

## Effectiveness of Education Program on Secondary School Teachers Psycho-Social Changes with Menopause in Baghdad City

فاعلية البرنامج التعليمي على التغيرات النفسية والاجتماعية لمدرسات المدارس الثانوية اللواتي يعانين من سن ما بعد الانجاب

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: الخلاصة

**الهدف :** تقييم تأثير البرنامج التعليمي على التغيرات النفسية والاجتماعية لمدرسات المدارس الثانوية اللواتي يعانين من انقطاع الطمث

**المنهجية :** تصميم شبه تجريبي بتطبيق اختبار قبلي وبعدي للتغيرات النفسية-الاجتماعية لمدرسات المدارس الثانوية في سن انقطاع الطمث. تتكون العينة (المستهدفة) من (٦٠ مدرسة) (٤٠) من مدارس الرصافة الأولى ، و (٢٠) من مدارس الكرخ الثالثة. تعرضت العينة إلى الاختبار القبلي ، والبرنامج التعليمي ، الاختبار البعدي. تم جمع البيانات من خلال استخدام (الاستبيان) وتطبيق برنامج التعليم النفسي-الاجتماعي على مدرسات المدارس الثانوية اللواتي يعانين من انقطاع الطمث من الفترة (٢ سبتمبر ٢٠١٨ حتى ٢٤ فبراير ٢٠١٩). تم الحصول على صدق محتوى البرنامج من قبل لجنة من (١٤) خبيراً. وتم الحصول على الموثوقية من خلال (اختبار وإعادة الاختبار) ، تم تحليل البيانات من خلال تطبيق نهج تحليل البيانات الإحصائية الوصفية والاستنتاجية.

**النتائج :** اظهرت النتائج بان التغيرات النفسية والاجتماعية لها درجات معتدلة في المتوسط وتقييم الكفاية النسبية قبل تطبيق البرنامج التعليمي ، إلا في المشاركة بالعلاقات الاجتماعية للعائلة ، والتي كانت متوسطاتها منخفضة وكذلك الكفاية النسبية في البداية. من ناحية اخرى، فإن معظم الفقرات المدروسة اصبحت جيدة ودرجات المتوسط وكذلك الكفاية النسبية مرتفعة ومعتدلة التقييم بعد تنفيذ البرنامج التعليمي ، وكذلك مقارنات ذات صلة بفترات ما قبل وبعد البرنامج ، والتي سجلت اختلافات في مستوى ٠،٠٥.

**التوصيات :** وصي الدراسة بالتركيز على برنامج التنقيف الصحي للمرأة لزيادة وعيها باهمية التغيرات في سن ما بعد الانجاب وكيفية التعامل معها

**الكلمات المفتاحية:** سن ما بعد الانجاب ، بعد سن ما بعد الانجاب ، التغيرات النفسية ، التغيرات الاجتماعية ، البرنامج التعليمي .

Abstract

**Objective:** To assess the effect of education program on psychological and social changes of secondary school teachers with menopause.

**Method:** A quasi-experimental design is carried out with the application of a pre- post –test for menopause secondary school teacher's bio-psycho-social changes. Non-probability sample consists of (60 female teachers) (40) teachers from Al- Rusafa first Education Directorate secondary schools, and (20) teachers from Al- Karkh third Education Directorate secondary schools. The sample was exposed to pretest, educational program, and posttest. Data were collected through the utilization of the study instrument (the questionnaire) and application of bio-psycho-social education program on secondary school teachers with menopause from the period (2<sup>nd</sup> September 2018 through 24<sup>th</sup> February 2019). Content validity of the program obtained by panel of (14) experts. the reliability of the instruments is obtained through the (test &retest ). Data are analyzed through the application of descriptive and inferential statistical data analysis approach.

**Results:** Results shows that all of studied items regarding psychological and social changes has a moderate mean scores and relative sufficiency evaluation before applying the educational program, except in sharing with the family social sub domain's items , which were assigned a low mean scores and relative sufficiency responses initially. In the other hand, most of studied items has a good improvements and a proved high and moderate mean scores and relative sufficiency of evaluation after implementation of the educational program. As

well as, comparisons significant related to pre- post periods , which registered a highly significant differences at  $P < 0.01$ .

