International Journal of Research in Medical Sciences
Goyal A et al. Int J Res Med Sci. 2017 Feb;5(2):670-677
www.msjonline.org
pISSN 2320-6071 | eISSN 2320-6012
DOI: http://dx.doi.org/10.18203/2320-6012.ijrms20170172

Original Research Article

A comparative study of morbidity pattern among rural and urban postmenopausal women of Allahabad, Uttar Pradesh, India

Ankita Goyal[1], Neha Mishra[2]*, Shraddha Dwivedi[2]

[1]Department of Community Medicine, KD Medical College Mathura, Uttar Pradesh, India
[2]Department of Community medicine, MLN medical college, Allahabad, Uttar Pradesh, India

Received: 21 November 2016
Revised: 26 December 2016
Accepted: 02 January 2017

***Correspondence:**
Neha Mishra,
E-mail: nehamishra2605@gmail.com

ABSTRACT

Background: Menopause is an inevitable reproductive phase during midlife when various physical and mental changes may impair the quality of life of women. Middle-aged women may experience a wide range of physical and psychological symptoms. Decrease in the production of estrogen leads to the premenopausal symptoms of hot flushes, insomnia and mood changes, as well as post-menopausal osteoporosis and vaginal atrophy, leading to decrease in quality of life.
Methods: Community based cross-sectional study. Door to door survey was conducted among women who had attained menopause for more than 1 year, in rural and urban area of Allahabad. Multistage random sampling was done. 400 postmenopausal women, 200 each from rural and urban area were selected. A pre-tested structured questionnaire was used for data collection.
Results: Majority were in the age group of 50-60 years followed by 60-70 years. Majority of women were having a parity of 3. Vasomotor symptoms were experienced by 34.5% and 39.5% rural and urban women respectively. Out of total post-menopausal women who reported genitourinary complaints, the most commonly reported complaint was stress incontinence i.e. 10.5% and 8.5% respectively in rural and urban communities followed by increased urinary frequency i.e. 9% and 7.5% respectively in rural and urban areas. Vaginal dryness was reported by 2.5% of rural women and 6% of urban women. Vaginal discharge was reported by 7% of rural and 4% of urban women. Uterine Prolapse was reported by 6% of rural women and 3.5% of urban women.
Conclusions: The study shows that postmenopausal women in India suffer from various vasomotor, physical as well as psychiatric problems related to menopausal hormonal changes with varied frequencies. There is a need to address their problem and establish health care centers for them. Postmenopausal women should be sensitized for availing the health facilities for their health problems by information education and communication (IEC) and behaviour change communication (BCC). Family support should be ensured by creating awareness in community. Awareness regarding menopause and problems among women related to it need to be improved. Health workers, ASHA, Aanganwadi workers can help women to understand about the menopausal symptoms, if they are given adequate training.

Keywords: ASHA, BCC, IEC, Menopause, Uterine Prolapse, Vaginal atrophy

INTRODUCTION

The term "menopause" means that meno (month) and pause (to end). Thus, the literal definition is the end of the cycle of monthly menstrual bleeding.[1] Natural menopause is recognized to have occurred after 12 consecutive months of amenorrhea, for which there is no other obvious pathological or physiological cause.[2] The age at which menopause occurs varies widely ranging from late thirties to late fifties with the range for most

women being between ages 48 and 55 years. Vasomotor menopausal symptoms commonly develop one to 2 years before the cessation of menstrual flow. This period is marked by fluctuations in reproductive hormones.[3] Typically in Indian women, menopause takes place a little earlier, the average age ranging from 40 to 49 years.[4] Middle-aged women may experience a wide range of physical and psychological symptoms.[5]

Decrease in the production of estrogen leads to the perimenopausal symptoms of hot flushes, insomnia and mood changes, as well as post-menopausal osteoporosis and vaginal atrophy.[6] More than 80% of women experience physical or psychological symptoms in the year approaching menopause with various distresses in their lives, leading to decrease in quality of life.[7] These changes make them more vulnerable to physical health problems and mental health disorders.[8] The relationship of menopausal age with the risk factors for such medical conditions makes age at menopause an important epidemiological issue.[9]

