

**TITLE: THE ADAPTATION RATE OF POSTNATAL CARE WITH THE NATIONAL STANDARDS IN HEALTH CENTERS IN AHVAZ, IRAN 2013**

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**ABSTRACT:** Postnatal care includes proper implementation of care and education to preserving mother and infants' health. Imperfect implementation of postnatal care may negatively influence mother and infant. Therefore this study was conducted to determine the rate of adaptation between postnatal care and national standards in Ahvaz public health centers. In this descriptive study 10 public health centers in Ahvaz were chosen randomly. The postnatal care offered to 200 mothers by the personnel and filled in the second phases (10-15 days) form was observed in this study. Data was analyzed by descriptive statistics. Average age of the participants was  $27.35 \pm 4.9$  years. Clinical examination, health education (personal, psychological, sexual, oral and dental), education women about dangerous signs in postpartum had weak adaptation with national standards in 90% of the cases. Others educations also showed weak adaptation in most cases. In questioning of "vaginal bleeding, abnormal vaginal discharge, urinary difficulties, background illnesses, dizziness, pain, domestic violence, mental disorders" 59% and in vital signs measuring 59% of cases had weak adaptation. However in prescribing medicinal supplement in 54% of cases modest and in 21% of cases good adaptation were observed. Postnatal care offered to women in public health centers has a weak adaptation with national guidelines. It seems that policy makers should have more supervision on postnatal care.

**Key words:** Postnatal care, Standard, Public health centers.

## INTRODUCTION

National Development and promotion of life regardless to quality of health cares would not be possible. In between mothers and neonates as 2 groups in high risk need more attention to pay, since prevention of mortality of them is counted as a social justice principles (1). According to the 2000 Millennium Development Goals, many countries have been committed to lower maternal death rates by 75% in year 2015 compare to 1990 (2).

During postnatal which is considered as the first six weeks after delivery, mother will experience various physiological and psychological changes (3). So the perinatal period and the first weeks after delivery are the critical periods and any problem in this period can cause deep and lasting effects (3). Women in the postnatal period encountered with multiple physical and mental disorders, so that 86% of females experience physical problems (4) and 10- 15% of them suffer from depression during the first two months after giving birth (5). According to studies, disturbance in mental psychological health

at this stage of life can have long-lasting effects on both mother's quality of life and her child cognitive development (3). The majority of mothers have little knowledge about the postnatal period cares and its problems (6).

Nowadays, with a reduction in length of staying in the hospital for mothers after childbirth, opportunity to evaluate and assess maternal health needs and to meet these needs as well as training for postnatal period has reduced. So much of the responsibilities for the training and supporting programs associated to postnatal cares, have been transferred to non-hospital health centers such as public health services (7). In order to improve health of mothers, maternal health department in the Ministry of Health and Medical Education of Iran in 1999 has begun a renewed effort to standardize the care of mothers. A comprehensive program has been determined for the postnatal period which is including three stages, " first to third, tenth to fifteenth, forty-second to sixty th" days after delivery for maternal cares during this period (8).

Researches in the field of maternal postnatal health-associated problems in the world are limited and insufficient, the World Health Organization has declared the research in this area as research priorities (9). In a study in Iran (2005), the quality of postpartum cares in hospitals of Beheshti University of Medical Sciences, Tehran, has been reported as poor cares, and regarding to importance of postpartum care in the prevention of complications related to this period further investigations is recommended (1). In a study by Brown (2005), only 50 percent of mothers have been evaluated the postnatal care quality in hospitals in Victoria, Australia as very good (10). Study of Beake et al (2010) also showed that in postnatal cares there is a lack of supporting and trainings related to breastfeeding. (11) Studies have shown that the extent of health problems after childbirth in the last 15 years, clearly increased (12).

postnatal care can play an important role in reducing mortality, morbidity and complications for mother and baby after birth, but to achieve this aim,

it is necessary these cares to be accurate and complete and be done in accordance with country instructions. In addition, most of researches on postnatal care done in Iran during the last years were associated to care provided in hospitals, not in health centers, and since their results in the majority of cases were showing the weakness of the these cares, therefore, the aim of present study is the investigation quality of the postnatal care in health care centers and the analysis of their compliance with the protocol of the country.

