

## ASSESSMENT OF KNOWLEDGE REGARDING POSTNATAL MINOR DISCOMFORTS AND SELF CARE ACTIVITIES AMONG NULLIPAROUS WOMEN: SUGGESTED GUIDELINES

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### **Abstract:**

Postpartum minor discomforts may occur resulting from all systems adaptation. Immediate and effective care for these discomforts can make the differences in postpartum adaptation. **The aims** of the study were to assess knowledge regarding postnatal minor discomforts and self care activities among nulliparous women and set guidelines for nulliparous women about postnatal minor discomforts and self care activities. **Study design:** cross sectional descriptive design. **Setting:** the antenatal clinic of two hospitals (Zagazig university hospital and al Ahrar hospital). **Study subjects:** A convenient sample included 520 nulliparous women. **Tools of data collection:** A structured interview questionnaire was used. **Results:** The mean age of the studied women was  $22.67 \pm 2.15$  years. A higher percentage of the studied women were secondary and university educated than essentially educated 52.7% & 31.5% vs. 15.8% respectively. In addition a higher percentage was rural residents and housewives 55.8% & 84.6% respectively. 68.1% of women were recruited in late pregnancy beyond 20 weeks and mothers were the main source of the studied women knowledge. **Conclusion:** almost three fourth of nulliparae had poor knowledge regarding the postnatal minor discomforts and self care activities for relieving them. Moreover the socio-demographic characteristics mainly affected the mean knowledge score; as young nulliparae below the age of 25, low level of education, rural residents and housewives their mean knowledge score was low. **Recommendations:** Health teaching supported by prints and drawings should be given to pregnant women in their antenatal visits that involve information about the postpartum period, minor discomforts that may arise during this period, their relief measures and how to differentiate them from danger signs that may arise during this critical period that require seeking advice of health care giver.

**Key words:** Postpartum minor discomforts, self care activities, nulliparous women.

### **Introduction**

Postpartum period also called puerperium and is defined as the period following child birth during which the body tissues, specially the pelvic organ revert back approximately to the prepregnant state both anatomically and physiologically. Puerperium begins as soon as the placenta is expelled and lasts for approximately 6 weeks<sup>(1)</sup>.

During this period mothers experience some discomforts although

they are considered normal common discomforts of puerperium period which include tiredness, headache, haemorrhoids, perineal pain, breast conditions, constipation, dyspareunia, backache, and urinary incontinence<sup>(2)</sup>.<sup>(3)</sup> conducted a study on maternal health after childbirth in all women who gave birth in a two week period in Victoria, Australia. The prevalence of maternal health problems in the first 6 to 7 months

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after giving birth. Out of the 1336 women surveyed, 1254(94%) reported one or more health problems, and 76(5.7%) reported having no health problems in this period. The most commonly experienced problems over the first six months were tiredness (69%), backache (35%), sexual problems (26%), haemorrhoids (24%) and perineal pain (21%), around 16% of women scored as depressed. Most health problems were equally common among women having first births and second or subsequent births.

Self-Care is what people do for themselves to establish and maintain health, and to prevent and deal with illness, with or without the support of a health-care provider. It is a broad concept encompassing hygiene (general and personal), nutrition (type and quality of food eaten), lifestyle (sporting activities, leisure etc.), environmental factors (living conditions, social habits, etc.), socio-economic factors (income level, cultural beliefs, etc.) and self-medication <sup>(4)</sup>.

**Afterpain** it is the infrequent, spasmodic pain felt in the lower abdomen after delivery for the a variable period of 2 to 4 days managed by measures such as emptying the bladder, comfort and cleansing procedures or by repositioning to lie prone with a small pillow or rolled towel under the middle of her abdomen <sup>(5)</sup>.

The study of <sup>(6)</sup> found that **perineal pain** regardless of whether the birth resulted in actual perineal trauma, women are likely to feel bruised around the vaginal and perineal tissues for the first few days after the birth. Women who have undergone any degree of actual perineal injury will experience pain for several days until healing takes place. Treatment includes the use of ice pack, topical anesthetic as needed, sitz bath two to three times daily, kegal exercises and infrared heat.

According to <sup>(7)</sup> **breast engorgement** is manifested by swollen and edematous both breasts, the skin looks shiny and diffusely red and fever less than 39 degrees C and lasts for less than one day. *The study of <sup>(8)</sup> recommended the following self care measures to relieve symptoms of breast engorgement:* The breasts are wrapped in warm wet washcloths covered with plastic wrap to keep the warmth in. Gentle massage should be applied to breasts and try to release some of the excess milk by squeezing with hand, compressing whole breast. Feeding the baby every 2 hours if needed. Pain reliever like ibuprofen, this not only relieves pain but also reduces swelling.

