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**The Effectiveness of Planned Health Education Given to  
Climacteric Women on Menopausal Symptoms, Menopausal  
Attitude and Health Behaviors\***

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***Abstract***

***Objective:*** The research was made to assign the effect of planned health education given to climacteric women on menopausal symptoms, menopausal attitude and health behaviors.

***Methods:*** The research was carried between January 2002-February 2003 in the district of Abdurrahman Gazi Primary Health department which lies in the borders of metropolitan municipality of Erzurum. 2761 climacteric women between the age of 40-60 formed the population of the research. In sample selection, because of knowing the

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frequency of event and the number of individuals in the population; the formula of,  $n = N \cdot t^2 \cdot pq / y^2 \cdot (N-1) + t^2 \cdot pq$  was used and samples are assigned as 337. After research problem had been assigned on 337 women, the research was made control group with pretest-posttest of quasi experimental design on 100 women who were selected proper to the aim of the research, 50 of which was experiment, the rest was control group. But 87 women 44 of which was control, 434 of which was experiment group completed the research.

**Results:** According to the research results, after planned health education given by the researcher, decrease in common menopausal symptoms and increase in point averages of menopausal attitude ( $t=4.697$ ,  $p=.000$ ) and health promotion life style behaviors ( $t=7.127$ ,  $p=.000$ ) were determined.

**Conclusion:** After planned health education given to the women in climacteric period, positive health behaviors can be developed so as to make women live a more peaceful life. According to these result, it can be suggested to health professionals to mind education programs about climacteric period.

**Author Keywords:** *Climacteric women, Menopausal attitude, Menopausal symptoms, Health Promotion Lifestyle*

## **1. Introduction**

Women live 1/3 of their life in climacteric period with symptoms proper to it [1-3]. Climacteric period is not only a period in which a small group of women is affected by some changes, but also a troublesome period which affects the family and the society on a big scale with its complaint and illness process [1,4]. In researches which were made in Turkey complaints like joint-muscle aches, irritation-tension, oppression, insomnia-weariness were assigned on more than 70% of women [5-9]. In America osteoporosis is seen one of every three post-menopausal women. Osteoporosis causes break in one million three hundred women. Because of these breaks 70% of these women become completely dependant on servicing, 25% of them need long time servicing, 15% of them die in a year [3,10]. Moreover climacteric women are also under the risk of neoplasm and coroner artery diseases [2,11]. In spite of all these, due to a research about menopausal attitude of women, it is determined that 78% of them have deficiency in knowledge, 91% of them think that there is no need to go to a doctor, 54.6% of them give wrong answers to the questions [12]. Again in another research it is determined that 48.2% of women have no idea about the definition of menopause, 25.9% of them do not know whether every menopausal women have symptoms or not [13]. In addition to these, after the education given to women about menopausal symptoms, considerable decreases are recorded in the averages of menopausal symptom frequency [6]. In two different researches regarding this subject, after the given education, positive changes are assigned in menopausal attitude of women [6,14]. Other results of different researches show that positive changes occur in healthy way of life behaviors after the education [15-18].

Nurses and other medical professionals who render health service can develop positive attitude in women about menopause; they can make them gain health promotion lifestyle behaviors [19-22]. Health developing strategies and programs can succeed only if they are adapted to country's and region's local needs and facilities in view of different social, cultural and economic systems [20-28]. This research is regarded as different from the ones about this subject because it defines menopausal

symptoms which differ in frequency averages from culture to culture, menopausal attitude which accord with society's cultural structure and health lifestyle behaviors on the women of Erzurum [24,29,30]. Furthermore this research is important because the education given to women accords with region's cultural structure and it is made in view of Health Promotion Model. Nursing models, as a scientific base for nursing treatments, provide the development of nursing knowledge systematically and supply practical approaches to servicing [31]. Models can be used efficiently in the development of nursing. For this reason, the theoretical frame of this research is based upon Pender's 'health Promotion Model' which is one of the nursing models. This model explains the factors which affect health behaviors [24,29,30].

### ***Aims***

*Short-term aims:* The aim of this research is to define menopausal symptoms, menopausal attitude and health behaviors of climacteric women; to plan and practice nursing attempts tending this period and to assign the efficiency of this education.

*Long-term aims:* They are to provide the usage of research results by city health department in planning the service rendered to women and forming the infrastructure of nursing attempts. By the help of regarding foundations and institutions, to make the brochure widespread which was devoted to develop the health of climacteric women and prepared to be used in education séances.

