

## Knowledge and Practices about Personal Care of Post Partum Primiparous Women after Cesarean Section

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### Abstract

**Background:** After giving birth, women go through a time known as the postpartum phase during which they adjust both physically and mentally. **This study aimed to** assess of knowledge and Identify practices for women who delivered cesarean section during postpartum period. **Subjects and Methods:** A Descriptive research design was conducted. **Setting:** This study was carried out in postpartum department at Al-Eman General Hospital in Assiut city. **Sample:** A Convenient sample (120) of all available studied women. **Data collection tools:** Data were collected by three tools: **Tool (1):** Structured interviewing questionnaire, **Tool(2)** knowledge Assessment Tool, **Tool(3)** Observational checked list regarding self –care practices level of the pregnant women regarding postpartum and new born care. **Results:** The current study findings showed that only 29.2% of them had good while 70.8% had poor knowledge regarding postpartum and new-born care and 73.3% of the studied postpartum women had satisfactory and 26.7% had unsatisfactory level of practices about post-partum self-care. There were a high significant relation between total score of women’s knowledge and total score of women’s practices about post-partum self-care **Conclusion:** About more than two thirds of the postpartum women had poor knowledge regarding postpartum car and new-born care and less than three quarters and more than one quarter of the studied women had satisfactory and unsatisfactory level of practices about post-partum self-care. **Recommendation:** Give health education supported by drawing pamphlets about postpartum self and neonatal care on discharge for postpartum the women.

**Keywords:** Cesarean Section, Post Partum & Primiparous

### Introduction

After giving birth, women go through a time known as the postpartum phase during which they adjust both physically and mentally. This is the time following the conclusion of labor when a community health nurse must provide extra care for the mother's and the infant's health. (Omran et al., 2020).

A woman's and her child's vital weeks occur immediately after delivery. The postnatal period is a time frame that starts right after a kid is born and lasts for roughly six weeks. There are significant health hazards at this time for both the mother and the newborn child following childbirth. There are two distinct phases in the postnatal period: the early (days 2–7) and late (days 8–42) periods. (McCauley et al., 2022).

Behaviors mostly connected to the mind come first in the self-care component, followed by behaviors primarily related to the body. Those pertaining to the mind include play, spiritual relaxation, relationships, and psychological well-being. Physical activities, such as exercise, sleep, and dreams physical, sexual, environmental, and nutritional health Personal cleanliness, perineal care, breast care, nutrition, and

post-natal care are examples of self-care during the postpartum phase. (Doaa et al., 2018).

Postpartum nurses are required to adhere to the department's and the hospital's rules, philosophy, and goals while providing immediate physical and emotional support to new moms. During the nursing care plan's implementation, postpartum nurses take on a variety of duties. In addition to giving mothers care instruction and direct physical care, nurses also offer proactive guidance and counseling. (Sayed et al., 2022)

### Significance of the study:

The first few weeks after delivery are very important and critical time for both mother and newborn, there is improper instructions about self-care during postpartum period are given to primipara mothers before they were discharged. primipara mothers don't have past experience about self-care practices . Postpartum period covers transitional time for a woman , her newborn and her family. The needs of woman during this period have been ignored in both developing and developed countries. Many concerns need to be addressed such as personal hygiene, exercises, and perineal care. (Doaa et al., 2018).

Every day, 800 women die from pregnancy-related causes during pregnancy, childbirth and postpartum. Over 99% of these 287,000 annual deaths occur in developing countries, and most are avoidable, as the health-care solutions to prevent or manage complications are well known. About 56% of the deaths occurred in Sub-Saharan Africa with another 29% in South Asia – these two regions together account for 85% of maternal mortality in the world.

#### **Diabelková, et al. (2022)**

Postpartum complications are responsible for maternal mortality rate (MMR) during post-partum period. Maternal mortality rate during puerperium is the annual number of female deaths per 100,000 live births from any cause related to or aggravated by post natal complications. Most post-partum complications is considered preventable if post natal self-care is followed effectively, 216 women died worldwide from 100,000 women due to post-partum complications. In Egypt 33 maternal death per 100,000 death **Al Hashmi et al., (2022)**

To better understand the high maternal death rate in the U.S., Around 17 percent of deaths occur on the day of delivery. 52 percent occur after delivery, or postpartum. 19 percent of all maternal deaths occur between one and six days postpartum. 21 percent of all maternal deaths are between one and six weeks postpartum. **Gordon, et al. (2021).**

Maternal mortality refers to deaths due to complications from pregnancy or childbirth. From 2000 to 2020, the global maternal mortality ratio (MMR) declined by 34 per cent – from 342 deaths to 223 deaths per 100,000 live births, according to UN inter-agency estimates. This translates into an average annual rate of reduction of 2.1 per cent. While substantive, this is about one third of the 6.4 per cent annual rate needed to achieve the Sustainable Development Goal (SDG) of 70 maternal deaths per 100,000 live births by 2030. (**Unicef. 2021**)

Maternal mortality is unacceptably high. About 287 000 women died during and following pregnancy and childbirth in 2020. Almost 95% of all maternal deaths occurred in low and lower middle-income countries in 2020, and most could have been prevented. In Egypt maternal mortality ratio was 33 deaths/100,000 live births in 2018. (**W.H.O. 2020**)

#### **Aim of the study:**

- Assess of knowledge for women who delivered cesarean section during postpartum period.
- Identify practices for women who delivered cesarean section during post-partum period.

