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RESEARCH ARTICLE

Menopausal symptoms and related factors among women in Baghdad City

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Abstract

Introduction: Menopause is a unique event in a woman's life that associated with various somatic, psychological, vasomotor and sexual symptoms that affect the overall quality of life of women.

Objectives: The present study was aimed to determine the effect of socio-demographic, reproductive and lifestyle factors on the experience of menopausal symptoms among women in Baghdad City.

Patients and methods: A descriptive cross-sectional study design was used. This survey is conducted in September 2015 to April 2016 among 195 women who are living in different parts of the city of Baghdad. All those ladies had undergone natural menopause. The data was analyzed by using SPSS program version 22.

Results: The mean age of natural menopause was 49.3 ± 2.3 . The most frequent menopausal symptoms were aching in muscles and joints 72.3%; hot flushes 70.3%; vaginal dryness 67.3%; and feeling bloated were reported by 65.1% of study subjects. There was a significant association between the menopausal symptoms and socio-demographic, reproductive and lifestyle factors among the study subjects.

Conclusion: Menopausal symptoms are multi factorial; therefore exact determination of these symptoms in our society is essential as it can help to identify preventable factors and to educate women about their quality of life.

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Introduction:-

Menopause is a normal occurrence in the life of every woman. The term is derived from the Greek, which actually means 'cessation of periods'. (1) It is a normal physiologic process, defined retrospectively as the time of the final menstrual period, followed by 12 months of amenorrhea. (2)(3) This process is the result of complete or partial absence of estrogen release from ovaries as well as depletion of ovarian follicles. (4) (5)

The transition from a potentially reproductive to a non-reproductive state is normally occurs over a number of years, and is a consequence of biological aging. The effect of menopausal transition on women's lives is complex and includes changes in physical health, psychosomatic domains, and personal life. (6)

Literature from different parts of the world shows that an event of menopause is highly variable in timing and pattern, with international range being 44.6–52 years. In the US, the median age at menopause is 51 years, in Europe is 50.7 years. In India, the mean age is 44.3 years. (7)(8)(9) Data from Gulf countries showed a mean age in the UAE is 48.4 years, and in Saudi Arabia is 48.98 years. (2)

Age at natural menopausal is an important research issue because of the suspected links between it and risk for certain diseases. Without intervention, more than 75% of these females will suffer the distressing sequelae of

menopausal like cardiovascular disease, osteoporosis, as well as endometrial and breast cancer. (1)(2)(6) Moreover, women are expected to live a quarter to a third of their lives in menopause, which makes the quality of life during this period a great concern for women and their treating physician. (6)(7) Currently, menopause affects the lives of millions of women globally and will be an issue of increasing concern as the population ages over the next few decades. (11)

However, the overall health and well-being of mid-aged women has become a major public health concern around the world. There is a large set of data exists for postmenopausal women dwelling in Western countries that have different socio-cultural aspects and menopausal experiences. Few studies are available from the developing world about the prevalence of menopausal symptoms and correlation with socio-cultural, reproductive characteristics. (9) Therefore this study was conducted to describe the pattern of the commonly experienced menopausal symptoms and to investigate any correlation of socio-demographic, reproductive and lifestyle factors with menopausal symptoms among women in Baghdad City.

Patients and methods:-

A descriptive cross-sectional study design was used. This survey is conducted in September 2015 to April 2016 among 195 women who are living in different parts of the city of Baghdad, and comprised women of age 46-78 years. All those participants had undergone natural menopause. An interviewing sheet was designed by the researcher; menopause specific symptoms and signs questionnaire were used to collect the data, including demography (age, education, employment and marital status), reproductive parameters (such as parity, age of menarche, and age at menopause) and lifestyle characteristics (such as body mass index (BMI), type of food, and smoking). The purpose and significance of this study was explained to the participated women, and informed consent was obtained from each participant. The data was analyzed by using SPSS program version 22. chi-square, t-test and P-value were used in the analytic study to determine the association between the frequency of menopausal symptoms and the socio-demographic, reproductive and lifestyle factors of the study subjects, and the statistically significant result with P-value <0.05.

