification	
No formal education	42(72.5)
Primary education	88(36.7)
Secondary/ senior sec.education	76(31.6)
Graduation/ Post-graduation	34(14.2)
Age at menarche	
10-12	61(25.4)
12-14	87(36.2)
14-16	63(26.2)
>16	29(12.08)
Religion	
Hindu	124(51.7)
Muslim	84(35)
Christian	22(9.17)
Any Other	10(4.17)
Type of family	
Nuclear	152(63.3)
Joint	63(26.2)
Extended	25(10.4)
Any previous knowledge on menopausal problems	
Yes	82(34.1)
No	158(65.8)
Source of knowledge on menopausal problems	
Electronic media	23(9.58)
Print media	40(16.7)
Health personnel	32(13.3)
Relatives or family members	80(33.3)
Friends/Neighbors	65(27)

Table 2: Classification of Respondents on pretest and posttest Knowledge level on Menopausal Problems & its Remedial Measures

Knowledge Level (Category)	Pretest N (%)	Posttest N (%)
Inadequate (<50%)	204(85)	30(12.5)
Moderate (50-75%)	30(12.5)	120(50)
Adequate (>75%)	6(2.5)	90(37.5)

N= Number of participants.

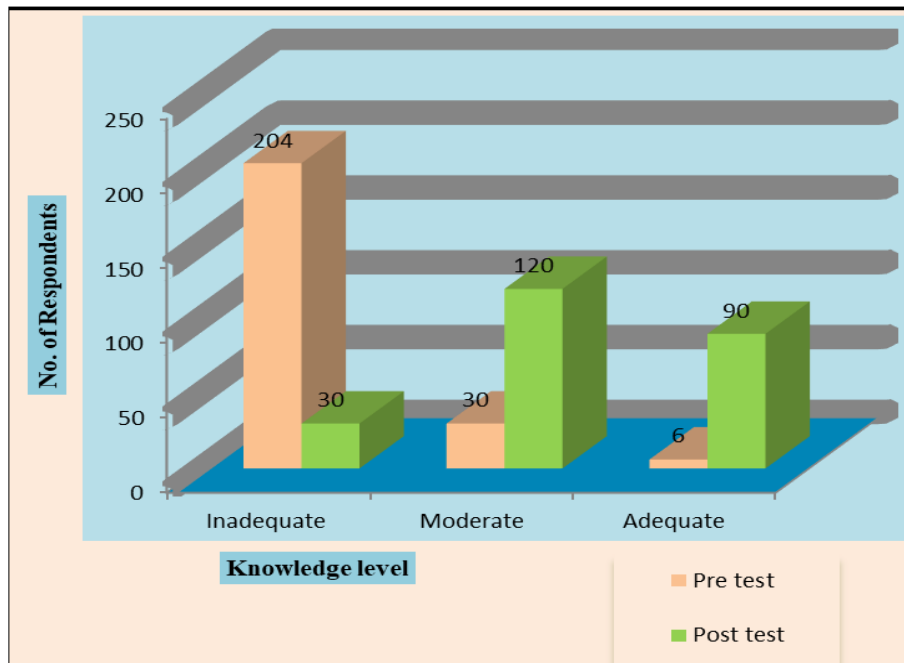


Fig 1: Classification of Respondents on pretest and posttest Knowledge level on Menopausal Problems & its Remedial Measures

Table 3: Aspect wise pretest and posttest knowledge scores of respondents on Menopausal Problems & its Remedial Measures

Knowledge aspect	Knowledge of respondents	
	Pretest Mean ± SD	Posttest Mean ± SD
General information on menopause & menopausal problems.	5.81 ± 3.1	15.50 ± 4.12
Remedial measures	5.11 ± 1.15	11.83 ± 2.55
Combined	10.92 ± 3.32	27.33 ± 6.23

To ascertain the effectiveness of structured teaching program and to find out significant differences in the level of knowledge before and after administration of the test, the

parameters were tested using paired ‘t’ test. The post test mean knowledge difference was 16.40±2.93 with a highly significant paired t value of -34.24.[Table.4]

Table 4: Overall Pretest and Posttest Mean Knowledge on Menopausal Problems & its Remedial Measures