#### **Research question:**

What are the levels of knowledge and practices about postpartum care among women who delivered cesarean section?

## **Subjects and Methods**

It involved research design, setting, sample and tools of the study.

#### **Research design:**

This Descriptive, cross sectional design study will be conducted for this study.

#### **Study Setting**

This study was carried out at postpartum department at Al-Eman General Hospital in Assiut city, Postpartum department on the fourth floor, which consisted of five rooms each with capacity of (8) bed. Examinations room, pre-operative room, postoperative room, room for the director and the nursing room, the unit contained bathrooms.

**Study Sample:** A convenience sample was recruited for this study.

**Sample size:** A convenience sample of 120 available post CS women who attending at Al-Eman General Hospital in Assiut recruited for this study, the sample calculated by using Herbert Arkin formula

$$n = \frac{p(1-p)}{(SE \div t) + [p(1-p) \div N]}$$

n= sample size

N=Population (180)

T=the standard score corresponding to the level of significance=1, 96%

SE=error rate=0, 05

P=Property Availability Ratio and Neutral=0, 05

**n=120 post CS women**

#### **Inclusion criteria:**

- Women who delivered cesarean section.
- Primiparas mothers.

#### **Exclusion criteria:**

- Who delivered normal delivery.
- Multipara.
- Women who are not willing to participate in the study.

#### **Tools of data collection:**

After reviewing previous studies and the available literature, the researcher developed the study's data.

There were three tools for data collection

#### **Tool (1): Interviewing questionnaire:**

It was created by the researcher and it was used to collect data related to women Socio demographic characteristics such as age, Residence, Level of education, Occupation.

#### **Tool (2): (knowledge Assessment Tool):**

It was constructed by Daimstadt et al (2018) and adjusted by the researcher based on extensive literature review and it include Two main components: post-partum care, new born care to assess pregnant women knowledge about post-partum and new born care .As regarding women knowledge about post-partum care .it was include (2 items)

which include Source of pregnant women knowledge and (8 items) which include maternal nutritional diet, (2items) personal hygiene and cesarean section care (3 items). post-partum exercise (4items) family planning consultation (2 items) in the form of multiple choice question .while women knowledge about the new born care consisted of (6 items) which include mechanism of keeping the new born worm (body temperature preservation of thermoregulation) immunization ,umbilical cord care and eye care.

#### Scoring system

The women's answer related to knowledge score and **calculated:** correct answer were counted Two score , incorrect answers were valued one score , and don't know were counted zero.

- **Poor knowledge scored** <60% (<41 score).
- **Fair knowledge score** 60% <75 % (41<51 score).
- **Good knowledge scored** > 75% (51 score).

#### Tools (3): Observational checked list

It was developed by **Darmstadt, et al (2018) & Leifer, 2019** and modified by researcher after Review of related literature regarding selected items of post natal and new born care it include (wound care , umbilical care ,breast care ,post natal exercise and new born eye drop instillation )

#### Scoring system

Observational checklist, each done correctly was coded one score, done incorrectly and not done was coded zero score. The total score score<50% was referred as unsatisfactory < 27 step and >50% was referred as satisfactory practice (>27 step)

#### Tool Validity:

Three panel experts from the Department of Obstetrics and Gynecological Nursing at the Faculty of Nursing at Assiut University evaluated the study's instruments to ensure that they met the study's objectives by testing their face and content validity. The tools were altered in accordance with the panel's recommendations about sentence structure, topic appropriateness, and item order.

#### Tool Reliability:

The researcher used tool reliability to verify the instruments' internal consistency. To evaluate reliability, the Cranach's alpha test was employed. Reliability items devoid of scale and analyses found in the SPSS program were used to measure it. The recorded value was 0.715.

#### Administrative design:

Permission was obtained from the director of Al-Eman General Hospital.

#### Operational design:

The design involved description of the preparatory phase, pilot study and filed work.

#### Preparatory phase:

The researcher used textbooks, papers, prominent periodicals, and other local and worldwide literature

to review the relevant literature for the current study. The instruments were created using this literature and a standard scale, and obstetric and gynecological experts validated them.

