

Satisfaction with the Prenatal Clinics in Zanjan, Iran

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Abstract

Objective: This study was performed to determine the level of satisfaction among women attending the prenatal clinics in the city of Zanjan, Iran.

Materials and methods: This descriptive cross-sectional study was performed from 2005 to 2006 in Zanjan. A total of 701 pregnant women with gestational age of 20 weeks or more who had undergone at least two prenatal visits in prenatal care centers were enrolled into the study. A questionnaire was filled by face to face interview with each mother including questions about the general physical environment of the clinic, whether the pregnancy was solicited, the communication skills of the personnel, the quality, feasibility and cost of prenatal care, as well as questions pertaining to demography and type of insurance. Data were entered into SPSS 11 software and subsequently analyzed using descriptive statistical tests including ANOVA.

Results: Mean age of mothers was 26.23 ± 5.6 years. Among them 55.8%, 37.3% and 6.9% had up to primary, secondary, and high school level of education, respectively. Overall satisfaction rate was more than 99% in all aspects and dissatisfaction was mainly related to type of insurance. The dissatisfaction was also related to the trainings given in health center. Women with private insurance (free and military) showed the least dissatisfaction while the highest dissatisfaction was in women with social security or health services insurance.

Conclusion: Overall dissatisfaction rate was 1%. The dissatisfaction was related to the type of insurance. The dissatisfaction was also related to the level of the trainings given in health center.

Key Words: Prenatal care, Satisfaction, Cost, Education

Introduction

Prenatal care is one of the most basic factors involved in the development and continuation of the

human generation. Treatment without health care is not possible whereas care without treatment is possible. It has been estimated that more than half of health care services represent health care and the rest represents treatment. It is essential to put more stress on health care (1). One of the important problems which are continuously faced these days is the lack of good quality prenatal care and gaining satisfaction, which are of important responsibilities of the higher autho-

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rities in the health care system. In order to fulfill the health requirements of a country, it is essential first to assess the level of satisfaction of a community about the health care services through research projects. The satisfaction of patients attending health centers is a very important index used to assess quality of health care and the services provided by medical personnel. It can be considered as an ultimate and satisfactory outcome in improving health care services in a community. Of course, patient satisfaction is sought only when there is a balance between their expectations on one side and the health care they receive on the other side and whether or not it is provided according to the physical, mental and social needs of patients (1). Eight criteria are mostly taken into consideration in related studies in literature, including communication skills between patient and personnel, quality of technical equipment used, easy availability, cost, the physical environment and equipment of the clinic, continuous health care provision and feedback. A direct relationship exists between observing the recommendations of health care personnel and patient satisfaction and it plays an important role in the patient's decision about whether or not to return for further visits. On the other hand, health care systems will be successful only if they achieve the cooperation of patients and this will not become practical unless patients are satisfied with the health care provision system. It is essential to identify the factors involved in dissatisfaction if a good health care system is sought. If health centers fail to fulfill the needs of their patients and to gain their satisfaction, they may gradually lose their general acceptance and they will be unable to perform their duties properly (2). Iran lacks widespread and accurate studies in the field of satisfaction among patients attending health centers. This study, which was performed with the aim to determine satisfaction rate among patients attending the prenatal clinics in the city of Zanjan, is considered as an important step to improve the quality of prenatal care and to provide uniform health care services for pregnant women attending different clinics.

Materials and methods

The present study is a descriptive cross-sectional study which was performed after obtaining an official letter from the Deputy of Research of the University and after obtaining ethical consent from the subjects enrolled.

A total of 701 pregnant women with gestational

age more than 20 weeks with at least two visits in each center entered the study. They received prenatal care in 14 active urban clinics and Vali-e-Asr Clinic in Zanjan between the years 2005 to 2006. About 50 cases attended each health center, making a total of 701 subjects enrolled. The research questionnaire comprised of 23 questions including satisfaction about the environment of the health center (physical environment and equipments), communication skills of the personnel and the quality of the provided care, availability and costs of services. In addition questions pertaining to demography, type of insurance, and the reason for choosing a particular health center were also sought.

In order to define the scientific validity of the questionnaire, the content validity was investigated, and in order to define the scientific reliability, the method of test-re-test was used with a resulting correlation coefficient of 95%. The options of this questionnaire were designed, regarding the cultural and social characteristics, through reviewing the scientific documents and options offered in a similar study by Arden Handler (3) and his colleagues. The validity of the aforementioned questionnaire was assessed and confirmed by experts, and the scientific reliability of the questionnaire was assessed within an interval of 14 days through presenting to 10 experts who were qualified for participation in the project.