Aspects	Max Score	Respondents Knowledge				Paired ‘t’ Test
		Mean	SD	Mean (%)	SD (%)	
Pre test	36	10.92	3.32	30.35	9.23%	- 34.24*
Post test	36	27.33	6.25	75.91	17.37%	
Enhancement	36	16.40	2.93	45.6%	8.1%	

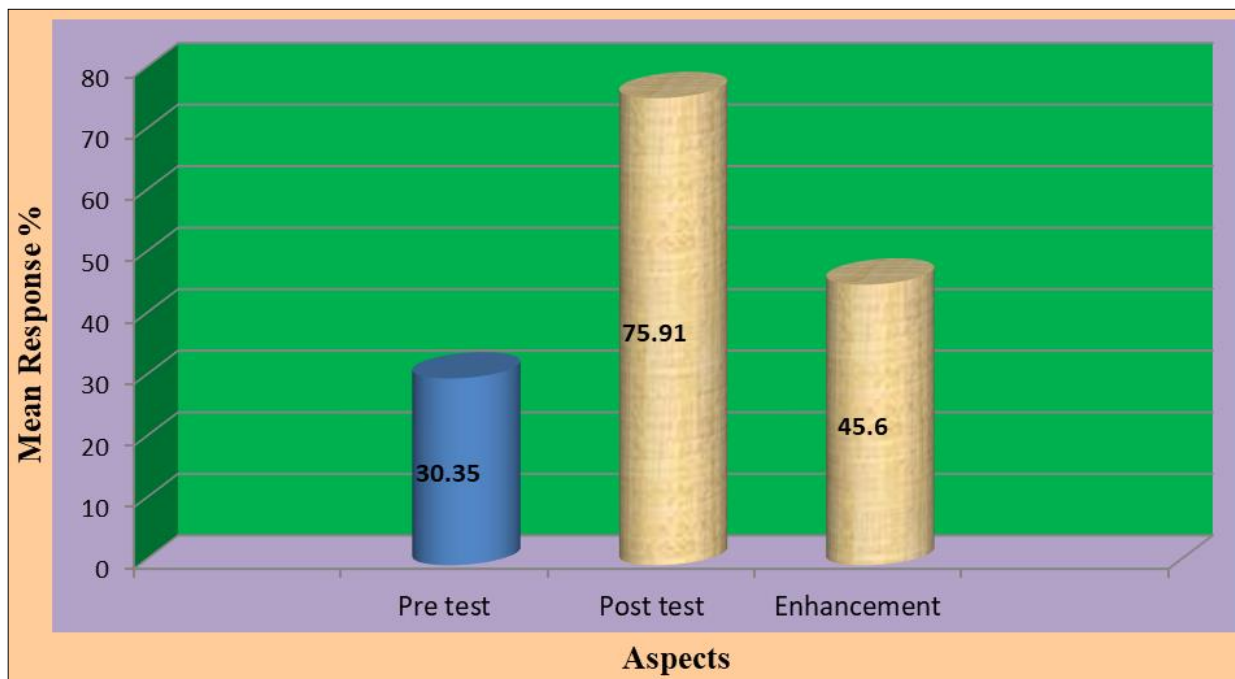


Fig 2

For the present study the chi square test performed to present the association between the selected demographic variables with pretest knowledge of middle aged women regarding menopausal problems and its remedial measures revealed significance at 5% level with occupation ($\chi^2 = 502^a$), age at

menarche ($\chi^2 = 3.38$), religion ($\chi^2 = 5.74$) and type of family ($\chi^2 = 2.05^a$). Hence research hypotheses H2 is proved and accepted. Other variables like age of respondents found no significance with pretest knowledge level. [Table.5] [Fig.3, 4, 5].