#### Pilot study:

Following questionnaire preparation, a pre-test was conducted on 10% of cases involving 12 cs postpartum women in order to determine the validity and reliability of the research instruments. Since the study instruments did not undergo any significant changes, the subjects from the pilot study were also included in the main study.

#### Field work:

Data collection of the study took about 3 months started from the beginning of February 2023, and completed by the end of April 2023. It involved the following:

#### Procedures:

- Reviewing the available literature concerning the topic of the study.
- An official permission was obtained from the authorized person to carry out the study.
- The researcher admitted to Al-Eman General Hospital, and met the hospital's manager.
- The researcher explained nature and objectives of the research to the manager and showed to her an obtained official permission.
- The Information was gathered from the start of February 2023 till the end of April 2023 covering 3 months
- The Data were collected 3 days per week in each study setting start from 11.00 am to 12.00 pm until the sample size reached the predetermined number.
- Greeting the women, and identified them by herself, the nature and objectives of the research was described to women attended, and then verbal consent was acquired for the volunteer involvement. This took a time from 5-10 minutes.
- Each woman was interviewed separately to obtain the necessary data; the interview questionnaire was read on the participants and full filling during 15minutes of time.
- After finishing the questionnaire, the researcher gave postpartum women oral instructions regarding post-natal care which took 15 minutes of time for every woman by use of the images presented at the booklet which included (personal hygiene, diet, exercise, family planng, cesarean wound care, newborncare).
- The researcher thanked all women participated in the study
- Give instructions & handouts for women
- Confidentiality of the data was assured.

**Ethical considerations:**

- Official consent was acquired from Al-Eman General hospital.
- Furthermore, an ethical approval on the Faculty of Nursing's ethical committee at Assiut University.
- An informed oral consent was obtained from each woman before inclusion in the study sample and after explanation of the study aim in simple and clear manner.
- The nature of the investigation and its anticipated results were communicated in a straightforward and clear manner.
- Every participant was made aware of her freedom to leave the study whenever she pleased

- The complete sample had no discomfort or injury as a result of the study's nature.
- Privacy and confidentiality were taken into account with reference to the information gathered.

**Statistical analysis:**

The collected data was organized, categorized, coded, tabulated and analyzed using the Statistical Package for Social Sciences (SPSS) version 26. Data was presented in tables and figures using numbers, percentages, means, standard deviation and Pearson test was used in order to find an association between two qualitative variables. Statistical significant was considered at P-value < 0.05.

**Results**

**Table (1): Distribution of the studied women according to their socio-demographic Characteristic (n=120):**

Socio-demographic Characteristic	N( 120)	%
<b>Age/ years:</b>		
▪ < 20 years	26	21.7
▪ 20-25 years	<b>55</b>	<b>45.8</b>
▪ 25-29 years	24	20.0
▪ >30years	15	12.5
<b>(mean±SD)</b>	<b>24.23±4.35</b>	
<b>Residence</b>		
▪ Rural	54	45.0
▪ Urban	<b>66</b>	<b>55.0</b>
<b>Level of education:</b>		
▪ Illiterate	24	20.1
▪ Primary school	<b>34</b>	<b>28.3</b>
▪ Secondary school	28	23.3
▪ University	<b>34</b>	<b>28.3</b>
<b>Occupation</b>		
▪ House wife	<b>84</b>	<b>70.0</b>
▪ Employed	36	30.0
<b>Type of family:</b>		
▪ Nuclear family	<b>86</b>	<b>72.7</b>
▪ Extended family	34	28.3

**Part (2): Knowledge of pregnant women regarding their postpartum and new-born care.**

**Table (2): Distribution of the studied women according to their general knowledge about post-partum self-care (n=120):**

Items	Correct answer		In correct answer		Don't know	
	N	%	N	%	N	%
The importance of maintaining personal hygiene:	<b>59</b>	<b>49.2</b>	26	21.6	<b>35</b>	<b>29.2</b>
The purpose of keeping the caesarean section clean:	49	40.8	57	47.5	14	11.7
Number of change the dressings of caesarean section:	51	42.5	50	41.7	19	15.8
Materials used to clean the perineum and reproductive system:	<b>59</b>	<b>49.2</b>	60	50.0	1	0.8
Method to change for caesarean section:	0	0.0	84	70.0	<b>36</b>	<b>30.0</b>

**Table (3): Distribution of the studied women's according to the knowledge about proper or adequate nutrition during postpartum**