The questionnaires were completed by interviews performed by midwives who did not work in the aforementioned health centers. The level of satisfaction was specified as totally satisfied (0), satisfied (1), indifferent (2), unsatisfied (3), and totally unsatisfied (4). Data was entered into computer software SPSS 11 and absolute and relative frequency distributions and ANOVA tests were used for statistical analysis. In order to facilitate the test, the options were reduced to 2 groups: 1) satisfied (the combination of "completely satisfied" and "satisfied"), and 2) not satisfied (the combination of "not satisfied", and "completely unsatisfied").

Results

Mean age of mothers was 26.23 ± 5.66 years (range= 14- 45 years). Mean number of pregnancies was 1.93 ± 1.19 . Among them 55.8%, 37.3% and 6.9% had up to primary, secondary, and high school level of education, respectively. The most common reason to choose a particular health center was its distance to their home (73.3%) and the least common reason was their insurance (0.3%). The majority of women were

Table 1: Frequency distribution of mothers' satisfaction with prenatal centers in Zanjan

	Unsatisfied n (%)	Satisfied n (%)
Wishing to return to the same center	7 (1)	649 (99)
Guiding signs	10 (1.4)	691 (98.6)
Staff of reception	9 (1.3)	689 (98.7)
Speed of making medical file	28 (4)	673 (96)
Waiting time for physical examination	45 (6.4)	656 (93.6)
Cleanness of clinic environment	13 (2)	688 (98)
Communication of midwife	7 (1)	637 (99)
Communication of specialist physician	0 (0)	75 (100)
Communication of Interns	1 (1.4)	69 (98.6)
Quality of Visit by doctor	4 (1.2)	342 (98.2)
Teaching about danger signs of pregnancy	66 (9.4)	635 (90.6)
Teaching about personal hygiene	77 (11)	624 (89)
Teaching about use of complementary drugs	47 (8.1)	654 (91.9)
Teaching how to cope with routine problems	57 (9)	642 (92)
Teaching about nutritional facts during pregnancy	77 (11)	624 (89)
On time prenatal care	6 (0.8)	659 (99.2)
Adequate Equipment and devices	17 (2.3)	684 (97.7)
Quality of medical staff responsibility	14 (2)	687 (98)
Informing patients about future visits	8 (1.1)	693 (98.9)
Observing religious matters by medical staff	2 (0.3)	690 (99.7)
Medical Staff	40 (5.7)	661 (94.3)
Clinic access and availability	30 (4.3)	668 (95.7)

* Some data are missed, because of withdrawal of the patients.

satisfied with the services they received. The highest rates of satisfaction were for specialists (100%), midwives (99%), observing religious matters (99.7%) and regular follow-up visits (99.2%), such that 99% of the subjects planned to return to the same center for future visits (table 1).

Total scores specified in the questionnaire were calculated (minimum 0, maximum 92) in order to determine overall satisfaction rate. Satisfaction was considered to be present when satisfaction rate was above 70% (upper than 64). The outcome variable was estimated in the form of overall satisfaction. After combining both satisfied and unsatisfied cases in the table, most dissatisfaction was found in prolonged waiting period (6.4%), teaching deficiencies such as failure to teach the danger signs of pregnancy (8.1%), teaching personal hygiene (11%), teaching how to cope with routine problems (6.7%), teaching nutritional facts during pregnancy (9.4%) and about the type of insurance (7.9%). Among insured women, most dissatisfaction existed for women who did not use any form of insurance (31.2 ± 2), followed by subjects with social security (30.14 ± 7.4) or treatment services insurance (30.70 ± 6.8). Self-insured women had the lowest dissatisfaction rate (21 ± 0). Satis-

faction rate was found to be statistically significant according to the type of insurance ($P < 0.001$), such that the least and most disappointment were seen in subjects with private and social security insurances, respectively. There was no significant relationship between satisfaction and age or level of maternal education using ANOVA test.

Discussion

It is impossible to improve the services provided by health centers without paying attention to the opinions given by patients who attend these centers. The initial step is to collect adequate information from those who have benefited from these services, in other words, by knowing their level of satisfaction from these services, we can overcome deficiencies and improve our abilities. The results of the current study indicate that most patients attending these centers were satisfied with the communication skills of the receptionist and the overall process of admission (98.7%).