Table 5: Association of pretest knowledge of middle aged women with selected demographic variables

Characteristics	Sample	Respondents Knowledge			χ^2	P
		Inadequate	Moderate	Adequate		
Age of the participants						
35-40	54	49	04	1	1.9	0.7 NS
40-45	104	86	15	3		
45-50	82	69	11	2		
Qualification						
No formal education	42	37	5	0	2.8	0.8 NS
Primary education	88	75	11	2		
Secondary/ Sen. Sec	76	65	8	3		
Graduation / Post-Graduation	34	27	6	1		
Occupation						
Housewife	183	157	22	4	502 ^a	0.008 sig
Working	57	47	08	2		

Age of menarche						
10-12	61	50	9	2	3.3	0.00 Sig.
12-14	87	76	10	1		
14-16	63	54	6	1		
> 16	29	54	6	1		
Religion						
Hindu	124	105	14	5	5.7	0.04 Sig.
Muslims	84	69	14	1		
Christian	22	20	02	0		
Any other	10	10	00	0		
Type of family						
Nuclear	152	131	18	3	2.05 ^a	0.02 Sig.
Joint	63	54	7	2		
Extended	25	19	5	1		

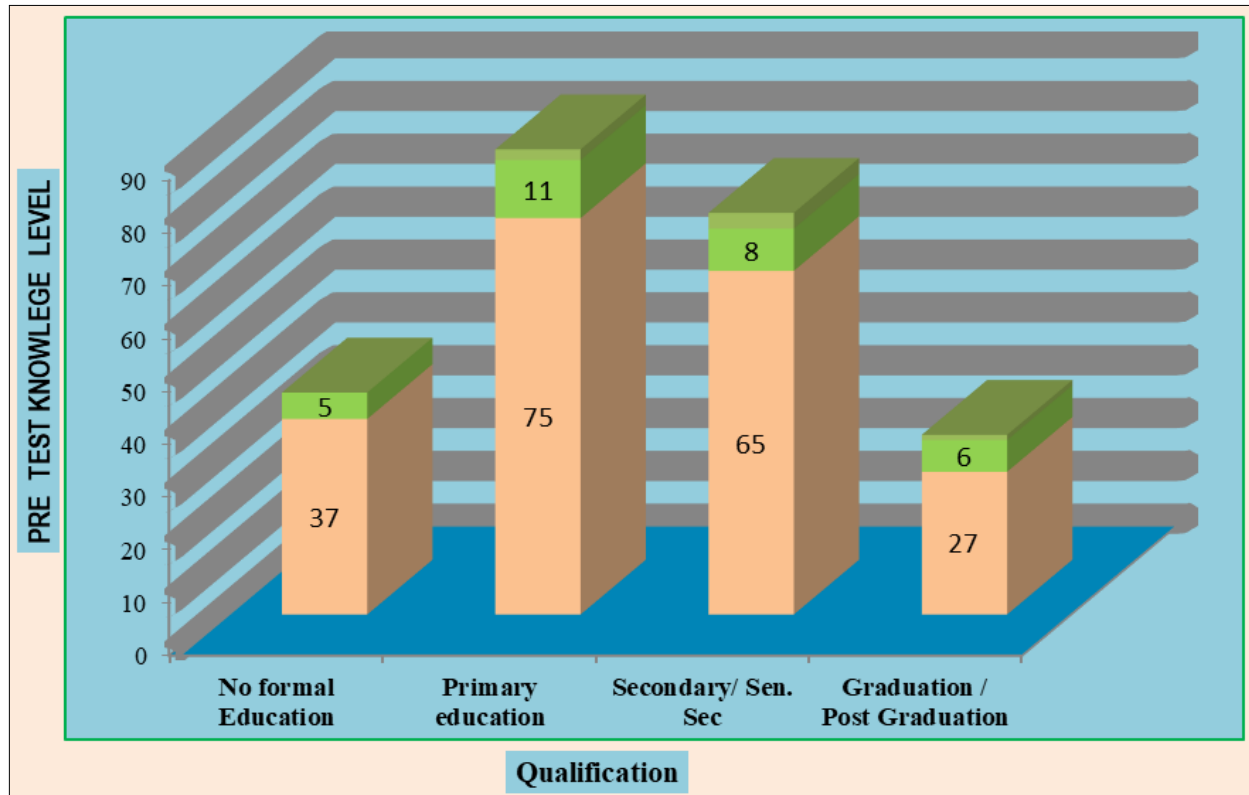


Fig 3: Graph representing association of pretest knowledge level of middle aged women with Qualification.