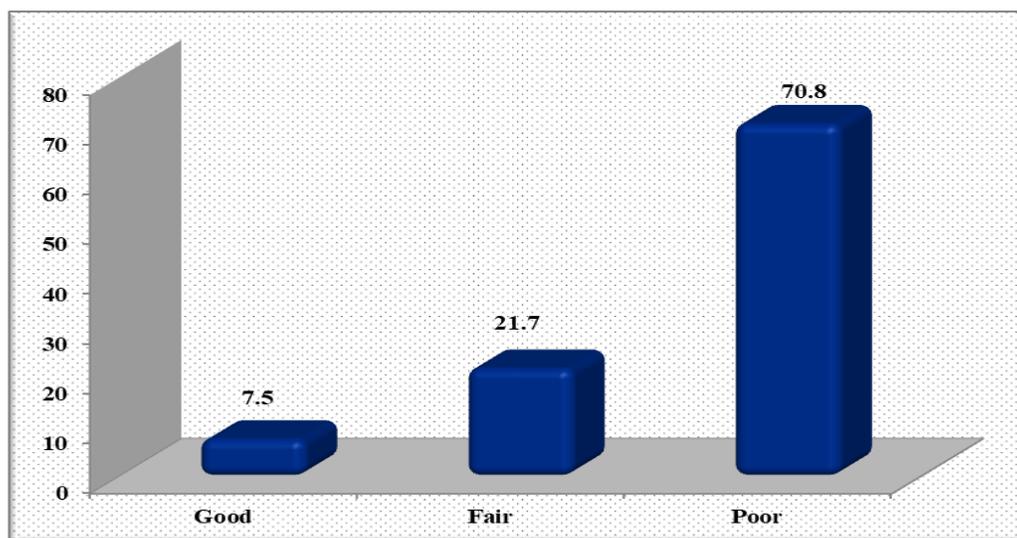
Items	Correct answer		In correct answer		Don't know	
	N	%	N	%	N	%
Essential nutrition required in postpartum diet	39	32.5	50	41.7	31	25.8
Why do postpartum mothers need a high-protein diet?	45	37.5	51	42.5	24	20.0
The sources of food rich in protein	85	<b>70.8</b>	13	10.9	22	18.3
The sources of food rich in iron	<b>75</b>	<b>62.5</b>	39	32.5	6	5.0
Daily amount of fluids that the mother needs to drink during postpartum:	34	28.3	39	32.5	<b>47</b>	<b>39.2</b>
Importance of fiber	22	18.3	36	30.0	62	51.7
Food contain fiber	33	27.5	57	47.5	30	25.0
Source of calcium	30	25.0	62	51.7	28	23.3

**Table (4): Distribution of the studied women according to their knowledge about family planning methods and postpartum exercise (n=120):**

Items	Correct answer		In correct answer		Don't know	
	N	%	N	%	N	%
<b>Family planning methods</b>						
The best time to start using a family planning method after childbirth:	33	27.5	<b>34</b>	<b>28.3</b>	53	44.2
Appropriate family planning methods are used during breastfeeding:	34	28.3	<b>71</b>	<b>59.2</b>	15	12.5
<b>Postpartum exercise</b>						
Type of exercises needed during the postpartum period:	30	25.0	42	35.0	48	40.0
The benefits of pelvic floor exercises:	<b>67</b>	<b>55.8</b>	34	28.3	19	15.8
How many times do you have to do perform postpartum exercises per day:	18	15.0	<b>71</b>	<b>59.2</b>	31	25.8
The best time to perform postpartum exercises:	22	18.3	36	30.0	62	51.7

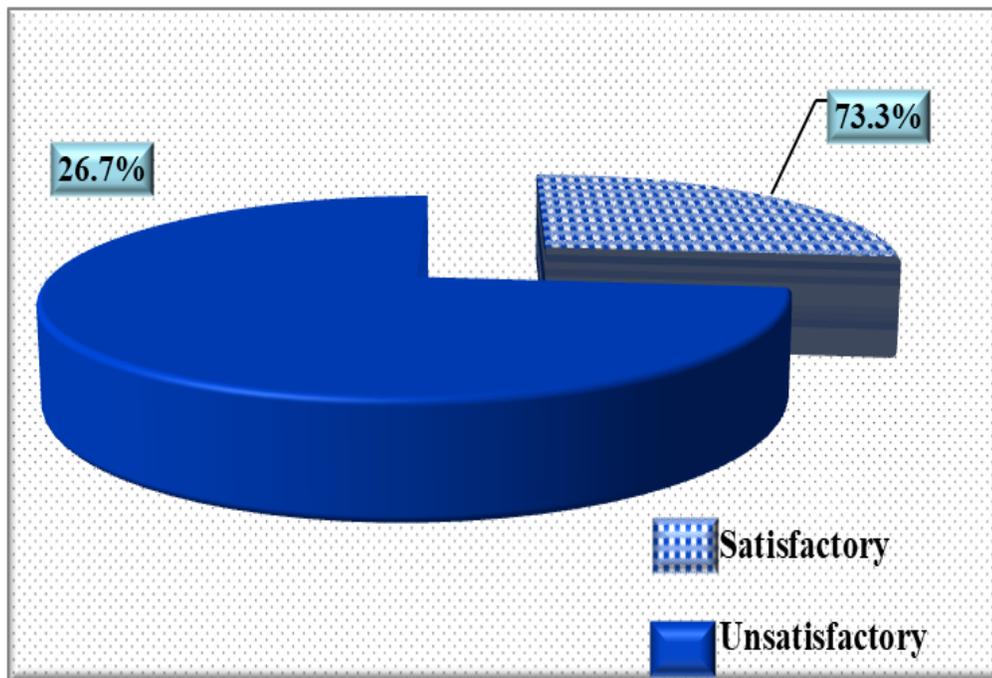
**Table (5): Distribution of the studied women according to their knowledge about the child care (n=120):**