Among the post-menopausal symptoms, the most frequently reported ones were vasomotor symptoms (60.9%), followed by sleep related symptoms (40.1%) and anxiety (35.4%).[10] The epithelium of the bladder and urethra also undergo atrophic changes. The lower part of the urethra is sensitive to estrogens. Postmenopausal women are therefore at increased risk not only of recurrent urinary tract infections, but also of dyspareunia, vaginal irritation, pruritus, pain and also symptoms of urgency, frequency, dysuria and urinary incontinence.[11]

Somatic and emotional disturbances occur frequently during women's mid-lives, such as irritation, depressive mood, sleeping problems, fatigue, headache, muscular–skeletal pains and joint problems.[5] The apparent cardio protective effects of endogenous estrogens seem to prevent Cardio Vascular Disease (CVD) in premenopausal women, when compared with age-matched men; however, following menopause and the consequent loss of hormonal effects, gender-based differences in CVD are reduced.[12]

Ageing and the loss of endogenous estrogen production after menopause are accompanied by increase in blood pressure.[13] Eyes are also affected by fluctuating estrogen and progesterone levels.[14] Estrogen is a hormonal multi-tasker in women. A South Korean study confirms yet another role for the hormone: It may be involved in hearing sensitivity.[15]

The current national program on reproductive health focuses on women between 15 and 45 years of age and very less attention is being paid to women beyond reproductive age unless conditions become worse. The information on menopausal symptoms and the way women choose to treat these symptoms are essential for designing appropriate delivery of healthcare services and to ensure easy transition to old age.[16] This study was taken up with the objective of assessing the health status and morbidity pattern among the postmenopausal women.

METHODS

A postmenopausal woman aged 45 and above has been taken as study unit. The study has been conducted in a 12 month period from August, 2013 to July 2014. It is a cross- sectional study done in randomly selected urban wards and rural blocks of Allahabad district. Multi-stage random sampling was done. In the first stage, urban wards of Allahabad city and various blocks of Tehsils were listed.

In the second stage, two wards from urban areas and two blocks from rural areas were selected randomly. These were ward number 49 and 36 in urban area and Jasra and Saidabad blocks from rural area. In the third stage, various colonies of the selected urban wards and various villages of the selected blocks of rural areas were listed. In the fourth stage, two colonies per ward i.e. Allenganj and George town from ward 49 and Behrana and Ram Bagh from ward 36 and two villages per block i.e. Jasra and Rera from block Jasra and Dum Duma and Benipur from Saidabad were selected randomly and in the final stage, household units in the identified colonies and villages were visited to find eligible participants.

Households were visited till the required sample size was met. The study was conducted in urban wards and rural blocks of Allahabad district with a population of 59, 54,391. The percentage of females above the age 40 years (according to NFHS III) is 25.2%. Thus the total population of females above age of 40 years is likely to be 15, 00506. The sample size was calculated as 384 as per the formula. A team of investigators was formed. Members of the team briefed the postmenopausal women about the purpose and significance of the study and requested for voluntary participation. The women were explained that the information given by them would be confidential. The identified women were interviewed in privacy and desired information was collected on a pre-tested and pre- designed schedule through oral questionnaire method. A total of 400 postmenopausal women were interviewed. Information was collected on background characteristics, socio- economic status, and psychological status. General health examination was carried out.

RESULTS

Table 1 depicts among the total 400 postmenopausal women majority 114 (28.5%) were in the age group of 56- 60 years followed by 95 (23.75%) in the age group of 51- 55 years.

Among the rural women, majority 54 (27.0%) were in the age group of 56-60 years, followed by 47 (23.5%) in the age group of 51-55 years, 41 (20.5%) in the 60- 65 years

age group, 22 (11.0%) were in the age group of 66-70, 11 (5.5%) in the age group of 71-75 years. The least 5 (2.5%) were above 75 years. The mean age was almost similar among the urban women and rural women being 57.52 years and 57.30 years respectively. Majority of the 400 postmenopausal women 391 (97.71%) were Hindu. Among the rural and urban women, majority 196 and 195 (98.0% and 97.5%) respectively were Hindu.

