



## Utilization of Postnatal Care Services Among Women in Alkufa City

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ABSTRACT

Postnatal care is important component of maternal health care services to improve outcomes associated with pregnancy, childbirth and complication after birth also to provide women with important information on how to care for themselves and their children, counselling on maternal nutrition, birth spacing and immunization.

**Keywords:**

Antenatal care, Postnatal care, Primary health care, Postnatal period

### Introduction

Postnatal period begins immediately after birth and extends up to six weeks after birth , postnatal period consists of immediate, early and late period .(1)

The immediate period covers the first 24hr from birth , period from day two through seven refer as the early postnatal period and period from day eight through forty two refer as late postnatal period .(2)

Postnatal care (PNC) represent care of mother and newborn ( through 42 days after delivery) during this period the mother goes through many physical and emotional changes such as sore breast ,weight loss ,anxiety and depression while learning to care for her newborn.(3)

Close direct or indirect supervision by skilled attendants is required in this period to identify any problem promptly and appropriate intervention or referral can take place.(4)

World health organization(WHO) recommended optimal numbers of PNC visits are at least three additional postnatal contact , in addition to the first contact within 24hr. after birth , on day three, between 7-14 days and six weeks postnatal .(5)

Postnatal care includes package of advice about (rest , nutrition and care for newborn) and examination related to various aspect of mother and babies .(6) Essential routine PNC for all mothers were to assess and check for bleeding , check temperature, support breastfeeding, checking the breasts to prevent mastitis , manage anemia, promote nutrition and insecticide treated bed nets, give vitamin A supplementation, complete tetanus toxoid immunization, if required provide counseling and a range of options for family planning, refer for complications such as bleeding, infections, or postnatal depression and counsel on danger signs and home care (7).

Women who give birth in a health facility could ideally be encouraged to stay for at least 24 hours before discharge. This allows the health facility staff to observe the mother and the newborn to ascertain whether the preferred feeding option is established and to make sure any maternal or neonatal complications are detected and managed (8). If specific risk factors are identified in the baby, the mother and baby should be kept another two days to enable feeding, warmth, and care for complications.

Before discharge, mothers should be advised to bring their newborns back if they notice any danger signs (8). Where families have poor access to utilize services of formal health care systems, PNC should be provided via community providers making routine home visits (9). Health workers, such as nurse midwives, traditional birth attendants, community health workers could be trained to provide PNC during routine home visits to newborns and mothers (9).

Postnatal care assist health care provider to detect post-delivery problem and to give treatment timely, shortage of the care during this period result in ill health, disabilities and death (10).

The long-term maternal complications in the postnatal period include chronic abdominal pain, impaired mobility, damage to the reproductive system and infertility, some women suffer genital prolapses after bearing several children, this condition is extremely uncomfortable and can lead

to other complication in future pregnancies if not properly addressed in the postnatal period (10).

With low postnatal care attendance a valuable opportunity is lost to protect the mother from postnatal complication and also to transmit education and information to women on subjects such as breastfeeding practices, family planning and postpartum depression (11).

The death of a mother further exposes her newborn to high risks of morbidity and mortality. Thus, receiving PNC can make the difference between life and death for both mother and child (12).

PNC for women could not only prevent 60% of maternal deaths but also the acute and chronic morbidity arising from pregnancy and delivery related complications (13). Maternal and child health / reproductive health services are provided by all levels of the service, at the primary level (PHC), the aim is that the mother visits the PHC centers at least once during the 6 weeks following delivery, where the mother receives physical examination, ferrous sulfate tablets if anemic, vitamin A (200,000 IUs) and may receive counselling on breast-feeding and family planning through health education, and

immunization according to the national schedule, complications of childbirth are detected and treated. If treatment is not available or not possible, the mother is referred to postnatal clinics in hospitals, although hospitals also provide delivery services and early postnatal and neonatal

care, but that staying in hospital after delivery is very short, women are discharged only few hours after delivery without having the chance to receive adequate early postnatal and neonatal care (14).