Items	Correct answer		In correct answer		Don't know	
	N	%	N	%	N	%
The signs of eye inflammation (infection):	<b>73</b>	<b>60.8</b>	41	34.2	6	5.0
The appropriate time for bathing a newborn after birth:	33	27.5	57	47.5	30	25.0
How do mothers prevent or treat diaper rash:	50	41.7	<b>66</b>	<b>55.0</b>	4	3.3
Thermal adaptation	34	28.3	<b>71</b>	<b>59.2</b>	15	12.5
Umbilical cord care	32	26.7	42	35.0	46	38.3
Immunization for new born care	27	22.5	36	30.0	62	47.5

**Figure (1): Distribution of the studied women according to their total knowledge about post-partum self-care (n=120):**

**Table (6): Distribution of the studied women according to their post-partum self-reported practices (n=120):**

Items	Done		Not done	
	N	%	N	%
Wash hands before the change of the caesarean section.	107	89.2	13	10.8
Use tape water and soap to wash hands.	76	63.3	44	36.7
Taking care of caesarean section:	103	85.8	17	14.2
<b>Wound care</b>				
Change dressings of caesarean section day after day	53	44.2	67	55.8
Washing hands after changing caesarean section wound	84	70.0	36	30.0
The caesarean section is cleaned in one direction without reversing	27	22.5	93	77.5
Using betadine to disinfect the caesarean section	65	54.2	55	45.8
Dressings of caesarean section used are discarded in the garbage can	116	96.7	4	3.3
<b>Actions to prevent wound infection:</b>				
Limit number of visitors	107	89.2	13	10.8
Keep C.S wound clean and dry	29	24.2	91	75.8
Use clean and light underwear	27	22.5	93	77.5
Take enough time to rest	39	32.5	81	67.5
<b>Actions to facilitate caesarean wound healing process:</b>				
Keep wound clean and dry	115	95.8	5	4.2
Eat balanced diet	34	28.3	86	71.7
Perform walking exercises	28	23.3	92	76.7
<b>Postpartum exercise</b>				
Perform postnatal exercises:	43	35.8	77	64.2
Perform Breathing exercise	25	20.8	95	79.2
Perform Kegel exercises	13	10.8	107	89.2
Perform Walking for some time and rest	39	32.5	81	67.5
Perform post-partum exercises 4 weeks after the CS:	28	23.3	92	76.7
Washing of breast	29	24.2	91	75.8
Take care of baby eyes	31	25.8	89	74.2
Take care of the cord of new-born	76	63.3	44	36.7



**Figure (2): Distribution of the studied women according to their total practices about post-partum self-care (n=120):**

**Relation between total score of women’s knowledge regarding postpartum care and socio-demographic Characteristics**  
**Table (7): Relation between the studied women’s total knowledge and their socio-demographic Characteristics (n=120):**