Table 1: Distribution of postmenopausal women according to demographic profile.

Socio demographic Variables					
S. N.	**Category**	**Rural (200)**	**Percentage (%)**	**Urban (200)**	**Percentage (%)**
Age (Y)					
1	45–50	20	10	16	8
2	51–55	47	23.5	48	24
3	56–60	54	27	60	30
4	61–65	41	20.5	36	18
5	66–70	22	11	24	12
6	71–75	11	5.5	8	4
7	>75	5	2.5	6	3
Religion					
1	Hindu	196	98	195	97.5
2	Muslim	4	2	4	2
3	Christian	0	0	1	0.5
Caste					
1	General	60	30	76	38
2	Backward	96	48	90	55
3	Schedule caste	34	17	30	15
4	Schedule tribe	10	5	4	2
Type of Family					
1	Nuclear	65	30.5	140	69.5
2	Joint	135	69.5	60	30.5
Marital Status					
1	Married	145	72.5	189	94.5
2	Widowed	55	27.5	10	5
3	Separated	0	0	1	0.5
Total		200	100	200	100
Parity					
1	0	4	2	6	3
2	I	6	3	25	12.5
3	II	39	19.5	71	35.5
4	III	151	75.5	98	49
Education of women					
1	Illiterate	172	86	21	10.5
2	Primary	13	6.5	30	15
3	High school	13	6.5	18	9
4	Intermediate	2	1	34	17
5	Graduate	0	0	67	33.5
6	Post graduate	0	0	29	14.5
7	Professional	0	0	1	0.5
Occupation of women					
1	Housewife	142	71	162	81
2	Service	3	1.5	36	18
3	Business	5	2.5	2	1
4	Labour	17	8.5	0	0
5	Agriculture	33	16.5	0	0
Education of husband					

1	Illiterate	95	65.52	0	0
2	Primary	23	15.86	4	2.1
3	High school	9	6.2	11	5.8
4	Intermediate	13	8.97	22	11.6
5	Graduate	4	2.76	97	51.4
6	Post graduate	1	0.69	45	23.8
7	Professional	0	0	10	5.3
Total		145	100	189	100
Occupation of Husband					
1	Unemployed	1	0.69	0	0
2	Retired	20	13.79	161	85.18
3	Business	2	1.38	28	14.82
4	Labour	46	31.72	0	0
5	Agriculture	76	52.41	0	0
Total		145	100	189	100
Socio economic status					
1	(Upper) >5156 Rs	0	0	37	18.5
2	(Upper middle) 2578- 5155 Rs	6	3	49	24.5
3	(Lower middle) 1547- 2577Rs	11	5.5	76	38
4	(Upper lower) 773 -1546 Rs	97	48.5	27	13.5
5	Lower <773 Rs	86	43	11	5.5
Environmental scoring					
1	>5 (Satisfactory)	42	21	104	52
2	<5 (Unsatisfactory)	158	79	96	48
Age at menopause					
1	40-45	6	3	5	2.5
2	46-50	50	25	43	21.5
3	51-55	128	64	119	59.5
4	56-60	16	8	33	16.5
Total		200	100	200	100

Caste wise distribution shows that among the rural women, majority 96 (48.0%) belonged to backward caste, followed by general caste 60 (30.0%), 34 (17.0%) who belonged to schedule caste and only 10 (5%) belonged to schedule tribe. Similarly among the urban women, majority 90 (45%) belonged to backward caste, followed by 76 (38.0%) from general caste, 30 (15%) belonged to schedule caste and least 4 (2.0%) belonged to schedule tribe. Out of the 400 postmenopausal women equal numbers 200 (50%) lived in joint and nuclear families.

The rural - urban distribution was reversed with 139 (69.5%) women from rural areas living in joint families and the rest 61 (30.5%) in nuclear families while in the urban area 139 (69.5%) women belonged to nuclear family and the remaining 61 (30.5%) were from joint families. Majority of the women 334 (83.5%) were married followed by 65 (16.25%) who were widowed and only 1 (0.25%) woman was separated.