**Recommendation:** The study recommends an emphasis on health education program for women to increase their awareness about the importance of menopausal changes, and how to cope.

**Keyword:** Menopause, , post menopause, psychological changes, social changes, education program.

### Introduction:

Menopause refers to the time when a woman's menstrual period stops for 12 consecutive months after the last period. Women experience menopause in different social contexts, and therefore their experiences reflect different meanings as a result of this process <sup>(1)</sup>. In fact, although the biological and hormonal events associated with menopause around the world are generally the same, the attitudes towards menopause is a natural biological

process leading to a transition from a reproductive to a non reproductive state experienced universally by all women due to ovarian failure. The age at menopause occurs between 45 and 55 years with an average onset of 51 years <sup>(2)</sup>. During their passage through menopause, women experience some physiological symptoms that may be influenced by a range of psychological, social, and cultural factors <sup>(3)</sup>.

### Methodology:

A quasi-experimental design is carried out to assess the effect of education program on psychological and social changes of secondary school teachers with menopause throughout the present study with the application of a pre-test and post – test for menopause secondary school teacher with bio-psychosocial changes, Non-probability (purposive) sample consists of (60 female teachers(40) teachers from Al- Rusafa first Education Directorate secondary schools, and (20) teachers from Al- Karkh third Education Directorate secondary schools. The sample

was exposed to pretest, educational program, and posttest. A questionnaire is constructed through the review of literatures, and previous studies, it comprised of four main parts (Socio-Demographic Information, Reproductive characteristics, psychological changes, and Social changes. Data were collected through the utilization of the study instrument and application of education program on psychological and social changes of secondary school teachers with menopause from the period 2nd September 2018 through 24th February 2019). Validity of the program is obtained by panel of (14) experts. A pilot study was conducted on (10) teachers during the period of 2<sup>nd</sup> August 2018 to 20<sup>th</sup> August 2018, highly and adequate reliabilities coefficients were recorded. The data were collected by the researcher during morning and evening shifts for completing and application of education program in secondary schools Data were analyzed through the application of descriptive and inferential statistical approaches, and all the statistical procedures were tested at  $P \leq 0.05$ .

### Ethical Considerations

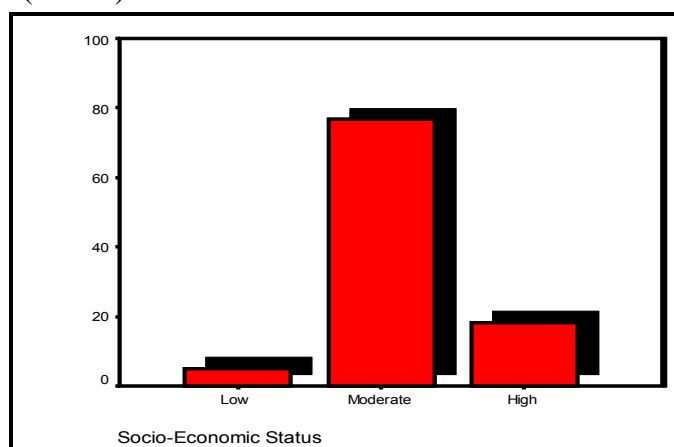
The Institutional Review Board (IRB) at the University of Baghdad, College of Nursing approved the study to be conducted. The study protocol meets both the global & the Committee on Publication Ethics(COPE) standards of respecting humans subjects' rights.

**Results:****Table (1): Distribution of the Sample according to Socio-demographic Characteristic N=60**

Socio-demographic Variables	Groups	No.	%
Age /years	45 - 50	24	40
	51 - 55	30	50
	56 - 60	6	10
	Mean $\pm$ SD	52.33 $\pm$ 3.59	
Educational level	Bachelor degree	53	88.3
	Postgraduate degree	7	11.7
Teacher's specialty	Sciences	11	18.3
	Islamic	20	33.3
	English language	12	20
	Mathematics	9	15
	Arabic language	7	11.7
	Social studies	1	1.7
Marital Status	Single	3	5
	Married	47	78.3
	Divorce	1	1.7
	Widow	7	11.7
	Separated	2	3.3

