



## Investigating the Knowledge towards Sport activities during Pregnancy and some associated factors

Islami, Fatemeh<sup>1</sup>, Baniaghil, Asieh Sadat<sup>\*2</sup>, Ghelichli, Maryam<sup>3</sup>.

<sup>1</sup> Faculty Member of Golestan University, Department Of Physical Education, Golestan, Iran.

<sup>2</sup>Research Center for Reproductive Health and Consulting in Midwifery, Golestan university of medical sciences, Iran

<sup>3</sup> Dental School, Golestan University of Medical Sciences, Gorgan, Iran.

\*E-mail: [a\\_baniaghil@yahoo.com](mailto:a_baniaghil@yahoo.com)

### ABSTRACT

Knowledge of the principles of doing proper exercise during pregnancy have always emphasized by professionals, would bring many benefits to both mother and fetus. This cross-sectional study is done to assess the awareness towards the sport activities during pregnancy and some of its associated factors with the field method through using cluster sampling was conducted on 110 pregnant women who were 32 to 40 weeks, healthy and low risk that referred to health centers in Golestan in 2013 (study population) who had no known medical and midwifery disease. Data were collected using a researcher-made questionnaire with demographic and internal reliability ( $\alpha = 0.7$ ) by interview. At the end the data were analyzed with descriptive statistics (mean, frequency) and illative (two independent samples T-test, analysis of variance of a variable, Pearson and Spearman correlation coefficient). The results showed that the average scores of awareness was  $13.98 \pm 99.50$ . 1.8% of subjects had a very poor awareness, 9% of subjects had poor knowledge, 50.4% of subjects had moderate knowledge, 27% of subjects had good knowledge and 11.8% of subjects were very well aware. There was a significant difference between the age, level of education of subjects and their husbands' education with sports knowledge. But there was no significant difference between the ethnicity, occupation, and husband's job with knowledge. The results showed that the majority of pregnant women do not have good knowledge about doing exercise during pregnancy.

**Keywords:** doing exercise, awareness, pregnancy

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### INTRODUCTION

Basically Pregnancy slows or stops sport activities in this period of women's lives and this can cause cultural beliefs, physical changes of pregnancy and the combination of social and psychological factors[1]. Based on the conducted research most of the pregnant women in Iran have poor knowledge about doing exercise during pregnancy and more 80% of them have not been informed and educated of the need for doing exercise during pregnancy[1]. Also, most of them do not have any access to any kind of source of information and recommendations for doing exercise during pregnancy [3]. Rahimi and Rasouli have reported that 53% of women had poor awareness, 45% had moderate and 2% had good awareness about doing exercise during the pregnancy [2]. Also, 40% of women don't have any kind of sport activity during the pregnancy. Dabiran and Hatmi [4] in the study of 400 pregnant women announced that over 92% of women have known that doing the exercise during the pregnancy is required and suitable. 16.8% of them had moderate awareness, 1.8% of them had a very good awareness, and 10.5% of them had good awareness, 71% had poor and very poor awareness of doing exercises during the pregnancy. Also, there was no significant difference between the level of education and awareness. Since the healthy fetus requires proper knowledge about the type and manner of doing exercise during pregnancy and Knowledge of sports consciousness of pregnant women, in correction and increasing the awareness for the health of the mother and the fetus is effective[5,6]. Also, considering the few studies on doing exercise in physical and mental health of the mother during pregnancy in Iran, this study carried out with aim to assess the knowledge and performance of referred pregnant women to health centers of Gorgan toward doing sports activities during pregnancy [7].

**MATERIALS AND METHODS**

This is a Cross-sectional study with field method. The sample consisted of all pregnant women between 40 and 32 weeks of healthy low risk who referred to health center in Gorgan in 2013 (study population) who did not have a known medical diseases (kidney, cardiovascular, pulmonary, hematologic, infectious, endocrine, ...) and Midwifery (placenta previa, placental detachment, multiple, preterm delivery, gestational hypertension, fetal growth retardation, prom, incompetent cervix, cervical cerclage, etc.). Those who did not wish to enter the study or did not complete the questionnaire were excluded. Sampling was done in form of clusters. In the way that based on geographical divisions 10 centers (research environment) were selected then the number of samples of each center determined in the proportional class method is done easily. Research tools to collect personal information (with 15 questions) and a researcher made questionnaire with a 3 degrees scale of zero to two was with internal reliability ( $\alpha=0.7$ ) that its face and content validity was determined by a number of academics. The knowledge of sport of pregnant women with 65 questions in 6 domains of knowledge of correct principles of exercise in pregnancy was obtained ( $\alpha= 0.502$ ), Benefits of doings exercise in pregnancy was ( $\alpha=0.565$ ), the prohibition of doing exercise in pregnancy was ( $\alpha=0.815$ ), the warning signs of stop doing exercise in pregnancy was ( $\alpha=0.771$ ), the effects of doing exercise on pregnancy complications was ( $\alpha=0.775$ ), a dangerous sports during pregnancy ( $\alpha=0.735$ ) was obtained by interviews. The data were analyzed by descriptive statistics (mean, frequency) illative (Paired sample T-test, analysis of variance of a variable, Pearson and Spearman correlation coefficient).