The rural and urban distribution shows that, majority 145 and 189 (72.5% and 94.5%) respectively were married at the time of the study, while 55 and 10 (27.5% and 5.0%) respectively were widowed. Only 1 (0.5%) urban woman was separated. Majority of the women in both the groups combined were having parity of three 249 (62.25%) followed by two 110 (27.5%). Thirty one (7.75%) women had one child while 10 (2.5%) had no child. Among the rural women, majority 151 (75.5%) were having a parity of three, followed by 39 (19.5%) having a parity of two. Only 6 (3%) were having the parity of 1 and 4 (2.0%) were childless.

Among the urban women, majority 98 (49.0%) had parity of three, followed by 71 (35.5%) who had a parity of two and 25 (12.5%) had one child. Six (3.0%) were childless. Further analysis of data from the above table indicates that the mean parity was more among the rural women 3.44 as compared to 2.71 among the urban women. Majority of the women in the study 193 (48.25%) were illiterate. Among the rural women, 172 women (86.0%) were illiterate and among those who were literate only 13 each (6.5%) were educated upto primary and high school level respectively.

Very few 2 (1.0%) were educated upto intermediate level and none were educated above this level. Whereas among the urban women, majority of them 67 (33.5%) were

educated up to graduate level, followed by 30 (15.0%) women who had studied up to primary level and 21 (10.5%) were illiterate and only 1 (0.5%) woman had professional qualification. Majority of the women in both the groups combined 304 (76.0%) were engaged in household work. Among the rural women, majority 142 (71.0%) were engaged in house hold work, followed by 33 (16.5%) in agriculture work and only 3 (1.5%) were in service.

Table 2: Morbidity pattern among postmenopausal women.

Variables	Rural (200)	Percentage (%)	Urban (200)	Percentage (%)
Vasomotor symptoms	69	34.5	78	39.5
Genito urinary problems				
Vaginal dryness	5	2.5	12	6
Vaginal discharge	14	7	8	4
Prolapse	12	6	7	3.5
Stress incontinence	21	10.5	17	8.5
Increased urinary frequency	18	9	15	7.5
Musculoskeletal problems				
Joint pains	114	57	111	55.5
Generalized body ache	75	37.5	77	38.5
H/O fall and fractures	21	10.5	23	11.5
Other problems	17	8.5	26	13
Cardiac problems	2	1	5	2.5
Ear problems	15	7.5	19	9.5
Visual problems	187	93.5	185	92.5
Dental problems	56	26	50	25
Psychological problems	50	25	39	19.5
Anaemia (clinical assessment)	101	50.5	68	34
Hypertension	40	19	51	24
Diabetes	46	23	59	29.5
Other medical problems	16	8	42	21

Among the urban women, though majority 162 (81.0%) were engaged only in house hold work, 35 (17.5%) were in service and 1 (0.5%) woman was a doctor by profession. Majority 101 (25.25%) husbands of postmenopausal women were educated up to graduate level and 95 (23.75%) were illiterate. Out of total rural and urban women, 55 and 10 (27.5% and 5.0%) respectively were widows. In the urban area 1 (0.5%) was separated from her husband. Out of total 145 husbands of rural women, majority 95 (65.52%) were illiterate, followed by 33 (15.86%) who were educated upto primary level and only 1 (0.69%) was educated upto postgraduate level.

While among the 189 husbands of urban women, majority 97 (51.4%) were educated upto graduate level, followed by 45 (23.8%) who were educated up to postgraduate level and only 4 (2.1%) were educated upto primary level. None was illiterate. In the study majority 181 (45.25%) husbands were retired from service followed by 76 (19.0%) who were engaged in agriculture work. Among the 145 rural subjects majority 76 (52.41%) were engaged in agriculture work, followed by 46 (31.72%) who were laborers and only 1 (0.69%) was unemployed while among the 189 husbands of urban women, majority 161 (85.2%) were retired from service, followed by 26 (13.8%) who were doing business. Overall in the 400 postmenopausal women majority 124 (31.0%) belonged to upper lower class followed by 97 (24.25%) who belonged to lower class. Among rural women none belonged to upper socio economic class. Six (3.0%) belonged to upper middle class, 11 (5.5%) belonged to lower middle while 97 and 86 (48.5% and 43.0%) respectively belonged to upper lower and lower socioeconomic class.

