

# Knowledge on Importance of Calcium and Vitamin D among Menopausal Women

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## Abstract

Calcium and vitamin D are widely used therapies for osteoporosis, Vitamin D is produced in response to the action of sunlight on skin. The Efficacy of use of calcium and Vitamin D in all post-menopausal women for the prevention of fracture is uncertain. To assess the knowledge of vitamin D and calcium is most important in menopausal women to prevent its complications. *Methodology:* A quantitative research design was used for this study. A cross sectional descriptive survey was used. A total no of 60 samples were by using the purposive sampling technique. The data was collected by using structured questionnaire developed by investigator. *Results:* The major findings of the study as out of 60 subjects, Majority 38 (63.3%) of the menopausal women's had moderately adequate level of knowledge, 18 (30%) had inadequate level of knowledge and 4 (6.7%) menopausal women's had adequate level of knowledge 4 (6.7%). There was statistically significant association ( $p < 0.001$ ) between the level of knowledge with demographic variable as age, monthly income of family and  $p < 0.05$  level as source of information about Vitamin D and calcium role in menopause has significant association. *Conclusion:* It was concluded that the knowledge of menopausal women regarding Vitamin D and calcium shows that the Majority of the menopausal women's had moderate adequate level of knowledge. So the community health personal motivate the menopausal women to promote to take calcium and Vitamin D intake during menopausal period to prevent from osteoporosis and major other health problem

**Keywords:** Knowledge; Vitamin D and calcium; Menopausal women.

## Introduction

Menarche and menopause are the turning point in the life of a woman. "Menopause is a stage of life not a disease". The menopause is the time of women's life when reproductive capacity ceases. The post menopausal period is the time following menopause and peri menopausal is a term used

to denote the period during which menopausal changes are occurring. The age range at which natural menopause occurs is wide, between the age of 40–55 years.<sup>2,3</sup>

Vitamin D calcium deficiency prevails in epidemic proportions all over the Indian subcontinent, with a prevalence of 70%–100% in the general population. In India, widely consumed

food items such as dairy products are rarely fortified with Vitamin D.<sup>4</sup> Indian socio religious and cultural practices do not facilitate adequate sun exposure, thereby negating potential benefits of plentiful sunshine. Consequently, subclinical Vitamin D deficiency is highly prevalent in both urban and rural settings, and across all socioeconomic and geographic strata. Vitamin D deficiency is likely to play an important role in the very high prevalence of rickets, osteoporosis, cardiovascular diseases, diabetes, cancer and infections such as tuberculosis in India. Fortification of staple foods with vitamin D is the most viable population based strategy to achieve vitamin D sufficiency.<sup>5,6</sup>

Previous studies investigating osteoporosis knowledge amongst women from adolescence to post menopausal, in countries Turkey,<sup>7</sup> Australia,<sup>8</sup> USA.<sup>2,10</sup> although the existence of the disease is relatively high, knowledge about prevention, treatment and severity of its consequences is poor.

### Statement of the Problem

A study to assess the level of knowledge on importance of calcium and Vitamin D among menopausal women at selected area at Puducherry.

### Objectives

- To assess the level of knowledge regarding Vitamin D and calcium deficiency among

menopausal women

- To find out the association between the level of knowledge on Vitamin D and calcium deficiency among menopausal women with selected demographic variable.

### Materials and Methods

A quantitative descriptive survey was used to assess the knowledge on importance of calcium and vitamin D among menopausal women at selected area, Puducherry. The present study consists of 60 menopausal women, Purposive sample technique was used for collecting the sample. It consist of structured questionnaire to assess the level of knowledge related to Vitamin D and calcium for menopausal women.

### Results and Discussion

Table 1 showed that majority of them 33 (55%) belongs to age group of 50–60 years. 35 (58.3%) belongs to rural and 25 (41.7%) belongs to urban Residency. 37 (61.7%) belongs to age of menopause between 45–50 years. and 23 (38.7%) between the age group of 51–55 years. The Source of Information about Vitamin D and calcium role in Menopausal as by Neighbours 20 (33.3%), Mass media 15 (25%) and 9 (15%) from family members.

**Table 1:** Frequency and percentage wise distribution of demographic variable among menopausal women

N = 60

S. No	Demographic variables	Frequency (N)	Percentage (%)
1	<b>Age</b>		
	40–50 years	27	45.0
	50–60 years	33	55.0
2	<b>Residential area</b>		
	Urban	25	41.7
	Rural	35	58.3
3	<b>Educational status</b>		
	High school	31	51.7
	Higher secondary	12	20.0
	Collegiate level	2	3.3
	Nil	15	25.0
4	<b>Occupation</b>		
	Home maker	42	70.0
	Private employee	13	21.7
	Government employee	5	8.3
5	<b>Monthly income of family</b>		
	₹5000-7000	31	51.7
	₹7001-15000	9	15.0
	More than ₹20000	20	33.3

S. No	Demographic variables	Frequency (N)	Percentage (%)
6	<b>Marital status</b>		
	Married	50	83.3
	Unmarried	10	16.7
7	<b>Age of menopause</b>		
	45-50 years	37	61.7
	51-55 years	23	38.3
	56-60 years	0	0.0
8	<b>Source of information about Vitamin D and calcium role in menopause</b>		
	Mass media	15	25.0
	Neighbours	20	33.3
	Family members	9	15.0
	Nil	16	26.7

Table 2 showed that 38 (63.3%) of the menopausal women's had moderately adequate level of knowledge, 18 (30%) had inadequate level of knowledge and 4 (6.7%) menopausal women's had adequate level of knowledge 4 (6.7%).