No.: Number, %: Percentage, SD: Standard deviation

Table (1) shows the finding of preceding results, and regarding of "Age Groups", most of secondary school's female teachers are registered at (45-50) (51-55) age groups, and they are accounted 24 (40%) and 30(50%) respectively, with mean, and standard deviation (52.33  $\pm$  3.59) years. With respect to "Educational level for female teachers ", most of them has awarded Bachelor degree, and they are accounted 53(88.3%). With reference to "Female teacher's specialty", most of them has an "Islamic" specialty, and they are accounted 20(33.3%), as well as sciences, and English language, and they are accounted 11(18.3%), and 12(20%), respectively. Finally, regarding to "Marital Status", most of them has a married status, and they are accounted 47(78.3%).

**Figure (1): Bar chart for the Socio-Economic Status among Secondary Schools Female Teachers**

**Table (2): Distribution of Sample according to Reproductive Characteristics: N=60**

Reproductive variables	Groups	No.	%
Age at menarche	9 _ 10	3	5
	11 _ 12	18	30
	13 _ 14	29	48.3
	15 _ 16	10	16.7
At any age the cycle began to be intermittent?	< 40	6	10
	40 _ 49	31	51.7
	> 50	23	38.3
Age at the last baby	< 30	17	28.3
	30 _ 39	36	60
	> 40	7	11.7
Do you know about treatment for menopause?	Yes	26	43.3
	No	34	56.7
The sources of information	Internet	15	25
	Doctors	45	75
Did you use any medical or surgical treatment ?	Yes	5	8.3
	No	55	91.7
Did you use hormonal treatment?	Yes	7	11.7
	No	53	88.3

No.: Number, %: Percentage

Table (2) Results shows, with reference to "Age at menarche", the highest percentage (48.3%) (30.0%) respectively at (13-14) and (11-12) years age group. Concerning "At any age the cycle began to be intermittent ", the highest percentage (51.7%)(38.3%) respectively at (40-49) and, (more than 50) years age group, then followed by "Age at the last baby", the highest percentage (60%) answered at (30-39) years age group, then followed for "Do you know about treatment for menopause", they answered for yes, and no, and they are (43.3%), and (56.7%) respectively, then followed for asking about " the sources of information", the majority appointed with visiting doctors, (75%), while leftover (25%) concerning internet sites, then followed for "the use of any medical or surgical treatment, the majority response (91.7%) has appointed negative replied. Finally, for asking about " use hormonal treatment", the majority response (88.3%) has appointed negative replied.

Table (3): Psychological Changes Items concerning Studied Secondary School Female Teacher's with Menopause before and after Program : N=60