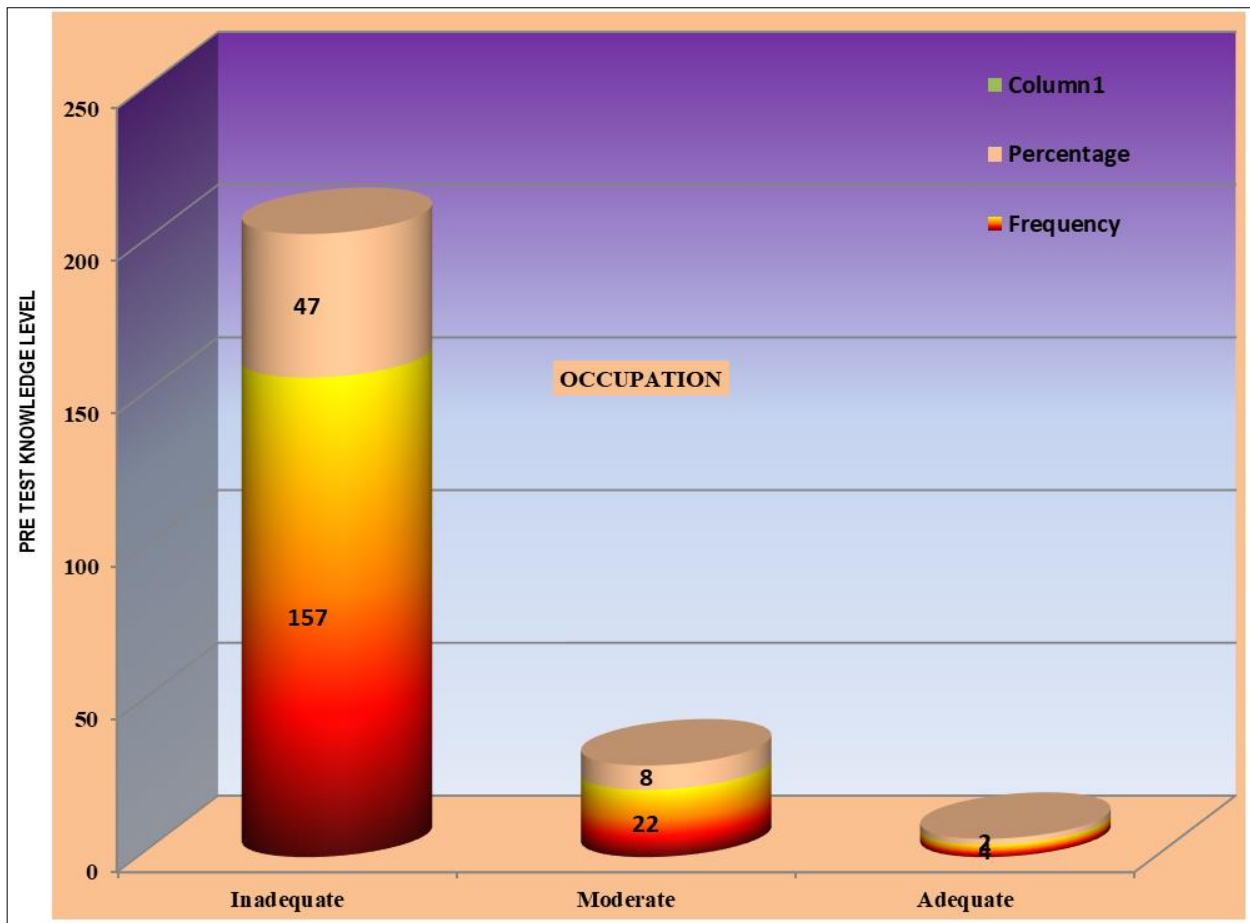


Fig 4: Graph representing association of pretest knowledge level of middle aged women with occupation