### ***Hypothesis of the Research***

1. Planned health education given to women affects health behaviors positively.
2. Planned health education given to women reduces the symptoms proper to the period.
3. Planned health education given to women provides to form positive menopausal attitude.

## **2. Methods**

*Form of the research:* The research was conducted as pretest-posttest control grouped quasi experimental. *Place and time of the research:* It is made between January 2002-February 2003 in the district of Abdurrahman Gazi Primary Health Department which is between the borders of Metropolitan Municipality of Erzurum. *Population the research and sample selection:* 2761 climacteric women between the

age of 40-60 who live in the district of Abdurrahman Gazi Primary Health Department formed the cosmos of the research. In sample selection, because of knowing the frequency of the event and number of individuals in the population, the formula of  $n = N \cdot t^2 \cdot pq / y^2 \cdot (N-1) + t^2 \cdot pq$  [32]. was used and samples were assigned as 337. In order not to make a biased selection, household determination cards which belong to the families of 2761 women between the age of 40-60 were numbered and identified by using random numbers table with simple random sampling method. In view of research restrictions, as pretest-posttest control grouped quasi experimental part of the research was made on 100 women who were selected between 337 women by using improbable sampling method appropriate to the aim. But, because education period is long 13 women, 3 of whom did not want to continue the work, 1 of whom moved away the city, 1 of whom became pregnant and 8 of whom could not participate regularly were excluded from the research. So the research was concluded with 87 women, 44 of whom form control, 43 of whom form experiment group. Properties desired in the women who will be taken into the research are below:

- Samples must be literate because they need to read and fill the scales by themselves and they will also be given a brochure.(self-reported)
- Because they suffer menopausal complaints with a great extent, they must not have climacteric precocious (ones who menopause before the age of 40) and bilateral ooferoctomy (ones whose double-sided ovaries were taken) [1].
- Because present complaints will be little or none and life quality of these women will be high, they must not continue HRT[7,33,34].

*Variables of the research:* Education level, climacteric period, working conditions, menopausal symptoms form control variables of the research; health education regarding climacteric period forms independent variants of the research; women's health behaviors, menopausal symptoms and menopausal attitude form dependent variables of the research.

### ***Tools of Data Collection***

#### ***Question form***

*Preparing question form:* Question form is composed of questions which define socio-demographic properties. *Pre-application of the question form:* In order to assign the comprehensibility of pre-application question form 30 climacteric women were selected from the population. These women upon whom question form was applied were executed from the research. *Application of the question form:* Question forms were applied by going to the homes of the women who were taken as samples by the researcher. 20-25 minutes were given for each question form.

### ***Menopausal Symptoms Check-List (MSCL)***

Menopausal Symptoms Check-List was developed in order to determine menopausal symptoms of Turkish women. This tool, validity and reliability of which were assigned by Hotun and Coşkun in 1996 by using statistic method, contains 15 articles. Dividing the tool into two' method was used when testing internal consistency of MCSL. 1'st part's alpha was assigned as 0.66 when 2'nd part's alpha was assigned as 0.61. Moreover, Sperman-Brown correlation coefficient was determined as 0.59 and Guttman Split-half correlation coefficient was determined as 0.58 so consistency of the test was resolved [8].

### ***Menopausal Attitude Scale***

It is developed by Uçanok in 1994 in order to seize the attitude of women of different ages during and after menopause. Consistency coefficient was found as 0.86 for the whole scale [35]. Consistency coefficient of this research was determined as 0.92.

### ***Health Promotion Life Style Scale (HPLS)***

It was developed by Walker, Sechrist and Pender in 1987 and translated into Turkish by Esin in 1997. It seizes the behaviors which develop health in reference to individuals' health promotion life style scale [36]. Scale's and this research's alphas are 0.91/0.94 for total health promotion life style behaviors, 0.74/0.77 for health responsibility, 0.77/0.89 for self actualization, 0.71/0.73 for exercise, 0.57/0.70 for nutrition, 0.65/0.72 for interpersonal support, 0.63/0.73 for stress management. Health behaviors was developed in order to test HPLS which was developed by Pender.

### ***Collecting Research Data***

*Research data was collected in two stages:*

Data of first stage was collected from 337 women in order to define the research problem primarily, by using question forms (which were prepared in view of regarding literatures by the researcher and which contain socio-demographic), MSCL, HPLS, Scale of Menopausal Attitude Scale.

