Postpartum Self-Care among Women
Dr. Kawther Mohammed Mokhtar and Layla Adam Ali

1Assistant Professor, National Ribat University, Khartoum, Sudan.
2Sister Midwife & Head Trainer, National Ribat University, Khartoum, Sudan.

Citation: Mokhtar KM, Ali I.A. Honore. Postpartum Self-Care among Women. Nur Primary Care. 2020; 4(3): 1-6.

ABSTRACT

Background: Postpartum period can be defined as the 6 weeks of period, after delivery [1], also it was defending as the six to eight weeks after delivery and when the women's body maternal physiological changes return to the pre-pregnant state [2].

Self-care is ability to interact with the environment to perform self-care to maintain life, health, and well-being [3], so mother’s knowledge regarding self-care during postpartum is essential in preventing maternal morbidity and mortality.

Methods: This is descriptive hospital-based study was conducted in National Ribat University Hospital aimed to assess mother’s knowledge regarding self-care during postpartum period. Sample size consisted of (150) mothers’ period from 2014 to November 2015. Data was collected by using a questionnaire. Data analysis was performed by using statistical package for social sciences (SPSS) version 16 and illustrated by percentage.

Results: The result revealed that 38% of the study sample responded with correct answer regarding perennial care, 33% and of them responded correctly regarding breast care and breast feeding. Only (12%) of the study sample responded with correct answer regarding postpartum exercises and, (13%) of them responded correctly regarding early ambulation just (29%) responded correctly regarding awareness of early warning signs during postpartum.

The study concluded that women's knowledge regarding self-care during postpartum was inadequate for the reduction of postpartum complications.

The study recommended: Continuous education programs for women regarding postpartum self-care and learning facilities e.g. posters, pamph.

Keywords
Pregnancy, Women, Postpartum period, Reproductive age.

Introduction
Complications during pregnancy and childbirth are the major reason for death and disability among women of reproductive age in poor resource countries [4]. Worldwide pregnancy and child birth complications have staggering mortality estimated at 500,000 women every year [5] while an estimated 10 million mothers experience severe health issues related to childbirth. In 2010 developing nations accounted for 99% (284,000) of global maternal deaths, Sub Saharan Africa and Southern Asia contributed 85% of this global burden, with Sub Saharan Africa contributing more than half of this percentage (56%) [6]. Women's awareness regarding self-care during this period is one of the most important measures to reduce maternal death and disability. The main measure to reduce maternal mortality and morbidity is the nurse who is in key position by disseminating knowledge regarding postpartum care ensuring and providing proper service to enhance woman's role in the implementation of efficient self-care practices and become more independent [7].

Many women still die in childbirth around the world. Complications of childbirth are responsible for significant proportion of prenatal, natal and postnatal maternal morbidity and mortality particularity in developing countries. WHO estimate that approximately 1000 women globally die every day due to complications from pregnancy and childbirth. The number of maternal deaths worldwide was
estimated to be 529 in 2000 \( \{\text{UN}\} \). WHO statistic in year 2004 maternal mortality rate in Sudan is 450 per 100,000 and maternal ratio in 2005 life time of maternal death is one in 53 women \[8\].

One of the Millennium Development Goal \{MDGs\} goal 5 focuses on maternal health and targets a reduction of maternal mortality. The global maternal mortality rate has only decreased by an average of less than 1\% between 1990 and 2005, as compared to the desired 5.5\% reduction yearly in order to achieve the fifth MDG to reduce the rate by three quarters between 1990 and 2015. Additionally, the report states that the rate in the sub-Saharan Africa is extremely low at approximately 0.1\% Ensuring universal access to reproductive health services by 2015 recommended. In the United States number of maternal mortality account 16.6 per 100,000 live birth, in Saudi Arabia Kingdom 27.9, in Egypt 43.1 and where in Sudan 306.3 per 100,000 live births. This rate is significant and calls for attention, certain measures must be done specially to reduce maternal mortality and morbidity.

On other hand Complications during pregnancy and childbirth are a leading cause of death and disability among women of reproductive age. Worldwide complications of childbirth are responsible for a significant proportion of prenatal, natal and postnatal maternal morbidity in under resourced setting.