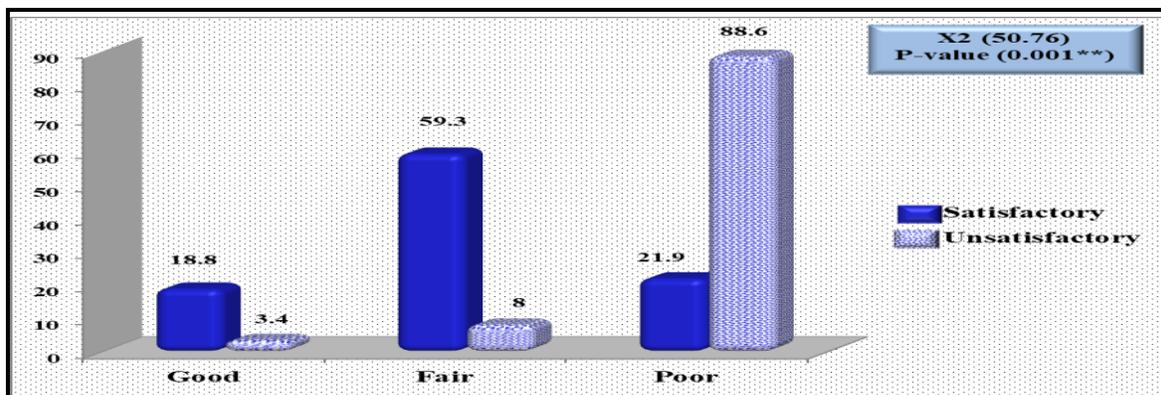
Socio-demographic Characteristic	Total knowledge about post-partum self-care						X <sup>2</sup>	P-value
	Good (9)		Fair (26)		Poor (85)			
	N	%	N	%	N	%		
<b>Age/ years:</b>							17.39	<b>0.008**</b>
▪ < 20 years	0	0.0	5	19.2	21	24.7		
▪ 20-25 years	3	33.3	12	46.2	40	47.1		
▪ 25-29 years	6	66.7	7	26.9	11	12.9		
▪ >30years	0	0.0	2	7.7	13	15.3		
<b>Residence</b>							10.66	<b>0.005**</b>
▪ Rural	0	0.0	9	34.6	45	52.9		
▪ Urban	9	100.0	17	65.4	40	47.1		
<b>Level of education:</b>							46.39	<b>0.001**</b>
▪ Illiterate	0	0.0	1	3.8	23	27.1		
▪ Primary school	0	0.0	9	34.6	25	29.4		
▪ Secondary school	0	0.0	2	7.7	26	30.6		
▪ University	9	100.0	14	53.8	11	12.9		
<b>Occupation</b>							36.79	<b>0.001**</b>
▪ House wife	0	0.0	12	46.2	72	84.7		
▪ Employed	9	100.0	14	53.8	13	15.3		

Chi-square test ( ) statistical significant difference ( ) highly statistical significant difference

**Table (8): Relation between total score of women’s practices about postpartum self-care and their socio-demographic characteristics (n=120):**

Socio-demographic Characteristic	Total practices about post-partum self-care				X <sup>2</sup>	P-value
	Satisfactory (32)		Unsatisfactory (88)			
	N	%	N	%		
<b>Age/ years:</b>					<b>11.60</b>	<b>0.009**</b>
▪ < 20 years	5	15.6	21	23.9		
▪ 20-25 years	11	34.4	44	50.0		
▪ 25-29 years	13	40.6	11	12.5		
▪ >30years	3	9.4	12	13.6		
<b>Residence</b>					<b>5.02</b>	<b>0.025*</b>
• Rural	9	28.1	45	51.1		
• Urban	23	71.9	43	48.9		
<b>Level of education:</b>					<b>34.9</b>	<b>0.001**</b>
• Illiterate	0	0.0	24	27.3		
• Primary school	11	34.4	23	26.1		
• Secondary school	1	3.1	27	30.7		
• University	20	62.5	14	15.9		
<b>Occupation</b>					<b>26.37</b>	<b>0.001**</b>
• House wife	11	34.4	73	83.0		
• Employed	21	65.6	15	17.0		

Chi-square test (\*) statistical significant difference (\*\*\*) highly statistical significant difference



(\*\*) highly statistical significant difference

**Figure (3): Relation between total score of women’s knowledge and total score practices about post-partum self-care (n=120):**

**Table (1):** Illustrates soeiodemographic characteristic of the studied women , it is illustrate that 45.8% of the studied women had an age group from 20-25 years, with mean±SD of 24.23±4.35, about 55% of them lives in urban areas. Concerning level of education 28.3% of the studied women had primary and university education. About of 70% of studied women were house wives. and 72.7% of them had a nuclear family.

**Table (2):** Illustrates that concerning general knowledge about post-partum self-care, 49.2% and 49.2% of the studied women have correct answers in response to, “the importance of maintaining personal hygiene”, and “materials used to clean the perineum and reproductive system” respectively. About 30.0%, and 29.2% of the studied women have don’t know answers in response to “method to change for caesarean section”, and “the importance of maintaining personal hygiene” respectively.

**Table (3):** Illustrates that concerning knowledge about adequate nutrition during postpartum, 62.5%, 70.8% of the studied women have correct answers in response to “the sources of food rich in iron”, “ The sources of food rich in protein” respectively. About 39.2% of the studied women have don’t know answers in response to “daily amount of fluids that the mother needs to drink postpartum” respectively.

**Table (4):** Clarifies knowledge of the studied women about post-partum family planning method and Postpartum exercise , 59.2% and 28.3% of the studied women have incorrect answers in response to “appropriate family planning methods are used during breastfeeding”, and “The best time to start using a family planning method after childbirth” respectively. Regarding knowledge about postpartum exercises, 55.8% of the studied women have correct answers in response to “The benefits of pelvic floor exercises”. While 59.2% of them have incorrect answers in response to “How many times do you have to do perform postpartum exercises per day:”

**Table (5):** Reveals that regarding knowledge about the child care, 60.8% of the studied women have correct answers in response to “The signs of eye inflammation (infection)”. While 55%, 59.2% of them have incorrect answers in response to “How do mothers prevent or treat diaper rash”and Thermal adaptation respectively.