**Constipation** fears may inhibit bowel function if a women afraid of tearing out stitches or of pain association with the remembered bowel pressure in labor. Constipation may be further aggravated by laxness of the abdominal walls and by discomfort of a third or fourth repair. Dietary changes to increase fiber and additional fluid intake and recommended ambulation to enhance peristalsis may relieve the problem, use of stool softeners and laxatives can help to prevent straining <sup>(9)</sup>.

Postpartum **urinary retention** is the inability to void. It's causes include first vaginal birth, epidural, spinal or pudendal block in labor, difficult instrumental birth and / or shoulder dystocia, prolonged second stage, birth weight of > 3.8 kg , excessive perineal trauma i.e. para urethral tear, clitoral tear, large episiotomy, large 2nd or 3rd degree tear, significant edema. To manage this problem, the woman should ensure adequate hydration, ambulation and privacy, some women are only able to void standing in the shower or sitting in a warm bath, the woman is encouraged to void

every 2 to 3 hours and avoid salt and spice food <sup>(10)</sup>.

Stress urinary incontinence (SUI), the complaint of involuntary loss of urine on effort, physical exertion, sneezing or coughing, is the most common type of urinary incontinence (UI) during the pregnancy-puerperium cycle, with a prevalence of 18.6% to 75% during pregnancy and 6% to 31% postpartum <sup>(11)</sup>.

In a randomized controlled trial of antenatal pelvic floor exercises to prevent and treat urinary incontinence, <sup>(12)</sup> stated that the pregnant woman was instructed to perform pelvic floor muscle training consisted of four sets of ten pelvic floor muscle contractions sustained for six seconds when inspiring and relax for six seconds when expiring. Three additional fast contractions (1 second) were performed at the end of the ten repetitions. A 30-second rest interval was defined between each set. These sets were performed twice daily before getting out of bed and at night before sleeping.

**Postpartum blues**, also known as maternity blues is a phase of emotional lability following childbirth, characterized by frequent crying episodes, irritability, confusion, and anxiety. The symptoms arise within the first 10 days and peak around 3–5 days. Generally symptoms of PB do not interfere with the social and occupational functioning of women. PB is self-limiting with no requirement for active intervention except social support and reassurance from the family members. PB can be attributed to changes in hormonal levels of women, further compounded by the stress following delivery. However, PBs persisting for more than 2 weeks may make women vulnerable to a more severe form of mood disorders <sup>(13)</sup>.

#### **Significance of the study:**

<sup>(14)</sup> in Egypt found that less than two thirds (64.7%) of women weren't aware of expected minor discomforts during postpartum period, in addition women did not consider their complaint important enough to mention it. However, the magnitude of reported problems justified serious consideration of the care for women during this important and sometimes crucial phase of life. So, this study was conducted in Zagazig to assess nulliparous knowledge regarding postnatal minor discomforts and self care activities.

#### **Aim of study**

Aims of the current study were to:

- Assess knowledge regarding postnatal minor discomforts and self care activities among nulliparous women.
- Set guidelines for nulliparous women about postnatal minor discomforts and self care activities.

#### **Research questions:**

- What is the level of knowledge regarding postnatal minor discomforts and self care activities among nulliparous women?
- What are the factors that affect knowledge regarding postnatal minor discomforts and self care activities among nulliparous women?

#### **Subjects and Methods**

##### **Research Design:**

Cross sectional descriptive design was used.

##### **Study Settings:**

The study was carried out at the antenatal clinic of two hospitals (Zagazig university hospital and Al-Ahrar hospital) as they provide health care to a large number of population in Zagazig.

**Study Subjects:**

A convenient sample consisted of 520 who were the total number of nulliparous pregnant women who were attending the antenatal visits at the research settings during the study period.

**Tool of data collection:**

A structured interview questionnaire was designed, validated and utilized by the researcher to collect the necessary data. It entailed two parts:

**Part one:** Socio-demographic characteristics such as women age, education, occupation, residence and sources of women knowledge.

**Part two:** Women knowledge regarding postnatal period and postnatal reproductive, breast, GIT, urinary, psychological minor discomforts and self care activities.

**Knowledge scoring system:**

The structured interview questionnaire was composed of 25 questions. The maximum score was (50). The wrong answer or don't know was given (score 0). Correct incomplete answer was given (score 1). Correct and complete answer was given (score 2).

**The score of the questions then were calculated:**

Total score <50% denote poor knowledge. Total score 50% to 75% denote fair knowledge. Total score >75% denote good knowledge.

