# Osteoporosis Health Beliefs across Work Status: among premenopausal women

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Abstract: Health is a blessing physically and mentally a healthy person can be more productive and enjoy all aspects of life healthy persons are assert to their family, organizations where they work and to society in order to promote health body needs to function optimally for this the musculoskeletal system plays an important role as certain disease like coronary diseases and COPD (chronic obstructive pulmonary diseases) are more in men same way certain disease are more prevalent among women one of the such disease is osteoporosis which can be prevented by bringing awareness on prevention of osteoporosis. As osteoporosis is a common musculoskeletal disorder referred as silent disease that often remains asymptomatic until bone fracture occurs which makes increase in mortality and morbidity which makes family in crisis due to medical, economical, and social consequences. In Indian scenario women are roots of the family they usually care takers of the family when care taker is bed ridden entire family existence will be altered intern results in reduced functional independence and quality of the life which makes osteoporosis as a public concern, so researcher felt lack of knowledge and belief towards prevention of osteoporosis was major factor for increasing more incidents of osteoporosis.this study assess the beliefs on osteoporosis. Prevention among working and non working premenopausal women. A total 250 working 250 non working premenopausal women were assed with osteoporosis health belief scale it is a 42 item questionnaire consisting of seven sub-scales focusing on health beliefs viz., perceived susceptibility, perceived severity, perceived benefits of exercise, perceived benefits of calcium intake, perceived barriers to exercise, perceived barriers to calcium intake and (aspects related to) health motivatio The mean score of OHBs was conspicuously higher among working women (115.58) as against their non-working counterparts (111.71). Moreover, the independent sample t-test results between the work status of the respondents and the mean scores of OHBs were turned out as highly significant (p<0.001). Indicating that the osteoporosis health beliefs were higher among those respondents who were working outside home or in one or the other occupations than those who were non-working (or occupied in homemaking activities). suggest that there is difference between working and nonworking women related to osteoporosis beliefs.

IndexTerms - Component,formatting,style,styling,insert.

#### I.Introduction

## "An ounce of prevention is worth a pound of cure"-Benjamin Franklin

Osteoporosis is a silent metabolic diseases which can potentially cause fracture, disability, and increased mortality and morbidity which makes Osteoporosis as a significant clinical and public health concern [1-3]. As per the National Osteoporosis Foundation (NOF) ten million individuals were having osteoporosis and almost 34 million were suffering with low bone mass, which makes them at increased risk for developing osteoporosis [2]. The risk of Woman's breaking her hip due to osteoporosis is equal to her risk of breast, ovarian, and uterine cancers [2]. There were many lifestyle risk factors for developing bone loss and osteoporosis such as a diet with inadequate calcium intake, sedentary life style, family history of osteoporosis [1, 2]. Women with a family history of osteoporosis have almost twice the risk of developing the disease, compared with women without a family history [4]. The NOF estimated that 20% of Asian women aged 50 and older were having osteoporosis, and 52% were estimated to have low bone mass [2]. Bone metabolism involves repetitive turnover cycles of bone osteoclasts breaking down the bone structure, which is referred to as resorption and bone osteoblast building up the bone structure, a process known as bone remodeling [5]. In both sexes, peak bone mass is reached by 30 years. In women estrogen is needed to keep a healthy balance between bone resorption and bone remodeling [5]. Menopausal women are

especially vulnerable to bone loss due to the fluctuating and declining estrogen levels. This imbalance in bone formation and breaking downleads to accelerated bone loss [5]. In the first five to seven years after menopause, a woman can lose up to 20% of her bone density, and this loss can lead to osteoporosis [2]. The progression of bone loss that leads to osteoporosis can be slowed or delayed with lifestyle changes, particularly a diet with adequate calcium and vitamin D, weight-bearing physical exercise, [1, 2]. Medications for osteoporosis were also available to minimize bone loss and prevent fracture [1, 2]. Previous studies have shown that many women of all ages do not perceive themselves as being at risk for developing bone loss and osteoporosis [7-11]. However, there were limited published literature specifically on premenopausal women's health beliefs regarding osteoporosis across work status. It is important to assess health beliefs of premenopausal women and to provide them adequate education by Promoting bone health in premenopausal women can reduce morbidity later in postmenopausal period.[12]. The theoretical model for this study was the Health Belief Model (HBM). The Health Belief Model (HBM) is a conceptual framework used to understand health behaviors and reasons for noncompliance with recommendations for health actions [13, 14]. The Health Belief Model was developed in the 1950s by social psychologists working for the United States Public Health Service (USPHS) as a way to explain why medical screening programs were not successful [14-16]. The HBM has four major components for compliance with recommended health action: perceived barriers of recommended health action, perceived benefits of recommended health action, perceived susceptibility to the disease, and perceived severity of the disease [16]. Later the model was expanded to include cues to action and motivating factors [16]. In 1988, selfefficacy was added as a component. The core assumptions of the self-efficacy are based on the belief that three criteria primarily affect whether or not a person will take a health-related action. These three criteria are the conviction that one has the ability to initiate the activity, maintain the activity, and persist in performing the activity in the face of obstacles [17].

