



# INTERNATIONAL JOURNAL OF CREATIVE RESEARCH THOUGHTS (IJCRT)

An International Open Access, Peer-reviewed, Refereed Journal

## “COMPARING QUALITY OF LIFE OF POSTMENOPAUSAL WOMEN RESIDING IN RURAL AND URBAN COMMUNITIES OF VADODARA” - AN OBSERVATIONAL STUDY

Dr. Tanvi Milandukumar Patel<sup>1</sup>

Dr. Devangi Desai<sup>2</sup>

Assistant Professor<sup>1</sup>

Associate Professor<sup>2</sup>

Rehabilitation<sup>1</sup>

Neotech Institute of Physiotherapy, Virod,

Vadodara.<sup>1</sup> Gujarat, India

### ABSTRACT

This study has been undertaken to compare Quality Of Life of postmenopausal women residing in rural and urban communities of Vadodara. In this study 120 postmenopausal women meeting inclusion criteria were selected. Subjects were recruited from rural (n=60) and urban (n=60) areas of Vadodara city. Quality of life was assessed by Menopause Specific Quality of Life Questionnaire in all subjects. Non parametric test were used for statistical analysis. Result showed significant difference in vasomotor, psychosocial and physical domains of MENQOL for post-menopausal women residing in rural and urban communities of Vadodara city. This study revealed that quality of life was affected in both rural and urban women. Quality of life was found more distressing for rural women. Even quality of life was moderately correlated with education and socio economic status.

**KEYWORDS:** Postmenopausal women, Quality of life, rural area, urban area, MENQOL

### INTRODUCTION

Women are the center of family health and are the main role model for next generation.<sup>1</sup> Women play an important role in replenishing the earth but her reproductive capacity is not permanent; it ceases one day which is coined as menopause.<sup>2</sup> Menopause is a cessation of periods for 12 months or cessation of ovarian function resulting in permanent amenorrhea.<sup>3</sup> It is a drop in the level of estrogen & progesterone, which are the two most important hormones in the female body [WHO 1996].<sup>4</sup>

Pre-menopause refers to the period prior to menopause, post-menopause to the period after menopause & Perimenopause to the period around menopause [40-55 years].<sup>5</sup> According to Indian menopause society, there were about 65 million Indian women over the age of 45 years in the year 2006.<sup>6</sup> The transition through menopause is a life event that can profoundly affect quality of life. More than 80% of women report physical and psychosocial symptoms that commonly accompany menopause, with

varying degrees of severity & life disruption.<sup>7</sup> Some of the important & common changes women can experience during postmenopausal stage are hot flushes & night sweats, changes in sexual desire, mood changes, palpitation, sleep disorders, irritability, lethargy, depressed mood, forgetfulness, decreased libido, depression, vaginal dryness, painful intercourse, urinary symptoms, memory reduction, decreased concentration, restlessness as well as joint and bone problems.<sup>5</sup>

Quality of life has been defined by the WHO as the individual's perceptions of their position in life in the context of the cultural & value systems in which they live & in relation to their goals, expectations, standards & concerns.<sup>8</sup> The general definition for the quality of life is the subjective sense of well-being derived from current life experiences. Quality of life is multidimensional concept that encompasses physical, emotional and social dimensions of illness and treatment.<sup>9</sup> Menopausal symptoms are closely related to women's quality of life during the menopause transition and can physically, psychosocially and socially change women's quality of life.<sup>10</sup>

Menopause is the turning point in the life of a woman.<sup>11</sup> "Menopause is a stage of life not a disease."<sup>11</sup> According to Indian menopausal society research, the average age of Indian menopausal women is 47.5 years and in western world it is 52 years.<sup>12</sup> The level of activity differs in rural and urban population. It is observed that there is dietary & nutritional variation seen in rural & urban postmenopausal women.<sup>13</sup> This affects the height, weight & thus the body mass index in them.<sup>9</sup> The educational level was also one of the factors contributing to the affection of the quality of life in the rural postmenopausal women than the urban women.<sup>13</sup> More facilities, better infrastructures are available for urban population & the literacy level is also higher in urban population than in rural population.<sup>14</sup> Some symptoms like loss of memory & sadness are seen more in urban women.<sup>1</sup> Menopause, especially in a rural women brings in lot of changes which she has to tackle to get rid of chronic illness especially psychosomatic problems.<sup>15</sup>