Many women still die in childbirth around the world. Maternal death is the death of women while pregnant or within 42 days of termination of pregnancy. From epidemiological perspective, a relatively rare event and mortality is difficult to measure accurately. Many low-income countries have no or very little data and modeling is used to obtain a national estimate.

Majority of these maternal deaths are considered preventable, as are newborn there is timely access to appropriate interventions when obstetric complications occurs. Of note, three quarter million global neonatal deaths occur in the first week of life, and the stillbirth rate is 32 stillbirths per 100 which 24- 37\% occur during intra/partum period. \[9\]. In the United States number of maternal mortality account 16.6 per 100,000 livebirths. In Saudi Arabia Kingdom 27.9, In Egypt 43.1 and in Sudan 306.3 per 100,000 livebirths.

More than 500,000 maternal deaths Worldwide, more than half occurred in South Africa. This was estimated in 2005. The same source estimates lifetime risk of maternal death to be 1 in 6 in sub Saharan Africa, as in 2800 in developed regions.

More than 7178 deaths a day and 2.6 million stillbirths globally, the majority of these deaths occurred in developing countries. Ninety-eight percent occurred in low- and middle-income countries. About half of all stillbirths occur in the intrapartum period, the proportion of stillbirths that are intrapartum varies from 10\% in developed regions to 59\% in south Asia.

Each year, 7 million of neonates or stillborn are die within the first 7 days of life, 98\% of these stillbirths and early neonatal deaths occur in low-income countries, and regional estimates suggest that countries in Sub-Saharan and the highest perinatal mortality rates amongst Africa in the world \[9\]. Darling B Jiji & Bazil A B in 2014 study knowledge and attitude of post-partum mothers regarding self-care after child birth in selected maternity centers in Madurai India \[10\]. The aim of the study was to determine knowledge of post-natal mothers regarding self-care after child birth.

The conclusion of the study revealed that half of the study population had adequate knowledge regarding self-care after child birth and the other half of them had moderately adequate knowledge. These studies also revealed that there was a significant association between the study population knowledge of post-natal mothers regarding self-care after childbirth and level of education and obstetric score.

Tahani Alotiny, Hoda Jrad & Amin Bawazir in 2013 - They were assessing pregnant women and newly mother’s knowledge and preferences for education. The aim of the study was to assess the knowledge of expecting and new mothers. The result of the study showed that the mean antenatal knowledge score was low (38.4\%) with no variation of age or educational level and they suggested that reform in antenatal content, channels and format should be adopted the low knowledge score of mother’s health is indication for suitable education.

### Materials and Methods

#### Study and Design

A descriptive hospital-based study was conducted 2015 at National Ribat University Teaching hospital aimed to assessment of mother’s knowledge and practice regarding self-care during puerperium.

#### Study area

The study was conducted in obstetric unit, postnatal ward in National Ribat University hospital which in, the national capital of Sudan. National Ribat university hospital receives referred cases for different specialties hospitals from all police hospitals in different states of Sudan, including unites emergency, medical-surgical wards, dialysis unit, central pharmacy, blood bank and laboratory. Also, there is ophthalmology department, radiology, dental, pediatric and obstetrics & gynecology units. This is a teaching hospital for medical students, nursing and dental hospital.

The obstetric department is well established led by a highly qualified team (Obstetricians) who are assisted by registrars and house officers. The unite consist including antenatal, postnatal, gynecological ward and labor room. Following the department policy, the patients coming for admission from antenatal-postnatal, referred clinic or emergency department. The labor room is running by well-trained midwives and 80 nurses assigned to the antenatal & postnatal wards.

#### Study population

Women who delivered in National Ribat University Hospital.
Inclusion Criteria
All (150) women who delivered in National Ribat University Hospital during the period of the research.

Exclusion Criteria
All the women who delivered National Ribat University Hospital with chronic medical condition during the period of the study.

Sampling size
Total coverage of (150) women from the women who delivered at National Ribat University Hospital during the period of the research 2015.

Data Collection tool
One tool of data collection was used; Structured questionnaire sheet was designed by the researcher after the review of the literature, contains 32 Questions and utilized for two purposes as follows:-

First: To find out the general characteristics of the study sample. It contained the demographic data such as age, education, occupation and obstetric history.

Second: To assess mother's knowledge regarding variables of self-care during peripuerium period. It includes questions about women knowledge regarding breastfeeding, perineal care, early ambulation and exercises, rest and nutrition during peurperium.