Psychological Changes	Pre test				Post test				Z-value	P-value	C.S.
	MS	SD	RS%	Eva	MS	SD	RS%	Eva			
Difficulty concentration	2.15	0.76	71.7	M	2.67	0.54	89.0	H	-4.54	0.000	HS
Errors at work	1.90	0.68	63.3	M	2.35	0.58	78.3	H	-4.35	0.000	HS
Forgetting	2.03	0.71	67.7	M	2.40	0.62	80.0	H	-3.79	0.000	HS
Slow thinking	1.93	0.76	64.3	M	2.50	0.62	83.3	H	-4.43	0.000	HS
Difficult to continue talking with others	1.80	0.75	60.0	M	2.17	0.78	72.3	M	-3.51	0.000	HS
Difficulty completing work	1.72	0.72	57.3	M	2.17	0.69	72.3	M	-4.51	0.000	HS
Depression	1.83	0.69	61.0	M	2.23	0.67	74.3	M	-4.02	0.000	HS
Sadness without reason	1.92	0.74	64.0	M	2.28	0.67	76.0	M	-4.12	0.000	HS
Not wanting to work	1.73	0.71	57.7	M	2.15	0.71	71.7	M	-4.29	0.000	HS
Not wanting to speak	1.83	0.74	61.0	M	2.15	0.76	71.7	M	-3.58	0.000	HS
Idle	2.05	0.77	68.3	M	2.43	0.67	81.0	H	-3.91	0.000	HS
Weakness	2.02	0.83	67.3	M	2.60	0.59	86.7	H	-4.42	0.000	HS
Isolation	1.98	0.77	66.0	M	2.47	0.65	82.3	H	-4.16	0.000	HS
Pessimism	1.82	0.70	60.7	M	2.30	0.59	76.7	M	-4.28	0.000	HS
Change in mood	1.75	0.65	58.3	M	2.10	0.63	70.0	M	-4.00	0.000	HS
Lack of interest in the overall appearance	1.77	0.70	59.0	M	2.20	0.63	73.3	M	-4.10	0.000	HS
Anxiety	1.97	0.71	65.7	M	2.20	0.63	73.3	M	-3.50	0.000	HS
Disturbance without reason	2.03	0.69	67.7	M	2.42	0.65	80.7	H	-4.23	0.000	HS
Nervous mood	2.03	0.69	67.7	M	2.48	0.54	82.7	H	-4.35	0.000	HS
Lack of control over emotion	2.00	0.69	66.7	M	2.43	0.53	81.0	H	-4.25	0.000	HS
The emotion is more than usual	2.05	0.75	68.3	M	2.40	0.64	80.0	H	-3.52	0.000	HS
Excessive anxiety	2.10	0.80	70.0	M	2.58	0.56	86.0	H	-4.16	0.000	HS
Uncomfortable	2.17	0.76	72.3	M	2.68	0.47	89.3	H	-4.16	0.000	HS
Concern for general health	2.25	0.65	75.0	M	2.80	0.40	93.3	H	-4.86	0.000	HS

(\*) HS: Highly Sig. at  $P < 0.01$ ; S: Sig. at  $P < 0.05$ ; NS: Non Sig. at  $P > 0.05$ . Eva: Evaluation: Through the Intervals Scoring Scales : [L: Low (33.33 – 55.55)]; [M: Moderate (55.56 – 77.77)]; [H: High (77.76 – 100)].

Results shows that all of studied items has a moderate mean scores and relative sufficiency evaluation before applying the educational program. In the other hand, most of studied items regarding to " Psychological Changes items" has a good improvements and a proved high and moderate mean scores and relative sufficiency of evaluation after implementation of the educational program. As well as, comparisons significant related to pre- post periods , which registered a highly significant differences at  $P < 0.01$ , and according with preceding results, it could be enable to confirms importance or successfulness of applying the suggested educational program. All of study group's items illustrated an excellent improvements due to meaningful changes of evaluated levels along pre-post periods of time.

**Table (4): Social Changes Items concerning Studied Secondary School Female Teacher's with Menopause before and after Program. N=60**

Sub Domains	Social Changes	Pre test				Post test				Z-value	P-value	C.S.
		MS	SD	RS%	Eva	MS	SD	RS%	Eva			
Sharing with the family	Interaction with family member	2.38	0.69	79.3	L	2.03	0.69	67.7	M	-4.00	0.000	HS
	Thinking about the future of children and their marriage	2.45	0.72	81.7	L	2.20	0.88	73.3	M	-3.04	0.002	HS
	Attention to grandchildren	2.30	0.81	76.7	M	2.15	0.88	71.7	M	-3.00	0.003	HS
	Lack of interest in the home	2.00	0.82	66.7	M	2.32	0.62	77.3	M	-3.58	0.000	HS
Marital relationship	Regular sexual intercourse	1.98	0.89	66.0	M	1.77	0.83	59.0	M	-3.36	0.001	HS
	Lack of sexual desire	1.92	0.81	64.0	M	2.52	0.72	84.0	H	-4.73	0.000	HS
	Lack of libido	1.97	0.80	65.7	M	2.60	0.67	86.7	H	-4.92	0.000	HS
	Lack of sexual activity	2.18	0.77	72.7	M	2.82	0.43	94.0	H	-4.92	0.000	HS
	The husband fidget from neglecting them self	2.12	0.83	70.7	M	2.67	0.66	89.0	H	-4.15	0.000	HS
The power of relationship with girlfriends and relatives	The power of friendship	2.27	0.80	75.7	M	2.05	0.77	68.3	M	-3.36	0.001	HS
	Participate in the conversation	2.22	0.69	74.0	M	1.98	0.65	66.0	M	-3.74	0.000	HS
	Do not accept joking	2.22	0.61	74.0	M	2.68	0.47	89.3	H	-3.68	0.000	HS
	Limited visits to friends and relatives	2.08	0.62	69.3	M	2.68	0.47	89.3	H	-4.68	0.000	HS
	Postpone visits	1.98	0.54	66.0	M	2.60	0.49	86.7	H	-5.34	0.000	HS
	Not participate in social events	2.05	0.70	68.3	M	2.57	0.59	85.7	H	-4.77	0.000	HS
	Not participate in family events	1.88	0.74	62.7	M	2.38	0.61	79.3	H	-4.67	0.000	HS
	The annoyance of visiting guests	1.93	0.76	64.3	M	2.75	0.44	91.7	H	-5.14	0.000	HS
Lack of interest in the external appearance	1.95	0.81	65.0	M	2.93	0.36	97.7	H	-5.61	0.000	HS	

