

Evaluation of the Effects of Self-Care Capacity on Healthy Life Style Behaviors in Risky Pregnants

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Abstract

Objective: In this study; it is aimed to evaluate the effects of self-care capacity on healthy life style behaviors by determining the self-care capacities of pregnant applied to risky pregnant polyclinic.

Methods: Descriptive and cross-sectional type of this was performed in Ministry of Health, Ege Maternity and Gynecology Training Hospital in Izmir in between October 2003 and May 2004. A written consent was taken from the establishment for performing the study. For data collecting tools, "Self-Care Capacity Scale" (SCC) ($\alpha=0.72$) and "Healthy Life Style Behaviors Scale" (HLSB-1) ($\alpha=0.91$) were used as well as survey forms including the socio-demographic, obstetric and medical histories of pregnant.

Results: Average SCC scores of pregnant were found as 85.17 ± 27.29 (min=35, max=140) and average HLSB total scores were found as 121.31 ± 21.02 (min=48, max=192). When these averages are evaluated as to the minimum and maximum scores that should be taken from the scales, it can be said that they are higher than average level. Score averages of sub-scales of HLSB scale were examined in the study and it was found that the highest score average was from "Self-Actualization" sub-scale with a score of 35.49 ± 7.17 and that the lowest score average was from "Exercise" sub-scale with a score of 8.32 ± 3.21 . In the study, a significant relation ($r=0.195$, $p=0.033$) was found between SCC total score average and HLSB total score average in risky pregnant. Also, a significant relation was found statistically between SCC total score average and score average of "Self-Actualization" sub-scale of HLSB scale ($r=0.193$, $p=0.036$) and score average of "Health Responsibility" sub-scale ($r=0.190$, $p=0.039$).

Conclusion: It is found that there is a positive correlation ($p=0.03$) between self-care capacities and healthy life style behaviors of pregnant. It can be said that there is an increase in healthy life style behaviors of risky pregnant as their self-care capacities increase.

Keywords: Risky pregnant, Self-care capacity, healthy life style behaviors.

Riskli gebelerde öz-bakım gücü'nün sağlıklı yaşam biçimi davranışlarına etkisinin incelenmesi

Amaç: Bu çalışmada; riskli gebe polikliniğine başvuran gebelerin öz-bakım gücü düzeylerini belirleyerek, bunun sağlıklı yaşam biçimi davranışlarına etkisinin incelenmesi amaçlanmıştır.

Yöntem: Tanımlayıcı ve kesitsel tipte olan bu çalışma, Ekim 2003–Mayıs 2004 tarihleri arasında, İzmir'de bulunan Sağlık Bakanlığı Ege Doğumevi ve Kadın Hastalıkları Eğitim Hastanesi'nde yapılmıştır. Çalışmanın yapılabilmesi için kurumdan yazılı izin alınmıştır. Veri toplama aracı olarak gebelerin sosyo-demografik, obstetrik ve tıbbi öykülerini içeren anket formu yanı sıra, "Öz-Bakım Gücü Ölçeği" (ÖBG) ($\alpha=0.72$) ve "Sağlıklı Yaşam Biçimi Davranışları Ölçeği" (SYBD-1) ($\alpha=0.91$) de veri toplamada kullanılan diğer araçlardır.

Bulgular: Gebelerin ÖBG puan ortalaması 85.17 ± 27.29 (min=35, max=140) ve SYBD toplam puan ortalaması 121.31 ± 21.02 (min=48, max=192) olarak belirlenmiştir. Bu ortalamaların, ölçekten alınması gereken minimum ve maksimum puanlara göre değer-

lendirildiğinde orta düzeyin üzerinde olduğu söylenebilir. Çalışmada SYBD ölçeği alt ölçekler puan ortalamaları incelenmiş ve en yüksek puan ortalamasının 35.49 ± 7.17 ile "Kendini Gerçekleştirme" alt ölçeğine ait olduğu, en düşük alt ölçek puan ortalamasının ise 8.32 ± 3.21 ile "Egzersiz" alt ölçeğine ait olduğu saptanmıştır. Çalışmada riskli gebelerde ÖBG toplam puan ortalaması ile SYBD toplam puan ortalaması arasında ($r=0.195$, $p=0.033$) anlamlı bir ilişki elde edilmiştir. Riskli gebelerin ÖBG toplam puan ortalaması ile SYBD ölçeği alt ölçek maddelerinden "Kendini Gerçekleştirme" alt ölçeği puan ortalaması ($r=0.193$, $p=0.036$) ile "Sağlık Sorumluluğu" alt ölçeği puan ortalaması arasında ($r=0.190$, $p=0.039$) istatistiksel olarak anlamlı ilişki olduğu saptanmıştır.