Results:-

The Socio-demographic profile of the participants as shown in table 1; indicates that the mean age of entire sample (195) was 56.9 ± 5.4 SD, with range 46-78 year. The mean age of natural menopause was 49.3 ± 2.3 . The mean duration of menopause was 7.6 ± 5.4 years. 54.9% of women had age of menopause above fifty years vs. 45.1% who were below fifty. A greater proportion of the women 87.7% were married; 37.2% were had secondary level of education, 59.0% were house wives, and 67.7% were belongs to medium socioeconomic status. On inquiry about dietary patterns, it was found that 91.8% of ladies were non vegetarian and 43.6% had an overweight, with mean BMI 28.1 ± 4.3 . The mean age of participants at time of menarche was 13.2 ± 1.7 years. The mean gravidity of participants in this study was 3.8 ± 1.9 and parity was 3.5 ± 1.8 . 10.8% of women gave history of smoking.

Table (1): The socio-demographic, reproductive and lifestyle characteristics of the participating women:

<i>Socio-demography</i>		NO	%
Age at menopause	<i><50</i>	88	45.1
	<i>≥50</i>	107	54.9
Marital status	<i>Single</i>	24	12.3
	<i>Married</i>	171	87.7
Education	<i>Illiterate</i>	31	15.8
	<i>Primary school</i>	46	23.5
	<i>Secondary school</i>	73	37.2
	<i>Diploma or higher</i>	45	23.0
Occupation	<i>yes</i>	80	41.0
	<i>no</i>	115	59.0
Income	<i>Good</i>	20	10.3
	<i>Medium</i>	132	67.7
	<i>Low</i>	43	22.1
<i>Lifestyle factors</i>			
BMI	<i>normal</i>	54	27.7
	<i>overweight</i>	85	43.6
	<i>obese</i>	56	28.7
Type of food (Vegetarian)	<i>yes</i>	16	8.2
	<i>no</i>	179	91.8
Nutrition	<i>Low</i>	6	3.1
	<i>Moderate</i>	48	24.5
	<i>Good</i>	141	71.9
Smoking	<i>Yes</i>	21	10.8

	<i>No</i>	174	89.2
<i>Reproductive factors</i>			
Age at menarche	<i>< 13</i>	87	44.6
	<i>≥13</i>	108	55.4
Parity	<i>0</i>	14	7.2
	<i>1-4</i>	103	52.8
	<i>≥5</i>	78	40
Duration Since Menopause	<i>≤5 years</i>	83	42.6
	<i>> 5 years</i>	112	57.4

Table(2): The frequency of menopausal symptoms in the participants:

symptoms	No	%
<i>Vasomotor</i>		
1. Hot flashes or flashes	137	70.3
2. Night sweats	95	48.7
<i>Psychosocial</i>		
1. Feeling anxious or nervous	120	61.5
2. Poor memory	98	50.3
3. Feeling depressed	86	44.1
<i>Physical</i>		
1. muscles and joints problem	141	72.3
2. Feeling bloated	127	65.1
3. Weight gain	124	63.6
4. Difficulty in sleeping	99	50.8
5. Dry skin	84	43.1
6. Frequent urination	83	42.6
7. Urgency urinary incontinence	73	37.4
<i>Sexual</i>		
1. Vaginal dryness	131	67.2
2. Decrease in sexual desire	107	54.9
3. Avoiding intimacy	102	52.3

Table 2 showed that the most frequent menopausal symptoms were aching in muscles and joints 72.3%; hot flushes 70.3%; vaginal dryness 67.2%; feeling bloated 65.1%; decrease in sexual desire 54.9%; and avoiding intimacy were reported by 52.3% of study subjects.

Table 3 to 6 were displayed the relationship between the frequency of the menopausal symptoms (vasomotor; psychosocial; somatic; and sexual) and the socio-demographic; reproductive and the lifestyle characteristics of the study subjects.