The MENQOL was introduced in 1996. It is a reliable & valid tool to assess health-related Quality of life in the menopausal period.<sup>16</sup> In India various studies have been carried out to study menopausal symptoms, majority of them are hospital based or focused only rural area. Few studies have compared quality of life between rural and urban communities and proved that the quality of life in urban area was average and better than the quality of life in rural area.<sup>17,18,19</sup>

The purpose of the study was to observe the quality of life of postmenopausal women residing in rural and urban areas of Vadodara and to compare the quality of life of postmenopausal women residing in rural and urban areas of Vadodara.

## **METHODOLOGY**

**Study design:** Observational study

**Study Setting:** Vadodara

**Study Population:** Postmenopausal women of rural & urban communities of Vadodara

**Sample design:** Purposive sampling method

**Study Period:** 1 year

**Sample size:** 120 postmenopausal women

**Ethical Approval:** Ethical approval was obtained for the study by

Institutional Review of Board (IRB), with proposal number:  
PPC/OW/1184 – C/2019

## **SAMPLING CRITERIA**

### **INCLUSION CRITERIA**

1. Post-menopausal women with at least one year of amenorrhoea
2. Between the ages of 47 & 62 years
3. Living in rural or urban communities of Vadodara
4. Who can understand English, Gujarati or Hindi

### **EXCLUSION CRITERIA**

1. Women who are on Hormone Replacement therapy in past 6 months
2. Surgical menopause
3. Women with severe illness, bedridden
4. Known history of Hypertension, Diabetes, Hyper or Hypothyroidism and Tuberculosis
5. Who are mentally retarded & who have psychiatric problem

6. Not having undergone any surgeries like TKR,THR
7. Not willing to participate
8. Known history of any musculoskeletal, neurological or cardio-pulmonary condition which can affect quality of life.

### **OUTCOME MEASURE:**

- MENQOL (Menopause Specific Quality of Life ) Questionnaire

The Menopause Specific Quality of Life questionnaire was introduced in 1996 as the tool to assess the health related quality of life in the immediate postmenopausal women. Questionnaire can be taken by interview method.

#### **Scoring:**

1. Each domain is scored separately
2. The scale contains four domains
  - i) Vasomotor items(1-3)
  - ii) Psychosocial items (4-10)
  - iii) Physical items(11-26)
  - iv) Sexual items (27-29)
3. Score ranging from 1 to 8 in following manner
  - i) The subject responded 'NO' she did not experience the problem.
  - ii) The subject responded 'YES' she experienced the problem in the last 1 month.
  - iii) Scoring will be done in 0 to 6 manners where 0 is not bothersome and 6 is extremely bothersome. Where (1-2) mild, (3-4) moderate and (5-6) severe.<sup>20</sup>
  - iv) Means are computed for each subscale by dividing the sum of the domain's item by the number of items within the domain.<sup>20</sup>
4. Reliability of different domains are 0.79 of Vasomotor domain, 0.70 of psychosocial domain, 0.81 of physical domain and 0.55 of sexual Domain.<sup>20</sup>
5. Validity of different domains are 0.66 of Vasomotor domain, 0.65 of psychosocial domain, 0.69 of physical domain and 0.48 of sexual Domain.<sup>20</sup>

### **PROCEDURE:**

The study was ethically approved by Institutional Review Board. It was carried out from the different rural and urban communities of Vadodara city. 60 postmenopausal women were recruited from rural community and 60 postmenopausal women were recruited from urban community. 120 out of 160 postmenopausal women were included on the basis of inclusion criteria in this study. Total 40 postmenopausal women were excluded because 15 women were suffered from some serious health condition. 12 women were not willing to participate and 13 women had history of hysterectomy. Written consent was taken prior to the study from each subject. The purpose and procedure of the study was explained to each subject. Women were approached at different places like temples, hospitals, gardens. Even home visits were done for data collection. Each subject was asked a series of questions regarding their demographic details, obstetric and gynecological history. Data collection was done by personal interview method. Each detail was filled by interviewer.

### **RESULT**

This study was conducted to compare quality of life of postmenopausal women residing in rural and urban communities of Vadodara city. Quality of life was assessed by Menopause Specific Quality of Life questionnaire. Total 120 subjects were recruited residing in rural and urban communities. 60 postmenopausal women were recruited from rural community and 60 postmenopausal women were recruited from urban community.