# Aims and objectives

The aim of study was to analyse and interpret the Osteoporosis Health Beliefs (OHBs) of working and nonworking premenopausal women. The measurement of OHBs among the respondents has been done adopting a standardised scale – Osteoporosis Health Beliefs Scale (OHBS) – developed by Kim, Horan & Gendler (1991) [15].

## Material and methods

It was a descriptive study carried out in tirupati municipal corporation election wards, which is located in chittoor distict, of Andhrapradesh. Five wards were selected randomly from these selected wards five streets were selected for the present study. The study population include all the premenopausal working and non working women from selected streets .sample size taken as 250 working 250 non working premenopusal women. Data were collected from a semi structured questionnaire. p valuless than 0.05 was taken to be statistically significant.

## **Measurement of Osteoporosis Health Beliefs**

One of the major objectives of the present research work is to study the patterns, of the Osteoporosis Health Beliefs (OHBs) among the respondents and hence, the measurement of OHBs was carried out based on the OHBS developed by Kim, Horan & Gendler (1991) [15]. This was a 42-item instrument consisting of seven sub-scales focusing on health beliefs viz., perceived susceptibility, perceived severity, perceived benefits of exercise, perceived benefits of calcium intake, perceived barriers to exercise, perceived barriers to calcium intake and (aspects related to) health motivation. The researcher collected the responses for these 42-statements from the respondents on a five-point Likert scale assigning the scores in the following lines: 1 = Significantly Disagree, 2 = Disagree, 3 = Neutral, 4 = Agree and 5 = Significantly Agree. It was also specified that 'Agree' or 'Strongly Agree' are correct responses. Based on these assigned scores, the overall magnitude of OHBs was computed by pooling all the scores for each of the respondents, which ranged between 51 and 158. The reliability of the scale was tested by calculating Cronbach's Alpha (a), 0.730, which can be said that the scale was fairly reliable.

#### IV. RESULTS AND DISCUSSION

Osteoporosis Heath Beliefs across Respondents' Work Status

1.1 Perceived Susceptibility:

The percentages of working women who reported Agree and Strongly Agree for the six statements under consideration were fallen in range of 10.8 - 23.2% and 3.6 - 7.2%, respectively, whereas the corresponding percentages among non-working women were little higher side (11.6- 27.6% and 2.4 - 12.8%, respectively).

## 1.2 Perceived Severity:

Tthe percentages of working women who reported Agree and Strongly Agree for the six statements under consideration were fallen in the range of 14.0 - 25.8 per cent and 8.0 percent – 12.0 percent, respectively, whereas the corresponding percentages among non-working women were somewhat lower (15.6 per cent - 27.2 percent and 2.0 per cent - 11.2 percent).

## 1.3 Perceived Benefits of Exercise:

Information about the responses provided by the respondents for perceived benefits of exercise was depicted in Table 1.3. the percentages of working women who reported Agree and Strongly Agree for the six statements under consideration were reported to be in range of 16.4 percent – 21.6 per cent and 4.8 percent – 11.6 percent, respectively, whereas the corresponding percentages among non-working women were marginally lower (9.6 per cent - 23.2 per cent and 2.0 per cent - 9.2 per cent, respectively).