Table(3): The frequency of vasomotor symptoms in relation to various socio-demographic, reproductive and lifestyle characteristics of participants:

Socio-demographic Factors		Hot flashes				Night sweats			
		(137)				(95)			
		n	%	df	Statistical Significance	n	%	df	Statistical Significance
Age at menopause	<50	70	35.9	11	X2=39.419	45	23.1	11	X2=9.782
	≥50	67	34.4		P=.000	50	25.6		P=.550
Marital status	Single	17	8.7	1	X2=.004	11	5.6	1	X2=.091
	Married	120	61.5		P=.947	84	43.1		P=.763
Education	Illiterate	21	10.8	3	X2=9.846 P=.020	11	5.6	3	X2=4.141 P=.247
	Primary	39	20			20	10.3		
	Secondary	43	22.1			40	20.5		
	Tertiary	34	17.4			24	12.3		
Occupation	Employed	47	24.1	1	X2=8.595	40	20.5	1	X2=.089
	Housewife	90	46.2		P=.003	55	28.2		P=.765
Income	Good	14	7.2	2	X2=.008 P=.996	8	4.1	2	X2=1.375 P=.503
	Medium	93	47.7			68	34.9		
	Low	30	15.4			19	9.7		
Lifestyle									
Body mass index, kg/m2	normal	38	19.5	53	X2=83.271 P=.005	32	16.4	53	X2=55.322 P=.387
	overweight	59	30.3			40	20.5		
	obese	40	20.5			23	11.8		
Type of food (Vegetarian)	yes	6	3.1	1	X2=8.950 P=.003	3	1.5	1	X2=6.266
	no	131	67.2			92	47.2		P=.012

Nutrition	Good	109	55.9	2	X2=12.117 P=.002	71	36.4	1	X2=.879 P=.644
	Moderate	25	12.8			22	11.3		
	Low	3	1.5			2	1.0		
Smoking	Yes	12	6.2	1	X2=1.937 P=.164	8	4.1	1	X2=1.063 P=.303
	No	125	64.1			87	44.6		
Reproductive									
Age at menarche	≥13	80	59.3	7	X2=23.594 P=.001	54	27.7	7	X2=3.10 P=.870
	<13	57	42.2			41	26.2		
Parity	0	14	7.2	8	X2=20.156 P=.010	5	2.6	8	X2=5.058 P=.751
	1-4	82	42.1			57	29.2		
	>4	41	21.0			33	16.9		

Table 3 was shown that there was a statistically significant relation between the frequency of hot flashes and the age at menopause <50 years ($P<0.001$), educational ($P=0.020$), unemployment ($P=0.003$), lifestyle characteristics like overweight and obesity ($P=0.005$), nutritional status ($P=0.002$), and type of food ($P=0.003$), reproductive factors like parity ($P=0.010$) and age at menarche ≥ 13 years ($P=0.001$).

There is no significant relation between the frequency of night sweating and various socio-demographic, reproductive and lifestyle characteristics of participants.

Table(4): The frequency of psychosocial symptoms in relation to various socio-demographic, reproductive and lifestyle characteristics of participants:

Socio-demographic Factors		Anxiety (120)				Poor memory (98)				Feeling depressed (86)			
		n	%	df	Statistical Significance	n	%	df	Statistical Significance	n	%	df	Statistical Significance
Age at menopause	<50	16	8.2	11	X2=137.890 P=0.000	38	19.5	11	X2=22.894 P=.018	44	22.6	11	X2=10.333 P=.501
	≥50	104	53.3			60	30.8			42	21.5		
Marital status	Single	12	6.2	1	X2=1.539 P=.215	8	4.1	1	X2=3.135 P=.077	10	5.1	1	X2=.066 P=.797
	Married	108	55.4			90	46.2			76	39.0		
Education	Illiterate	19	9.7	3	X2=.533 P=.912	11	5.6	3	X2=4.818 p=.186	13	6.7	3	X2=.705 P=.872
	Primary	30	15.4			28	14.4			22	11.3		
	Secondary	45	23.1			37	19.0			30	15.4		
	Tertiary	26	13.3			22	11.3			21	10.8		
Occupation	Employed	52	26.7	1	X2=.687 P=.407	40	20.5	1	X2=.004 P=.952	28	14.4	1	X2=4.559 P=.033
	Housewife	68	34.9			58	29.7			58	29.7		
Income	Good	2	1.0	2	X2=25.139 P=0.000	7	3.6	2	X2=2.762 P=.251	7	3.6	2	X2=7.951 P=.019
	Medium	90	46.2			71	36.4			52	26.7		
	Low	28	14.4			20	10.3			27	13.8		
Lifestyle													
BMI	normal	34	17.4	53	X2=78.335 P=.013	20	10.3	53	X2=94.678 P=0.000	23	11.8	53	X2=81.949 P=0.007
	overweight	52	26.7			51	26.2			32	16.4		
	obese	34	17.4			27	13.8			31	15.9		
Type of food (Vegetari)	yes	10	5.1	1	X2=.007 P=.934	9	4.6	1	X2=.250 P=.617	79	40.5	1	X2=.001 P=.976
	no	110	56.4			89	45.6			7	3.6		
Nutrition	Good	89	45.6	2	X2=2.191 P=.334	70	35.9	2	X2=.085 P=.958	59	30.3	2	X2=4.096 P=.129
	Moderate	29	14.9			25	12.8			22	11.3		
	Low	2	1.0			3	1.5			5	2.6		
Smoking	Yes	12	6.2	1	X2=.192 P=.661	10	5.1	1	X2=.065 P=.798	14	7.2	1	X2=4.861 P=.027
	No	108	55.4			88	45.1			72	36.9		
Reproductive													
Age at nenarche	≥13	78	40	7	X2=19.094 P=0.008	59	30.3	7	X2=10.543 P=.160	45	23.1	7	X2=3.984 P=.782
	<13	42	21.5			39	20			41	21.0		
Parity	0	8	4.1	9	X2=6.049 P=.642	5	2.6	8	X2=32.927 P=.016	6	3.1	8	X2=12.564 P=.128
	1-4	69	35.4			53	27.2			46	23.6		
	>4	52	26.7			40	20.5			34	17.4		

Regarding the psychosocial symptoms like feeling anxious or nervous, poor memory and feeling depressed; table 4 illustrated that there was a statistically significant relation between the feeling anxious or nervous and the age at menopause ≥50 years (P<0.001), low and medium socioeconomic status (P<0.001), overweight (P=0.013), and age of menarche ≥ 13 years (P=0.008).

Also there was statistically significant relation between poor memory and age at menopause ≥50 years (P=0.018), overweight (P<0.001), and parity (P=0.016).

Feeling depressed has a significant relation with unemployment (P=0.033), low and medium socioeconomic status (P=0.019), and overweight and obesity (P=0.007).

Table(5): The frequency of somatic symptoms in relation to various socio-demographic, reproductive and lifestyle characteristics of participants:

Socio-demographic Factors	muscles and joints problem (141)				Flatulence (127)				Bladder problem (102)				
		n	%	df	Statistical Significance	n	%	df	Statistical Significance	n	%	df	Statistical Significance
Age at menopause	<50	57	29.2	11	X2=38.129 P=.000	40	20.5	11	X2=46.191 P=.000	27	13.8	11	X2=40.006 P=.000
	≥50	84	43.1			87	44.6			75	38.5		
Marital status	Single	15	7.7	1	X2=1.315 P=.252	13	6.7	1	X2=1.448 P=.229	9	4.6	1	X2=2.406 P=.121
	Married	126	64.6			114	58.5			93	47.7		
Education	Illiterate	18	9.2	3	X2=10.843 P=.013	17	8.7	3	X2=1.724 P=.632	15	7.7	3	X2=.398 P=.941
	Primary	38	19.5			31	15.9			24	12.3		
	Secondary	58	29.7			49	25.1			40	20.5		
	Tertiary	27	13.8			30	15.4			23	11.8		
Occupation	Employed	63	32.3	1	X2=2.812 P=.094	57	29.2	1	X2=2.238 P=.135	38	19.5	1	X2=1.257 P=.262
	Housewife	78	40.0			70	35.9			64	32.8		
Income	Good	13	6.7	2	X2=.626 P=.731	8	4.1	2	X2=6.405 P=.041	4	2.1	2	X2=9.429 P=.009
	Medium	97	49.7			91	46.7			73	37.4		
	Low	31	15.9			28	14.4			25	12.8		
Lifestyle													
BMI	normal	15	7.7	53	X2=113.738 P=.000	29	14.9	159	X2=110.788 P=.999	20	10.3	53	X2=1.964 P=.043
	overweight	72	36.9			55	28.2			45	23.1		
	obese	54	27.7			42	21.5			37	19.0		
Type of food (Vegetarin)	yes	12	6.2	1	X2=.063 P=.802	10	5.1	3	X2=11.338 P=.010	11	5.6	1	X2=1.889 P=.169
	no	129	66.2			116	59.5			91	46.7		
Nutrition	Good	99	50.8	2	X2=1.220 P=.543	95	48.7	6	X2=6.772 P=.342	70	35.9	2	X2=3.265 P=.195
	Moderate	37	19.0			26	13.3			30	15.4		
	Low	5	2.6			5	2.6			2	1.0		
Smoking	Yes	15	7.7	1	X2=.009 P=.924	12	6.2	3	X2=.939 P=.816	13	6.7	1	X2=.869 P=.351
	No	126	64.6			114	58.5			89	45.6		
Reproductive													
Age at menarche	≥13	78	40	7	X2=10.382 P=.168	76	39.0	7	X2=12.181 P=.095	62	31.8	7	X2=9.604 P=.212
	<13	63	32.3			51	26.2			40	20.5		
Parity	0	11	5.6	8	X2=6.497 P=.592	9	4.6	8	X2=4.622 P=.797	2	1.0	8	X2=27.099 P=.001
	1-4	70	35.9			75	38.5			54	27.7		
	>4	62	31.8			43	22.1			46	23.6		