Ethical consideration
An official letter from National Ribat University. National Ribat University Hospital for approval to collect data from:
- The mothers who delivered in National Ribat University Hospital.
- The purpose of the questionnaire explained to the participants.
- Participation in the questionnaire un voluntary and it could be withdrawn by the participant at any time.
- The questionnaire would be filled within 15-20 minutes by the researcher.

Data analysis
Data was analyzed and entered to the statistical package for social sciences (SPSS) program presented in tables and figure using the percentage.

Results

| Item                  | No  | %  |
|-----------------------|-----|----|
| Occupation house wife | 114 | 76%|
| Employee              | 29  | 20%|
| Other                 | 7   | 4% |
| Total                 | 150 | 100%|

| Residence             |     |    |
|-----------------------|-----|----|
| City                  | 126 | 84%|
| Rural                 | 24  | 16%|
| Total                 | 150 | 100%|

Table 2: Distribution of study sample according to their occupation and residence: n=150.

Table 2 illustrate that 76% of women were house wives and 16% came from rural areas.

| Item                  | No  | %  |
|-----------------------|-----|----|
| Parity one child      | 43  | 29%|
| 2-4 child             | 61  | 41%|
| More than 4 children  | 46  | 30%|
| Total                 | 150 | 100%|

| Age of last child     |     |    |
|-----------------------|-----|----|
| Less than 3 years     | 84  | 56%|
| More than 3           | 66  | 44%|
| Total                 | 150 | 100%|

Table 3: Distribution of women according to their parity and age of last child: n=150.

Table 3 illustrated that 29% of the women had their first child (prim gravida) and 30% of them had more than 4 children.

| Item                  | No  | %  |
|-----------------------|-----|----|
| Mode of delivery normal vaginal delivery | 119 | 79%|
| Cistercian section    | 30  | 20%|
| Forceps delivery      | 1   | 1% |
| Total                 | 150 | 100%|

| Source of knowledge   |     |    |
|-----------------------|-----|----|
| Antenatal clinic      | 64  | 43%|
| Culture and habits    | 85  | 56%|
| Internet              | 1   | 1% |
| Total                 | 150 | 100%|

Table 4: Distribution of women according to mode of delivery and source of knowledge: n=150.

Table 4 illustrated that 79% of the women delivered normal vaginal delivery and 56% of them had their knowledge from culture and habits.

| Item                  | No  | %  |
|-----------------------|-----|----|
| Mothers               | 75  | 50%|
| Husbands              | 27  | 18%|
| Others                | 48  | 32%|

Table 5: Distribution of women according to support person during puerperium: n=150.

Table 5 illustrates that 50% of the women support by their mothers during puerperium.
Table 6: Distribution of the women according to their knowledge regarding rest and sleep, characteristics of normal lochia parental care: n=150.

| Item                          | Correct answer No % | Incorrect answer No % | Total |
|-------------------------------|---------------------|-----------------------|-------|
| Rest and sleep                | 58  39%             | 92  61%               | 150   |
| Characteristic of normal lochia | 59  39%           | 91  61%               | 150   |
| Parental care                 | 50  33%             | 100  67%              | 150   |

Table 6 illustrated that 39% of the women responded with correct answers regarding rest and 33% of them responded correctly about perennial care.

Table 7: Distribution of women according to their knowledge regarding management of perineal discomfort, importance of early introduction of breast feeding and hand washing: n=150.

| Item                                      | Correct answer No % | Incorrect answer No % | Total |
|-------------------------------------------|---------------------|-----------------------|-------|
| Management of perineal discomfort         | 57  38%             | 103  62%              | 150   |
| Importance of early introduction of breast feeding | 40  27%           | 110  73%              | 150   |
| Hand washing                              | 15  10%             | 135  90%              | 150   |

Table 7 illustrated that 38% of the women responded with correct answer for management of perennial discomfort and 27% of them responded correctly for the importance of breastfeeding.

Table 8: Distribution of women according to their knowledge regarding breast care before and after feeding and use of tow breasts in each breastfeed: n=150.

| Item                                      | Correct answer No % | Incorrect answer No % | Total |
|-------------------------------------------|---------------------|-----------------------|-------|
| Knowledge regarding breast care before and after feeding | 32  21%           | 118  79%              | 150   |
| Use of one Breast alternatively.          | 50  33%             | 100  67%              | 150   |

Table 8 illustrated that 21% of the women responded with correct answer regarding breast care.