(\*) HS: Highly Sig. at  $P < 0.01$ ; S: Sig. at  $P < 0.05$ ; NS: Non Sig. at  $P > 0.05$ . Eva: Evaluation: Through the Intervals Scoring Scales : [L: Low (33.33 – 55.55)]; [M: Moderate (55.56 – 77.77)]; [H: High (77.76 – 100)].

Results shows that all of studied items has a moderate mean scores and relative sufficiency evaluation before applying the educational program, except in sharing with the family sub domain's items , which were assigned a low mean scores and relative sufficiency responses initially. In the other hand, most of studied items regarding to " social change's items" has a good improvements and a proved high, and a moderate mean scores and relative sufficiency levels of evaluation after implementation of educational program. As well as, comparisons significant of pre- post periods which registered a highly significant differences at  $P < 0.01$ , and according with preceding results, it could be enable to confirms importance or successfulness of applying the educational program. All of study group's items illustrated an excellent improvements due to meaningful changes of evaluated levels along pre-post periods of time.

**Table (5): Effectiveness of Educational Program on Sub and Main Domains concerning Studied Secondary School Teacher's with Menopause: : N=60**

Sub & Main Domains	Pre			Post			Wilcoxon Signed Ranks Test		
	GMS	SD	RS %	GMS	SD	RS %	Z-value	P-value	CS
<b>Domain -2: Psychological Changes</b>	1.95	0.39	65.0	2.38	0.35	79.4	-6.554	0.000	HS
Sharing with the family	2.70	0.28	90.1	2.68	0.26	89.3	-0.908	0.364	NS
Marital relationship	2.14	0.43	71.4	2.44	0.33	81.2	-5.162	0.000	HS
The power of relationship with girlfriends and relatives	2.23	0.28	74.2	2.54	0.26	84.8	-6.011	0.000	HS
<b>Domain -3 : Social Changes</b>	2.26	0.25	75.2	2.65	0.16	88.3	-6.648	0.000	HS

(\*) HS: Highly Sig. at  $P < 0.01$ ; S: Sig. at  $P < 0.05$ ; NS: Non Sig. at  $P > 0.05$ .

Results shows that "Psychological Changes" having a moderate mean scores and relative sufficiency evaluation before applying the educational program. In the other hand, the study to this part has a high improvements and a proved high mean scores and relative sufficiency evaluation in the post period of time after program implementation.

Results shows that "Social Changes" which has three sub domains, such that "Sharing with the family, Marital relationship, and The power of relationship with girlfriends and relatives, ", having a moderate mean scores and relative sufficiency evaluation before applying the suggested educational program. In the other hand, all of studied sub domains regarding to this part has a good improvements and a proved high mean scores and relative sufficiency evaluation in post period of time.