Table 5 shown that there was a statistically significant relation between the muscles and joints problems with the age at menopause ≥ 50 years ($P < 0.001$), education ($P = 0.013$), and overweight ($P < 0.001$).

There was a significant relation between the feeling bloated and the age at menopause ≥ 50 years ($P < 0.001$), medium socioeconomic status ($P = 0.041$), and nutritional factors ($P = 0.010$).

Bladder problem like frequency and urgency has a statistically significant relation with the age at menopause ≥ 50 years ($P < 0.001$), medium socioeconomic status ($P = 0.009$), overweight and obesity ($P = 0.043$), and multiparity ($P = 0.001$).

Table(6): The frequency of sexual symptoms in relation to various socio-demographic, reproductive and lifestyle characteristics of participants:

Socio-demographic Factors	Vaginal dryness (131)					Decrease sexual desire (107)				Avoiding intimacy (102)			
		n	%	df	Statistical Significance	n	%	df	Statistical Significance	n	%	df	Statistical Significance
Age at menopause	<50	55	28.2	11	X2=34.540 P=.000	47	24.1	11	X2=17.042 P=.107	41	21.0	11	X2=11.151 P= .431
	≥50	76	39.0			60	30.8			61	31.3		
Marital status	Single	19	9.7	1	X2=1.784 P=.182	0	0.0	1	X2=33.278 P=.000	1	0.5	1	X2=25.425 P=.000
	Married	112	57.4			107	54.9			101	51.8		
Education	Illiterate	25	12.8	3	X2=3.699 P=.296	14	7.2	3	X2=5.850 P=.119	19	9.7	3	X2=5.030 P= .170
	Primary	28	14.4			22	11.3			18	9.2		
	Secondary	47	24.1			48	24.6			42	21.5		
	Tertiary	31	15.9			23	11.8			23	11.8		
Occupation	Employed	55	28.2	1	X2=.152 P=.697	53	27.2	1	X2=7.092 P=.008	44	22.6	1	X2=.394 P=.530
	Housewife	67	39.0			54	27.7			58	29.7		
Income	Good	12	6.2	2	X2=.736 P=.692	9	4.6	2	X2=2.058 P=.357	8	4.1	2	X2=1.801 P= .406
	Medium	91	46.7			77	39.5			69	35.4		
	Low	28	14.4			21	10.8			25	12.8		
Lifestyle													
BMI	normal	37	19.0	53	X2=100.440 P=.000	35	17.9	53	X2=78.852 P=.012	29	14.9	53	X2=62.439 P= .176
	overweight	55	28.2			42	21.5			45	23.1		
	obese	39	20			30	15.4			28	14.4		
Type of food (Vegetari)	yes	117	60.0	1	X2=3.264 P=.071	9	4.6	1	X2=.013 P=.908	9	4.6	1	X2=.109 P= .742
	no	14	7.2			98	50.3			93	47.7		
Nutrition	Good	92	47.2	2	X2=9.56 P=.620	80	41.0	2	X2=1.473 P=.479	74	37.9	2	X2=9.34 P= .627
	Moderate	35	17.9			25	12.8			26	13.3		
	Low	4	2.1			2	1.0			2	1.0		
Smoking	Yes	15	7.7	1	X2=.193 P=.661	11	5.6	1	X2=.059 P=.808	12	6.2	1	X2=.221 P= .639
	No	116	59.5			96	49.2			90	46.2		
Reproductive													
Age at menarche	≥13	71	36.4	7	X2=29.595 P=.000	58	29.7	7	X2=18.297 P=.011	55	28.2	7	X2=4.814 P= .683
	<13	60	30.8			49	25.1			47	24.1		
Parity	0	12	6.2	8	X2=9.344 P=.314	2	1	8	X2=25.620 P=.001	3	1.5	8	X2=17.583 P=.025
	1-4	48	24.6			60	30.8			61	31.3		
	>4	35	17.9			45	23.1			38	19.5		