**Figure (1):** Reports that 70.8%, 21.7%, and 7.5% of the studied women have a poor, fair and good knowledge about post-partum self-care respectively.

**Table (6):** It reports that post-partum self-reported practices of the studied women .It shows that, 36.7% of the studied women not “use tape water and soap to wash hands”. Concerning Wound care and actions to prevent wound infection, about 77.5% of the studied women didn’t cleane the caesarean section in one

direction without reversing. and didn’t “use clean and light underwear”. Concerning actions to facilitate caesarean wound healing process, 76.7% of the studied women didn’t perform walking exercises. Regarding postpartum exercises practices, about 89.2% and 79.2% of the studied women didn’t perform Kegel exercises and perform Breathing exercise respectively 36.7% of the studied women didn’t use tape water .

**Figure (2):** Reports that 73.3% and 26.7% of the studied women had satisfactory and unsatisfactory level of practices about post-partum self-care respectively .

**Table (7):** Shows that there are highly statistical significant differences between total score of women knowledge about post-partum self-care and the women’s age, residence, level of education and occupation with p-value were <0.001.

**Table (8):** Shows that there are highly statistical significant differences between total score of women’s practices about post-partum self-care and the women’s age, level of education ,occupation and residence at p-value <0.001.

**Figure (3):** Illustrates that there is highly statistical significant differences between total score of women’s knowledge and total score of women’s practices about post-partum self-care at p-value 0.001\*\* .

## Discussion

After giving birth, extends for six to eight weeks following placenta delivery. By six weeks, the majority of the pregnancy's physiological alterations will have returned to their pre-pregnancy form.. For a woman's and her baby's short- and long-term health and wellbeing, the postpartum period is crucial (Isley,2017).

This study aims to assess of knowledge for women who delivered cesarean section during postpartum period and Identify practice for women who delivered cesarean section during post-partum period.

According to total score of women’s knowledge about postpartum care, the finding of the present study showed that less than three quarters of the postpartum women had poor knowledge about postpartum care. This finding agreed with Wodaynew et al., (2021). Who assessed, assessment of knowledge, attitude and practice of contraceptive use among postpartum women in Jimma University medical center, Jimma Town, South West Ethiopia , they found that about two thirds of post-partum women had low score of knowledge about postpartum care.

Also, this finding was consistent with Doaa et al., (2018), who assessed Mother's personal care during post-partum period, they found about more than four

fifths of the studied women had poor knowledge regarding postpartum care.

Also, this finding was similar to **Ellpody et al., (2023)**. Who assessed, Perception of Pregnant Women Regarding Self Care Measures during Postpartum Period, they found less than one third of the studied pregnant women (30%) had a low level of knowledge

This finding was inconsistent with **Al kalash et al., (2022)** who assessed Knowledge, attitude and practices regarding post-partum care among mothers attending an Egyptian family health unit, At Damanhur District of EL-Behera Governate, they found that more than half of their sample had good knowledge. The possible reason for difference between the present study & other studies may be due to the difference of the study setting.

On the same line with **Mekonnen et al., (2018)**. Who assessed Assessment of knowledge and attitude towards obstetric danger signs during pregnancy among pregnant mothers attending antenatal Care in Mizan Aman Public Health Facilities, Bench Maji Zone, South West Ethiopia, they found that more than half of their sample had good knowledge. The possible reason for difference between the present study & other studies may be due to the difference of the sample.

According to total practices about post-partum self-care About less than three quarters of the studied women had satisfactory level of practices about post-partum self-care this finding agreed with **Mohamed et al.,(2023)**, who assessed Effect of an Educational Program on Knowledge and Self Care Practices of Pregnant Women regarding Prevention of Puerperal Sepsis in Benha University, they found they found less than three quarters of the studied women had satisfactory level of total practices of puerperal sepsis among post-partum

On the same line **Khairy et al., (2023)**who assessed Knowledge, Practices and Attitude of Post-Partum Mothers regarding breast Feeding during COVID-19, they found more than half of the studied mothers had satisfactory practices regarding breast feeding during COVID-19.

This finding was inconsistent with **Aylate et al.,(2023)**, who assessed self-Care Practice and Associated Factors Among Postpartum Mothers at Karat Town, Konso Zone, Southern, Ethiopia, they found that only about one third of participants had good postpartum self-care practices. this difference might be due to differences in the study setting and study period

This finding was agree with **Omran et al., (2020)**. Who assessed Self-care of women during postpartum period in rural area, they found that less than one fifth of them had adequate self-care practice. The

possible reason for difference between the present study & other studies may be due to the difference of the study setting.