Table 9: Distribution of women according to their knowledge regarding pattern of breastfeeding, management of breast discomfort and postpartum exercises: n= 150.

| Item                                      | Correct answer No % | Incorrect answer No % | Total |
|-------------------------------------------|---------------------|-----------------------|-------|
| Pattern of breast feeding                 | 63  42%             | 87  58%               | 150   |
| Management of Breast discomfort           | 54  36%             | 96  64%               | 150   |
| Postpartum exercise                       | 18  12%             | 138  88%              | 150   |

Table 9 illustrates that 18% of the women responded with correct answer regarding postpartum exercise.

Table 10: Distribution of women according to their knowledge regarding early ambulation, diet during puerperium and warning signs during puerperium.

| Item                                      | Correct answer No % | Incorrect answer No % | Total |
|-------------------------------------------|---------------------|-----------------------|-------|
| Importance of early ambulation in puerperium | 20  13%           | 130  87%              | 150   |
| Diet in puerperium                        | 125  83%            | 25  17%               | 150   |
| Warning signs in puerperium               | 43  29%             | 107  71%              | 150   |

Table 10 illustrates that 13% of the women responded with correct answer regarding importance of early ambulation and 83% of them responded correctly regarding diet during puerperium.

Table 11: Distribution of the women according to their knowledge regarding care of bladder, follow-up for mother in postpartum period and follow-up for baby during puerperium period: n=150.

| Item                                      | Correct answer No % | Incorrect answer No % | Total |
|-------------------------------------------|---------------------|-----------------------|-------|
| Knowledge regarding bladder care          | 50  33%             | 100  67%              | 150   |
| Follow-up for mother during postpartum    | 68  45%             | 82  55%               | 150   |
| Follow up for baby during puerperium      | 70  47%             | 80  53%               | 150   |

Table 11 illustrates that 33% of the women responded with correct answer for bladder care, 55% of them responded correctly answer regarding follow up for mother postpartum.

Discussion

Women's knowledge of self-care during postpartum period is of great importance for not only prevention of impairment and disabilities but also for the reduction of maternal mortality. Women's self-care during postpartum period is not a substitute for appropriate medical or physiological treatment, but however self-care strategies should be considered as part of a comprehensive treatment plan.

This study was conducted in Ribat University hospital during the period from August to November 2013 aimed to assess women knowledge regarding self-care during postpartum period. The study population was a sum of 150 women who delivered by normal vaginal and cesarean section at Ribat University Hospital during this period, without medical problem.

The study revealed that 10% of the study sample their age was less than 20 years, 29% of the study sample where primagravid and 30% of them had more than 4 children. This results are similar to the finding of the study done by Eraya, Winta Negusse (2013) in Eritrean community about knowledge and practice of reproductive health among mothers as it shows that the median age for the first child was 22 years where 36% of the study sample had more than 4 child birth and that is almost online with the result of women delivered in Ribat University Hospital.

The finding of small maternal age at first birth and the number of child birth was one of the factors that determined fertility rate in both populations as women who marry early are exposed to early pregnancy and also have increased fertility.

84% of the study sample stated that they came from urban areas and this was not similar to Sudan political and socioeconomic context recently when stated that ruler population constitutes about 68% of total population due to the political instability and civil war that create the scenario of displacement of population from same ruler areas to cities. (National Health Insurance Fund Annual Health Report, 2009). The Education level of the study sample was good
the majority were secondary and university level this is consistent with the education level reported by Tahani Alotabi, Hoda Jarad and Amin Bawazir 2013 in Saudi Arabian community. Both of the study sample stated that culture and habits were the main source of their knowledge about postpartum self-care. This source of self-care knowledge during the postpartum reflected the overall low score knowledge about, perennial care, early ambulation and exercises, breastfeeding, rest and sleep with no variations of age or educational level.

The result of the study sample regarding the support person during postpartum period the majority of them were supported by their mothers and husbands who used to really concern and stand close for emotional and physical satisfaction of them and this is not similar to the result of study done 2013 by Hanna Woolhuse, Deirdre Gartland, Susan Pertlen, Susan Donath, and Stephen J Brown in Australian population, Melbourne Victoria Australia to investigate the relationship between maternal physical health and depressive symptoms during the first year after child birth.