Table 6 showed the frequency of sexual symptoms in relation to various socio-demographic, reproductive and lifestyle characteristics of study subjects, it was found there was significant relation between vaginal dryness, of women and the age at menopause ≥50 years, overweight and the age of menarche with (P <0.001).

It was found there was significant relation between the decrease in sexual desire and the marital status (P<0.001), BMI with overweight (P=0.012), parity (P=0.001), and the age at menarche ≥13 years (P= 0.011).

It was also found there was significant relation between the avoiding intimacy and the marital status (P<0.001), and parity (P=0.025).

Discussion:-

The current study investigated the association between the frequency of menopausal symptoms and the socio-demographic, lifestyle, and the reproductive factors in the study subjects.

This study reveals varying nature of menopausal symptoms; it was found that the most reported symptoms were muscle and joint discomfort 72.3%, followed by hot flushes 70.3%, vaginal dryness 67.2%, and feeling bloated by 65.1% of women. The study findings were consistent with the study conducted by Singla et al, they found that the most common menopausal symptoms were joint and muscular discomfort 76.85%, anxiety 67.15%, irritability 64.6%, hot flushes 59.25% and sleep disturbances 54.1%. (7) Similarly, Aida AlDughaiter et al showed that the most reported symptoms were joint and muscular discomfort 80.1%, followed by fatigue and stress 67.1% physical and mental exhaustion, and hot flushes 47.1%. (2) However, B Jayabharathi et al in their study explored that the most prevalent menopausal symptoms were hot flushes 72%, sweating 71.5%, backache 67.5%, muscle pain 67%, changes in sexual activity 62.5% difficulty in urination 62% and difficulty in falling asleep 60.3%. (1) These differences in frequencies of menopausal symptoms could be to socio cultural aspects, economical status, race, life style, genetics and diet differences among different regions. In addition, the different study design and the instruments used may also account for different results.

Current study observed that there was high significant association between the menopausal age of participants and the frequencies of menopausal symptoms i.e (hot flashes, feeling anxious, poor memory, muscles and joints

problem, feeling bloated, bladder problem, vaginal dryness) with p value <0.05 . In a similar study done by Hoda A. E. et al; they observed that the severity of menopausal symptoms had a highly significant association with menopausal age ($X^2 = 6.93$ at P value = 0.031). (10)

Concerning educational level with respect to the menopausal symptoms, current study revealed that 37.2% of the participants were had secondary level of education. It was found that there was statistically significant relation between the hot flashes; muscles and joints problem and the secondary level of education with p value <0.05 . In study done by Remona Salik et al they found that women with lower level of education experience more menopausal symptoms (vasomotor, somatic, & sexual) than women of higher level of education. (13) In addition Fatemeh Shobeiri et al found that women with university degrees had the lowest scores in the physical domain. (16) However, these results contradicted with the results of a study done by Nilanjana Das et al who observed that the prevalence of menopausal symptoms is more among the literate women as compared to the illiterate group, which was different from the present study. (14) In addition, Nusrat Nisar et al (9), and Hoda A. E. et al (10) observed that there were no significant differences between severity of menopausal symptoms and level of education.