*Data of second stage:*

Because first and second stage of the research were made on the same sample group, Menopausal attitude and HPLS which were used to define the problem of the research were applied only as a posttest on 87 women who form the work-group. In view of the data which was collected in the first stage of the research, an education program of eight months based on Pender's 'Health Promotion Model' was applied to experiment group and after the education women's menopausal symptoms, menopausal attitude, and health behaviors were evaluated.

***Stages of Applying Nursing Attempts***

In order to define the problem of the research and forming the frame of research's second stage in this view, 337 women who were determined from the cosmos by formula form the sample of research's first stage. Quasi experimental stage of the work was made on 100 women who were determined from this sample proper to the aim of the research. These 100 women were determined between the ones who accept continuing the second stage of the research in view of control variants. But 13 of these women quit the education program when it was going on and the work continued with 87 women, 43 of whom is experiment, 44 of whom is control group.

Before forming education groups, women in experiment group were contacted by telephone and their suitable days and hours were determined. 50 women in experiment group were divided into 5 groups of 10 people and were invited to Abdurrahman Gazi Primary Health Department once in 15 days. For every education a three hour period was determined and this period was divided into 3 session of 50 minutes. In eight weeks time, the education was given to women four times which is equal to 12 hours. In the education; methods of narration, discussion, question-answer, and problem solving were used by the researcher.

Health Promotion Model's cognitive perception factors and climacteric period formed the content of the education. First of all, how the women in this group perceive health, how they control it, the importance of health for them and their determination of maintaining healthy way of life behaviors are discussed. Every women was given the right to speak and ask questions. First education session was made in the extent of Health Promotion Model. In other education sessions properties of climacteric period, changes seen in this period, menopausal symptoms and ways of managing them were discussed.

Education brochures which were prepared by the researcher with the help of regarding literatures were distributed to women at the end of fourth session in order to provide the permanence of the education, to form a source which can be reached easily, and to help in perceiving the properties of the period both by the women and by her family. In the room where the education was given, regarding pictures and interesting brochures were held. After the education which last eight weeks, women were encouraged to continue aimed behaviors; by visiting them at their homes, by telephone or at the health department for six months. As long as these controls, questions were answered by the women in experiment group. After the education period same test was made to the women both in control and in experiment group. Data was collected about the efficiency of the education. After the education given to the women in experiment group, at the problem defining stage of the research, education was given to the women at control group and brochures were distributed to them by the researcher.

#### *Data Analysis*

When comparing pretest-posttest menopausal symptoms results, Chi-Square test was used. When comparing the results of pretest-posttest menopausal attitude and health behaviors of experiment and control groups, independent t- test groups was used.

#### *Ethic Rules of the Research*

Before starting the research, permission was gotten from the regarding institutions. As long as the work, women's privacy emotion was respected. An environment in which women can easily talk about their thoughts, practices,



symptoms, attitude and behaviors was formed. The researcher explained the aim of the research, the period followed and probable results and provided voluntary participation. It is pointed out to the women that they could quit the work whenever they want.

#### *Difficulties and Limitations of the Research*

Because of the wideness of the population, communication difficulties, lack of human power, insufficient time and economic support; the research was restricted into the climacteric women in Abdurrahman Gazi Primary Health Department and planned health education given to the work group. Insufficiency of the room which was assigned by the director of health department for the education and observation of climacteric women and their summer holidays caused trouble in education and observation. Research results can be generalized into the women between the age of 40-60, living in the district of Abdurrahman Gazi Primary Health Department.

### **3. Results**

#### **3.1. The Results of the Diagnosis of Research Problem (1<sup>st</sup> stage)**

##### *The results of the menopausal symptoms:*

Prevalent menopausal symptoms of climacteric women were determined as; insomnia-fatigue (74.8%), headache-dizzy spells (74.5%), hot flashes-night sweats (72.7%), joint-muscle aches (69.4%), irritation-tension (68.5%), palpitation (61.6%).

Table 1. The Distribution Menopausal Symptoms of Women (n=337)

Menopausal Symptoms	Symptoms Status				
	Present		Absent		Total
	n	%	n	%	%
Hot Flashes–Night Sweats	245	72.7	92	27.3	100.0
Insomnia – Fatigue	252	74.8	85	25.2	100.0
Headache-Dizzy spells	251	74.5	86	25.5	100.0
Irritation-Tension	231	68.5	106	31.5	100.0
Autism– Weeping	165	49.0	172	51.0	100.0
Joint-muscle Ache	234	69.4	103	30.6	100.0
Appetite change- kilo put on	117	34.7	220	65.3	100.0
Constipation-Hemorrhoid	148	43.9	189	56.1	100.0
Palpitation	206	61.1	131	38.9	100.0
Skin drying-flaking	114	33.8	223	66.2	100.0
Increase in the Hairs of Face, Decrease in Pubic Hair	64	19.0	273	81.0	100.0
Dyspareunia	66	19.6	271	80.4	100.0
Libido Deficiency	136	40.4	201	59.6	100.0
Urinary frequency	112	33.2	225	66.8	100.0
Menstrual Irregularities	92	27.3	245	72.7	100.0