Table 1.1 Percentage Distributions of the Respondents by their Responses to the Statements Related to Perceived Susceptibility

	Responses to Statements (in %s) Total						_
Statements related to Perceived		$\overline{}$				Tot	
Susceptibility	SDA	DA	NU	A	SA	%	N
1. My chance of getting Osteoporosis is high					7		
Non-Working	26.4	25.2	23.2	16.4	8.8	100.0	250
Working	19.2	28.8	25.6	19.6	6.8	100.0	250
Total	22.8	27.0	24.4	18.0	7.8	100.0	500
2. Because of my body build, I am mo <mark>re</mark>							
Likely to develop Osteoporosis							
Non-Working	17.2	17.2	35.6	27.6	2.4	100.0	250
Working	17.2	16.4	40.4	22.4	3.6	100.0	250
Total	17.2	16.8	38.0	25.0	3.0	100.0	500
3. It is extremely likely that I will get							
Osteoporosis <sup>®</sup>							
Non-Working	18.0	28.0	24.4	18.0	11.6	100.0	250
Working	21.6	34.0	26.4	10.8	7.2	100.0	250
Total	19.8	31.0	25.4	14.4	9.4	100.0	500
4. There is good chance that I will get after							
Osteoporosis							
Non-Working	16.8	26.8	28.8	23.2	4.4	100.0	250
Working	12.4	27.6	30.8	23.2	6.0	100.0	250
Total	14.6	27.2	29.8	23.2	5.2	100.0	500
5. I am more likely than the average person							
to get Osteoporosis							
Non-Working	29.2	12.8	32.0	19.6	6.4	100.0	250
Working	21.2	21.2	33.2	17.2	7.2	100.0	250
Total	25.2	17.0	32.6	18.4	6.8	100.0	500
6. My family history makes more likely that							
I will get Osteoporosis <sup>@</sup>							
Non-Working	20.0	26.8	28.8	11.6	12.8	100.0	250
Working	22.0	28.0	24.0	19.2	6.8	100.0	250
Total	21.0	27.4	26.4	15.4	9.8	100.0	500
Total	21.0	27.4	26.4	15.4	9.8	100.0	500

Note: SDA=Strongly Disagree, DA=Disagree, NU=Neutral, A=Agree and SA=Strongly Agree @= Chi-square test results are significant at 0.05 and 0.05 levels between the Items Marked in that order across Work Status of Women

#### 1.4 Perceived Benefits of Calcium Intake:

The percentages of working women who reported Agree and Strongly Agree for the six statements under consideration were fall in the range of 18.8 per cent – 24.0 percent and 4.8 per cent – 12.8 pecent, respectively, whereas the corresponding percentages among the non-working women were little lower (16.8 per cent -24.0 per cent and 4.8 per cent -12.8 per cent, respectively).

#### 1.5 Perceived Barriers to Exercise:

The percentages of working women who reported Agree and Strongly Agree for the six statements under study were fell in range of 14.8 percent – 20.8 percent and 5.0 per cent – 22.0 percent, respectively, whereas the corresponding percentages among the non-working women were somewhat higher (10.0 per cent - 31.6 per cent and 3.6 per cent - 18.8 per cent, respectively).

Table 1.2 Percentage Distributions of the Respondents by their Responses to the Statements Related to Perceived Severity

Statements related to Donosived Sevenity	Responses to Statements (in %s)				in %s)	Total	
Statements related to Perceived Severity	SDA	DA	NU	A	SA	%	N
1. The thought of having Osteoporosis scares							
Non-Working	20.0	17.6	31.2	20.0	11.2	100.0	250
Working	21.6	22.4	25.2	18.8	12.0	100.0	250
Total	20.8	20.0	28.2	19.4	11.6	100.0	500
2. If I have osteoporosis, I would be crippled							
Non-Working	16.8	21.2	28.4	27.2	6.4	100.0	250
Working	18.8	22.4	22.0	28.8	8.0	100.0	250
Total	17.6	21.8	25.2	28.0	7.2	100.0	500
3. My feelings about myself would change,							
If I get Osteoporosis@							
Non-Working	28.0	16.0	32.8	15.6	7.6	100.0	250
Working	18.8	24.0	31.2	14.0	12.0	100.0	250
Total	23.4	20.0	32.0	14.8	9.8	100.0	500
4. It would be very costly if I got Osteoporosis®							
Non-Working	30.4	25.6	22.4	18.4	3.2	100.0	250
Working	20.8	19.2	27.6	27.6	8.8	100.0	250
Total	25.6	22.4	25.0	25.0	6.0	100.0	500
5. When I think about Osteopo <mark>rosis, I get</mark>							
depressed							
Non-Working	19.6	23.2	25.2	23.4	9.6	100.0	250
Working	19.6	24.8	29.2	18.0	8.4	100.0	250
Total	19.6	24.0	27.2	20.2	9.0	100.0	500
6. It would be serious if I got Osteoporos <mark>is®</mark>		4					
Non-Working	22.8	27.2	27.6	20.0	2.0	100.0	250
Working	18.0	21.6	33.2	18.4	8.8	100.0	250
Total	20.4	24.4	30.4	18.2	5.4	100.0	500