The findings of the present study showed a statistically significant difference between total score of women's knowledge and their age, residence, educational level and employment staus. These findings accordance with **Mahmoud et al., (2023)**. they illustrated that there was highly statistically significant difference between the studied women levels of knowledge regarding post-partum care and their age, residence, educational level and employment status with p-value were 0.001. On the same line **Ellpody et al.,(2023)**, they found that there was a significant association between total score of women's knowledge and their educational level this may be due to woman with educational background had correct knowledge than mothers with limited educational background.

The findings of the present study showed a statistically significant difference between total score of women's knowledge and total score of self-care practices scores about post-partum self-care. These findings agreed with **Mohamed, (2023)** they illustrated there was a highly statistically significant between studied pregnant women' total knowledge and total self-care practices scores regarding puerperal sepsis at preintervention, post- intervention and follow-up phases ( $p \leq 0.001$ ). On the same line **Khairy et al.,(2023)**. They illustrated there was a highly positive statically significant correlation between total knowledge total practices.

Regarding distribution of the studied women according to the knowledge about proper nutrition essential for the women during postpartum period, the study findings revealed that less than three quarters of the studied women identified food items rich in proteins. These findings were compatible with **Beraki et al., (2020)**. who assessed Knowledge on postnatal care among postpartum mothers during discharge in maternity hospitals in Asmara they found most of respondents 75.2%, consumed food staples rich in proteins.

Regarding score of knowledge of the studied women about neonatal care. The results clarified that about less than one quarter of the studied women had good knowledge regarding neonatal care, this finding was similar to **Mahmoud et al., (2023)** who assessed Assessment of Knowledge about Postpartum Care among Women at Women's Health Hospital, Assiut University. they found less than one quarter of the studied women had good knowledge regarding neonatal care On the other hand **Mohini & Shetty, (2017)** who assessed the knowledge of mothers on home based neonatal care at selected area of rural

Bangalore, they found that less than one quarter of their sample had good knowledge on neonatal care.

Also, **Mohamed et al.,(2023)** who assessed knowledge and practice of postpartum women regarding neonatal care in El-Beheira Governate, who found that only 26.7% of the studied women had good knowledge about neonatal care.

These findings were dissimilar with **Ayete & Udofia, (2020)** who assessed knowledge and quality of essential newborn care practices in La Dade Kotopon Municipality, Ghana, they found more than half of studied women 62% had good knowledge. The possible reason for difference between the present study & other studies may be due to the difference on study setting and educational level.

As regard to the socio-demographic characteristics, the finding of the present study revealed that less than one half of the studied women aged between 20 and 25 years with the Mean±SD **24.23±4.35** This finding was agree with **Doaa et al., (2018)**. Who illustrated that more than half (58%) of studied women their age ranged from 20 – 24 years. On the other hand, the finding was dissimilar with **Mahmoud et al., (2023)**, they reported that that more than two fifths of the studied women aged between 26 and 30 years with the Mean±SD **29.5±7.25**.

Concerning women residence, the present study cleared that about more than one half of them lives in urban areas. This result was in agreement with **Beraki et al., (2020)** who assessed knowledge on postnatal care among postpartum mothers during discharge in maternity hospitals. They mentioned that nearly three quarters of studied women were from urban areas. This result did not match with **Ganiga& Shetty., (2020)** who assessed awareness of postnatal mothers regarding self and newborn care in a tertiary care center in Mangalore, Karnataka, they found that more than three fifths of their sample were from rural areas. Regarding to the women's employment status, the findings of the present study showed that less than three quarters the studied women were housewives. This result matched with **Kadhim et al., (2023)**. who assessed Assessment Multipara Women Knowledge about Self-Care during Postpartum Period at Gynecology and Obstetrics Hospital in Holy Kerbala. they found majority of the studied women were House wife ,These result agree with **Omran et al., (2020)**, & **Behal et al.,(2018)** who assessed mother's knowledge towards pregnancy, childbirth, postpartum and essential new born care in District Solan and revealed that more than two thirds of women were housewife.

### Conclusion

About more than two thirds (70.8%) of the postpartum women had poor knowledge regarding postpartum car and new-born care , less than three

quarters (73.3%), more than one quarter (26.7%) of the studied women had satisfactory and unsatisfactory level of practices about post-partum self-care.

### Recommendations

- Postpartum education programs give to nurse to enhance women's understanding and experience with the postpartum time.
- Give health instruction supported by drawing pamphlets about postpartum self and neonatal care on discharge for postpartum women.
- Further studies should be carried out on a large number of postpartum to generalize the study findings.
- Setting up and constructing a postpartum consultant role or educator to oversee, coach, and assist the program of postpartum period promotion in hospitals and primary health care facilities; offering a hotline for inquiries from postpartum mothers.
- Raising public knowledge through home visit and educational campaigns about postpartum self-care

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