**Table 2:** Frequency and percentage wise distribution of assessment of the level of knowledge on importance of calcium and Vitamin D among menopausal women

N = 60

Level of Knowledge	Frequency (N)	Percentage (%)	Mean	Standard Deviation
Inadequate	18	30		
Moderate adequate	38	63.3	1.766	0.5634
Adequate	4	6.7		

Table 3 showed the association between the level of the knowledge among menopausal women in with their demographic variables. There was statistically significant between the level of knowledge ( $p < 0.001$ ) with demographic variables as monthly income of family and  $p < 0.05$  with the source of information about Vitamin D and calcium role in menopause.

**Table 3:** Association between the assessment of the level of knowledge among menopausal women with demographic variables

N = 60

S. No	Demographic variables	Level of knowledge						X <sup>2</sup>	Df	p-value
		Inadequate		Moderately Adequate		Adequate				
		N	%	N	%	N	%			
1	<b>Age</b>									
	40-50 years	7	25.9	19	70.4	1	3.7	18.1	4	0.001**
	50-60 years	11	33.3	19	57.6	3	9.1			
<b>2 Residential area</b>							2.34			
Urban	6	24	16	64	3	12				
Rural	12	34.3	22	62.9	1	2.9				
3	<b>Educational status</b>							2.48	6	0.870
	High school	11	35.5	18	58.1	2	6.5			
	Higher secondary	4	33.3	7	58.3	1	8.3			
	Collegiate level	0	0	2	100	0	0			
	Nil	3	20	11	73.3	1	6.7			

(Contd.)

S. No	Demographic variables	Level of knowledge						X <sup>2</sup>	Df	p-value
		Inadequate		Moderately Adequate		Adequate				
		N	%	N	%	N	%			
<b>4</b>	<b>Occupation</b>							4.70	4	0.319
	Home maker	13	31	25	59.5	4	9.5			
	Private employee	5	38.5	8	61.5	0	0			
	Government employee	0	0	5	100	0	0			
<b>5</b>	<b>Monthly income of family</b>							10.3	4	0.035*
	₹5000-7000	12	38.7	19	61.3	0	0			
	₹7001-15000	3	33.3	6	66.7	0	0			
	More than ₹20000	3	15	13	65	4	20			
<b>6</b>	<b>Marital status</b>							1.22	2	0.543
	Married	14	28	32	64	4	8			
	Unmarried	4	40	6	60	0	0			
<b>7</b>	<b>Age of menopause</b>							0.788	2	0.674
	45-50 years	10	27	25	67.6	2	5.4			
	51-55 years	8	34.8	13	56.5	2	8.7			
	56-60 years	0	0	0	0	0	0			
<b>8</b>	<b>Source of information about Vitamin D and calcium role in menopause</b>							14.2	6	0.026*
	Mass media	8	53.3	7	46.7	0	0			
	Neighbors	6	30	14	70	0	0			
	Family members	3	33.3	4	44.4	2	22.2			
	Nil	1	6.2	13	81.2	2	12.5			

\*- $p < 0.05$ , significant and \*\*- $p < 0.001$ , highly significant

## Discussion

A study was conducted to assess the knowledge on importance of calcium and Vitamin D among menopausal women in Lawspet at Puducherry with the objectives of to assess the knowledge regarding Vitamin D and calcium deficiency among menopausal women, to find out the association between the level of knowledge on Vitamin D and calcium deficiency among menopausal women with selected demographic variables.

The study findings shows that majority of them 33 (55%) belongs to age group of 50-60 years. 35 (58.3%) belongs to rural and 25 (41.7%) belongs to urban Residency, 37 (61.7%) belongs to age of menopause between 45-50 years. and 23 (38.7%) between the age group of 51-55 years. Source of Information about Vitamin D and calcium role in Menopausal Neighbours 20 (33.3%). Nil 6 (26.7%) Mass media 15 (25%) and 9 (15%) from family members.

The first objectives of the study to assess the knowledge regarding Vitamin D and calcium deficiency among menopausal women Majority

38 (63.3%) of the menopausal women's had moderately adequate level of knowledge, 18 (30%) had inadequate level of knowledge and 4 (6.7%) menopausal women's had adequate level of knowledge 4 (6.7%).

The supported previous study is Pamela R von Hurt (2007) conducted descriptive study on Attitude and knowledge about osteoporosis risk prevention :a survey of New Zeland women, used 622 sample, result showed that there was moderate level of knowledge about osteoporosis risk factors among the women surveyed. A large percentage of subjects 77% thought that the calcium rich food contained too much cholesterol.<sup>6</sup>

Second objectives to find out the association between the level of knowledge on Vitamin D and calcium deficiency among menopausal women with selected demographic variables. There was statistically significant association at the level of  $p < 0.001$  between the level of knowledge with demographic variable as age, monthly income of family and Source of information about Vitamin D and calcium role in menopause has significant association at the level of  $p < 0.05$ .

## Conclusion

From this study, it was concluded that the knowledge of menopausal women regarding Vitamin D and calcium showed that the Majority of the menopausal women's had moderate adequate level of knowledge 38 (63.3%), 18 (30%) had inadequate level of knowledge and very less number of the menopausal women's had adequate level of knowledge 4 (6.7%). So the community health personal motivate the menopausal women to promote to take calcium and Vitamin D intake during menopausal period to prevent from osteoporosis and major other health problems.

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I, **Dinesh Kumar Kashyap**, hereby declare that the particulars given above are true to the best of my knowledge and belief.

Sd/-

**(Dinesh Kumar Kashyap)**