**Table 1: Demographic characteristics of subjects in both rural and urban communities**

CHARACTERISTICS	RURAL		URBAN		p VALUE
	MEAN	SD	MEAN	SD	
AGE (yrs)	56.95	5.11	52.92	4.17	0.000
BMI (kg/m <sup>2</sup> )	22.64	4.98	26.85	4.62	0.000
AGE OF MENOPAUSE (yrs)	49.21	1.48	48.93	1.53	0.195
POSTMENOPAUSAL YEAR	7.78	4.42	4.08	3.21	0.000

Table 2: Frequency distribution of postmenopausal women according to socio-demographic variables

VARIABLES	RURAL N = 60 (%)	URBAN N = 60 (%)
<b>AGE</b>		
≤54	20 (33%)	42 (70%)
>54	40 (67%)	18 (30%)
<b>EDUCATION</b>		
Illiterate	32 (53%)	0 (0%)
Primary school	28 (47%)	15 (25%)
High school	0 (0%)	15 (25%)
Graduate	0 (0%)	30 (50%)
Post graduate	0 (0%)	0 (0%)
<b>SOCIOECONOMIC STATUS</b>		
Upper class	2 (3%)	4 (7%)
Upper middle class	0 (0%)	53 (88%)
Lower middle class	26 (43%)	3 (5%)
Upper lower class	22 (37%)	0 (0%)
Lower class	10 (17%)	0 (0%)
<b>OCCUPATION</b>		
House wife/ Nonworking	33 (55%)	44 (73%)
Working	27 (45%)	16 (27%)
<b>TYPE OF FAMILY</b>		
Joint	40 (67%)	24 (39%)
Nuclear	20 (33%)	36 (61%)
<b>NO. OF CHILDREN</b>		
≤2	41 (68%)	43 (72%)
>2	19 (32%)	17 (28%)
<b>MARITAL STATUS</b>		
Single	3 (5%)	5 (8%)
Married	54 (90%)	55 (92%)
Widow	2 (4%)	0 (0%)
Divorced	1 (2%)	0 (0%)

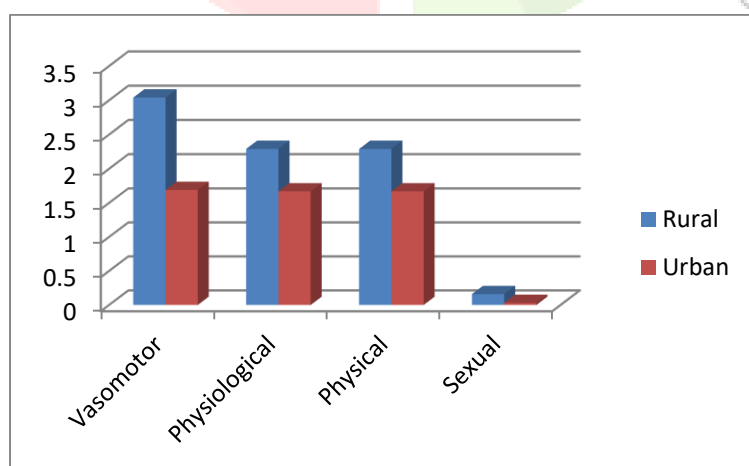
Table 3: Frequency distribution according to symptoms in rural and urban community

SUBSCALE	SYMPTOMS	RURAL community (n=60) (%)	URBAN community (n=60) (%)
VASOMOTOR	Hot flushes	60 (100%)	48 (80%)
	Night sweats	50 (38%)	34 (57%)
	Sweating	57 (95%)	40 (24%)
PSYCHOSOCIAL	Being dissatisfied with personal life	25 (58%)	17 (28%)
	Feeling anxious or nervous	52 (87%)	34 (57%)
	Experiencing poor memory	43 (72%)	41 (68%)
	Accomplishing less than I used to	41 (68%)	41 (68%)
	Feeling depressed, down or blue	51 (85%)	41 (68%)
	Being impatient with other people	58 (97%)	43 (72%)
	Feelings of wanting to be alone	40 (67%)	31 (52%)
	Flatulence	57 (95%)	52 (87%)
	Aching in muscles and joints	57 (95%)	36 (60%)