**METHODS**

In this descriptive and observational study first, the health centers in the city of Ahvaz were divided in two centers, under the East and under the West health centers coverage. 5 Centers under coverage of East Health Centers and 5 Centers under coverage of west Health Centers of Ahvaz were chosen with a cluster way. the study sample size of 200 were calculated by using the following formula.

$$n = \frac{z_{1-\alpha/2}^2 \times p(1-p)}{d^2} = \frac{(1.96)^2 \cdot (0.5)(0.5)}{(0.07)^2} = 196$$

$Z_{1-\alpha/2} = 1.96$	95% confidence interval
$d = 0.07$	Accuracy
$p = 0.5$	With respect to percentage observance of the protocol in different variables, we chose the highest value $p = 0.5$

Based on the proportion of the population covered by each center, specific sample size of each center was calculated. 200 cases were observed simultaneously with the care provided and were recorded in the researcher made check of which the validity and reliability was evaluated. This check List was designed for the second phase of postnatal care, ie care 10- 15 days after birth and according to national guidelines. Data by using the statistical software SPSS version 13 were analyzed and based on participant numbers (total sample size), were divided among centers. The researcher attended to the health centers and after obtaining informed consent from the mothers referred to the health centers, collected the related data and analyzed them by calculating the mean, standard deviation. Thus, the method of scoring was used to separate different parts of the check list in each section and by taking the sum of its subgroups, the most expected scores were calculated according to a national standard, was divided into Three Components: Good compliance, average compliance and poor compliance. For example: If the

examination part consists of 9 questions, if the examination was performed correctly the score 1 was given, if the action was carried out without the considering standard principles 0.5 score, and if the action wasn't done score zero were given. (For example, if blood pressure was measured in compliance with stringent standards markable grades 1, if this measurement was performed regardless to standard of country score 0.5 and if it wasn't done a score of zero were given). Thus, the most expected scores were 9 on the physical examination section. because all the items in the physical examination must be done based on national standards correct. Number 9 was divided into three equal parts and score of 0- 3 as poor compliance, the score of 4- 6 as an average compliance and score of 7- 9 as good compliance were considered. Then the degree of compliance for all 200 was calculated in the corresponding section. The calculations were performed for all cases that were examined

## RESULTS

The mean of age was  $27.35 \pm 4.9$  years. Average of Parity was  $1.83 \pm 0.98$  respectively. Most of mothers (35.8%) had diploma of education and their occupation (90%) were housewives.

The average age of the personnel service provider was  $37.9 \pm 6.34$  and their average work experience  $14.83 \pm 6.24$  years. 35.5% of the cares were provided by an expert midwife or midwifery students and 46.5% by a Family health technician or expert.

Only for 71.5% of mothers, standard form of postnatal care has been used during providing care. In the 80.5% of mothers, none of the three signs of immediate danger were assessed. Thus, there was a poor compliance in evaluating signs of immediate danger compare to standards.

Less than 50% of the mothers were asked about "purulent discharge from the vagina, underlying disease, difficulty in urination and bowel movements, dizziness, headache, mental disorders, domestic violence and common complaints ". however about taking the supplementary drugs, bleeding and spotting and feeding the infants were asked 60%, 72%, 86.5%, respectively. Sitting blood pressure was measured at 64% of cases, but vital signs such as "supine blood pressure, pulse, temperature and respiration" were measured in less than 3% of cases.

In less than 2.5% of cases examination of eyes (for severe mucosal pallor), breast-and-limbs (about pain and unilateral swelling in the leg and thigh), stomach and their stitches (for enlargement of the uterus) were performed (table 1). In most cases, no training or recommendation was provided to mothers. So postpartum cares, on the part of the physical examination and health education (personal, mental sexual, oral hygiene), teaching the warning signs and complaints had a poor compliance in 90% of cases (Table 2).