### Discussion:

Table (1)The current study shows that the finding of preceding results, and regarding age groups most of secondary school of female teachers are registered at (45-50) (51-55) age groups, and they are accounted 24 (40%) and respectively, with mean, and standard deviation (52.33 ± 3.59) years. This result is similar to study in Nigeria, who found that the mean age of the menopausal women is (51.4) years old <sup>(4)</sup>, also agree with study conducted in India that the majority of women 48

(32.0%), having menopause belongs to the age group in between 51-55 years <sup>(5)</sup>. This data of present study is in line with study reported that (63) (44%) women aged (45-60 )year old were at age which was the highest percentage of study sample at this age <sup>(6)</sup>. Possible explanation for this wide difference in menopausal ages may be related to the fact that biological and cultural background may have an impact on age at menopause or methodological differences between the present study and



similar studies. Educational level for teachers most of them has awarded Bachelor degree, and they are accounted 53(88.3%). With reference to Female teachers specialty most of them has an Islamic specialty, and they are accounted 20(33.3%), as well as sciences, and English language, and they are accounted 11(18.3%), and 12(20%), respectively, this result disagree with study conducted in Baghdad City, which that reported (24%) of menopausal women are elementary school graduate <sup>(7)</sup>. This present study revealed that the participating women education level played a significant role in the reduction of menopausal complaints, it is believed that reduction in menopausal complaints due to the increased levels of education might be related to the fact that these women level of knowledge related to menopause was higher, that they were more willing to learn, and that they were able to use coping methods more effectively. Regarding to marital status, most of them has a status, and they are accounted 47(78.3%). This result is close to a study result conducted in Baghdad city, which found that about two thirds of menopause women are married <sup>(8)</sup>, this data in line with study which stated that married women reported more frequent menopausal changes such as vasomotor symptoms; hot flashes, sweating, urine leakage and vaginal dryness, than non-married women (single, divorced, widowed and separated) <sup>(9)</sup>, this findings inconsistent with **Boulet et.al., (2004)** who demonstrated that single women with no husband reported more frequent psychological complication, such as anxiety, depression, and irritability than women with partner <sup>(10)</sup>. Figure (1) The socio - economic levels represented by the preceding contents (Low, Moderate, and High). Vast majority of the studied sample

has a moderate level, and accounted for 46(76.7%). The results reported high significant differences at ( $p=0.000$ ). Most of them also assigned the 2nd level of monthly income (i.e. half to one million Iraqi Dinar), and they are accounted 35(58.3%) Table (1).

Table (2) Results shows the finding of preceding results, with reference to Age at menarche most of them has pointed at (13-14) years age group, and they are accounted 29(48.3%), as well as (11-12) years age group, and they are accounted 18(30.0%). This result in agreement with the study to determine the menopausal symptoms among Saudi Arabian women, (40%) of study sample were at age of (14) years at menarche <sup>(11)</sup>. Concerning asking for "At any age the cycle began to be intermittent?", most of them has a pointed at (40-49) years age group, and they are accounted 31(51.7%), as well as (more than 50) years age group, and they are accounted 23(38.3%). A study reported that (63%) of women in the sample their age at dysmenorrhea were between (45-50) years. Then followed for asking about Age at the last baby the majority answered at (30-39) years age group, and accounted 36(60%) <sup>(12)</sup>, the finding was in line with study which found that menopausal changes was associated with age at last child birth, women at an older age at last pregnancy tend to report more menopausal changes compared to women who were younger at last pregnancy <sup>(13)</sup>. Then followed for asking about Do you know about treatment for menopause they answered for positive, and negative replies, and they are accounted 26(43.3%), and 34(56.7%) respectively, A study reported that the know of hormone replacement therapy was very poor in this study and same was true for other studies<sup>(14)</sup>. In China only 23.5% knew that hormone



replacement therapy could relieve their symptoms<sup>(15)</sup>. Regarding for asking about What is the sources of your information the majority response has appointed with visiting doctors, and accounted 45 (75%) while leftover concerning internet sites, and accounted 15(25%) then followed for asking about Did you use any medical or surgical treatment, the majority response has appointed negative replied, and accounted 55(91.7%), for asking about Did you use hormonal tenement the majority response has appointed negative replied, and accounted 53(88.3%). Also it was found that the majority of subjects had a lower level of education and a lack of proper sources of information (i.e. having access to books, magazines and/or any educational programs), and stated that the need for planning and implementation of an educational program becomes more apparent<sup>(16)</sup>. It was reported that 73.2% of the subjects had previously acquired information about menopause, and the greatest sources of information in this field were friends<sup>(17)</sup>. Investigation demonstrated that use of hormonal contraceptive did not show any influence on menopausal changes<sup>(18)</sup>. Also found that the results of a study shows that the main source of information about menopause (44.6%) was television followed by relatives and friends (36.1%), while doctors represented the least source (19.3%)<sup>(19)</sup>.