Sonuç: Gebelerin öz bakım gücü ile sağlıklı yaşam biçimi davranışları arasında pozitif bir korelasyon olduğu ($p=0.03$) saptanmıştır. Riskli gebelerin öz bakım gücü yükseldikçe sağlıklı yaşam biçimi davranışlarında artma olduğu söylenebilir.

Anahtar Sözcükler: Riskli gebe, öz bakım gücü, Sağlıklı yaşam biçimi davranışları.

Introduction

When morbidity and mortality risks increase in mother or fetus at a significant level, than gestation is taken up as a high risked gestation. In order to reach the highest level of a healthy perinatal result, it is important to establish the risk factors at an early period in terms of applying appropriate treatment at the right time.¹

The most important criteria showing the health levels of societies and evaluating the services given in this field are mother-baby death and disease rates. These rates may differ according to the development levels of states. Even though there are positive developments, it is seen that desired level has not been reached yet in terms of mother-baby mortality rate in our country, which is among the developing countries. 83% of mothers in our country pass away due to obstetric reasons directly belonging to gestation and delivery.² The most important characteristic of deaths directly related with gestation and delivery is that 75-80% of risks and deaths are preventable by early diagnosis and care.³

In recent years, individual care (self-care) concept has come into prominence as protecting, maintaining and developing health, the philosophy of basic health services, becomes important more than the treatment of disease.

Individual care (self-care) is basic human requirements that should be met by everyone. When these requirements are not met, care

deficiency and impairment of health appear.⁴ Self-care which is one of the main concepts of general nursing theory of Orem that is one of theories most used in nursing training, practice and research is defined as "To perform activities that individuals have to do for protecting their lives, healths and wellbeings".⁵

There is requirement for self-care in order to maintain every period of life healthy. One of the periods that self-care is required for is pregnancy. With a study, it is proved that healthy lifestyle profile during gestation decreased the risk for low-weighted newborn and that healthy lifestyle profile (HPLP) had a vital importance for a healthy newborn accordingly.⁶ At that period, it is required to protect, maintain and increase the healths of pregnant and fetus. In order to provide that, pregnant should have regular antenatal controls and give importance to her self-care.⁷

During the maintenance of health, activities that encouraging individual to reach the highest level of health aim to protect, maintain and increase the health of individual. As there is avoiding from attitudes and behaviors that will corrupt the health in protecting and maintaining the health, there are using capacity and energy of individual, living a satisfying life, being productive and having the ability to use capacities to the last in increasing health.⁸

Individual has an active role in increasing health, displaying a healthy lifestyle and performing activities related with this lifestyle.

Healthy lifestyle activities or behaviors are self-actualization, health responsibility, exercise, nutrition, interpersonal support and stress management. All these activities and behaviors get more importance during gestation, which is a special period in the life cycle of woman.⁷

Nurses have important responsibilities in increasing the self-care agency at pregnancy. Responsibilities of midwives and nurses working in obstetric polyclinics and mother-child health sector for self-care and increasing healthy lifestyle profiles are teaching the care to pregnant, consulting and training them.

The aim in this study is to research the effects of self-care agency on healthy lifestyle profiles by determining the self-care capacities of pregnant applied to risky pregnant polyclinic.

Methods

Descriptive and cross-sectional type of this was performed in Ministry of Health “Ege Women Disease and Labour Education and Research Hospital” in Izmir. Data of the study was collected in between October 2003 and May 2004. A written consent was taken from the establishment for performing the study. The number of pregnant applied to “Risky Pregnant Polyclinic” is not known since all polyclinic records are kept in common in the computer system of the hospital. Thus, population was found as 369 (risks such as being primipara are excluded) when calculated with a formula of individual number to be taken by sampling in cases that incidence rate is known (60%) but individual number in the population is not known; sampling of 119 pregnant who accepted to join the study and filled survey forms completely.⁹ Sampling reflects 32.25% of the population.