Note: SDA=Strongly Disagree, DA=Disagree, NU=Neutral, A=Agree and SA=Strongly Agree @= Chi-square test results are significant at 0.05, 0.001 and 0.01 levels between the Items Marked in that order across Work Status of Women, respectively

Table 1.3 Percentage Distributions of the Respondents by their Responses to the Statements Related to Perceived Benefits of Exercise

Statements related to Perceived	Respons	Responses to the Statements (in %s)					Total	
Benefits of Exercise	SDA	DA	NU	A	SA	%	N	
1. Regular Exercise prevents problems that								
would happened from osteoporosis <sup>@</sup>								
Non-Working	18.4	27.2	30.8	20.4	3.2	100.0	250	
Working	19.2	17.2	38.0	16.4	9.2	100.0	250	
Total	18.8	22.2	34.4	18.4	6.2	100.0	500	
2. I feel better when I exercise to prevent								
Osteoporosis <sup>@</sup>								
Non-Working	28.8	34.4	23.6	10.8	2.4	100.0	250	
Working	25.2	25.2	22.0	19.6	8.0	100.0	250	
Total	27.0	29.8	22.8	15.2	5.2	100.0	500	
3. Regular exercise helps to build strong								
Bones <sup>@</sup>								
Non-Working	29.6	27.2	29.2	9.6	4.4	100.0	250	
Working	28.0	17.6	26.4	17.6	10.4	100.0	250	
Total	28.0	22.4	27.8	13.6	7.4	100.0	500	

4. Exercising to prevent osteoporosis also							
improve the way my body looks							
Non-Working	24.0	21.6	30.0	15.2	9.2	100.0	250
Working	19.6	19.6	32.0	17.2	11.6	100.0	250
Total	21.8	20.6	31.0	16.2	10.4	100.0	500
5. Regular exercise cuts down the chance							
of broken bones							
Non-Working	18.4	22.4	30.8	23.2	5.2	100.0	250
Working	17.6	21.6	31.2	21.6	8.0	100.0	250
Total	18.0	22.0	31.0	22.4	6.6	100.0	500
6. I feel good about when I exercise to							
prevent Osteoporosis							
Non-Working	19.2	24.8	33.6	20.4	2.0	100.0	250
Working	18.0	29.2	30.0	18.0	4.8	100.0	250
Total	18.6	27.0	31.8	19.2	3.4	100.0	500

Note: SDA=Strongly Disagree, DA=Disagree, NU=Neutral, A=Agree and SA=Strongly Agree @ = Chi-square test results are significant at 0.001, 0.001 and 0.001 levels between the Items Marked in that order across Work Status of Women, respectively

#### 1.6 Perceived Barriers to Calcium Intake:

The percentages of working women who reported their responses as Agree and Strongly Agree for the six statements under study were fell in range of 14.8 percent – 32.8 percent and 5.6 per cent – 20.8 percent, respectively, whereas the corresponding percentages among the non-working women were somewhat lower (12.0 percent – 26.8 percent and 7.2 percent – 15.0 percent, respectively).

Table 1.4 Percentage Distribution of the Respondents by their Responses to the Statements Related to Perceived Benefits of Calcium Intake