Table (3)The study results shows summary statistics for psychological changes items for studying secondary school female teacher with menopause along(Pre – Post) periods through applying a proposed educational program which consists of (24) items. Results shows that all of studied items has a moderate mean scores and relative sufficiency evaluation before applying the educational program. In the other hand, most of studied items

regarding to psychological changes items has a good improvements and a proved high and moderate mean scores and relative sufficiency of evaluation after implementation of the educational program. As well as, comparisons significant related to pre- post periods , which registered a highly significant differences at P: 0.01, and according with preceding results, it could be enable to confirms importance or successfulness of applying the suggested educational program. All of study group items illustrated an excellent improvements due to meaningful changes of evaluated levels along pre-post periods of time. Researchers stated that most of menopause women heard about menopause and perceived menopause as a natural condition and the highest percentage of women said that their lives altered after cessation of menstruation, tiredness was the most common complaint among physical symptoms and this complaint was followed by hot flushes and night sweats. About psychological symptoms, most common complaint was loss of short term memory followed by poor concentration<sup>(20)</sup>. A study results showed that psychological symptoms of depression and anxiety were high in the study population as 21% experienced anxiety frequently and 46% occasionally, while 19% were depressed frequently and 35.5% occasionally. Memory loss occurred in 13% frequently and 47% occasionally and nervous tension was 43%. The study results found that there was significant correlation between insomnia, hot flashes, anxiety, depression and memory loss. The most dramatic finding of this research was that loss of sexual desire experienced was 36.5% frequently and 41% occasionally. A correlation was found that the psychological symptoms of depression was

strongly correlated to anxiety, loss of sexual desire and desire to live alone<sup>(21)</sup>. A study showed a significant improvement in psychosocial wellbeing in the study group, three months after intervention (P = 0.001). Therefore, the applied intervention led to improvement of psychosocial status in participants<sup>(16)</sup>. Table (4) Study results shows summary statistics for social change items for studying secondary school teachers with menopause along (Pre – Post) periods through applying a proposed educational program which consists of three sub domains, sharing with the family, marital relationship, and the power of relationship with girlfriends and relatives which forming 18 items. Results shows that all of studied items has a moderate mean scores and relative sufficiency evaluation before applying the educational program, except in sharing with the family sub domains items , which were assigned a low mean scores and relative sufficiency responses initially. In the other hand, most of studied items regarding to social change items has a good improvements and a proved high, and a moderate mean scores and relative sufficiency levels of evaluation after implementation of educational program. As well as, comparisons significant of pre- post periods which registered a highly significant differences at P;0.01, and according with preceding results, it could be enable to confirms importance or successfulness of applying the educational program. All of study group items illustrated an excellent improvements due to meaningful changes of evaluated levels along pre-post periods of time. A study investigated whether social and health factors were independently associated with overall symptoms reporting. Found that currently not working, decreased household income, worry over friends /

relatives, and health affecting daily activities were independently associated with symptoms reporting<sup>(22)</sup>. A study in Nigeria expressed that after informing women on menopause, an improvement of self-perception marital satisfaction and sexual activity was seen. Most of the study sample had large and extended families, so the time that they go through the menopause, usually coincides with many changes in their house hold ,such as ,their daughters getting married and leaving home, or their sons marrying ,bringing in a new bride into the family ,and having children, suddenly, they have to adjust to a new role as a mother in law and a grandmother , these dynamic changes in the household structure have a major influence on older women psychological and physiological health<sup>(23)</sup>. a grandmother in Iraqi culture is expected to be wise and to make many important decision regarding her family.

### Recommendations:

The study recommends an emphasis on health education program for women to increase their awareness about the importance of menopausal changes, and how to cope.

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