As a data collection tool, survey forms are used including the socio-demographic, obstetric and medical histories of pregnant prepared

by researchers within the literature knowledge. Also, “Self Care Agency Scale” (ESCA) ($\alpha=0.72$) is used for determining self care agency of pregnant which is developed by Kearney and Fleischer in 1979 and adapted by Nahcivan for Turkish Society in 1993.⁴

“Health Promoting Lifestyle Profile Scale” (HPLP-1) ($\alpha=0.91$) which was developed by Pender in 1987 in order to determine healthy lifestyle behaviors of pregnant and was adapted by Nihal (Ozabaci) Esin for Turkish society in 1997, is another scale used for data collection.¹⁰

Data of the study is coded and analysis in SPSS 11.0 package program. In evaluating obtained data; number and percentage distributions were done and relation between dependent and independent variables were evaluated with correlation and Student t tests.

Results

Socio-demographic characteristics of pregnant were evaluated in the study and it was found that 31.9% of them were in 25-29 age groups and the mean age of women was 29.54 ± 6.26 years and that 37.0% of their spouses were 35 years and above.

When education status which has an important role for self-care of pregnant were evaluated; it was found that 53.8% of pregnant were graduated from primary school and that 49.6% of them even could not graduated from primary/secondary school.

According to study results; 84.9% of pregnant stated that they did not have any jobs. “Income status” of pregnant were asked in terms of continuity of gestation and affecting the result and it was found that 72.3% of them perceived that their income-expenditure status were “equal”. It was found that 64.8% of pregnant was living in a metropolis/city and family type of 89.9% of them was “nuclear family”.

It was found that 12.6% of pregnant who applied to risky pregnant policlinic was relative to her husband and 14.2% of them were the mean of smoking 6.70 ± 4.44 pcs/day for averagely 10.26 ± 5.17 years.

Distributions of some risky pregnant as to their obstetric characteristics are shown in Diagram 1. The mean of gestation number of pregnant who joined the study is 2.47 ± 1.36 and their mean of deliveries are 1.36 ± 0.58 (Diagram 1). In the study, the mean of total delivery (alive + dead delivery) is 1.46 ± 0.68 (Diagram 1).

The mean of miscarriage/abortion number of risky pregnant who joined the study is 1.55 ± 0.92 and the mean of gestational week is 25.36 ± 9.27 . It was also found that there is averagely 6 years (59.05 ± 49.77 months) between last two pregnancies (Diagram 1).

As desiring the pregnancy (which may affect the self-care of individual during pregnancy) is 83.2%, not desiring the pregnancy is 16.8%. Distribution of pregnant according to their

risk factors who applied to risky pregnant policlinic is shown in Diagram 2. According to that, it was found that 33.1% of pregnant have been observed due to “diseases existing before gestation” (Diabetes Mellitus [DM], Asthma, Anemia, Heart Failure, Epilepsia, Kidney Cyst, Varicosity, Hepatitis B, Thalassemia, Hypertension, Cholestasis etc.) 29.0% of pregnant are being observed due to “risk factors of gestation” (Threat of preterm delivery, preeclampsia, abortus imminence, oligohydramnios/polyhydramnios, multiple pregnancy, premature membrane rupture, cervical failure, postmaturity, urinary tract infection and Rh discord etc). 13.7% of pregnant are observed due to “risks occurred due to socio-demographic factors”. 12.9% of pregnant came to policlinic for observation was found as having congenital anomaly and intra uterine growth retardation (IUGR) due to “risks belonging to fetus”. Other pregnant were observed due to “diagnosis, examination, bad history and undefined etc.” and their rate was 11.3% (Diagram 2).