Education about Breastfeeding continuity and its related problems only 18.5% and 4% of the cases had average compliance and good compliance respectively. Other educations, also showed a weak compliance in the majority of cases (Table 2).

Administration of the supplementary medications in 54% cases had an average compliance and 2% of them was with good compliance. Filling of Standard sheet of care after delivery in the mother's file has 38% good and 38.5% moderate compliance.

## DISCUSSION

The results show that the 46.5% post-natal care are provided by family health technician or expert. however according national standards, postnatal

care should be done by a midwife in health centers and based on WHO guide line, midwife has responsibility of taking care of mother and neonate in first 28 days after delivery (1).

The 29.5% of cases, the standard sheet of the care after delivery are not used during providing care due to lack of this sheet and outcomes of care was written on a white paper and kept in the file of mothers. This is an important factor in doing the incomplete cares.

In this study, quality of giving cares the majority of cases in the questionnaire was poor. Only 47% of mothers were asked about the underlying. And cases like dizziness, pain (abdomen, side, suturing, legs and thighs, breasts and teeth) were much less asked about. Psychiatric disorders (95%) and violence (95.5%) of cases were not asked the mothers, while a female during pregnancy and after delivery has 20 times more possibility to be admitted to hospital due to psychological disorders compare to other situation (13). The 10-15 percent of mothers experienced postpartum depression within the first two months (5)

The study of Hasanzahraei et al (2005) concluded that, if the midwife gives a good postnatal care, it will have a great role in preventing postpartum depression . (14). About domestic violence, despite the prevalence of domestic violence in pregnant women have been reported 60% in Iran(15) and women who are abused, usually either never go for prenatal cares or later for it. (16), but the importance of preventing and reducing this problem throughout the world as in our country have been considered less by health care providers (17).

Based on results of this study 96.5% of the mothers were not asked any questions regarding common complaints. While studies have been conducted in various countries indicate that women in the postnatal period are complaining about common problems such as back pain, headaches, urinary incontinence, pain in perineum, Hemorrhoid and fatigue (12). Results of an investigation in Iran in 2005 showed that 89% of mothers during the first 45 days after delivery reported at least one health problem (18).

The findings of this study show that measurement of vital signs is in poor compliance with the national standard. Simber et al ( 2005) also showed in their study that quality of measuring vital sign in postnatal cares in 21% of cases was in poor condition and in the majority of cases in average condition.

97.5% of mothers did not receive any physical examination. This issue was not investigated in previous studies. Based on the findings of the study, only 7% of the mother's privacy was completely respected. Maybe this is one reason for not coming for a physical examination by mothers.

In the case of individual health 88.5% of mothers did not receive any training. This issue was not investigated in previous studies. On mental health education, in the 97.5% of the mothers were not given training. Although physical health depend on mental health and mental health of the mother is a guarantee for family and children health. Research findings suggest that midwives particularly has an important role in health intervention for coping of mother with the new situation and her maternal responsibilities. but the mental health component of the health cares in centers is concerned very little or not at all (19). Unfortunately, the medical staff in communication and their training has less emphasis on mental health cares because of busy work and many responsibilities (20).

Although the principles of proper education on sexual health, sexual activity and investigation of couples sexual problems are essential components of standard health care (19). However, in this study 85.5% of mothers did not receive any sexual health education. While we know that labor affect on the body especially the female reproductive system, and theses changes may cause problems in sexual relations of females.

usually after delivery, female find some sexual disorders such as painful cuitus, decrease sexual desire, dryness of vagina and lack of orgasm and these problems may continue for a long period after delivery and causes problem in sexual relationship (21).

But sexual problems after childbirth are less studied by health professionals. While the majority of nulliparous women are consultating about avoiding pregnancy with health professionals, but they do not talk about sex and its problems. Even when they feel they need an advice in this area (21).