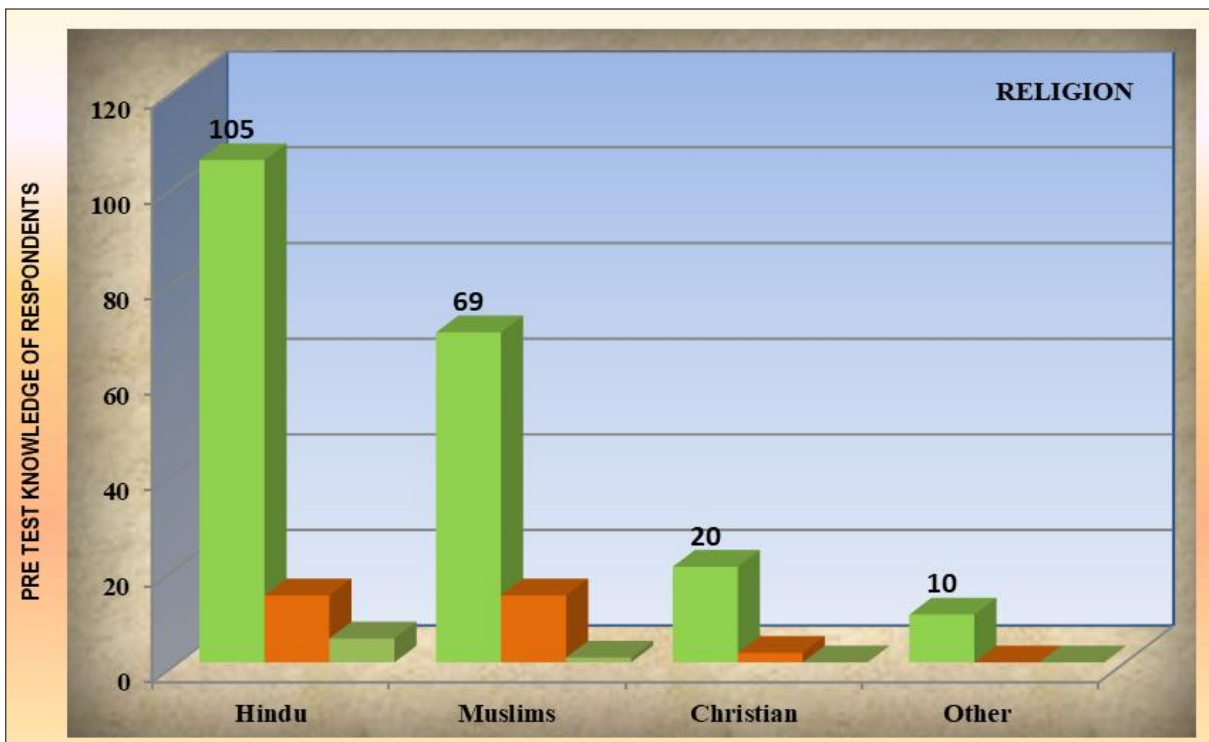


Fig 5: Graph representing association of pretest knowledge level of middle-aged women with religion.

Discussion

Menopause is now a fast growing issue of today's life. Awareness regarding which is only limited to knowledge of cessation of menstruation. The present study therefore is an attempt to make women enable to know menopause better, to cope with the problems and avail benefits from the various treatment modalities. Present study says that the pretest knowledge scores of study subjects were (85%) inadequate, (12.5%) moderate & only (2.5%) were found adequate. An earlier study conducted on 120 postmenopausal women of Idukki District, also reported unawareness. Majority (80.8%) of the participants was not aware about consequences and management of menopause and only (30.8%) of the participants sought medical help for menopause related problems ^[13]. In our study the posttest scores after administering STP, revealed that 37.5% of study samples gained adequate knowledge, 50% gained moderate knowledge regarding menopausal problems and their remedial measures. The mean percentage of posttest knowledge scores was 75.91% which was higher than the mean percentage of pretest knowledge score of 30.35% with an enhancement of 45.6%. Value of paired 't' test was found to be significant ($t=34.24^*$, $p<0.05$) which indicates the effectiveness of STP regarding menopausal problems and its remedial measures. Earlier, a study conducted on middle aged women in selected rural areas, Bangalore, reported that their pretest results showed 63.3% of study samples had inadequate knowledge, 36.7% had moderately adequate knowledge. Post test scores interpretation showed 96.67% with adequate knowledge and only 3.33% with moderately adequate knowledge. Paired 't' test which were found to be very highly significant with mean percentage knowledge score difference of 46.13% ($t=30.83$, $p<0.05$) ^[14].