PHYSICAL	Feeling tired or worn out	57 (95%)	47.43%	51 (85%)	50%
	Difficulty sleeping	58 (97%)		48 (80%)	
	Aches in back of neck	54 (90%)		40 (83%)	
	Decrease in physical strength	22 (37%)		35 (58%)	
	Decrease in stamina	18 (30%)		38 (63%)	
	Feeling a lack of energy	9 (15%)		40 (67%)	
	Drying skin	13 (22%)		21(35%)	
	Weight gain	9 (15%)		32 (53%)	
	Increased facial hair	4 (7%)		8 (13%)	
	Changes in appearance, texture Or tone of the skin	4 (7%)		11 (18%)	
	Feeling bloated	34 (57%)		23 (38%)	
	Low backache	51 (85%)		39 (52%)	
	Frequent urination	7 (12%)		4 (7%)	
	Involuntary urination when Laughing or coughing	0 (0%)		2 (3%)	
SEXUAL	Change in your sexual desire	1 (2%)	2%	0 (0%)	1%
	Vaginal dryness during intercourse	1 (2%)		0 (0%)	
	Avoiding intimacy	1 (2%)		2 (3%)	

Table 4: Mean scores of MENQOL domains in postmenopausal women residing in rural and urban communities

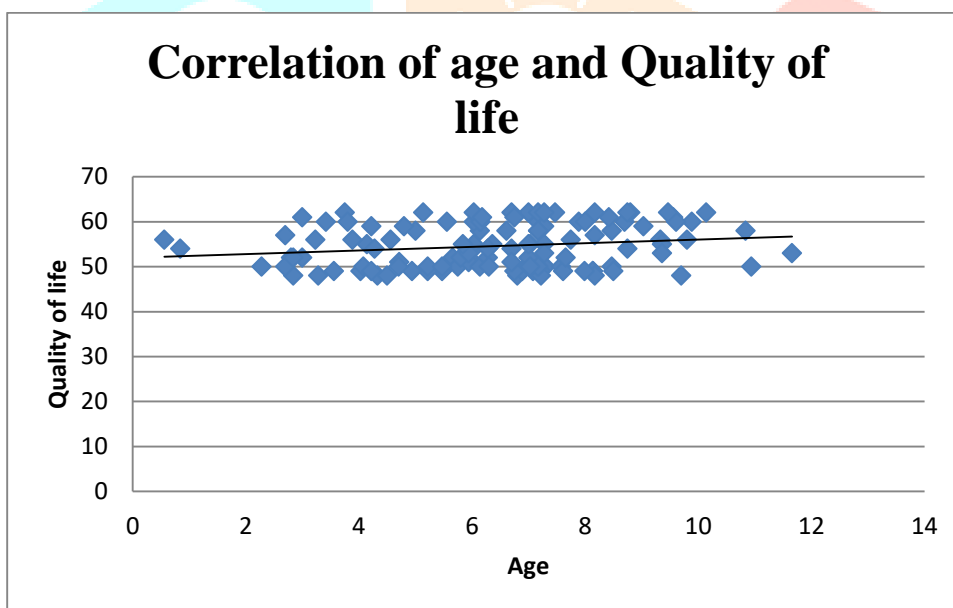
MENQOL DOMAINS	RURAL		URBAN		MANN WHITNEY U	p VALUE
	MEAN	SD	MEAN	SD		
VASOMOTOR SCORE	3.04	0.52	1.69	1.03	445.50	0.000
PSYCHOSOCIAL SCORE	2.29	0.64	1.67	0.75	932.50	0.000
PHYSICAL SCORE	2.29	0.64	1.67	0.75	932.50	0.000
SEXUAL SCORE	0.16	0.59	0.03	0.18	1706.50	0.227