Regarding oral health, conducted research in developed countries have shown that health education can prevent tooth and gum disease by 80% (22) and in the other hand, pregnant women during pregnancy suffer from tooth caries, due to the neglect of oral care (19) but in this study was observed, 92% of mothers did not receive any oral health education. while, Asgharnia et al (2010) in their study with aim of investigating knowledge of females about postnatal cares, has found that regarding mouth and teeth care, these females compare to other groups have less brushing habits and less information about oral health thereby they suffer a lot from teeth problems (23).

In the case of breastfeeding training, its continuity and problems 38.5% of mothers did not receive any training and 78.5% of mothers had a poor quality of education. While many researches showed that insufficient training provided by health personnel is well known as the main reason for the failure of breastfeeding (24). In Hildingsson study (2007) was found that 34 percent of parents were not

satisfied with the overall postnatal cares and breastfeeding education is one aspect of dissatisfaction (25).

Education on maternal danger signs, newborn care and danger signs in the newborn, maternal nutrition in the majority of cases were in poor areas. Lomoro et al's study (2002) showed that, quality of services after delivery in two hospitals in Port of Shanghai, China, in over half of cases were low and needed improvement in various areas such as health education (1).

About prescription of supplementary drugs, pharmaceutical multivitamin supplementation to 3% of them according to the needs of mothers, 43% of mothers routinely were prescribed and in 54% did not advised. Supplemental iron to 23.5% of mothers based on the mother's needs, to 57.5% routinely were prescribed, and in 19% did not recommend. The World Health Organization estimates indicate that 56% of women in developing countries are anemic (26).

According to new hypothesis, target of postnatal cares, in addition to improving health care for women and their newborn after birth, is including mental and emotional needs, health education related to facilitate a successful transition to the parenthood period too. But unfortunately postnatal care in accordance with previous practice emphis on the control routine of physical condition, and maternal and infant complications and Although health care providers could with strengthening of the ability of mothers in child care, guiding and consultating proprely, assessing the physical, psychological and cultural factors the mothers and families, can be the best their supporters, but available documents show that the needs of women in this period is not met by the providers as well (3).

Roohi (2005) has concluded from his study, according to high prevalence of postnatal health problems and lack of adequate attention to these problems, basic actions should be performed instead, to change the current system of maternity care and attention to the problems of mothers within 6 weeks after delivery (9).

from results of this study can conclude that although most of postnatal cares have a poor compliance with national standards, but most weaker parts in this case are associated with educations and recommendations.

Perhaps one of the main reasons for this, is that in guidance of the the integrated maternal health care, there is no specific definitions for individual, mental, sexual, dental health education, infant care, etc. So it is important that the sectors of "the country safe motherhood" to be highlighted and emphasized.

int he case of filling the standard sheet of care after birth just 23.5% were with a poor compliance;

however, with filling it, the quality of care would be neglecting markably and sometimes, just the sheet was filled with out giving care. Also in Bakhshi' study (2009) results indicated the improvements in service delivery, performance of personnel and management of health service system but in most of cases, there is neglecting of quality of services and documents has been filled incomplete or biased forms(27).

The authorities, according to the findings of this study, can investigate issues and problems of current services and ethiology of this problems and provide corrective action and make Positive steps toward providing post-natal care at health centers, using of qualified, responsible and caring personnels, who are competent enough in this area and create conditions that mothers have access to high quality services.

This study was an observational study that added to accuracy of study, while similar studies were performed retrospectively and by reviewing medical records, and so it is the strength point of this research. But if this study was conducted in the whole province, perhaps the results would be more reliable and accurate.

#### CONCLUSIONS

Postnatal care provided to mothers at health centers, is not according to national standards, therefore, planning is essential to increase the quality of care.regarding this fact that midwives have better education about postnatal care, it seems to be better that all Postnatal Care to be done by midwives

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