Women's point averages of menopausal attitude were assigned as  $37.94 \pm 12.58$ . This average was lower than 40 which was sublevel for positive menopausal attitude so this meant that women had negative menopausal attitude.

#### *The results of HPLS*

Women's point averages of HPLS and its sub scales were  $25.37 \pm 8.36$  for self actualization,  $17.49 \pm 5.35$  for health responsibility,  $5.73 \pm 1.93$  for exercise,  $13.55 \pm 4.06$  for nutrition,  $17.88 \pm 4.10$  for interpersonal support,  $15.05 \pm 4.47$  for stress management,  $94.64 \pm 23.04$  for total HPLS. When women's point averages which they got from HPLS and its sub scales were evaluated, it was determined that they got the highest point ( $2.55 \pm 0.58$ ) from interpersonal support and the lowest point ( $1.14 \pm 0.38$ ) from exercise.

### **3.2. The results of Pretest-Posttest (2<sup>nd</sup> stage)**

In view of the results concerning research's first stage, the frame of research's second stage was formed. Women were matched according to menopausal symptoms, working conditions and climacteric period. Although education level of their husband, their marital status, monthly income, number of children, number of individuals who require maintenance, pleasure in marriage, appreciating spare times, participating family decisions were not matched; it was assigned that there was not a significant difference statistically between experiment and control group. Pretest-posttest data of experiment and control groups were given below:

*The results of pretest-posttest of menopausal symptoms*

According to pretest-posttest results of women in experiment and control group, a statistically meaningful difference was not determined between the two groups in the distribution of complaints except for headache-dizziness ( $\chi^2=4.511$ ,  $P=.034$ ) and urinary frequency ( $\chi^2=4.226$ ,  $P=.040$ , Table 1).

According to the results of last test which was made after the education on women of experiment and control group, a statistically meaningful difference was found between experiment and control groups in all menopausal complaints except for urinary frequency and irregular menstruation (Table 2).

Table 2. The Distribution Posttest Menopausal Symptoms of Experiment and Control Groups

Menopausal Symptoms	Experiment (n=43)		Control (n=44)		Significant
	Present	Absent	Present	Absent	
	%	%	%	%	
Hot Flashes–Night Sweats	30.2	69.8	95.5	4.5	$\chi^2= 9.785, P=.000^{***}$
Insomnia – Fatigue	4.7	95.3	93.2	6.8	$\chi^2= 68.188, P=.000^{***}$
Headache-Dizzy spells	23.3	76.7	93.2	6.8	$\chi^2= 43.873, P=.000^{***}$
Irritation-Tension	2.3	97.7	81.8	18.2	$\chi^2= 56.224, P=.000^{***}$
Autism– Weeping	-	100.0	56.8	43.2	$\chi^2= 34.283, P=.000^{***}$
Joint-muscle Ache	37.2	62.8	81.8	18.2	$\chi^2= 17.997, P=.000^{***}$
Appetite change- kilo put on	-	100.0	29.5	70.5	$\chi^2= 14.936, P=.000^{***}$
Constipation-Hemorrhoid	14.0	83.2	45.5	54.5	$\chi^2= 10.299, P=.001^{**}$
Palpitation	7.0	93.0	65.9	34.1	$\chi^2= 32.108, P=.000^{***}$
Skin drying-flaking	16.3	83.7	40.9	59.1	$\chi^2= 6.44, P=.011^*$
Increase in the Hairs of Face, Decrease in Pubic Hair	7.0	93.0	18.2	81.8	$\chi^2= 2.472, P=.116$
Dyspareunia	4.7	95.3	20.5	79.5	$\chi^2= 4.917, P=.027^*$
Libido Deficiency	23.2	76.7	54.5	45.5	$\chi^2= 10.997, P=.004^{**}$
Urinary Frequency	25.6	74.4	34.1	65.9	$\chi^2= .752, P=.386$
Menstrual Irregularities	11.6	88.4	25.0	75.0	$\chi^2= 2.162, P=.141$

df=1 \*p&lt;0.05 , \*\*p&lt;0.01, \*\*\*p&lt;0.001

*Pretest-posttest data of menopausal Attitudes:*

The difference between pretest menopausal attitudes point averages of women in experiment group was found statistically meaningless (Table 3).