The study performed by Eskandari (2000), also shows that most patients were relatively satisfied with the process of patient admission (4). In addition, in the study performed by Gol Afrooz Shahri (2001-

2002) in the city of Sabzevar, as compared to men, women were found to be more satisfied about the overall process of admission (5). According to the research results of Nikravesheh E et al, around 13% of patients were unsatisfied with the behavior and inappropriate reaction of the personnel (6). Lowry LW and Omar MA stressed on the point that the behavior of the personnel and patients is so important that it could be counted as an effective factor in overcoming the needs and improving the level of health even if the physical environment was of low standard. Therefore, it seems that changes must be made in the way that health services are provided to patients and simultaneously to produce changes in medical education thereby increasing patient satisfaction rate (7,8). Therefore, regarding the psycho-social aspects, making good relationship with the patient was found to be more effective in gaining patient satisfaction than other factors (3, 8, 9, 10, 11, 12, and 13). The results of the current study show that 6.4% of patients were disturbed by the long waiting period until they were examined by the doctor. Borna et al (2005-6) whose study was performed on 1100 cases to determine satisfaction rate among women attending the prenatal clinics, found that around 24.5% of patients were disappointed with the long waiting period (14). In his study, Lowry LW also stated that the most common complaint of patients in his society was also the long waiting time (7). Handler A. believed that the waiting period is a factor which can be used to predict satisfaction rate for all people, especially those with free insurance. This is because women are disturbed by the thought that the health system does not pay enough value to their time (3, 9). In the present study, this problem may be attributed to the overpopulation of some health centers. However, patient satisfaction can be ensured by minimizing waiting time. In addition to reduce the waiting time, other methods can be used to help make efficient use of the waiting period. For example, mothers can be amused with magazines, television programs or educational films such as programs about becoming familiar and ready for delivery, breast feeding, and taking care of the newborn. Around 99% and 100% of the patients expressed satisfaction about the behavior of midwives and specialist physicians, respectively and 98% were satisfied about the visit paid by the center's physician. The study performed by Parizadeh (2004) also showed that 92.2% of patients were satisfied with the behavior of health personnel (15). Harvey et al (2002)

found that satisfaction rate was higher among patients who were visited by midwives than those who were visited by doctors (16). In the study conducted by Movajedeh in 2007, it was seen that pregnant mothers had relative satisfaction about the technical abilities of health personnel (17). On the other hand in the study performed by Leithner K (2006), a high percentage (42%) of women expressed dissatisfaction about the relationship of doctors and they complained about the lack of social skills of doctors and personnel (18). In any case, it seems that satisfaction about the attitude of doctors and health personnel play an important role in the prevention and treatment of diseases. Both physical and mental improvement is directly related to satisfaction rate. In the studies performed by Barlett and Dimatteo in 1980 and 1984 (19, 20) it was concluded that satisfaction of patients depends on patient-doctor relationship. These abilities include personal social skills of the doctor, making eye contact, listening to the patient in detail and allowing them to express themselves (19, 20). The results of this study also indicate the importance of good communication skills of the personnel with patients attending the prenatal clinics. It must also be kept in mind that in Iran higher respect is paid to doctors and patients are less expectant which may itself affect satisfaction rate.

The results of this study show that 90% of patients were satisfied with the hygiene of the waiting and examination rooms. Handler A. emphasizes on the fact that women pay special attention to the cleanliness of these rooms and they have less desire to receive the health services provided by health centers and clinics which fail to obtain appropriate level of hygiene (3, 9, 12). The physical environment has been counted as one of the important factors involved in patient satisfaction (3, 7, 9, and 12).

Regarding patient education, the results of the present study showed that 8.1%, 11%, 6.7% and 9.4% of patients were unsatisfied with the teaching of danger signs of pregnancy, personal hygiene, how to cope with routine problems, and nutrition during pregnancy respectively, and the least dissatisfaction rate was for teaching how to use complementary drugs (1.4%). The quality of health education provided during pregnancy had better results in the public health system than private sector of Sanandaj city. The study performed by Seyedoshhada et al shows that the public sector was more successful in education than the private sector (21). In the study performed by Handler A. the easier the availability

