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Health practices of pregnant women in Gumushane City Center

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Abstract

Objective: The study aimed to investigate the health practices of pregnant women living in Gumushane city center, and to increase awareness among pregnant women.

Methods: The research is of definitive characteristics. It was conducted with a total of 189 pregnant women between October 1st and December 10th, 2012. The data was provided as figure, percentage, arithmetic mean and standard deviation. After normality analyses were applied to the data, Mann-Whitney U test, one-way analysis of variance (ANOVA) test and post hoc analyses to determine the source of difference were carried out.

Results: The ages of pregnant women are between 19- and 48-year-old, and the mean age is 29.09±5.5. Of the participants, 65.1% of them stated that their expenses were equal to their incomes, 8.58% of them had no social security, 24.6% of them had a job, and 51.3% of them were living in the city center. Statistically significant difference was found in the ANOVA test analysis carried out among the score averages of the "Health Practices Questionnaire" according to the educational background of the spouses of the pregnant women. Difference was found between primary school and university graduates. Score average of the "Health Practices Questionnaire" for those living in metropolises was higher than those living in villages; it was found that the score average of the questionnaire decreased as the age increased.

Conclusion: For the health practices during pregnancy, the ages of pregnant women and their spouses and living in whether in urban or rural areas caused differences. It is required to extend "prenatal and postnatal training programs" among pregnant women and their families, to enable the spouses of pregnant women to join such programs by informing them, to carry out detailed interviews in order to evaluate and modify the practices of pregnant women in advanced age group, and to increase awareness on this subject matter.

Keywords: Pregnancy, health behavior, education.

Özet: Gümüşhane il merkezindeki gebelerin sağlık uygulamaları

Amaç: Çalışma, Gümüşhane il merkezinde yaşayan gebelerin sağlık uygulamalarını araştırmak ve gebelerin farkındalıklarını arttırmak amacıyla planlanmıştır.

Yöntem: Araştırma tanımlayıcı niteliktedir. 1 Ekim – 10 Aralık 2012 tarihleri arasında toplam 189 gebeyle gerçekleştirilmiştir. Veriler; sayı, yüzde, aritmetik ortalama ve standart sapma ile verilmiştir. Verilere normallilik analizleri uygulaması sonrası Mann-Whitney U testi, tek yönlü varyans analizi (ANOVA) testi, farklılıkların kaynağını belirlemek amacıyla *post hoc* analizler yapılmıştır.

Bulgular: Gebelerin yaşları 19–48 yaş aralığında olup, ortalama 29.09±5.5'dir. Katılımcıların %65.1'i gelirlerinin giderlerine eşit olduğunu, %8.58'inin sosyal güvencesi olmadığını, %24.6'sı çalıştığını, %51.3'ü il merkezinde yaşadığını söyledikleri tespit edilmiştir. Gebelerin eşlerinin eğitim düzeylerine göre 'Gebelikte Sağlık Uygulamaları Ölçek' puan ortalamaları arasında yapılan ANOVA testi analizinde istatistiksel açıdan anlamlı fark elde edilmiştir. İlkokul ve üniversite mezunları arasında farklılık olduğu saptanmıştır. Büyük şehirlerde yaşayanların 'Gebelikte Sağlık Uygumaları Ölçek' puan ortalaması, köylerde yaşayanlardan daha yüksek bulunmuş ve yaşın artması ile ölçek puan ortalaması da düşmektedir.

Sonuç: Gebelikte sağlık uygulamalarında; gebenin kendisinin ve eşinin yaşlarının, yaşadığı alanın kentsel ya da kırsal olmasının farklılıklara sebep olduğu görülmüştür. Gebelere ve ailelerine yönelik "prenatal ve postnatal eğitim programlarının" yaygınlaştırılması, gebelerin eşlerinin de bilgilendirilerek bu programlara katılımının sağlanması, ileri yaş grubundaki gebelerin uygulamalarının değerlendirilmesi ve düzeltilmesi adına ayrıntılı görüşmelerin yapılması ve bu konuda farkındalıklarının arttırılması gerekmektedir.

Anahtar sözcükler: Gebelik, sağlık davranışı, eğitim.