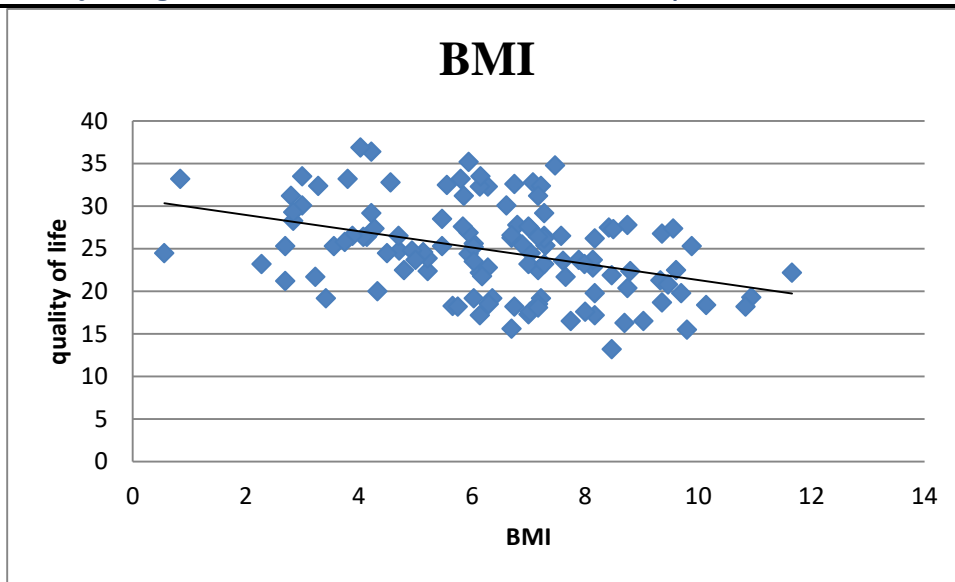


Graph 1: Mean difference of MENQOL score in rural and urban communities

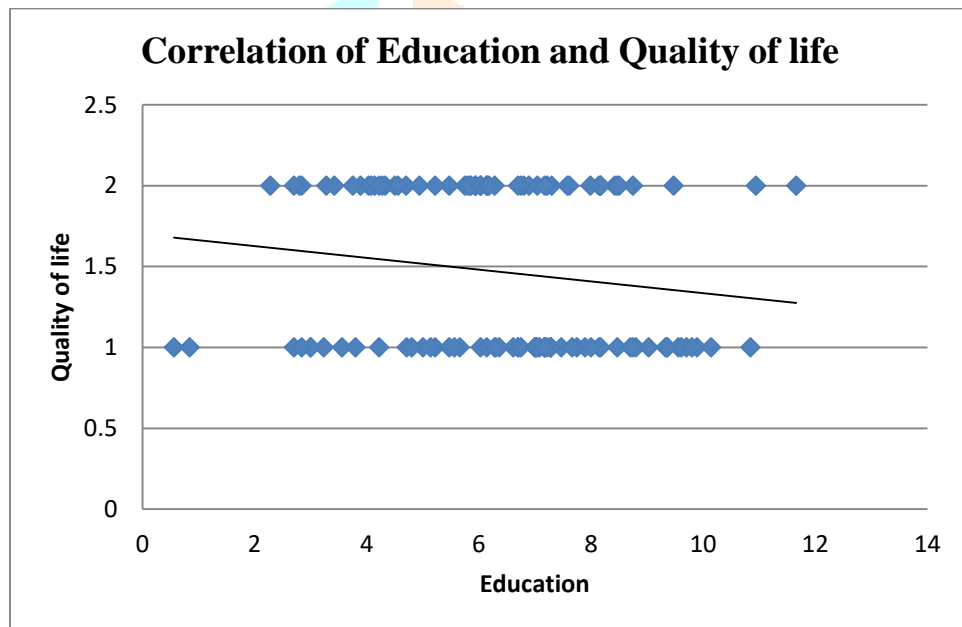
Table 5: Correlation of socio demographic variables with quality of life according to menopausal symptoms

Variable	Quality of life		Correlation
	Correlation Coefficient (r)	p Value	
Age	0.183	0.045	Weak positive correlation
BMI	-0.384	0.000	Weak negative correlation
Education	-0.536	0.000	Moderate negative correlation
Occupation	0.318	0.000	Weak positive correlation
Socio-economic status	-0.555	0.000	Moderate negative correlation