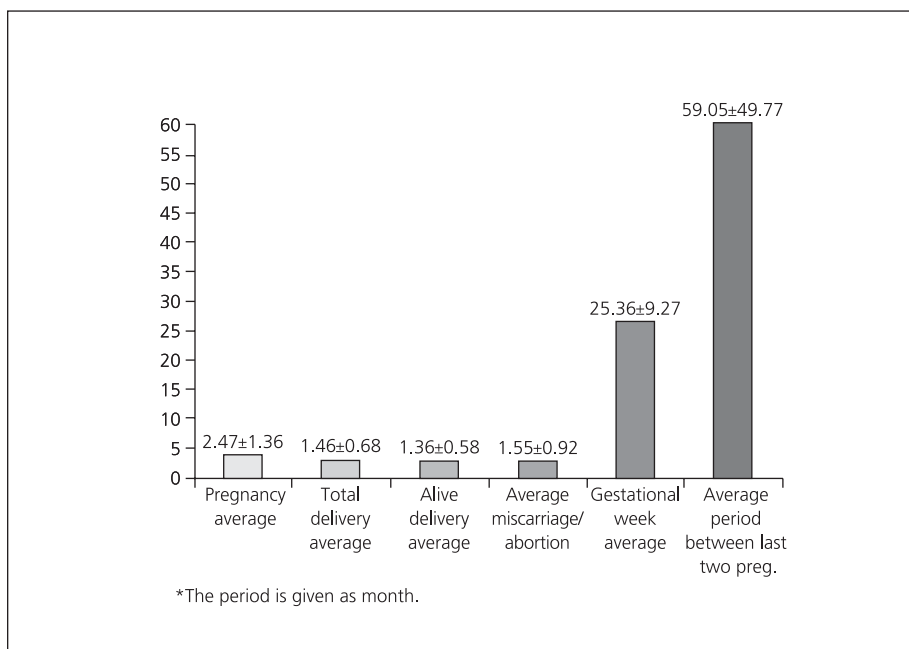


Diagram 1. Distributions of pregnant as to their some obstetric characteristics.

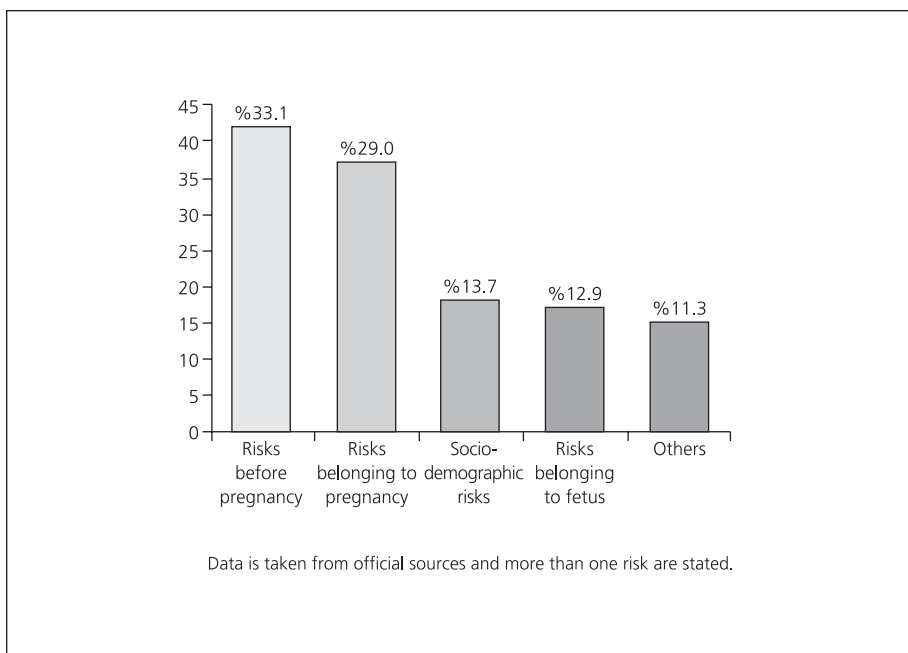


Diagram 2. Distribution of pregnant as to risk factors they have.