Among urban women 37 (18.5%) belonged to upper socioeconomic class, 76 (88.0%) belonged to upper middle socio economic class, 49 (24.5%) belonged to lower middle class while 27 and 11 (13.5% and 5.5%) respectively belonged to upper lower and lower socioeconomic class. Among the total 400 postmenopausal women majority 254 (63.5%) were living under unsatisfactory living condition. In the rural urban distribution it was observed that majority of the rural women 158 (79.0%) were living under unsatisfactory condition while 42 (21.0%) were living under satisfactory conditions. In contrast among urban

women 104 (52.0%) were living under satisfactory conditions while 96 (48.0%) were living under unsatisfactory conditions. Majority of the women in both the groups combined 247 (61.75%) had attained menopause between the age of 45-50 years. Regarding the age at which menopause was attained among the rural women, majority of them 128 (64.0%) attained it at the age group of 51-55 years, followed by 50 (25.0%) in the age group of 46-50 years and few 6 (3.0%) attained menopause between 40-45 years.

More or less similar pattern regarding the age at menopause was observed among the urban women being 119 (59.5%) in 51-55 years age group followed by 43 (21.5%) in the 46-50 years age group and 33(16.5%) in the 56-60 years age group. Only 05 (2.5%) had attained menopause between 40-45 years of age. The mean age at menopause was found to be 46.32 years among the urban women and 46.92 years among the rural women. Tables 2: depicts the distribution of rural and urban women according to their morbidity pattern. There were multiple responses for morbidity. Among rural and urban women 69 and 78 (34.5% and 39.0%) respectively reported that they had experienced vasomotor symptoms. Vaginal dryness was reported by 5 (2.5%) rural and 12 (6%) urban women.

Vaginal discharge was reported by 14 (7.0%) rural women and 8 (4.0%) urban women. Among rural women 12 (6.0%) and urban women 7 (3.5%) respectively informed that they had vaginal prolapse. Incontinence was reported more by rural women than urban women being 21 and 17 (10.5% and 8.5%) respectively. Increased urinary frequency was reported by rural and urban women 18 and 15 (9.0% and 7.5%) respectively. Joint pain was reported by 114 and 111 (57.0% and 55.5%) of rural and urban women respectively. Body ache was reported by 75 and 77 (37.5% and 38.5%) rural and urban women. History of fall and fracture was reported by 21 and 23 (10.5% and 11.5%) rural and urban women respectively. Other problems- cervical spondylitis, arthritis, gout- were reported by 17 (8.5%) and 26 (13.0%) of rural and urban women respectively.

Among rural women only 2 (1.0%) had cardiac problem while among urban women 5 (2.5%) had cardiac problem. Among rural women 15 (7.5%) reported ear problems while 19 (9.5%) urban women reported that they had some ear problem. Visual problems were observed among 187 and 185 (93.5% and 92.5%) of the rural and urban women respectively.

Among rural women, 56 (28.0%) were suffering from the dental problems while among urban women, 50 (25.0%) were suffering from the dental problems. Only 50 and 39 (25.0% and 19.5%) of the rural and urban women respectively were having psychological problems. Anemia as assessed clinically was found in 101 and 68 (50.5% and 34.0%) of the rural and urban women respectively. In the present study among the total rural women 40 (19%) were suffering from hypertension, whereas out of total urban women 51 (24.0%) were suffering from hypertension. The problem of diabetes was found in 46 (23.0%) rural and 59 (29.5%) urban women. Among rural and urban women 16 and 42 (8.0% and 21.0%) were having other medical problems also like hypothyroidism, fever, cough, gastroenteritis.