Regarding employment status; it was found that 59.0% of participants were unemployment, and with respect to the menopausal symptoms the study revealed that hot flashes, feeling depressed and decrease sexual desire are more frequently experienced by non-working women than working women with p value <0.05 . These finding are also in accordance with study done by Remona Salik et al. (13) and Nilanjana Das et al (14) they found that working women experience fewer menopausal symptoms than non-working women (housewives). This could be because employed women might have increased self-confidence, feeling of satisfaction and social support. However, these results contradicted with the results of a study done by Nusrat Nisar et al (9) and Hoda A. E. et al (10) who observed that there were no significant differences between the menopausal symptoms and occupation.

Current study revealed the associations between the financial status and frequency of menopausal symptoms, it was found that women belonging to medium socioeconomic status experience more menopausal symptoms as compared to the women of high income status with p value <0.05 . It was found that anxiety, feeling depressed, flatulence, and bladder problem were more expressed by women of lower and medium income status. These finding were also in accordance with study done by Remona Salik et al. (13), Nilanjana Das et al (14) and Fatemeh Shobeiri et al (16) they were observed that there is more prevalence of symptoms among the low income group as compared to the high income group. This could be because of poor living conditions affecting nutritional status and economic stability. However, these results contradicted with the results of a study done by Nusrat Nisar et al, they did not reveal any correlation between the menopausal symptoms and socioeconomic status. (9)

Menopause is a period when changes occurring in a woman's body may lead to body weight gain. These changes are conducive to the development of diseases that are nowadays referred to as diseases of affluence. (12) Current study revealed that 64.6% of women had weight gain, 43.6% had an overweight and 28.7% were obese. From the present study, women with higher BMI had experienced more frequency of hot flashes, night sweats, feeling anxious or nervous, poor memory, muscles and joints problem, and bladder problem than normal weight women. This association was statistically significant with p value < 0.05 . Similar results were also observed in the studies done by B. Anna et al (12) Nilanjana Das et al (14) Thurston et al. (15) and Fatemeh Shobeiri et al (16). However, findings from large cohort studies showing higher adiposity linked to more vasomotor symptoms. (4)(14).

Studies stated the relationship between hot flashes and certain reproductive history variables, such as age at menarche, parity, and abortion. (17) However; current study observed that the mean of gravidity of participants was 3.8 ± 1.9 and the mean of parity was 3.5 ± 1.8 . This study revealed there was statistically significant association between the frequencies of hot flashes, poor memory, bladder problem like frequency and urgency, decrease in sexual desire, avoiding intimacy and parity. This is similar to other studies done by Fatemeh Shobeiri et al who were reported that the number of children had a significant impact on physical domain scores. A study defined that higher number children could increased parental stress and responsibility as well as financial problems. (16) However, these results contradicted with the results of Nusrat Nisar et al study, they did not reveal any correlation between the menopausal symptoms and parity. (9)

In addition, current study found that the mean age of participants at time of menarche was 13.2 ± 1.7 years. This study showed that the likelihood of hot flushes, anxiety, vaginal dryness and decrease in sexual desire were more reported in the participants who attained menarche at age of ≥ 13 years. This association was statistically significant with p value < 0.05 . However; Doyel Dasgupta et al in their study revealed inconsistent results, they were found that

hot flushes were more in women who attained menarche at an early age. Early onset of menarche might be associated with early exhaustion of ova and shortage of oocytes that could formulate the fluctuation of oestrogen level during menopausal transition and occurrence of hot flush. (17)

Conclusion:-

Menopausal symptoms are multi-factorial; therefore exact determination of these symptoms in our society is essential as it can help to identify preventable factors and to educate women about their quality of life. Therefore we recommend to conducting more researches to look into specific causes of the symptoms among women in our country and conducting awareness campaigns for education of women regarding these problems.

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