In Iraq, maternal care services face some obstacles common to the primary health care (PHC) system, these obstacles are mainly related to inappropriate health care service delivery including, inappropriate use of health services, poor infrastructure, poor referral system, poor hygiene and lack of management guidelines, in addition to other obstacles which include workforce challenges, like the poor knowledge and qualification of health care providers, lack of continuing education and training. And shortage in resources, including, low in quality of medical supplies, poor leadership and poor information technology are also obstacles (15).

## Material and Methods

### 1- Study design :

A descriptive, cross-sectional study with analytic elements.

### 2-Setting :

The study was conducted in six primary health care centers selected by a convenient sample from Kufa district (Muslem benakeel, Kinda, Alkwith, Mahdi al al ataar, Ali alramahi and Kufa) for period from one of February to end of May 2020.

### 3-Study population

The study population represented of women in the reproductive age (15-49) years who gave birth in the last six weeks. The following assumption was used to calculate the sample size required

for the study

$$N = (z\alpha/2)^2 (p(1-p)) / E^2$$

$$N = (1.96)^2 (0.5(0.5)) / (0.05)^2 \quad N = 384$$

\*where N = number of sample

$Z_{\alpha}=(1.96)$  for 95% confidence (i.e,  $\alpha=0.05$ )

$P$  = best guess for prevalence ( $=0.50$ )

$E$  =maximum tolerable error for the prevalence estimate

The sample size increased to 400 in order to reach large population , more accurate results.

#### 4- Data collection instruments

The data collection process was carried out three weeks for each selected center (two days per week) during working hours from 8:30 am to 11:30 am , data collection was done by direct interview with the participants using already prepared questionnaire, after explaining objectives of the study, each interview need about 20 minutes to complete the questionnaire.

#### 5-Questionnaire

Pre-designed and structural questionnaire constructed by the researcher and revised by supervisor after reviewing previously published relevant literature to include all possible variables that address the objective of study (15) . The questionnaire was designed to obtain data (time, frequency and reasons for attendance , place of PNC, type of PNC services offered, sources of PNC information , mode of transportation, waiting time to receive the PNC services and reasons for not getting the services.

#### 6-pilot study:

The questionnaire was piloted on a sample of 20 women selected PHCCs to test the applicability of the study tools , time needed for interview and to Identify the difficulties that may be faced during data collection. Those who participated in the pilot study were not included in the main survey.

#### 7-Administrative approval

The researcher contacted the offices of directors of each selected center to explain the

objectives and rationale of the study and get the approval for data collection.

#### 8-Ethical consideration

Ethical consideration were ensured , each participant was given complete unconditioned choice to participate in the study. Privacy and confidence were maintained during interview , all collected data used for research purpose only.

#### 9-Statistical Analysis

Statistical package for social sciences (SPSS®) Software (version 23.0 for Linux®) was used in the statistical analysis. Qualitative data were presented as numbers and percentages, Data were presented using appropriate tables and visualized using appropriate figures while continuous numerical data were presented as mean  $\pm$  standard deviation.

The chi-square test is used to estimate whether or not an association exists between categorical variables in the study . P value of  $< 0.05$  was considered statistically significant.

#### Results

This study included a total of (400) mothers who attended PHCCs within six weeks after delivery. Age of participants ranged (15-49) years, with a mean age of  $29.27 \pm 7.64$  years. About half 46.7% of participants were within the age group 20-29 years.

The majority of the mothers 97.50% were married. More than half of the participants 53.50% were living in urban areas.