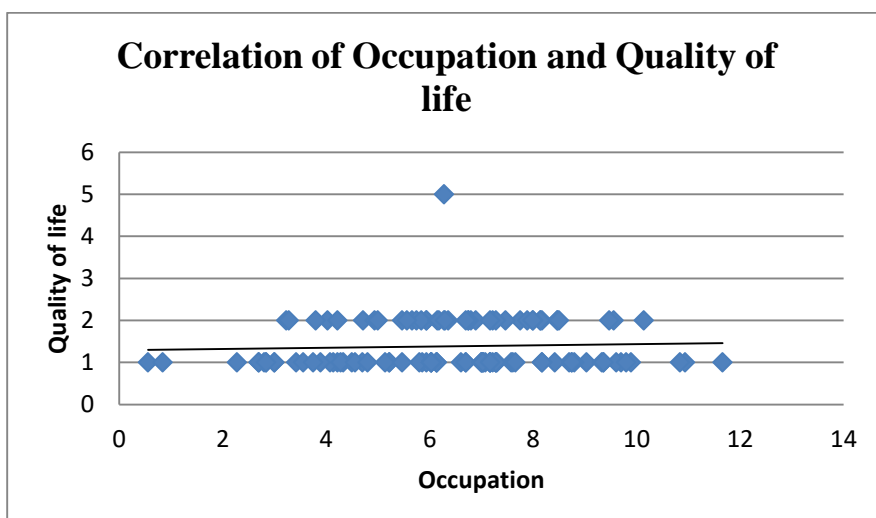
**Graph 2: Correlation between Age and Quality of life**



**Graph 3: Correlation between BMI and Quality of life**

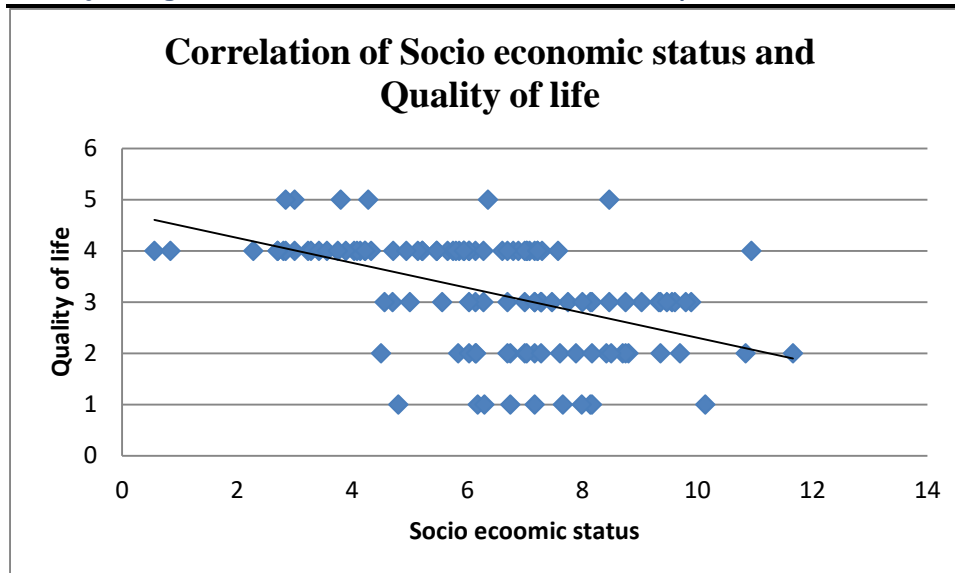


**Graph 4: Correlation between Education and Quality of life**



**Graph 5: Correlation between Occupation and Quality of life**





**Graph 6: Correlation between Socio-economic status and Quality of life**

### DISCUSSION

This study was conducted to observe and compare quality of life of postmenopausal women residing in rural and urban communities of Vadodara city. Total 120 postmenopausal women were recruited in the study. 60 postmenopausal from rural community and 60 postmenopausal women from urban community were recruited.

Menopause Specific Quality of Life questionnaire was used to assess quality of life in all postmenopausal women residing in rural and urban communities. The mean age of postmenopausal women residing in rural and urban communities was  $56.95 \pm 5.11$  and  $52.92 \pm 4.17$  years respectively. The mean BMI of postmenopausal women residing in rural and urban communities were  $22.64 \pm 4.98$  and  $26.85 \pm 4.62$  kg/m<sup>2</sup> respectively. The mean age of menopause of postmenopausal women residing in rural and urban communities was  $49.21 \pm 1.48$  and  $48.93 \pm 1.53$  respectively. The mean postmenopausal years of postmenopausal women residing in rural and urban communities were  $7.78 \pm 4.42$  and  $4.08 \pm 3.21$  respectively.