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Table 3. Table Distribution Means of Score Pretest Menopausal Attitude of Experiment and Control Groups

Menopausal Attitude					Significant
Score Range Of Scale	Experiment		Control		
	Score range	X±SD	Score range	X±SD	
1-80	1-63	38.83±13.87	15-80	36.88±13.53	t=.664, df=85, P=.509

The difference between menopausal attitude point averages of women in experiment and control group was found statistically meaningful ( $p < 0.05$ , Table 4).

Table 4. Table Distribution Means of Score Posttest Menopausal Attitude of Experiment and Control Groups

Menopausal Attitude		
Experiment	Control	Significant
X±SD	X±SD	
48.69±10.85	36.18±13.78	t=4.697 df=85 p=.000

The results of pretest-posttest of HPLS:

A statistically meaningful difference was not found between women's total HPLS and pretest results except for self actualization which was one of its sub scales ( $p < 0.05$ , Table 5).

Table 5. Table Distribution Means of Score Pretest HPLS of Experiment and Control Groups

HPLS	Score range		Experiment X± SD	Control X± SD	Significant
	Experiment	Control			
Self Actualization	15-37	14-41	24.51 ±5.04	25.38 ±6.88	t=-.675, P=.502
Health Responsibility	11-30	10-32	17.25± 4.27	18.52±5.46	t=-1.203, P=.232
Exercise	5-14	5-10	5.69± 1.72	5.81± 1.57	t=-.340, P=.734
Nutrition	7-23	6-22	13.48 ±3.68	14.04 ±3.28	t=-.745, P=.459
Interpersonal Support	14-24	13-22	19.37 ±2.17	18.15 ±3.27	t=2.030, P=.045*
Stress Management	11-26	7-24	15.97 ±3.61	15.31 ±4.11	t=.792, P=.431
Total HPLS	75-134	62-144	96.32± 5.51	96.75± 20.50	t=-.109, P=.914

df=85 \*p&lt;0.05

Difference between posttest point averages of total HPLS of women in experiment and control group was found meaningful statistically ( $p<0.05$ ). Furthermore difference between posttest point averages of self actualization, exercise, nutrition, interpersonal support, stress management which were sub divisions of the scale were found meaningful statistically ( $p<0.05$ ). But it was determined that the difference between pretest-posttest point averages of health responsibility was meaningless statistically ( $p>0.05$ , Table 6).

Table 6. Table Distribution Means of Score Posttest HPLS of Experiment and Control Groups

HPLS	Experiment	Control	Significant
	X± SD	X± SD	
Self Actualization	34.58±4.94	25.22±6.70	t=7.394 P=.000***
Health Responsibility	20.27± 5.63	18.84±5.58	t=1.196 P=.235
Exercise	10.79± 2.52	6.22± 1.97	t=9.409 P=.000***
Nutrition	18.32 ±2.71	14.43 ±3.66	t=5.623 P=.000***
Interpersonal Support	23.58±2.53	18.00 ±3.64	t=8.277 P=.000***
Stress Management	19.53 ±2.27	15.77 ±3.981	t=5.350 P=.000***
Total HPLS	126.62± 13.97	98.65± 21.67	t=7.127 P=.000***

\*\*\*p&lt;0.001

## 4. Discussion

### 4.1. Discussing the Data of Diagnosis of Research Problem

According to the results of this research; women's menopausal problems were negative, healthy way of life behaviors were below the desirable degree and menopausal symptoms were high. Regarding works done in other cultural regions show that, menopausal symptoms, menopausal attitude and health behaviors differ a lot. Researches proved that menopausal attitude were much positive and menopausal symptoms were fewer in Asian women than European women. When Asian women perceive this period as an expression of power and dignity in society; European women perceive it as the loss of beauty, charm and womanhood [37-42,44]. It can be thought that these results completely arise from Erzurum's cultural structure. In Erzurum wearing conservative clothes proper to the religion, eating little fruit and vegetable, habit of having meals too hot, being too fatalist, not benefiting enough from health services and lack of special health education on menopause can be

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counted as factors which cause these results. It is thought that; equating women with fertility, end of fertility, having dense menopausal complaints, not being able to make the simplest exercise like walking because of the society which keep women at home, can be effective on these results.