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Introduction

According to the data of TNSA-2008, a woman who reaches at the end of her fertility age in Turkey gives 2.16 births on average. Total fertility rate today is 50% lower than the rate in 1970s. In Turkey, fertility piles up in the age group 20–29. An average woman has her first child at 25-year-old, and two children at 30-year-old. Fertility period diminishes swiftly after 30-year-old, and reaches a negligible level at 40s.[1]

Health practices of women during pregnancy affect both maternal and neonatal health both during pregnancy and postpartum period. Health practices during pregnancy can be defined as the activities including the health of pregnant woman, fetus and newborn and affecting the gestational outcome. Health practices which are significant for gestational outcomes should be identified and earned during prenatal care. These practices should include various topics such as dental care, not smoking, not using alcohol or illegal substances, balanced nutrition and gaining appropriate amount of weight, regular exercising, having training about pregnancy and labor, and avoiding risky sexual acts or exposure to other infection factors.[2] As well as going for regular health checks, proper nutrition and resting habits, factors such as knowing regular course of pregnancy and possible gestational complications, and choosing right information source also directly affect the quality of gestational period.[3] Dental care and checks during pregnancy are very important in terms of fetal health. The studies show that more than one third of women have dental problems.[4] Risky conditions such as preterm labor, baby with low birth weight and preeclampsia are seen in those who have periodontal problems during pregnancy. Mothers should be encouraged for dental checks.[5]

Smoking during and after pregnancy causes significant health issues for fetus, newborn and child. Active smoking is one of the major reasons for various health risks such as preterm labor, miscarriage, postpartum hemorrhage, ectopic pregnancy, fetus with low birth weight and placenta praevia.[6] Smoking during the first trimester is one of the major factors increasing the risks for spontaneous abortion and ectopic pregnancy.[7] It was reported that the risk for ectopic pregnancy is 1.5 – 2.5 higher in smoking women.[8]

Physical activity is important for a healthy life. The importance of exercising during pregnancy is emphasized in the literature.[9] It is reported that exercising is useful for pregnant women who have no obstetric and medical complication, and physical activity is recommended minimum 30 minutes weekly in order not to have any gestational complication.[10] Direct heavy physical activities, competitive sports increasing cardiac rhythm and prolonged activities on supine position are not recommended.[11] The recent studies in particular have highlighted that physical activities have a significant role for a healthy pregnancy.[12,13] Problems such as fatigue particularly, physical discomfort, being unable to use time efficiently and incompetency in child care are seen more in pregnant women who do not engage in physical activities.[14-16]

High quality care and balanced nutrition during pregnancy is very important for the maternal health.[17] As the education, health and nutrition condition, socioeconomic life standards and provided healthcare services of mother improve, the chance to have a successful pregnancy also increases. A successful pregnancy and delivery ensure babies to born into a healthy life.[18]

Maintaining pregnancy healthy for both mother and baby requires medical checks from the beginning up to the end of pregnancy. In normal pregnant women, prenatal checks are estimated to be once a month until the 28 weeks of gestation, once every 15 days between 28 and 36 weeks of gestation and once a week from the 36 weeks of gestation up until delivery. According to the Ministry of Health, it is aimed to follow up each pregnant woman at least for 6 times by identifying as of the beginning of pregnancy. Making visits regularly ensures to decrease fetal and neonatal problems.[19]

Vaccination programs have a significant role especially to decrease infant deaths. According to the World Health Organization (WHO), 1/5 of the infant deaths in developing countries are caused by the preventable diseases. Thanks to the "Expanded Program on Immunization" initiated by WHO in 1974, considerable decreases have been observed in the incidence, mortality and morbidity rates of preventable diseases by vaccination.[20] Main purposes of vaccination are to protect fetus during pregnancy against infections such as varicella and rubella causing congenital malformation, growth retardation, stillbirth and neurological sequels, to protect mother against diseases such as influenza, hepatitis B which progress more severely during pregnancy, and to decrease infant morbidity, mortality and infectious dis-

ease risk of newborn in the first 6 months.[21] There are significant differences in vaccination rates according to the region, residential area and educational background of mother. The percentage of fully vaccination children is significantly low in the Eastern Anatolia Region (64%). It is followed by Northern and Southern Regions (84% and 82%, respectively).[1]

Postpartum care is very important both for mother and baby. Considerably majority of them are being physicians, 82% of women had postpartum care. Four out of five women had their first postnatal check within two days after the delivery. Postpartum care and its timing vary according to the regions. The rate of having care within first 41 days is the highest among the women in Aegean Region (92%), and the rate of women in Mid-Eastern Anatolia is only 55%.[1] The care to be provided to mother and baby is very significant for facilitating the adaptation of mother to postpartum period, early start of and sustaining lactation, providing mother-baby interaction, accelerating healing process, preventing complications, and for the postnatal comfort.[22]

The study aimed to investigate the health practices of pregnant women living in Gumushane city center, and to increase awareness among pregnant women.

Methods

The research is of definitive characteristics. A total of 233 pregnant women visiting the maternity clinic for pregnancy control between October 1st and December 10th 2012 were accessed and only 189 of them accepted to participate in the study.