Statements related to Perceived			Statem	_	n %s)	Tot	tal
Benefits of Calcium Intake	SDA	DA	NU	A	SA	%	N
1. Taking in enough calcium prevents				A = X			
problems from Osteopo <mark>rosis</mark>				7 . N			
Non-Working	22.4	20.0	27.2	22.8	7.6	100.0	250
Working	20.4	18.8	28.4	20.4	12.0	100.0	250
Total	21.4	19.4	27.8	21.6	9.8	100.0	500
2. I have lots to gain enough calcium to	y						
prevent Osteoporosis							
Non-Working	26.8	17.6	22.8	22.8	10.0	100.0	250
Working	24.8	18.0	30.8	21.6	4.8	100.0	250
Total	25.8	17.8	26.8	22.2	7.4	100.0	500
3. Taking in enough calcium supplements							
prevents painful Osteoporosis							
Non-Working	25.2	18.8	30.0	16.8	9.2	100.0	250
Working	18.8	26.4	31.6	16.8	6.4	100.0	250
Total	22.0	22.6	30.8	16.8	7.8	100.0	500
4. I would not worry as much about							
Osteoporosis, If I took in enough calcium <sup>®</sup>							
Non-Working	23.6	25.6	23.0	22.0	5.2	100.0	250
Working	22.0	27.6	20.4	17.2	12.8	100.0	250
Total	22.8	26.6	22.0	19.6	9.0	100.0	500
5. Taking in enough calcium cuts down on							
my chance of broken bones							
Non-Working	18.8	22.0	34.4	18.4	6.4	100.0	250
Working	19.6	21.6	28.4	19.6	10.8	100.0	250
Total	19.2	21.8	31.4	19.0	8.6	100.0	500
6. I feel good about myself when I take in							
enough Calcium to prevent Osteoporosis	20.0	24.0	24.6	22.6	0.4	100.0	250
Non-Working	20.0	24.0	24.8	22.6	8.4	100.0	250
Working	18.4	24.0	22.4	24.0	11.2	100.0	250
Total	19.2	24.0	23.6	23.4	9.8	100.0	500

Note: SDA=Strongly Disagree, DA=Disagree, NU=Neutral, A=Agree and SA=Strongly Agree @ = Chi-square test results are significant at 0.05 level between the Item Marked across Work Status of Women, respectively

## 1.7 Aspects Related to Health Motivation:

The percentages of working women who reported Agree and Strongly Agree for the six statements under study were fell in range of 16.8 per cent – 28.4 percent and 4.8 percent – 12.4 percent, respectively, whereas the parallel percentages among the non-working women were marginally lower (12.6 percent – 22.0 per cent and 2.8 percent – 15.2 percent, respectively).

Table 1.5 Percentage Distribution of the Respondents by their Responses to the Statements Related to Perceived Barriers of Exercises

Statements related to Perceived	Respo	nses to	Statem	ents (in	%s)	Total	
Benefits of Barriers of Exercises	SDA	DA	NU	A	SA	%	N
1. I feel like I am not strong enough to							
exercise regularly <sup>@</sup>							
Non-Working	33.2	32.8	20.4	10.0	3.6	100.0	250
Working	24.0	19.2	32.4	14.8	9.6	100.0	250
Total	28.6	26.0	26.4	12.4	6.6	100.0	500
2. I have no place where I can exercise							
Osteoporosis							
Non-Working	26.0	20.8	20.0	26.4	6.8	100.0	250
Working	25.2	19.6	28.8	20.8	5.6	100.0	250
Total	25.8	20.2	24.4	23.6	6.2	100.0	500
3. My spouse or family discourage me from							
exercising <sup>®</sup>			3				
Non-Working	22.4	26.4	20.0	26.0	5.2	100.0	250
Working	30.8	14.0	26.0	18.8	10.4	100.0	250
Total	26.6	20.2	23.0	22.4	7.8	100.0	500
4. Exercising regularly would mean starting							
a new habit which is hard for m <mark>e to do</mark>							
Non-Working	26.0	19.2	22.0	14.0	18.8	100.0	250
Working	24.4	18.0	16.4	19.2	22.0	100.0	250
Total	25.2	18.6	19.2	16.6	10.4	100.0	500
5. Exercising regularly makes me			4 104				
uncomfortable <sup>@</sup>							
Non-Working	17.6	24.0	28.4	15.6	14.4	100.0	250
Working	19.6	32.0	18.8	19.6	10.0	100.0	250
Total	18.6	28.0	23.8	17.6	12.2	100.0	500
6. Exercising regularly upsets my every							
day routine <sup>@</sup>							
Non-Working	13.6	17.2	21.2	31.6	16.4	100.0	250
Working	15.2	17.2	35.6	20.0	12.0	100.0	250
Total	14.4	17.2	28.4	25.8	14.2	100.0	500