**4.2. Discussing the Data of Women's Pretest-posttest Menopausal Symptoms** (*1<sup>st</sup> Hypothesis: Planned health education given to the experiment group decrease menopausal symptoms*)

Difference between the symptoms of women in experiment and control group was found statistically un-meaningful except for headache-dizziness and urinary frequency. After the education according to the data of posttest which was made on experiment and control groups, a statistical difference was assigned between these groups in the frequency distribution of all symptoms except for increase in the hairs of face, decrease in public hair and urinary frequency ( $p < 0.05$ , Table 2). Considerable decreases were assigned in the menopausal symptoms of women in experiment group after the education. It can be thought that this difference between the groups result from planned health education given by the researcher. In the work done by Uptan in North Cyprus, it is determined that after the education, joint-muscle aches decreased from 48% to 19.1%, insomnia-exhaustion decreased from 50% to 21.3%, anxiety-tension from 42% to 25.5%, lack of sexual interest from 34% to 25.4%, oppression-night perspiration from 40% to 17%. Considerable changes were assigned after and before the education [6]. The work done by Ertem and his friends on climacteric women showed meaningful differences in menopausal knowledge of women in experiment group after the education [43]. In his work Ergöl assigned a positive relation between knowing the treatments about menopausal symptoms and practicing them [5]. The results of given researches support the data of this research. Managing menopausal complaints can be taught by education and menopausal symptoms can be reduced. (*1<sup>st</sup> Hypothesis was accepted*)

**4.3. Discussing the Data of Women's Pretest-Posttest Menopausal Attitudes** (*2<sup>nd</sup> Hypothesis: Planned health education given to the experiment group makes menopausal manner positive*)



A statistically meaningful difference was not assigned between menopausal attitude point averages of women in experiment and control group before education ( $p>0.05$ , Table 3). It was assigned that women in both group had negative menopausal attitudes.

The difference between menopausal attitude point averages of women in experiment and control group was statistically meaningful after the education ( $p<0.05$ , Table 4). When before the education menopausal manners of women in experiment and control group were negative; after the education menopausal attitude of women in experiment group were assigned as positive on the contrary menopausal attitude of women in control group were assigned as negative. The difference which occurred in the women of experiment group can be commented as the result of education. In Uptan's work done on climacteric women in Cyprus[6], showed that 72% of women before education-consultancy, 89.4% of women after education-consultancy had positive menopausal attitudes; and by the way, the efficiency of his education was proved. In his work Kotsriwrong determined positive changes in menopausal attitudes of women after the education which last three months [14]. Results of this research accord with the results of Uptan and Kotsriwrong. **(2<sup>nd</sup> Hypothesis was accepted)**

**4.4. Discussing the Data of Women's Pretest-Posttest HPLS (3<sup>rd</sup> Hypothesis: Planned education given to experiment group increases healthy way of life behaviors)**

A meaningful difference was not found between the HPLS and sub scale point averages of women in experiment and control group before the education except for interpersonal support( $p>0.05$ , Table 5).

After the education a statistically meaningful difference was assigned between total of HPLS and sub scale point averages of women and in experiment and control group except for health responsibility ( $p<0.05$ , Table 6). It can be thought that meaningful difference between experiment and control groups result from the health education given by the researcher. But, that there is no difference in health responsibility can be thought as the result of the efficiency of husband, family and friends rather than the

women herself on decisions and control of health which is mostly because of society's cultural structure.

Erci et al assigned statistically meaningful difference between total posttest HPLS, self actualization, health responsibility, exercise, nutrition, interpersonal support and stress management point averages after the education which was given to the families [15]. But a meaningful difference was not found between diet point averages of experiment and control group after the education. In his work Chen determined a meaningful difference between posttest HPLS point averages of experiment and control group after the education[16]. In another work done by Chen et al, meaningful difference was assigned in other sub scale point averages except for support between people and realizing themselves after the education which last a year about HPLS on nursery students[17]. As it was seen in this research results, planned health education increases HPLS. Other research results on this subject support the results of this research. ***(3<sup>rd</sup> Hypothesis was accepted)***

## **5. Conclusion and Recommendation**

Planned health education given to climacteric women decreased menopausal symptoms of women in experiment group, increased menopausal attitude point averages positively and promoted point averages of HPLS. According to these results;

& It can be suggested that health professionals can make consultancy to climacteric women in all working fields if possible, they can evaluate their expectations, values and problems. Education programs can be done in a larger field in a multidiscipline way.

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