The present study shows that there is significant association between the selected demographic variables with pretest knowledge of middle aged women regarding menopausal problems and its remedial measures at 5% level. Occupation ($\chi^2=502^a$, $p<0.05$), age at menarche ($\chi^2=3.38$, $p<0.05$), religion ($\chi^2=5.7$, $p<0.05$), type of family ($X^2=2.05^a$, $p<0.5$). An earlier study conducted on 300 menopausal women regarding the symptoms and perception of menopause, as well as factors affecting and influencing this perception support findings of my study. The study used socio demographic data from a descriptive survey form. The mean menopause age of participating women was $x = 45.75 \pm 4.7$. A total of 41.3% of the women had primary education, and 62% of the women also had one or two children. There was a significant relationship between attitudes toward menopause and a woman's age, educational status, number of children, duration of living with spouse, satisfaction with marriage, menopausal age, and menopausal duration ^[15].

Conclusion and Recommendations

Form the present study it is concluded that the basic knowledge of middle-aged women was inadequate in the pretest. After administration of STP, enhancement in knowledge was evident regarding menopausal problems and its remedial measures. So we can say that the STP was effective in improving the level of knowledge amongst middle aged women which can enable the women to cope up better

with such problems in this transitional phase of life. The scholar recommends further studies on a extensive large sample for wider generalization, an experimental study can be conducted with control group for comparison, a similar comparative study can be carried out to identify the differences and similarity between rural and urban area regarding knowledge of middle aged women on menopause and its remedial measures, a similar study can also be carried out for the care givers of elderly and a similar study can be conducted in hospital setting.

References

1. Bradshaw KD. Menopausal transition. In: Schorge JO *et al.* Williams Gynecology. New York, N.Y.: McGraw-Hill Medical, 2008.
2. Geneva, Switzerland: World Health Organization; World Health Organisation. Research on menopause (WHO Technical Report series, 1996,866.
3. Rahman S, Zainudin S, Kar Mun V. Assessment of menopausal symptoms using modified Menopause Rating Scale (MRS) among middle age women in Kuching, Sarawak, Malaysia. *Asia Pacific Family Medicine*,2010;9:5.
4. Syamala T Sivakami M. Menopause: An emerging issue in India. *Economic and Political Weekly*, XL, 2005:19-25.
5. Unni J. Third consensus meeting of Indian menopause society (2008): A summary. *J mid-life health*. 2010 Jan-Jun[cited on 2012 Dec 07];1(1):[about 5p].
6. John Kanis. Commentary on guidelines on postmenopausal osteoporosis - Indian Menopause Society *Journal of Midlife Health*. 2013 Apr-Jun; 4(2): 129–131. (Online) available from <http://pubmedcentralcanada.ca/pmcc/articles/PMC3785152/>
7. Veena Ganju Malla and Amita Tuteja¹ Menopausal spectrum of urban Indian women *J Midlife Health*. 2014;5(2):99-101. doi: 10.4103/0976-7800.134005 PMID: PMC4071654
8. Tigolone AR. Unique version of menopausal therapy. *Obs and gynae today*. 2004 May [cited on 2004;9(11):[about3p].
9. Satpathy M. A Study on Age at Menopause, Menopausal Symptoms and Problems among Urban Women from Western Odisha, India, *International Journal of Scientific and Research Publications*,2016:6(3):422-427.
10. Hoffman, Barbara. Williams gynecology. New York: McGraw-Hill Medical, ISBN 9780071716727. Menopausal symptoms,2012:555-556.
11. Barathi S K, Kalavathi S. Assessment of Knowledge on Signs and Symptoms of Menopause among Premenopausal Women. *IOSR Journal of Nursing and Health Science*,2014;3(2):33-37.
12. Parandavar N, Mosalanejad L, Ramezanli S, Ghavi1 F. Menopause and Crisis? Fake or Real: Comprehensive Search to The Depth of Crisis Experienced: A Mixed-method Study. *Global Journal of Health Science*,2014;6(2):246-255.
13. Subrahmanyam N, Padmaja A. Menopause Related Problems among Women in a Rural Community of

- Kerala, International journal of innovative research & development,2016:5(1):60-64.
14. Vruti Patel, Sijo Koshy. Effectiveness Of Structured Teaching Programme On Knowledge Regarding Menopausal Symptoms And Its Management Among Women, Journal of Nursing and Health Science (IOSR-JNHS),2014:3(3):22-26.
 15. Yangin HB, Kukul K, Sözer GA. The perception of menopause among Turkish women. J Women Aging,2010:22(4):290-305.