# Short Communication

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# Prenatal Care Behaviors Status among Pregnant Women Using by BASNEF Model

S. Mohammad Mahdi Hazavehei, Tahere Etesamifard, \*1 Babak Moeini, Ghodratollah Roshanaei

- 1. Department of Health Education, Health Science Research Center, Faculty of Health, Hamedan University of Medical Sciences, Hamedan, Iran
- 2. Department of Biostatistics, Health Science Research Center, Faculty of Health, Hamedan University of Medical Sciences, Hamedan, Iran

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#### Abstract

**Background:** The aim of the study was to determine the prenatal care behaviors status among pregnant women using by BASNEF model.

*Materials and Methods*: This Descriptive-Analytical study was carried out on 360 pregnant women in their 28th-42th week of pregnancy, attending health care centers for the study using random sampling selection method. Data-gathering tools consisted of a 2-part questionnaire: demographic variables and one scales for measuring prenatal care based on the BASNEF constructs. Inferential and descriptive statistics via SPSS-16 software was used for data analysis.

**Results:** The subjects reported 92.5, 94.3, 62.7, 73.4 and 90.2% of receivable scores of attitude, subjective norms, behavioral intention, enabling factors and prenatal care behaviors scores, respectively. In liner regression, factors influencing prenatal care behaviors were subjective norms, intention and enabling factors (p< 0.05).

Conclusion: Regarding the results, status of prenatal care behaviors are related meaningfully indicating that pregnant women should be considered as vulnerable group.

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#### Introduction

The health care in pregnancy period is referred to the correct and careful implementation of principles to maintain the perfect pregnancy in terms of physical and mental health for mother and infant [1]. Lack of care in pregnancy is related to the birth of low weight children and also can lead to the increase of preterm delivery, pregnant mother's death and post-partum bleeding [2]. The statistics in Iran show that the problems of pregnancy period are the fourth rank of mortality cause following driving accident, heart and cerebral stroke [3].

In the examination of care in pregnancy period, the studies show that factors such as inability to pay care costs, lack of trust at these cares, individual or cultural misinterpretation, paucity of personnel, great distance from health centers and scattered services are among the common reasons of women's inattention to such cares [4]. The presence of these problems necessitates the applied researches by behavioral patterns about pregnancy period cares. This study is based on BASNEF model to analyze reproductive behaviors, based on which the individual sets out to do a behavior when he/she believes that the behavior has economic and health benefits (attitude to behavior). In parallel, the important persons involved in person's life can affect his decision making and act as a barrier or facilitator in behavior (subjective norms). The combination of person's attitude to behavior and abstract attitudes leads to the formation of person's decision making to carry out a behavior (behavior intention). Meanwhile, the factors such as skill, money and cost can play a role in transferring behavioral intention to

behavior, these factors (enabling factors) must exist apriority for behavior to take place [5]. In general, regarding the importance of pregnancy period cares; we aimed to carry out a study to investigate these cares through BASNEF model.

#### **Materials and Methods**

This descriptive-analytical research was performed on 360 pregnant women referring to health centers of Hamedan, 2011-2012. The subjects were chosen randomly in multistage clustering sampling. As Hamedan has 4 geographical regions, from each region, 2 health centers and two health bases were chosen to which the researchers referred and let the pregnant women fill out the questionnaires. The pregnant women were ordered not to write their names on the forms. The researcher-made questionnaire was based on BASNEF constructs, the reliability and validity of which were confirmed through the experts' opinion. Having done a pilot study on 30 pregnant women, we determined the final form of the questions so that attitude item was in 9 questions (in 6item Likert) with coefficient 0.79 .The greater score showed more positive attitude to care behavior of pregnancy period. The item of norm beliefs and the motivation to obey were designed in 30 questions of the 3- choice scale with a coefficient of 0.42. Obtaining the greater score meant the greater motivation to do care behaviors in pregnancy period. The enabling factors consisted of 5 questions in 1-3 scale of Likert which gained the confidence rate of 0.74.