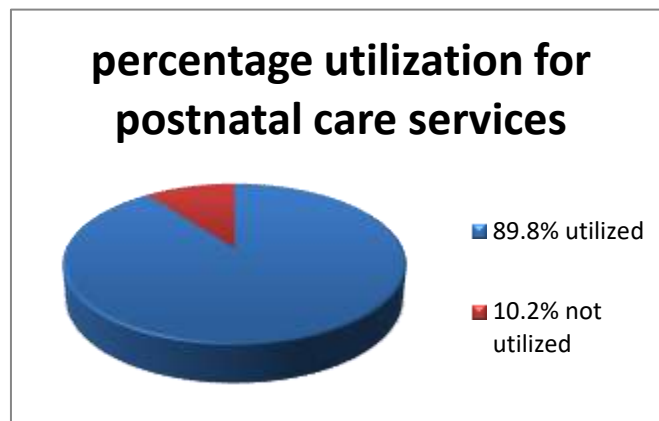
Extended families formed more than half of the study population 53% . More than half 54% of mothers had secondary education or higher. Almost three-quarters of the mothers were housewives 73.50%. Detailed demographic information about the mothers are summarized in Table(1).

**Table (1) : distribution of sample according to socio-demographic characteristic**

Characteristics		Frequency	Percentage (%)
Age	<20	29	7.25%
	20-29	187	46.75%
	30-39	136	34.00%
	40-49	48	12%
Marital status	Married	390	97.50%
	Widow	5	1.25%
	Divorced	5	1.25%
Residence	Urban	214	53.50%
	Rural	186	46.50%
Type of family	Nuclear	188	47.00%
	Extended	212	53.00%
Mother's education	Illiterate	77	19.25%
	Primary	104	26.00%
	Secondary	73	18.25%
	Graduate degree	134	33.50%
	Higher education	12	3.00%
Mother's occupation	Housewife	294	73.50%
	Employed	89	22.25%
	Student	17	4.25%
Total		400	100%

The results showed that the median gravida of participants was (3), ranging from (1-14) more than two-third (66.50%) of the recent pregnancy was unplanned.

Figure (1) showed the PNC utilization by participants where most of them 89.8% reported attendance for PNC services.

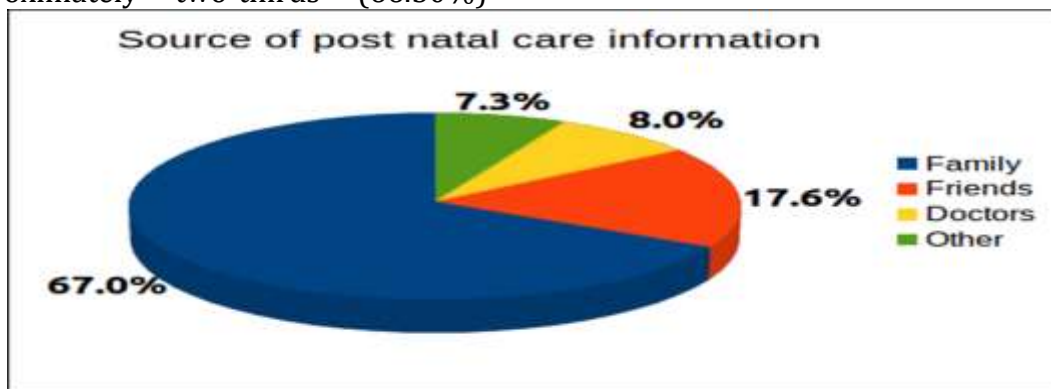


**Figure (1) Distribution of the participants according to PNC utilization**

The majority of mothers 89.8% visited a health care facility after birth. More than half of them (51.25%) had early attendance for postnatal care within first week, while (38.5%) had attended postnatal care after 2 weeks (table3).

responded that they heard about PNC. Most of the mothers (heard about PNC ) obtained their information about the postnatal care from their families (67%) , followed by friends (17.6%) and doctors (8%) Figure (2) .