Note: SDA=Strongly Disagree, DA=Disagree, NU=Neutral, A=Agree and SA=Strongly Agree @ = Chi-square test results are significant at 0.001, 0.001, 0.05 and 0.001 levels between the Items Marked in that order across Work Status of Women, respectively

Table 1.6 Percentage Distribution of the Respondents by their Responses to the Statements Related to Perceived Barriers of Calcium Intake

Statements related to Perceived	Respo	Responses to Statements (in %s)					Total	
Benefits of Barriers of Calcium Intake	SDA	DA	NU	A	SA	%	N	
1. Calcium rich foods cost too much								
Non-Working	32.0	17.2	28.4	15.2	7.2	100.0	250	
Working	24.0	25.2	28.8	14.8	7.2	100.0	250	
Total	28.0	21.2	28.6	15.0	7.2	100.0	500	
2. Calcium rich foods do not agree with me								
Non-Working	14.8	17.6	30.4	26.8	10.4	100.0	250	
Working	14.4	16.8	24.4	32.8	11.8	100.0	250	
Total	14.6	17.2	27.4	29.8	11.0	100.0	500	

3. I do not like calcium rich foods							
Non-Working	30.4	28.4	20.8	12.0	8.4	100.0	250
Working	25.6	24.0	25.2	18.0	7.2	100.0	250
Total	28.0	20.2	23.0	15.0	7.8	100.0	500
4. Eating calcium rich foods means							
changing my diet which is hard to do <sup>@</sup>							
Non-Working	30.0	20.0	29.2	12.4	8.4	100.0	250
Working	23.2	19.6	28.0	23.6	5.6	100.0	250
Total	26.6	19.8	28.6	18.0	7.0	100.0	500
5. In order to eat more calcium rich foods							
I have to give up other foods that I like@							
Non-Working	30.8	22.8	23.6	13.2	9.6	100.0	250
Working	20.0	18.0	17.6	23.6	20.8	100.0	250
Total	25.4	20.4	20.6	18.4	15.2	100.0	500
6. Calcium rich foods have too much							
cholesterol							
Non-Working	18.8	22.4	25.6	17.6	15.6	100.0	250
Working	19.6	23.2	22.0	22.0	13.2	100.0	250
Total	19.2	22.8	23.8	19.5	14.4	100.0	500

Note: SDA=Strongly Disagree, DA=Disagree, NU=Neutral, A=Agree and SA=Strongly Agree @ = Chi-square test results are significant at 0.01 and 0.001 levels between the Items Marked in that order across Work Status of Women, respectively

Table 1.7 Percentage Distribution of the Respondents by their Responses to the Aspects Related to Health Motivation

		onses to	Total				
Aspects Related to Health Motivation	SDA	DA	NU	A	SA	%	N
1. I eat a well-balanced diet							
Non-Working	18.4	22.0	32.4	20.0	7.2	100.0	250
Working	15.6	22.8	31.2	19.6	10.8	100.0	250
Total	17.0	22.4	31.8	19.8	9.0	100.0	500
2. I look for new information related to							
health <sup>@</sup>							
Non-Working	30.4	17.2	24.4	20.0	8.0	100.0	250
Working	19.2	18.0	31.2	22.0	9.6	100.0	250
Total	24.8	17.6	27.8	21.0	8.8	100.0	500
3. Keeping healthy is very important							
for me	24.8	21.6	29.6	13.6	10.4	100.0	250
Non-Working	16.4	20.0	32.4	18.8	12.4	100.0	250
Working	20.6	20.8	31.0	16.2	11.4	100.0	500
Total							
4. I try to discover health problems early@							
Non-Working	36.0	20.0	19.2	22.0	2.8	100.0	250
Working	24.4	19.2	23.2	28.4	4.8	100.0	250
Total	30.2	19.6	21.2	25.2	3.8	100.0	500
5. I have a regular health check up even							
when I am not sick							
Non-Working	16.4	21.6	32.0	21.2	8.8	100.0	250
Working	19.6	23.6	30.0	16.8	10.0	100.0	250
Total	18.0	22.6	31.0	19.0	9.4	100.0	500
6. I follow recommendations to keep							
me healthy <sup>@</sup>							
Non-Working	23.2	16.0	28.0	17.6	15.2	100.0	250
Working	27.2	18.4	26.8	22.8	4.8	100.0	250
Total	25.2	17.2	27.4	20.2	10.0	100.0	500