DISCUSSION

In the present study, the mean age of the women was 57.30 years and 57.52 years respectively in rural and urban area. According to age distribution, majority was in the age group of 50-60 years in both rural and urban areas being 101 (50.5%) and 108 (54.0%) respectively. In the present study, the mean age of the women was 57.30 years and 57.52 years respectively in rural and urban area. Similar observations have been reported by Linda Ichchouet al in their study in Morocco who reported that the mean age of the participants was 57.7±7.7 years.[17]

Most of the subjects i.e. 196 (98.0%) belonged to Hindu religion and only 04 (2.0%) were Muslims and there were no Christians in rural areas and almost similar pattern was found among urban areas i.e. 195 (97.5%) were Hindus, 4 (2.0%) were Muslims and only 1 (0.5%) was Christian. Caste wise, most of the women belonged to backward caste in both the rural and urban areas i.e. 96 and 90 (48.0% and 55.0%) respectively. This was followed by followed by 60 and 76 (30.0% and 38.0%) women of rural and urban area who belonged to general caste. Thirty four and thirty (17.0% and 15.0%) rural and urban women belonged to schedule caste while least 10 and 4 (5.0% and 2.0%) rural and urban women belonged to schedule tribe.

In the rural areas, majority 139 (69.5%) lived in joint families while in urban area majority 139 (69.5%) lived in nuclear families. In a study carried out by Jacintha Veigaset al in Mangalore, Karnataka it was reported that 68.8% of women lived in nuclear families which is similar to our study in urban area.[18] In the present study all the women were married. At the time of investigation 65 women 55 (27.5%) in the rural and 10 (5.0%) in the urban area were widows and 1 (0.5%) from the urban area had separated from the husband. Donald Christian et al in Vadodara, Gujarat reported in their study that 18.4% women were widowed while in the present study widows were 65 (16.25%) which is almost similar to their study.[19]

Majority of the women 151 (75.5%) in rural area and 98 (49.0%) in urban area had parity of three, followed by parity two in 39 (19.5%) rural and 71 (35.5%) urban area, 6 (3.0%) women of rural area were having parity of 1 and 25 (12.5%) women of urban area had parity 1 while 4 (2.0) and 6 (3.0%) of rural and urban women respectively were childless. The study done by Jacintha Veigaset al in Mangalore, Karnataka stated that 47.5% of women had two children which is also higher than the findings in the present study both for rural and urban areas.[18] The reason

may be that in this study majority of the women had 3 or more children. Majority 179 (89.5%) women in urban area were literate and only 21 (10.5%) were illiterate while in rural area majority 172 (86%) women were illiterate and only 28 (14.0%) were literate.

Overall literacy rate in the present study was 51.75%. Donald Christian et al conducted their study in Vadodara, Gujarat and reported that 74.8 % women were illiterate.[19] This is due to the higher literacy level of the women 89.5% in the urban areas. By occupation majority of the study population in rural area were housewives 142 (71.0%) followed by laborers 17 (8.5%) and in urban areas majority 162 (81.0%) were housewives followed by those in service class 36 (18.0%) and in business 2 (1.0%). In study done by Veigaset J et al in Mangalore, Karnataka it was reported that 72.5% were housewives which is comparable to the present study.[18] In the present study the mean age at menopause was found to be 46.92 years among the rural women and 46.32 years among urban. Similarly reports were found in the study by Donald Christian et al in Vadodara, Gujarat where the mean age at menopause was 47.74 years.[19]

The overall prevalence of the vasomotor symptoms among postmenopausal women (hot flushes and night sweats combined) in the present study was 34.5% and 39.0% in rural and urban areas respectively. A study done by Bindhu AS, et al in Kottayam Kerala observed the prevalence of night sweats as 32.8% which is comparable to the present study.[20] In the present study, vaginal dryness was reported by 5 (2.5%) rural and 12 (6%) urban women. Vaginal discharge was reported by 14 (7.0%) rural women and 8 (4.0%) urban women. Among rural women 12 (6.0%) and urban women 7 (3.5%) respectively informed that they had uterine prolapse. Incontinence was reported more by rural women than urban women being 21 and 17 (10.5% and 8.5%) respectively. Increased urinary frequency was reported by rural and urban women 18 and 15 (9.0% and 7.5%) respectively.