When participant were asked about post-natal care, approximately two-thirds (66.50%)



**Figure (2) :The main source of postnatal care information**

**Table (3) : Attendance of health care services after birth(N:400)**

		Variables	Frequency	Percentage (%)
Did you attend health care services during pregnancy? (ANC)	Yes		389	97.25%
	No		11	2.75%
Did you attend health care services after birth? (PNC)	Yes		359	89.75%
	No		41	10.25%

Where did you attend for postnatal care?	PHC center	111	27.75%
	Public hospital	120	30.00%
	Private clinic	128	32.00%
	Did not attend	41	10.25%
When did you attend for postnatal care?	Within 1 week	205	51.25%
	After 2 weeks	154	38.50%
	Did not attend	41	10.25%
How many times did you attend PNC services?	Once	251	62.75%
	Twice	88	22.00%
	3 times	12	3.00%
	4 times	6	1.50%
	5 times	2	0.50%
	Did not attend	41	10.25%
Total		400	100%

No significant association was observed between mother education and PNC attendance, chi-square=2.80, d.f.=4, P-value = 0.592 (Table 4). Similarly, no significant

association was observed between mother occupation and PNC attendance, chi-square=1.59, d.f.=2, P-value=0.452 (Table 5).

**Table (4): Attendance to PNC services by participant education(N:400)**

Mother Education	PNC attendance		Total	P-value
	Attended	Did not attend		
Illiterate	70 (90.91%)	7 (9.09%)	77 (100%)	0.425
Primary	90 (86.54%)	14 (13.46%)	104 (100%)	

Secondary	64 (87.67%)	9 (12.33%)	73 (100%)
Graduate degree or higher	135 (92.47%)	11 (7.53%)	146 (100%)
Total	359 (89.75%)	41 (10.25%)	400 (100%)

Chi-square = 2.79, d.f. = 3, P-value = 0.425

**Table(5):Attendance of PNC services by participant occupation(N:400)**

Birth place	PNC attendance		Total	P-value
	Attended	Did not attend		
Housewife	263 (89.46%)	31 (10.54%)	294 (100%)	0.452
Employee	82 (92.13%)	7 (7.87%)	89 (100%)	
Student	14 (82.35%)	3 (17.65%)	17 (100%)	
Total	359 (89.75%)	41 (10.25%)	400 (100%)	

Regarding reasons for attendance, more than half of the participating mothers reported that they attended health care services after birth

for vaccination for babies (55.43%), while the remaining had attended for other reasons.

**Table (8):Reasons for attendance of health care services after birth(N:400)**

Reasons	Frequency	Percentage (%)
Vaccination for babies	199	55.43%
General check up	35	9.75%
Remove stitches	30	8.08%

Vaginal bleeding	19	5.29%
Abdominal pain	15	4.18%
Wound infection	15	4.18%
Follow up for blood pressure and RBS	12	3.34%
Anaemia	8	2.23%
UTI	8	2.23%
Vaginal infection	7	1.95%
Family planning	3	0.84%
Care for the newborn	2	0.50%
Others (leg edema, depressed mood)	6	1.67%
Total	359	100%

## DISCUSSION

### 1-Use of postnatal services among mothers:

Minimal frequency PNC utilization may be attributed to that the utilization of health services is a complex health related social behavioural phenomenon affected by many factors including availability, distance, cost and quality of care as well as personal attitudes and socio-economic characteristics, in addition to that women perceive childbirth as a major event but may view the postnatal period with less concern, so these factors can hardly be all optimal.(16) The study display nearly 89.75% of respondent had utilized PNC services This rate is higher than with was reported in previous study in Iraq (37.9%) and other countries such as Jordan (35%), Lebanon (39%), Egypt (41.5%) and Palestine (36.6%). the explanation for this differences may be attributed to study setting and small sample size (23) Regarding frequency of PNC visits more than two thirds reported 69.92% once time , 24.51% twice and only 5% of respondent

had received the services three times partial , which is lower than frequency reported in India (14.1%) of the participants reported three visits.(17)