of cooperative consultation or educational services about pregnancy and nutrition, delivery, lactation, and parenthood, the higher rate of satisfaction would be achieved (3, 9, 12). In the study performed by Omar M, satisfaction rate was reported to be the higher among women seeking prenatal care from centers providing high quality teaching services(8). The study performed by Parizadeh (2004) showed that 8.1% of patients were unsatisfied about the inadequate amount of teaching materials (15). In the study performed by Borna et al 24.7% and 29.4% of patients were unsatisfied with the prenatal care teachings and nutritional education, respectively (14). In the study performed by Mawajdeh (2007) and Leithner (2006) women were unsatisfied about the amount of information received from the health personnel (17,18). As compared to other case studies, in the current study, highest dissatisfaction rate existed for teaching, which may be due to two factors. First, health personnel working in busy health centers are unable to put enough time and effort for patient education, secondly in case of different languages, the health staff and pregnant women do not communicate in an easy manner. In this case it would be possible to minimize dissatisfaction by arranging classes for small groups of these people. Pregnant women can become ready for delivery and acceptance of the role of motherhood and taking care of the newborn by becoming more familiar with the physical body changes and associated problems and the ways to cope with them. Least dissatisfaction existed for observance of religious aspects by the medical staff since most personnel working in the prenatal clinics were female (with the exception of male interns in Vali-e-Asr hospital).

Overall 94.3% of subjects were satisfied about the cost they paid and the service they received, this rate was approximately equal to the Borna et al's study in Tehran (14). Around 7. 9% of patients were dissatisfied with the treatment costs, even though prenatal services are of little cost and almost free of charge in Iran. Maybe the cost of pregnancy related paraclinical tests impose some financial burden on the families. Although insurance has decreased this unfavorable effect, but it seems that dissatisfaction can be reduced by providing the extra costs. The type of insurance dissatisfied 7.9% of the subjects. ANOVA test showed that patient satisfaction was related to type of insurance such that the least and most dissatisfaction existed for subjects with private (free and military) and social security or health services insurances,

respectively. In the study performed by Borna et al, there was no significant statistical relationship between type of insurance and patient satisfaction but most (55.8%) patients with military insurance were dissatisfied (14). In the current study, we found no statistical relationship between satisfaction and age or level of education, which is in accordance with the study performed by Borna et al. However, the studies performed by Akbarian Bafghi (1999) in Yazd city and Barikani (2000) in Tehran, showed that satisfaction rate had an inverse relationship with level of education. In addition, Akbarian Bafghi and Bakhtiari's studies showed that satisfaction rate was directly related to age (14, 22, 23,24). On the other hand, in a study published in 1998, Handler A. found no relationship between satisfaction rate from prenatal health care services and age, however, his following study (2003) showed a significant relationship existed between this factor and satisfaction (3,9). According to this study, satisfaction rate had a direct relationship with patient's expectations, such that subjects with lower level of education had less expectations and their rate of satisfaction was higher than subjects with higher education (25). Mothers with higher education were satisfied harder, probably due to the fact that they had more knowledge about the prenatal care required for the convenience and comfort of the process of pregnancy. Regarding that the subjects in the current study were mostly from the middle and poorly educated class (93% of women had primary and secondary school education), it is expected that they are easier to please and about 99% of them decided to return for future visits since they were satisfied with the prenatal services provided by the respective health center. Results indicate that our health service system is able to easily satisfy most patients.

According to the results of this study, satisfaction rate is more than 99% among patients seeking prenatal care in the health centers of Zanzan City. This is a high rate and it indicates the good quality of care given by these centers. In addition to the relationship of provided care and different factors such as personal, cultural and social characteristics, life style and general health of patients (26,27,28), it seems that the personality of the health staff has more effect on satisfaction than the character of the service recipients (7, 9,12). Therefore, by improving the process of admission, timing of prenatal visits, spending more time for educational materials(about delivery and lactation), decreasing the costs of clinical and paracli-

nical tests, we can overcome the above-mentioned problems, improve the quality of prenatal care, increase satisfaction of clients and eventually become closer to the worldwide standards.

Overall dissatisfaction rate in this study was only 1%. Most (7.35%) dissatisfaction was related to teaching. Type of insurance was also associated with dissatisfaction. According to the findings of this study, we recommended the following:

First: Considering that one of the most important factors in satisfaction of pregnant women is adequate education and training in different fields of prenatal care, and since it is impossible to train mothers individually, therefore, it is suggested that weekly or monthly classes should be held for these mothers.

Second: Some pregnant women require special care and sometimes special laboratory tests or sonography must be performed. Since the costs of these measures may impose financial burden on families who are of low social class, especially those who have no medical insurance, it is recommended that supportive measures should be provided.

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