In Table 1, the mean of ESCA, HPLP and their sub-scale scores are seen. The mean of ESCA score of pregnant are determined as 85.17 ± 27.29 (min=35, max=140) (Table 1). The mean of HPLP total score of these pregnant are found as 121.31 ± 21.02 (min=48, max=192) (Table 1). Score the mean of sub-scales of HPLP scale were examined in the study and it was

found that the highest the mean of score was from “Self-Actualization” sub-scale with a score of 35.49 ± 7.17 and that the lowest the mean of score was from “Exercise” sub-scale with a score of 8.32 ± 3.21 .

Relation between HPLP scale the mean of score and sub-scale the mean of score and ESCA the mean of score are seen in Table 2. In the

Table 1. Distribution of mean score of ESCA, HPLP and sub-scales.

	X – SD	Min- Max	Mean Scores have to be taken from scale	
			The lowest	The highest
Self-care Agency Scale (ESCA) mean score	85.17 ± 27.29	9.00- 133.00	35	140
Mean Scores of HPLP and sub-scales				
HPLP total score	121.31 ± 21.02	70.00- 169.00	48	192
- Self-Actualization	35.49 ± 7.17	17.00- 52.00	13	52
- Health Responsibility	23.10 ± 5.80	11.00- 38.00	10	40
- Exercise	8.32 ± 3.21	5.00- 18.00	5	20
- Nutrition	17.44 ± 3.40	8.00- 24.00	6	24
- Interpersonal Support	20.38 ± 3.44	13.00- 28.00	7	28
- Stress Manage	16.54 ± 3.90	7.00- 27.00	7	28

study, a significant relation ($r=0.195$, $p=0.033$) was found between the mean of ESCA total score and the mean of HPLP total score in risky pregnant (Table 2). Also, a significant relation was found statistically between the mean of ESCA total score and score the mean of "Self-Actualization" sub-scale of HPLP scale ($r=0.193$, $p=0.036$) and score the mean of "Health Responsibility" sub-scale ($r=0.190$, $p=0.039$) (Table 2).

Relation between mean score that pregnant who joined the study got from ESCA and HPLP scales and the mean of age, the mean of gestation number and the mean of total delivery number is seen in Table 3. It was found that there was no significant relation between the mean of age ($r=0.059$, $p=0.523$), the mean of

gestation number ($r=0.054$, $p=0.557$) and the mean of total delivery number ($r=0.044$, $p=0.707$) of pregnant according to the mean of ESCA scale score. Also no significant relation was found between the mean of age ($r=0.114$, $p=0.217$), the mean of gestation number ($r=0.101$, $p=0.276$) and the mean of total delivery number ($r=0.082$, $p=0.483$) in pregnant according to HPLP scale the mean of score (Table 3). Relation between sub-scale items of HPLP scale of pregnant in the study and some obstetric characteristics of pregnant is also evaluated (Table 3). According to the statistical analysis made between sub-scale items of HPLP scale and some obstetric characteristics of pregnant; there is a positive relation ($r=0.214$, $p=0.02$) only between age of pregnant and "Nutrition" sub-scale of HPLP scale.

Table 2. Relation between the mean of HPLP score and the mean of ESCA score of risky pregnant.

	Self-care Agency Scale (ESCA)		
	r	p	n
Healthy Promotional Lifestyle Profile (HPLP)	0.195	0.033	119
- Self-Actualization	0.193	0.036	119
- Health Responsibility	0.190	0.039	119
- Exercise	0.066	0.478	119
- Nutrition	0.087	0.348	119
- Interpersonal Support	0.161	0.080	119
- Stress Management	0.143	0.121	119

Table 3. Relation between mean scores that Risky Pregnants took from ESCA and HPLP scales and the mean of age-pregnancy and total delivery.