### 2- Factors Influencing the Utilization of Postnatal Care Services

#### 2.1 Women age

The analysis of Socio-demographic characteristic of participants showed that utilization postnatal care of services was not different among different age group .This finding was also confirmed by previous studies from developing countries this might be attributed to that more than half of the women were in age group between 20-29 years; this is anticipated because it is the normal age of child bearing.(17)

#### 2.2 Women education

The present study showed that there was no relationship between education of the mothers and PNC utilization .Education affect PNC utilization as established by several studies



concluding that better educated mothers are likely to utilize PNC services, the possible explanation might be due to high variation among the studies regarding sample size and lack of uniform categorization of maternal education level.(18)

### 2.3 Women occupation

In present study showed no relationship between occupation of mothers and PNC utilization, this finding was against with what was reported in Egypt, Palestine did reveal association between PNC utilization and occupation, this may be due to that majority of the study group were house wife (19).

### 2.4 Antenatal care

ANC was a significant factor for PNC utilization, As with enough consultation and education during antenatal visits, mothers may become aware of possible postnatal complications and sources of degree health services for treatment of these complications (20).

In present study, antenatal care services provided for pregnant women was 96%, this result coincided with another study that was done in ALHILLA city and Jordan, possible explanation might due to increase level mothers who had even are ANC visit, will increase their awareness and knowledge about importance of PNC services (20).

### 2.5 Place of delivery

This study showed highly significant association between place of birth and utilization of PNCs. in which, mothers who delivered in hospital (public, private) reported higher attendance of PNC than those delivered at home, in previous study done in Indonesia and Nepal which found that mothers delivered at home were significantly less likely to attend postnatal care services, they explained that women who deliver in a hospital are more likely to receive medical care from skilled attendants which may help their PNC utilization (21).

### 2.6 Type of hospital

The present study showed that participants who delivered the last child at private hospital were more likely to utilize PNCs (97%) in comparison with those who delivered in public hospital 89.66% this finding is supported by another study conducted in WASSIT where (95

%) of women who delivered in private hospital utilized PNC.(22) the explanation may be attributed better quality of care play important role in utilization of PNC.

### 2.7 Awareness about postnatal care

When participants were asked about post-natal care, approximately two thirds (66.50%) responded that they were aware about PNC, in another study in Indonesia about 32% responded that they were aware about PNC, identification of postnatal danger signs and symptoms has a

positive association with PNC utilization. more utilization of PNC service among women who know at least one potential postnatal danger sign and symptom as compared to those who did not know. knowledge about risk and complication during puerperium is an important factor that enhance mothers and their families to utilize health care service at the earliest opportunity with the intention of prevention, early detection and getting managed their obstetric danger signs and symptoms(22). In this study most of the mothers obtained their information of postnatal care from their family (67%), followed by friends (17.6%) and doctors (8%).

### 3- Barriers to Access Postnatal Care

Barriers that represent causes that prevented women's from utilization of PNC services. The main reasons in the present study include feeling healthy, no time for attendance, costly, husband rejection, and long distance. in another study in Egypt the most common causes for not obtaining PNC was lack of perceived need especially women were felt well(23). The fact that postnatal care was perceived to be unnecessary by the women who did not feel sick demonstrates these women recognize the importance of postnatal care for preventive health care. Some of the negative health outcomes which can occur during the puerperium may not be noticed early or initial signs might be ignored by women (23).

### Conclusion:

1-Majority of the participants reported utilization of PNC services, but most of them

had less than the recommended numbers of visits.

2-The main factor which effect on PNC utilization include, distance to health facility, waiting time , ANC visit , place and type of delivery, type of hospital.

3- Women age, education, occupation, husband education

and occupation and place of residence didn't show such effect.

4- Main reason for PHC canter visit was for vaccination while the main reason that prevented mother's from attendance was mother felt well.

5- Type of services offered to mother's include BP examination, breast examination and abdominal examination.

6- Advice offered to mother's include immunization For both mother and baby, breast feeding , proper nutrition for both mother and baby, family planning and birth spacing.

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