In this study symptom like hot flushes(100%),being impatient(97%),sleeping difficulty(97%), sweating(95%), flatulence(95%), muscle and joint ache(95%), tiredness(95%), aches in back of neck(90%), anxiety(87%), low backache(85%) were scored higher in rural community.

Similar results found in a study conducted by Nabarun and Somak (2017)<sup>21</sup> in West Bengal a study on quality of life of postmenopausal women: community based study in a rural area, showed that most prevalent symptoms reported were feeling of anxiety and nervousness (94%)and feeling tired (93%), hot flushes (47%).

Another study conducted by Deepshikha and Shipra (2018)<sup>22</sup> in Punjab on quality of life among Post-menopausal women in rural area, most prevalent symptoms reported were feeling tired and decrease stamina(89%), feeling tired or worn out(88%), aching in muscle and joints(69%), experiencing poor memory(64%).

In this study vasomotor group of symptoms in rural and urban communities were 92.66% and 53% respectively. Psychosocial group of symptoms in rural and urban communities were 76.28% and 59% respectively. Physical group of symptoms in rural and urban communities were 47.43% and 50% respectively. Sexual group of symptoms in rural and urban communities were 2% and 1% respectively. The difference observed in symptoms between rural and urban communities may be due to difference in age, BMI, postmenopausal years, education, socioeconomic status etc.

The present study shows significant difference in vasomotor, psychosocial, and physical domains of MENQOL between rural and urban areas. No significant difference was found for sexual domain. Postmenopausal women residing in rural area were more affected.

The present study shows weak positive correlation between age and quality of life, weak negative correlation between BMI and quality of life, moderate negative correlation between education and quality of life, weak positive correlation between occupation and quality of life and moderate negative correlation between socioeconomic status and quality of life.

Previous studies that evaluated the association between menopausal symptoms and socio-demographic and lifestyle factors, reported that lower socioeconomic status, education, length of menopause, physical activity, working status, and age were related to quality of life.<sup>23,24,25,26,27</sup>



MAbedzadehKalarhoudi (2011)<sup>28</sup> in Iran found physical and psychosocial quality of life scores in women with high school or university education were lower than women who had several education levels.

Present study result showed that there is significant difference in quality of life between rural and urban postmenopausal women so, null hypothesis is rejected and alternative hypothesis is accepted.

### **CONCLUSION**

This study revealed that quality of life was affected in both rural and urban women. There was also significant difference in quality of life of postmenopausal women residing in rural and urban communities of Vadodara city. Vasomotor, psychosocial and physical symptoms were found more distressing for rural women. Even quality of life was moderately correlated with education and socio economic status whereas weakly correlated with age, BMI and occupation.