The study outcome of the postpartum Australian mothers showed that 16.1% of them reported depressive symptoms during the first twelve months postpartum with the most commonly reported physical health problems e.g. tiredness, back pain, breast problems, painful perineum and urinary incontinence, which associated with poor mental health. The family support soothing the emotional status of mother during postpartum period and prevent maternal depression by the assistance in postpartum activities and the relief of physical and emotional stress during postpartum period.

The overall low knowledge score about all variables of self-care during postpartum period of the study sample is same as the result of low score knowledge and attitude of postpartum mothers which carried out by Darling B Jiji AB 2014 Madurai, India regarding self-care after child birth in selected maternity centers [10]. The result of the study showed that more than half of the study population had moderated knowledge and the majority of them had negative attitude toward self-care during postpartum.

Most of the study sample (87%) responded with correct answer regarding diet and nutrition and they understood the need of balanced diet during postpartum period. Information on nutrition is one of the vital components of ANC package (Shah & n Say, 2007). Nutrition plays an important role in the health of mother and her off-spring and understanding this relation could help in designing interventions that could improve birth outcomes and further, the long-term quality of life of children (Abu-Saad & Fraser, 2010).

The support person during postpartum period by mothers and husbands, these findings revealed that all the participants received help and support from close family members and relatives. This does not agree with the outcome of the study carried on 2013 by Hanna Woolhuse, Deirdre Gartland, Susan Perlen, Susan Donath and Stephen J Brown in Melbourne Victoria Australia to investigate the relationship between maternal physical health and depressive symptoms in the first year after child birth.

The result about knowledge of self-care regarding breastfeeding and management of breast discomfort during postpartum period, most of the study sample (73%) showed that they have poor knowledge. This result of poor knowledge is on line with the result of the study done by Tapiwa Mavis Kebale (2001) in Northern Botswana on an evaluation of quality of care midwives provided during the postpartum period which came out with result that the majority of midwives had good knowledge in promotion of breastfeeding including its benefits to mother and baby but they have poor practice in the same area.

The need to provide comprehensive education about breastfeeding is important to nursing mothers as well as to midwives and all other health care providers.

**Conclusion & Recommendation**

**Conclusions**
The conclusions based on the results assembled from this study presented that regarding the demographic data, the majority of the mothers their educational level is secondary school level of education. More than half supported by their mothers stated that the source of their knowledge regarding self-care during postpartum was culture and habits.

Regarding self-care knowledge during postpartum period the majority of the participants responded with good knowledge about suitable diet during puerperium but inadequate knowledge perennial care, breastfeeding, awareness of danger signs, rest and exercise.

The conclusion of result necessitated nursing education of mothers about self-care during postpartum period.

**Recommendations**
Patient education regarding postpartum care during antenatal care must be supported by training program, postpartum exercises and body conditions should be developed and encouraged by the antenatal health care providers.

- The information given to the client on discharge should be written and supported by drawing pamphlets.
- Discharge instructions should be clear and comprehensive in the discharge card.

**References**
1. Decherney A, Nathan L. currentobstetric and gynaecological care Journal of obstetric Gynaecology and neonatal nursing. 2003; 32: 802-803.
2. Dennis CL, Fung K, Grigoriadis S, et al. Womens Health Lond. 2007; 3: 487.
3. Nazik, Eryilma. Orem’s Self-Care Framework–Guided Experimental Research. 2013.
4. World Bank team. World development indicator Washington. 2013; 43.
5. Unicef progress for children Maternal Mortality. 2008.
6. WHO. Maternal mortality. 2012.
7. Lorraine H. Orem's Self Care Model, Haunted Coe College Hannibal, Missouri NY: Penguin Books. 2012.
8. WHO. Trends in Maternal Mortality: 1990 to 2013 WHO Geneva. Switzerland. 2013. Engmann C, Matendo R, Kinoshita R, et al. Stillbirth and early neonatal mortality in rural Central Africa J Gynaecol Obstet. 2009; 105: 112-117.
9. Darling B Jiji, Bazil AB. knowledge and attitude of postnatal mothers regarding self-care after childbirth in selected maternity centers in Madurai. Journal of science. 2014; 4: 40-44.