**RESULTS**

62.6% of subjects were 25-34 years old, 82.9% were Fars, and 73% were house wives, 46.3% of husbands were self- employee, 39.1% of subjects and 39% of husbands had high school and diploma degree. 49.5% of subjects had first pregnancies and 79.2% had no history of abortion (Table 1).

Table1: Socioeconomic variables and History of pregnancy

Variable		Percent	
Socioeconomic variables	Habitat	City	80.2
		Village	19.8
	Age	17-24	30.6
		25-34	60.5
		35-45	8.9
	Ethnicity	Fars	76.6
		Others	23.4
	Level of Education	Diploma and lower degrees	25.2
		Post Diploma and higher degrees	74.8
	Occupation	House wife	82.7
Employee		17.3	
History of pregnancy	Number of pregnancy	For the First time	34.3
		For the Second time	37.9
		More than two times	27.8
	History of Abortion	Had	27
		Did not have	73
	previous delivery type	Natural	30.6
Caesarean		26.2	
Did not have		43.2	

Average scores of awareness were  $13.98 \pm 99.50$ . 1.8% of subjects had a had very poor awareness, 9% of subjects had poor knowledge, 50.4% of subjects had moderate, and 27% of subjects had good knowledge and 11.8% were very well aware (Table 2).

Table2. Scores of awareness and their Percent

Awareness	Percent
Very poor	1.8
Poor	9
Moderate	50.4
Good	27
Very good	11.8

The greatest awareness was for the city resident (100.00+\_ 14.26) 35 – 45 years old (111.50+\_9.03) with the fourth pregnancy and more was (107.36+\_ 9.80). There was significant relationship between the age (p=0.008), level of education of subjects (p=0.001) and level of education of husbands (P=0.003) and sport awareness. But there was no significant relationship between the other Socio-demographic characteristics (ethnicity, occupation and husband occupation) and awareness.

Table3.The relationship between the awareness and research variables.

Sport awareness	Spearman correlation coefficients	Significant level (P)
Education	0.375	**0.001
Husband education	0.334	**0.003

Table 4.The relationship between consciousness and variables

Sport awareness	Spearman correlation coefficients	Significant level (P)
Age	0.303	**0.008
Number of pregnancy	0.082	0.481
Number of pregnancy lead to abortion	0.101	0.390
Number of pregnancy	0.052	0.667
Exercise before pregnancy	0.340	**0.008
Exercise during pregnancy	0.320	**0.006

## DISCUSSION

On average, the most volume percentage of statistical samples had moderate awareness of sport (50.4%). Most of the statistical sample size in the scope of good knowledge of dangerous sports for pregnancy was good (75.6%) on the scope of Contraindications to doing exercise during pregnancy had moderate awareness (56.7%) on the scope of awareness of the warning signs to stop exercise during pregnancy (65.8%) on the scope of awareness of the benefits of doing exercise during pregnancy had moderate awareness (54%) on the scope of knowledge of the effects of doing exercise on pregnancy complications had good awareness (85.6%) and in the realm of knowledge of the proper principles of doing exercise during pregnancy had a good knowledge (76.5%).The comparison of recent findings with research result of Rahimi [1]; Zand and Zamani [2] ; Abedzade et al [3], Noohi et al [5] indicated that awareness-raising is good among women. But still a large percentage of pregnant women don't have good knowledge in this field. Based on this, it is essential with holding educational classes and also with the use of mass media pregnant women need to be aware of the importance and necessity of doing exercising during pregnancy. There was a significant relationship between the awareness of the sport during pregnancy and variables of subject's age, education level of subject's, education level of their husbands, exercise before and during pregnancy. Ribeiro and Milanez have reported the there was a significant relationship between level of education and knowledge about doing exercise during pregnancy. Also, reported the significant relationship between adequate training and low number of pregnancies [8]. Being in line with the result of Hatmi and Dabiran [4] stated that in terms of age, awareness of women was associated with years of their life[4]. At ages below 20, the awareness of most of the subjects was poor and very poor but as they get older the awareness was better. This difference was more pronounced with age 20-40 years. Contrary to the study of Hatmi and Dabiran [4] stated that level of education was not significantly associated with awareness but the women who their husbands' ad higher education, their knowledge was better. In line with the present study, Noohi and et al (2010) reported a significant relationship between level of education of subjects and their husbands with sport knowledge during the pregnancy [5].

The subjects who had medical related jobs (subjects and their husbands) had the highest average knowledge level. There was no significant relationship between the mean scores of awareness of subjects on doing exercise in pregnancy, subject's occupation, their husband occupation place of residence, type of local health centers that they referred and their ethnicity [9,10]. People who were living in the urban area referred to health centers with little difference in the mean score of knowledge were slightly better than those in rural areas [11,12]. According to the report of Noohi et al (2010) there was significant relationship between knowledge and place of residence. Knowledge of citizens due to access resources such as the Internet, magazines and libraries was more than villagers [5]. Mudd et al [13] reported that Knowledge of white women is different from non-white women, Therefore, further efforts to inform non-white women with low income and education levels are needed.

## CONCLUSION

The results showed that the majority of pregnant women do not have good knowledge about doing exercise during pregnancy. Therefore, it is suggested that proper planning is done to raise awareness of women.

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