Note: SDA=Strongly Disagree, DA=Disagree, NU=Neutral, A=Agree and SA=Strongly Agree @= Chi-square test results are significant at 0.05, 0.05 and 0.001 levels between the Items Marked in that order across Work Status of Women, respectively

Table 1.8 Respondents' Mean Score of Osteoporosis Health Beliefs by their Work Status

Work Status of the	Mean Score of the Osteoporosis Health Belie						
Respondents	Mean Score	S. D.	No.				
Non-working	111.71	12.428	250				

Working	115.58	16.235	250
Total	113.65	14.572	500
Independent Sa	mple t-test Value =	9.146; p<0.00	1

The mean score of OHBs was conspicuously higher among working women (115.58) as against their nonworking counterparts (111.71). Moreover, the independent sample t-test results between the work status of the respondents and the mean scores of OHBs were turned out as highly significant (p<0.001). Indicating that the osteoporosis health beliefs were higher among those respondents who were working outside home or in one or the other occupations than those who were non-working (or occupied in homemaking activities).

# **Summary:**

In sum, the magnitude of OHBs of the sample women was noted as much higher than the average among the total sample women (113.65 on a scale of 51-158 pooled score). Further, such figure was conspicuously higher among working women (115.58) as against their non-working counterparts.

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## **Conflict of Interest:**

No conflict of Interest by any author

#### **References:**

- 1. Bone Health and Osteoporosis: A Report of the Surgeon General," 2004.
- 2. National Osteoporosis Foundation.
- 3. K. Mauck and B. Clarke, "Diagnosis, Screening, Prevention, and Treatment of Osteoporosis," Mayo Clinic Proceedings, vol. 81, no. 5, pp. 662–672, 2006.
- 4. J. Robitaille, P. Yoon, C. Moore et al., "Prevalence, family history, and prevention of reported osteoporosis in U.S. Women," American Journal of Preventive Medicine, vol. 35, no. 1, pp. 47–54, 2008.
- 5. S. B. L. Riggs, "Pathophysiology of age-related bone Khosla and osteoporosis, Endocrinology and Metabolism Clinics of North America, vol. 34, no. 4, pp. 1015– 1030, 2005.
- 6. L. Hightower, "Osteoporosis: pediatric disease with geriatric consequences," Orthopaedic Nursing, vol. 19, no. 5, pp. 59–62, 2000.
- 7. C. Sedlak, M. Doheny, and S. Jones, "Osteoporosis Prevention in Young Women," 1998.
- 8. C. Sedlak, O. Doheny M, and S. Jones, "Osteoporosis education programs: changing knowledge and behaviors," Public Health Nursing, vol. 17, no. 5, pp. 398–402, 2000.
- 9. C. Sedlak, M. Doheny, P. Estok, and R. Zeller, "Tailored interventions to enhance osteoporosis prevention in women," Orthopaedic Nursing, vol. 24, no. 4, pp. 270–276, 2005.
- 10. C. Sedlak, M. Doheny, P. Estok, R. Zeller, and J. Winchell, "DXA, health beliefs, and osteoporosis prevention behaviors," Journal of Aging and Health, vol. 19, no. 5, pp. 742–756, 2007.
- 11. K. Gammage and P. Klentrou, "Predicting osteoporosis prevention behaviors: health beliefs and knowledge," American Journal of Health Behavior, vol. 35, no. 3, pp. 371-382, 2011.
- 12. A. Olson, "Perimenopausal women's intended and actual behavioral response to bone health interventions," 2013.
- 13. L. Turner, S. Hunt, R. DiBrezzo, and C. Jones, "Design and implementation of an Osteoporosis Prevention Program using the Health Belief Model," 2004,
- 14. L. Green, "Health Belief Model," 2002.
- 15. K. Kim, M. Horan, P. Gendler, and M. Patel, "Development and evaluation of the Osteoporosis Health Belief Scale," Research in Nursing & Health, vol. 14, no. 2, pp. 155–163, 1991.
- 16. Health Belief Model,

17. M. Horan, K. Kim, P. Gendler, R. Froman, and M. Patel, "Development and evaluation of the osteoporosis self-efficacy scale," Research in Nursing and Health, vol. 21, no. 5, pp. 395–403, 1998.