Borkeret SA et al in Anjarakandy, Kerala in their study reported the prevalence of genital problems as 9.3% which is comparable to the present study as prevalence of genital problems came out to be 9.5% and 10% in rural and urban communities (vaginal dryness 2.5 & 6.0% and vaginal discharge 7.0 & 4.0% respectively).[21] Jackson SL et al USA in their study reported incontinence in 8% which is comparable to the current study as the prevalence of stress incontinence came out to be 10.5% in rural postmenopausal women and 8.5% in urban postmenopausal women's.[22] In the present study, majority reported joint pains 114 (57%) of women in rural area and 111 (55.0%) of urban area, while generalized body ache was reported by 75 and 77 (37.5% & 38.5%) women in rural and urban area followed by h/o fall & fracture which was given by 21 and 23 (10.5% & 11.5%) women in rural & urban area respectively. A study conducted by Borker SA and et al.[21] In Anjarakandy, Kerala reported that 53% of postmenopausal women suffered from musculoskeletal problems i.e. joint pain/ muscle pain which is comparable to the findings of urban area and slightly lower than the findings of rural area of the present study. Kwo PON et al in a study done in Enugu, Nigeria reported muscle pain in 54.8% which is comparable to the present study.[23] Another study by Ande AB et al in Berlin City, Nigeria reported joint pains in 53.8% which is also similar to the present study.[24] In the study done by Shojaeizadeh D et al.[23]

In Tehran, fracture was reported in 12.0% of the participants which is similar to the current study. In the present study, 7.5% of rural and 9.5% of urban postmenopausal women reported ear problems. In a study done by researchers at the University of Ulsan in Seoul15 it was found that though all the post-menopausal women had low estrogen levels, 11.6% of those in the group with the least estrogen had hearing loss. Visual problems were reported as the most common problem in the present study with a prevalence of 187 (93.5%) and 185 (92.5%) in rural and urban communities respectively. Refractive error was the most commonly reported visual problem followed by cataract. Similarly in a study conducted by Arora A et al.[25] It was reported that diminished vision was the most common symptom at menopause. In the current study, psychological problems were reported by 25% women in rural area and 19.5% women in urban area as assessed by scoring through the questionnaire (General health questionnaire- GHQ-12). In this study the psychological problems have not been categorized unlike other studies in which they have been categorized like anxiety, depression, sleep problems so it is difficult to compare with other studies.

A study conducted by Tandon VR, et al in rural health Centre of Bakshi Nagar, Jammu showed that 50.0% of women had irritability and nervousness, 30.0% of participants had palpitations and excitability/anxiety.[26] In the present study, the prevalence of hypertension came out to be 19% and 24.0% in rural and urban area. Mahajan N, et al in Shimla, Himachal Pradesh in their study reported that the prevalence of hypertension was 23% which is comparable to the present study.[9] In the present study increased sugar level was found in 23% of rural women and 29.5% of urban women. Nusrat N, et al in Hyderabad Sindh, Pakistan reported that the prevalence of diabetes was 24.9% which is comparable to the findings of rural area in the present study.[7]

CONCLUSION

The study shows that postmenopausal women in India suffer from various vasomotor, physical as well as psychiatric problems related to menopausal hormonal changes with varied frequencies. There is a need to address their problem and establish health care centers for them. Postmenopausal women should be sensitized for availing the health facilities for their health problems by

information education and communication (IEC) and behaviour change communication (BCC). Family support should be ensured by creating awareness in community. Awareness regarding menopause and problems among women related to it need to be improved. Health workers, ASHA, Aanganwadi workers can help women to understand about the menopausal symptoms, if they are given adequate training.

Funding: No funding sources
Conflict of interest: None declared
Ethical approval: The study was approved by the Institutional Ethics Committee

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Cite this article as: Goyal A, Mishra N, Dwivedi S. A comparative study of morbidity pattern among rural and urban postmenopausal women of Allahabad, Uttar Pradesh, India. Int J Res Med Sci 2017;5:670-7.