### **REFERENCES**

1. Mina Shirvani, Mohammad Heidari. Quality of life in post-menopausal female members & Non-members of the elderly support association. *Journal of Menopausal Medicine* 2016 ;( 22). p.154-160.
2. Sharadha R. Social Support System in menopause. *Nightingale Nursing Times*.2009;5(6):12-1.
3. Howkins J, Bourne G. Perimenopause, menopause, premature menopause and postmenopausal bleeding. In: PaduvidriVG, Daftary SN, editors. *Shaw's Textbook of Gynaecology*. 14<sup>th</sup> edition. India: Elsevier; 2008; p. 37.
4. World Health Organizations, Research on the menopause in the 1990s: Report of a WHO scientific group. *World Health Organ*, 866:1-107, Tech Rep ser 1996.
5. D.C.Dutta. *Textbook of Gynecology*. 6<sup>th</sup> edition. 2013. Chapter 6, Menopause; p. 57-61.
6. Jeanie Linders. *Making Menopause Easier*. India together (Delhi) October 2006.
7. McKinney E, Ashwill J, Murray S, James S, Gorrie T, Droske S. Menopause In: Mc kinney E, Ashwill J, Murray S, James S, Gorrie T, Droske S. *menopause*, eds. *Maternal Child Nursing*. St. Louis: Elsevier Science Health Science Division; 2012:655.
8. World Health Organization. *Quality of Life Assessment: International perspectives*. Berlin: Springer; 1994.
9. Lu J, Liu J, Eden J. The experience of menopausal symptoms by Arabic women in Sydney *Climacteric* 2007; 10:72-79.
10. Peeyananjarassri K, Cheewadhanaraks S, Hubbard M et al. Menopausal symptoms in a hospital-based sample of women in Southern Thailand, *Climacteric* 2006;9: 23 - 29.
11. Monika Satpathy et al. A study on age at menopause, menopausal symptoms & Problems among urban women from western odisha India. *International Journal of Scientific and Research Publications*. March 2016; Vol. 6(3).p.422-427.
12. Jyothi Unni et al. Third consensus meeting of Indian Menopause society(2008): A Summary. *Journal of Mid-Life Health*. Jan- Jun 2010; Vol (1).p. 43-47.
13. Kuo Liu , Liu He, Xun Tang, JinweiWanng, Na Li, Yigunwu, et al. Relationship Between menopause and health-related quality of life in middle-aged Chinese Women: a cross-sectional study. *BMC Women's Health*. 2014;14(7)
14. Rotem M, Kushnir T, Levine R, Ehrenfeld M. A psycho-educational program for improving women's attitudes and coping with menopause symptoms. *J ObstetGynecol Neonatal Nurs*. 2005;34(2):233-240.
15. Karmakar N Majumdar S, DAsgupta A, Das S. Quality of life among menopausal women: A community-based study in a rural area of West Bengal *J Midlife health*. 2017;8(1):21-7.
16. Ensiyehjenabi, Fatemehshobeir. Assessment of questionnaire measuring quality of life in menopausal women: A systemic Review. *Oman medical journal*. May 2015. 30 (3); p 151-156.
17. Bharkha Devi, PrernaKarki, RanjeeChhetry, Neelam Sharma, ManishaNiroula, PemaChukiLepcha. Quality of life of post-menopausal women residing in Rural & urban areas of Sikkim, India. *International Journal of Reproduction Contraception, Obstetrics and Gynecology*. December 2018; Vol. 7(12). p.5
18. Sudha Sharma, Neha Mahajan. Menopausal symptoms & it's effect on quality of Life in Urban versus Rural women: A cross-sectional study. *Journal of Mid-Life Health*. Jan-Mar 2015; Vol. 6(1).p. 16-20.
19. BinuPaulose, NeethaKamath. Quality of Life of Postmenopausal Women in Urban and Rural Communities. *Journal of Menopausal Medicine* 2018; vol.24. p. 87-91.
20. John R. Hadith, Jacqueline Lewis, Alice Peter, Barbara Van Maris, Alan Ross, EdmeeFranssen et al. A menopause- specific quality of life questionnaire: development and psychometric properties. *Journal of the Climetric and Postmenopause*. Jan 1996; p. 161-175.
21. NabarunKarmakar, SomakMajumdar, AparajitaDasgupta, Sulagna Das. Quality of life among menopausal women : A community based study in a rural area of West Bengal. *Journal of Mid-Life Health*. Jan-March 2017; vol.8(1). p. 21-27.
22. Dr Deepshikha Karma, Dr ShipraSaini, Dr. Shavinder Singh. Quality of life among Post-menopausal Women in rural area of Punjab. *Journal of Medical science and Clinical Research*. Jan 2018; vol. 6(1). p. 32471-32477.

23. Gold EB, Sternfeld B, Kelsey JL, Brown C, Mouton C, Reame N, salamone L, Stellato R. Relation of demographic and lifestyle factors to symptoms in a multi-racial/ethnic population of women 40-55 years of age. *Am J Epidemiol*.2000;152:463-473.
24. Williams RE, Levine KB, Kalilani L, Lewis J, Clark RV. Menopausespecific questionnaire assessment in US population based study shows negative impact on health related quality of life. *Maturitas*.2009;62:153-159.
25. Olofsson AS, Collins A. Psychosocial factors, attitude to menopause and symptoms in Swedish perimenopausalwomen.*Climacteric*. 2000;3:33-42.
26. Ozkon S, Alatas ES, Zencir M. Women's quality of life in the premenopausal and postmenopausal periods. *Quality of life Research*. 2005;14:1795-1801.
27. Fallahzadeh H. Quality of life after the menopause in Iran: a population study: *Quality of life Research*. 2010;19:813-819.
28. MasoumehAbedzadehKalahroudi. Strategies for improvement quality of life in menopause.*Nursing*.2013;240-241