Table 1. Mean, the range of acquired score mean and percentage of maximum acquirable score for constructs of BASNEF model

Model constructs	Mean±SD	Acquirable score range	Mean percentage of maximum acquirable score
Attitude to behavior	50.62±3.2	9-54	92.5%
Subjective norms	173.12±7.2	60-180	94.3%
Behavioral intention	$12.78\pm2.6$	4-16	62.7%
Enabling factors	12.34±2.2	5-15	73.4%
Care behaviors of pregnancy period	11.22±1.1	4-12	90.2%

Table 2. Results of final linear regression model for the factors influencing the care behaviors in pregnancy periods based on BASNEF model\*

Variable	Unstandardized coefficients	Standardized coefficients		4	" Valua
	В	Std. Error	Beta	ī	<i>p</i> -Value
Subjective norms	0.024	0.008	0.155	2.860	0.004
Enabling factor	0.148	0.026	0.300	5.742	0.001
Behavioral intention	0.061	0.024	0.149	2.592	0.010
Constant coefficient	3.034	1.540		1.970	0.050

<sup>\*</sup>The results of the first stage of linear regression modeling were in backward method

The item of behavioral intention was prepared with 4 questions (in a 1-4 item choice) and a Chronbach coefficient of 0.78. Finally, care behaviors of pregnancy period regarding due cares, ultrasound and use of supplements were presented in 4 questions with a 1-3 item likert scale in that response No had 1 score, To some extent had 2 scores and Yes had 3 scores. In pilot study the reliability of questionnaire was obtained by Chronbach  $\alpha$ =0.72. SPSS-16 was used to analyses the data collected along with descriptive statistics and linear regression analysis.

#### **Results**

Fifty three point two percent of the women in the study were in the age range of 20-25. 63.1% had diploma or high school education. 82.8% were housewives and only 17.2% were financially in dependent. The results showed that 33.3% of participant reported their pregnancy unwanted. Regarding the care behaviors of pregnancy period, referring to health centers, doing the tests and ultrasound yielded 84.4%, 86.9%, and 87.8% of frequency, respectively, and taking supplements had 68.8% of frequency.

The results of table 1 showed that participants obtained 92.5%, 94.3%, 62.7%, 73.4% and 90.2% of maximum acquirable score for attitude, subjective norms, behavioral intention and care behaviors in pregnancy period. Totally, behavioral intentions and enabling factors had lower scores. To predict the probability of carrying out care behaviors in pregnancy period (Table 2), the final linear regression model showed that the factors of subjective norms, enabling and behavioral intention are considered to be predictor for pregnant women in doing care behaviors.

#### **Discussion**

The findings showed that the subjects' attitude to the cares of pregnancy period is at desirable level. In Askarinejad and Bakhshi study [6], the women's attitude to pregnancy period care was reported to be desirable in most cases, which is due to holding training classes in

health centers. In this study, the greater subjective norms have been towards the care of pregnancy period showing that individual's environment provides the condition for these cares. Most of pregnant women reported the subjective norms of enabling factors to do care at very high level. The greater subjective norms tended to show the encouragement towards doing health care's showing that the subjective norms of individual's environment help to provide more care for pregnancy. Encouraging factors must not be ignored as a predictor in BASNEF model, too. Other studies have reported similar findings [7-9].

In this study, the mean of acquired score of behavior intention was assessed to be desirable. In another word, a remarkable number of participants reported the intention to do care at high level. The predicting role of intention and doing care is of importance among women. The relationship between behavior intention and reproduction behaviors has been studied and verified in various studies [10, 11], Increasing the behavior intention as a stage prior to behavior, it has been asserted, can act as a strong stimulant for people to participate in health programs.

The situation of enabling factors in doing cares was reported to be relatively desirable. It is equally important that health centre staff and authorities pay more attrition to promote the enabling conditions for women to refer to health centre. In Sharifrad et al. study [7], the mean score of enabling factors was reported to be medium, while the findings of other studies confirm our result [12, 13]. According to previous studies, the behavior involving the solution of these problems such as enjoying different social and environment resource has less probability to emerge. Participation in care programs of pregnancy period demands knowledge awareness, skill and different resourcing. As providing these facilities is difficult, the women's self-efficacy perception decreases and women feel that they don't have required ability to participate regularly in pregnancy care programs to explain the final aim of this study related to reproduction behavior, the findings showed that the behavior of referring to health centers, doing test and ultrasound had the greatest frequency and taking supplements had least frequency among pregnant women as confirmed by the result of Askarinejad and Bakhshi [6] and Bakhshi et al. studies [4] who reported the pregnant women's performance to be relatively desirable. Other studies have confirmed these results, too [13-15]. Generally, pregnant women in Hamedan have reported a relatively desirable situation about care program. The greater concern is about taking supplements and their key role on the fetus.

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All authors had equal role in design, work, statistical analysis and manuscript writing.

#### **Conflict of Interest**

The authors declare no conflict of interest.

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\*Corresponding author at: Department of Health Education, Health Science Research Center, Faculty of Health, Hamedan University of Medical Sciences, Hamedan, Iran.

E-mail: Tahere-health@rocketmail.com

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