During the period when the investigation was planned and it was started to collect the data, written permission was received from Gumushane Provincial Directorate of Health. All participants were informed and read the purposes and methods of the investigation. The data collection tool used in the investigation has two parts. The first part of the form, which is intended for personal information, performs a literature review and it includes 25 questions such as age, educational background, employment status, health insurance, residential area, family type, pregnancy follow-up, and child number. The second part of the form is "Health Practices Questionnaire" (HPQ). HPQ-II is a questionnaire with 34 questions. Questions from 1 to 17 include five-point likert scale varying between "Always" and "Never". The answer 'Never (a)' is calculated as 1 point, 'Rarely (b)' as 2 points, 'Sometimes (c)' as 3 points, 'Frequently (d)' as 4 points and 'Always (e)' as 5 points; each question from 18 to 34 has 5 appropriate options which are scaled from 1 to 5 points. Some questions have reverse scaling. These are the questions 6, 7, 8, 22, 23, 24, 25, 26, 27, 33 and 34. The points of these questions are scaled from 5 to 1, in a reverse way. A general point is obtained from the total of the all questions. Getting high score represents high quality health behavior which has a significant benefit on pregnancy. In the study of Lindgreen, the lowest possible score in the scale is 34 while the highest possible score is 170.[2] The method of face-to-face interview was applied in the data collection. After the questionnaire, health practice trainings were provided to pregnant women.

SPSS software was used for the analysis of the data. The data obtained in the study was provided as figure, percentage, arithmetic mean and standard deviation. After normality analyses were applied to the data, Mann-Whitney U test, one-way analysis of variance (ANOVA) test and post hoc analyses to determine the source of difference were carried out. $p<0.05$ was considered as significant.

Results

Mean age of the pregnant women is 29.09±5.5 (min: 19, max: 48). Of the participants, 65.1% of them stated that their expenses were equal to their incomes, 8.58% of them had no social security, 24.6% of them had a job, and 51.3% of them were living in the city center (**Table 1**).

While 66.7% of the pregnant women preferred to visit an obstetrician at state hospital, 6.8% of them visited obstetricians both at private hospital and state hospital. Of the pregnant women, 60.6% said that they had pregnancy follow-up for 5 times or more, 75.4% of them became pregnant voluntarily, 72.3% of them had health practice training before pregnancy (from internet, those with pregnancy experience, TV, family physician, nurse), and 89.3% of them said that they would like to be informed about health practices. Only 1.7% of the participants had the history of sexually transmitted disease (**Table 2**).

Of the spouses, 10.1% were primary school graduate, 14.9% were secondary school graduate, 51.1% were high school graduate, and 23.9% were university graduate. While 2.6% of them were unemployed,

Table 1. Distribution of pregnant women according to definitive characteristics (n=189).

Definitive characteristics	Number	%
Age (n=189)		
15–24	43	22.8
25–34	112	59.3
35 and above	34	18.0
Educational background (n=188)		
Primary school	48	25.5
Secondary school	51	27.1
High school	62	32.9
University	27	14.4
Residential area (n=189)		
Metropolis	9	4.8
City center	97	51.3
County	56	29.6
Village	27	14.3
Profession (n=187)		
Housewife	141	75.4
Civil service	31	16.6
Worker	6	3.2
Self-employed	5	2.7
Other	4	2.1
Income level (n=186)		
Income less than expenses	27	14.5
Income equals to expenses	121	65.1
Income higher than expenses	38	20.4

Table 2. Pregnancy history of participants.

Pregnancy history	Number	%
Planning the pregnancy (n=183)		
I got pregnant accidentally	37	20.2
I got pregnant on purpose	138	75.4
I got pregnant accidentally but I want to deliver	37	4.4
Health checks during pregnancy (n=188)		
Once	13	6.9
Twice	17	9.0
Three times	22	11.7
Four times	22	11.7
Five times or more	114	60.6
Number of pregnancy		
First pregnancy	55	30.2
Second pregnancy	61	33.5
Third pregnancy	43	23.6
Fourth pregnancy	17	9.3
Fifth pregnancy or more	6	3.3
Having training on health practices during pregnancy (n=188)		
Yes	136	72.3
No	51	27.1
Performer of the follow-ups during pregnancy (n=168)		
Family physician	4	2.3
Private obstetrician	41	24.4
Obstetrician at state hospital	112	66.7
Other	1	1.7

39.7% of them were civil service employees, 32.8% of them were worker, 18.5% of them were self-employed and 6.3% of them were engaged in other fields.

The mean score of the participants for health practice questionnaire (HPQ) was 111.76±18.53.

In the analysis of ANOVA test performed between age groups of pregnant women and mean HPQ scores, statistically a significant difference was found. According to the post-hoc analysis to determine the source for the difference, it was found that the difference was caused by the mean values of first group (age range of 15-24) and third group (35-year-old and above), and that the score average of the questionnaire decreased as the age increased (**Table 3**).

Statistically no significant difference was observed in the analysis of ANOVA test carried out in the HPQ scores according to the educational background of pregnant women (p>0.05) (**Table 4**).