**Content validity and reliability:**

Tools were reviewed by a panel of five experts in the field of obstetrics and gynecological nursing to test its content validity modifications were done accordingly based on their judgment. Reliability was done by Chronbach's Alpha Coefficient Test which revealed that each item of the utilized tools consisted relatively homogenous items.

**Field Work:**

The researcher attended to the study setting three days per week for data collection over a period of 6 months, starting from December 2017 to May 2018. The researcher started to collect data through the following three phases:

**1- Interviewing phase:** In this phase the researcher introduced herself to the pregnant women and gave them a brief explanation of the study. Those who agreed to participate in the study were requested to give oral consents and then their socio demographic characteristics such as age, education, occupation and residence were obtained.

**2- Assessment phase:** in this phase the studied women knowledge was assessed regarding :

- Postnatal period definition, duration, definition of lochia, its types, the meaning of self care practice and postnatal minor discomforts that occur for the mother and dangerous signs that require calling the doctor.
- Reproductive, breast, GIT, urinary and psychological post partum minor discomforts and self care activities.

**3- Distribution of the guidelines** designed by the researcher on the pregnant women to orient them about the postnatal minor discomforts and self care activities.

All data was collected by the researcher, using face to face interview, for one time. It took about 20-30 minutes to complete each interview. The interview was conducted in a simple Arabic language and all women's answers were recorded in the sheet. The researcher answered all the additional questions raised by the pregnant women, corrected their fault answers.

**Pilot study:**

A pilot study was conducted on 50 women attending to the previously mentioned setting. These subjects were not included in the sample for the present study. The purposes of the pilot study were to evaluate the feasibility and understandability of the tool, and to find the possible obstacles and problems that might face the researcher and interfere with data collection. In addition to estimate the time needed to complete the interview schedule.

**Administrative & ethical considerations:**

All ethical issues were taken into consideration during all phases of the study. The research maintained an anonymity and confidentiality of the subjects. The researcher introduced herself to the pregnant women and briefly explained the nature and aim of the study to every woman before participation and women enrolled voluntarily after obtaining oral consent. Women were also assured that the information obtained during the study will be the research purpose only.

**Statistical analysis:**

Data analysis was carried-out by the researcher and under the supervision of a statistical specialist. The collected data was categorized, coded, computerized, tabulated, and analyzed using percentage, mean, standard deviation, through SPSS statistical software package. Upon the completion of data entry, frequencies and descriptive statistics for each variable were examined to describe the sample.

**Results**

**Table one** shows that 75.8% of the studied women aged from 18 to 25 years, while 24.2% of them were 25-30 years with a mean age of  $22.67 \pm 2.15$  years. This table also shows that a higher percentage of the studied women were secondary and university educated than essentially educated 52.7% & 31.5% vs.

15.8% respectively. In addition a higher percentage of the studied women were rural residents and housewives 55.8% & 84.6% respectively.

**Table two** illustrates that 31.9% of the studied women were recruited in study in early pregnancy before 20 weeks, while 68.1% of them were recruited in late pregnancy beyond 20 weeks. The studied women sources of knowledge were also illustrated in this table, mothers were the main source of the studied women knowledge followed by antenatal advice given by doctors and nurses then social media 52.7%, 39.6% & 37.7% respectively. While 20.8% of the studied women got knowledge from other sources as friends, relatives and neighbors.

It is evident in **table three** that 74.6% of the studied women correctly knew the definition and duration of the postpartum period. While 76.2% of the studied women didn't know what's lochia and its types. In addition 75.0%, 95.0% & 89.6% respectively of the studied women their answers were incomplete regarding the meaning of self care activities, postnatal minor discomforts and postpartum dangerous signs that require seeking medical advice respectively.

It is obvious in **table four** that 87.3% of the studied women incompletely mentioned the reproductive system postnatal minor discomforts. As for self care activities for relieving after pain, 65.0% of the studied women incompletely answered, while 33.1% of them their answers were incorrect. Regarding the definition of episiotomy, its indications, causes of perineal lacerations, and the proper technique of self perineal care, higher percentages of the studied women (56.0%, 53.8%, 60.8% & 54.2% respectively) their answers were incomplete. While 36.9%, 41.2%, 30.0% & 45.8% respectively their answers were

incorrect. Moreover, 72.7% of the studied women didn't know the ways to speed healing and relieve perineal discomfort.

**Table five** illustrates that 56.5% of the studied women didn't know the benefits of breast feeding for the mother, while 42.3% of them their answer were incomplete. Regarding the benefits of breast feeding for the baby, postnatal breast minor discomforts and self care activities for relieving them 72.3%, 71.2% & 63.5% respectively of the studied women their answers were incomplete.

**Table six** shows that regarding the studied women knowledge regarding GIT minor discomforts, self care activities, postnatal diet and importance of early ambulation 83.5%, 79.6%, 70.8% & 61.9% respectively of their answers were incomplete.