	Age		Pregnancy		Total Delivery	
	r	p	r	p	r	p
ESCA	0.059	0.523	0.054	0.557	0.044	0.707
HPLP	0.114	0.217	-0.101	0.276	-0.082	0.483
- Self-Actualization	0.013	0.889	-0.105	0.258	-0.082	0.479
- Health Responsibility	0.081	0.383	-0.084	0.366	-0.054	0.646
- Exercise	0.163	0.077	-0.080	0.387	0.015	0.896
- Nutrition	0.214	0.020	-0.046	0.623	-0.075	0.519
- Interpersonal Support	0.081	0.384	0.002	0.979	-0.024	0.834
- Stress Management	0.079	0.394	-0.122	0.187	-0.131	0.259

The mean of total score of ESCA and HPLP scale of risky pregnant were also compared with some socio-demographic characteristics of pregnant such as age groups, education status, income status, the place they live, family relationship and job status, smoking and state of being pregnancy. No difference was found statistically between the mean of ESCA score of risky pregnant and age groups, education status, income status, the place they live, kinship and job status, smoking and state of being pregnancy ($p>0,05$). In statistical analysis, significant relation was found only between HPLP scale total score and job status ($t=4.279$, $p=0.000$).

In table 4, the mean of ESCA and HPLP total score and the mean of HPLP sub-scales scores are compared with risk status of pregnant. A significant relation was found between the mean of ESCA score and “Risks of gestation” ($r=-2.428$, $p=0.017$) in terms of risk status of pregnant in the study (Table 4). Also by comparing the mean of HPLP scale score with risk status of pregnant, it was found that there is statistically a significant relation between “Risks of gestation” ($t=-2.505$, $p=0.014$) and “Risks occurred due socio-demographic factors” ($t=2.681$, $p=0.008$). No significant relation was

found in the statistical analysis between the mean of ESCA score and the mean of HPLP total score in terms of “risks occurred due to diseases before gestation”, “risks belonging to fetus” and others titled as “diagnosis, examination, bad history and undefined etc” (Table 4). Relation between risk statuses was evaluated according to the sub-scales of HPLP scale of gestations that were included into the study (Table 4). According to the table, statistically a difference was found between “Health responsibility” sub-scale of HPLP and “Risks belonging to pregnancy” ($t=-3.487$, $p=0.001$) and “risks occurred due to socio-demographic factors” ($t=2.683$, $p=0.008$) (Table 4). A statistical difference was found between “Exercise” sub-scale of HPLP and “Risks belonging to pregnancy” ($t=-2.002$, $p=0.04$) and “risks occurred due to socio-demographic factors” ($t=2.54$, $p=0.01$) (Table 4). There was a significant difference between “Nutrition” sub-scale of HPLP scale and “risks occurred due to socio-demographic factors” ($t=3.498$, $p=0.001$) and “risks belonging to fetus” ($t=-2.512$, $p=0.013$) (Table 4). Statistically a significant difference was found between “Interpersonal Support” sub-scale and “Risks belonging to pregnancy” sub-scale of HPLP ($t=-2.27$, $p=0.023$) (Table 4).

Table 4. Comparison of ESCA and HPLP and sub-scales in risky pregnant with risk situations.

	Risks occurred due to diseases existing before pregnancy		Risks belonging to pregnancy		Risks occurred due to socio-demographic factors		Risks belonging to fetus		Others	
	t	p	t	p	t	p	t	p	t	p
ESCA	-1.041	0.300	-2.428	0.017	1.792	0.076	0.739	0.462	0.702	0.484
HPLP	0.094	0.921	-2.505	0.014	2.681	0.008	-0.484	0.629	1.381	0.170
Sub-scales score the means of HPLP of pregnant										
- Self-Actualization	-0.598	0.551	-1.250	0.214	1.265	0.208	-0.632	0.528	1.558	0.122
- Health Responsibility	0.981	0.329	-3.487	0.001	2.693	0.008	0.058	0.954	0.757	0.571
- Exercise	0.153	0.878	-2.002	0.048	2.540	0.012	0.900	0.370	-0.228	0.820
- Nutrition	0.834	0.374	-1.716	0.089	3.498	0.001	-2.512	0.013	1.152	0.252
- Interpersonal Support	0.455	0.650	-2.297	0.023	1.958	0.053	-0.872	0.385	1.801	0.074
- Stress Management	-1.107	0.270	-0.851	0.397	1.190	0.236	0.636	0.526	1.046	0.298

Discussion

In this study performed on risky pregnant, it is an expected result that rates of pregnant being relative with their husbands and smoking are at a high level. When our study results are compared with the study performed by Okyay et al. in a Health Center in Aydin which is a western city as Izmir, the difference between two studies strengthens these results.¹¹ All pregnant who joined the study are risky. It is an expected result that the highest risk belongs to the risks occurred due to “diseases existing before pregnancy” at a rate of 33.1% according to the risk groups of pregnant.