The average HPQ scores were also analyzed according to the employment status of pregnant

Table 3. Distribution of mean HPQ scores according to age groups of pregnant women.*

	Mean HPQ Score				
Age group	N	X	SS	F	P
15–24	43	117.4884	12.56862	2.996	**0.052**
25–34	112	110.6786	20.69174		
35 and above	33	107.9697	15.88924		
Total	188	111.7606	18.53660		

*ANOVA test was used.

Table 4. Distribution of mean HPQ scores according to educational background of pregnant women.*

Educational background	Mean HPQ Score			F	P
	N	X	SS		
Primary school	47	109.8298	15.94190		
Secondary school	51	111.6667	21.24116		
High school	63	112.6190	17.50615	0.274	0.844
University	27	113.2963	20.30312		
Total	188	111.7606	18.53660		

*ANOVA test was used.

women. There was no significant difference in the Mann-Whitney U analysis performed between the employment statuses and mean HPQ scores of pregnant women (**Table 5**).

In the analysis of ANOVA test performed on mean HPQ scores according to the educational background of the spouses of pregnant women, statistically a significant difference was found. In the post-hoc analysis carried out for determining the source of difference, it was seen that there was difference between primary school graduates and university graduates.

In the analysis of ANOVA test performed on mean HPQ scores according to the most frequent residential areas of pregnant women, statistically a significant difference was found. A post-hoc analysis was performed for the difference, and the p value was found as <0.05 for the difference between the average values of those living in urban and rural areas. The mean HPQ scores of pregnant women living in the city center were found to be higher than those living in villages.

Discussion

While 82.1% of the participants were in the 15–34 age range, 47.6% of them were high school and university graduate. According to TNSA 2008 data, about 52% of women were only primary school graduates. In the study, 73% of women were secondary school or higher level graduates.

In Turkey, the lowest employment rate among women was in Central and Eastern Regions.[1] Our study, we observed that the rates of unemployed women in Gumushane, which is a province in the Black Sea Region, were high similar to the women living in Central and Eastern Regions.

While 51.3% of the women participated in the study were living in the large city, 29.6% of them were living in counties, 14.3% of them in villages, and 4.8% of them in the city. The most of the pregnant women being living in the city and the metropolis is important in terms of having follow-up, care and training during pregnancy. In our study, we found statistically a significant difference in the analysis of ANOVA test performed on mean HPQ scores according to the most frequent residential area of pregnant women. The mean scores of those living in the city were higher than those living in the villages.

It is known that carrying out the delivery in healthy conditions and getting postpartum follow-ups regular-

Table 5. Distribution of mean HPQ scores according to employment statuses of pregnant women.*

Employment status	Mean HPQ Score			U	P
	N	X	SS		
Unemployed	140	83.24			
Employed	31	98.47	18.536	1783.50	0.121
Total	171				

*Mann-Whitney U test was used.

ly decrease maternal and perinatal newborn deaths.[23] Total visits before the delivery is a significant indication for evaluating the sufficiency of prenatal care. While pregnant women need to have follow-ups for 6 times during the pregnancy, insufficient number of visits shows that this service is not carried out actively.[24] Although the mean HPQ scores in the study are low, the rate of participants to visit a health institution during pregnancy for five or more times is 60.6%.

In the analysis of ANOVA test performed on mean HPQ scores according to the educational background of the spouses of pregnant women, statistically a significant difference was found. As the educational background increases, HPQ score also increases. Similarly, as in the study of Çakmakçı and Eser, there was statistically a significant difference between the pregnant women whose spouses were university/college graduate and those whose spouses were high school or lower level graduates.[25]

In the analysis of ANOVA test performed on the mean HPQ scores according to the age groups of pregnant women, statistically a significant difference was found. Mean HPQ score of young pregnant women was 117.48 while it was 107.96 for pregnant women with advanced ages. The reason for difference based on age may be that young group tries to learn by searching studies as a source of information, and that the advanced age group utilizes their experience.

The results of our study are similar to the studies performed to analyze the effects of age and educational background of women on gestational health. The major factors increasing the possibility to carry out a delivery in a healthcare institution are the young ages of women, early in the rank of birth order, mother having high number of prenatal care and high level of education. It has been reported that the possibility to deliver a baby in a healthcare institution in an urban area is 1.2 times higher than rural areas, and the rate of home birth is higher in Eastern Regions than Central Anatolian Regions (27%).[1,19]

Conclusion

For the health practices during pregnancy, the ages of pregnant women and their spouses and living in whether in urban or rural areas caused differences. Therefore, it is required to extend "prenatal and postnatal training programs" among pregnant women and their families, to enable the spouses of pregnant women to join such programs by informing them, to carry out detailed interviews in order to determine the mistakes and to modify the practices of pregnant women in advanced age group, and to increase awareness on this subject matter.

Conflicts of Interest: No conflicts declared.

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