In a research performed among adolescent pregnant, the mean of self-care agency score was found as 76.38 ± 19.91 , lower than study results.⁵ This situation can be explained as adolescents are in risk category in terms of pregnancy due to the fact that they are still within the period of completing mental development spiritually. Eryilmaz found the mean of self-care agency as 93.2 ± 19.0 in the study in which effect of pregnancy number on self-care agency was evaluated.⁷ The mean of self-care agency is 93.54 ± 17.40 in Nahcivan’s study performed on healthy adolescents.⁴ The reason of being higher of means in studies of Nahcivan and Eryilmaz than our study results that samplings in both studies are consist of healthy pregnant/individuals.

In the study of Sayan performed on working women, the mean of total score of healthy lifestyle profile were found as 122.50 ± 14.57 and seems similar with our study results.⁸ This result can be explained with the effect of cultural characteristics of the society on behaviors developing the health. In the study, the mean of score of risky pregnant that they took from sub-scales of HPLP scale showed parallelism with the study of Esin.¹⁰ It was found that total HPLP results were at a medium level in the study performed on Jordanian women and that

the highest the mean of score were in “Self-Actualization” and “Health Responsibility” sub-scales and that the lowest the mean of score were in “Exercise” and “Stress Management” sub-scales.¹² These results showing similarity with our study results can be explained that both countries are Muslim and studies were performed on similar age groups. In another study performed on women with mastectomy, total HPLP score was found quite high as 162.60 ± 13.81 .¹³ This situation can be explained that CA result of the study was taken and it was performed on patient group who were under control and having patient and thus they were more careful and attentive.

In the study, a significant relation was found between the mean of ESCA total score and the mean of HPLP total score of risky pregnant ($r=0.195$, $p=0.033$). This result shows that generally healthy lifestyle profiles increase as self care agency increases which has the ability to start or apply health activities in the literature.¹⁴ In the study performed by Guner on women with mastectomy, a significant relation was found between total score the mean of HPLP scale and the mean of ESCA score.¹³

Significant relation found between the mean of ESCA total score and the mean of “Self-Actualization” score and “Health Responsibility” sub-scales of HPLP scale shows that self-care in risky pregnant is an important factor in terms of self-actualizing and taking health responsibility.

In the study performed by Sayan on working women, a significant relation was found between ESCA and HPLP scale total score and scores of all sub-scales except the “Exercise”.⁸ A significant relation was found statistically between “Self-Actualization” sub-scale of HPLP scale and ESCA in the study performed by Callaghan on adolescents.¹⁵

According to the sub-scales of HPLP, finding a positive relation between ages of pregnant

and "Nutrition" sub-scale of HPLP scale can be associated with the importance given to the nutrition during pregnancy in terms of cultural and traditional structure of our society. This result also makes us to think that positive nutrition habits increase as pregnancy age increases.

As to the study results; it can be said that pregnant having high total scale score for ESCA and HPLP contributes early diagnosing risks peculiar to pregnancy by comprehending the importance of prenatal visits and that those pregnant know that advance maternal age is a risk.

Conclusion

It was found in the study that pregnant constitute risk factor affecting both the mean of ESCA total score and the mean of HPLP total score who applied/observed for observation, diagnosis and treatment in Risky Pregnant Polyclinic due to risks constituting "Factors belonging to pregnancy" in terms of risk status such as threat of preterm delivery, preeclampsia, abortus imminence, oligohydramnios/polyhydramnios, multiple pregnancy, premature membrane rupture, cervical failure, postmaturity, urinary tract infection and Rh discord etc. The mean of ESCA score of pregnant were found as 85.17 ± 27.29 and the mean of HPLP score were found as 121.56 ± 20.85 . Because of the study, a positive correlation ($p=0.03$) was found between self care agency and health promoting lifestyle profile of pregnant. It can be said that as self-care capacities of risky pregnant increase, then there is an increase in their healthy lifestyle profile.

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