It is obvious in **table seven** that 55.4% of the studied women incompletely known the postnatal urinary minor discomforts while 42.3% of them their answers were incorrect. As for self care activities for relieving postpartum urinary minor discomforts 58.5% of the studied women their answers were incorrect, while 41.5% their answers were incomplete. In addition, 86.5% of the studied women didn't know how to perform kegel exercise

and its importance. As for postnatal psychological minor discomforts and self care activities 85.0% & 83.1% respectively of the studied women incompletely knew them.

**Figure one** demonstrates that the level of the studied women knowledge scores regarding postnatal minor discomforts and self care activities was poor in a higher percentage of women 73.5%, fair in 26.2% and good in 0.4%.

**Table eight** explains that the mean score of the studied women knowledge regarding postnatal minor discomforts and self care activities was higher in age group 25-30 years than those in 18-25 age group  $24.06 \pm 6.36$  vs.  $18.32 \pm 7.12$  respectively. Also, the mean score of university educated women was higher than secondary and essentially educated women  $26.07 \pm 4.87$  vs.  $18.42 \pm 5.97$  &  $11.24 \pm 4.28$  respectively. In addition, the mean score of urban women was higher than rural women  $21.73 \pm 6.60$  vs.  $18.10 \pm 7.53$  respectively. Moreover, the mean score of working women was higher than housewives  $26.25 \pm 5.86$  vs.  $18.51 \pm 6.96$  respectively. All the differences observed reached high statistically significance,  $P=0.000^*$ .

**Table (1)** Distribution of the Studied Women According to Socio Demographic Characteristics (n=520).

Characters	Items	No.	%
Age (Years)	18-	394	75.8
	25-30	126	24.2
	Range: 18 – 30      Mean $\pm$ SD = $22.67 \pm 2.15$		
Education	Essential & less	82	15.8
	Secondary	274	52.7
	University	164	31.5
Residence	Rural	290	55.8
	Urban	230	44.2
Occupation	House wife	440	84.6
	Working	80	15.4

**Table (2):** Distribution of the Studied Women According to Gestational Age at Recruitment at the Study and Sources of Their Knowledge (n=520).

	No	%
<b>Gestational Age</b>		
< 20 weeks	166	31.9
>20 weeks	354	68.1
<b>Sources of knowledge</b>		
Ante natal care	206	39.6
Mothers	274	52.7
Social Media	196	37.7
Others:	108	20.8
Friends	74	14.2
Relatives	24	4.6
Neighbors	14	2.7

**Table (3):** Distribution of the Studied Women According to Their Knowledge about the Postnatal Period (n=520).

	Answers					
	Incorrect		Correct incomplete		Correct complete	
	No	%	No	%	No	%
Definition & duration of postnatal period.	6	1.2	126	24.2	388	74.6
Definition of lochia and its types.	396	76.2	124	23.8	0	0.0
The meaning of self care practice.	82	15.8	390	75.0	48	9.2
Postnatal minor discomfords that occur for the mother.	20	3.8	494	95.0	6	1.2
Dangerous signs that require calling the doctor.	54	10.4	466	89.6	0	0.0

**Table (4):** Distribution of the Studied Women According to Their Knowledge Regarding Postnatal Reproductive Minor Discomfords and Self Care Activities (n=520).

	Answers					
	Incorrect		Correct incomplete		Correct complete	
	No	%	No	%	No	%
Postnatal minor discomfords that occur for the reproductive system.	18	3.5	454	87.3	48	9.2
Self care activities for reliving after pain.	172	33.1	338	65.0	10	1.9
Definition of episiotomy.	192	36.9	294	56.0	34	6.5
Indications of episiotomy.	214	41.2	280	53.8	26	5.0
Causes of perineal lacerations.	156	30.0	316	60.8	48	9.2
Proper techniques of self perineal care.	238	45.8	284	54.2	0	0.0
Ways to speed healing and relieve perineal minor discomfords.	378	72.7	142	27.3	0	0.0

**Table (5):** Distribution of the Studied Woman According to Their Knowledge Regarding Postnatal Breast Minor Discomforts and Self Care Activities (n=520).

	Answers					
	Incorrect		Correct incomplete		Correct complete	
	No	%	No	%	No	%
Benefits of breast feeding for the mother.	294	56.5	220	42.3	6	1.2
Benefits of breast feeding for the baby.	4	0.8	376	72.3	140	26.9
Postnatal minor discomforts that occur for the breast.	70	13.5	370	71.2	80	15.4
Self care activities for reliving postnatal breast minor discomforts.	164	31.5	330	63.5	26	5.0

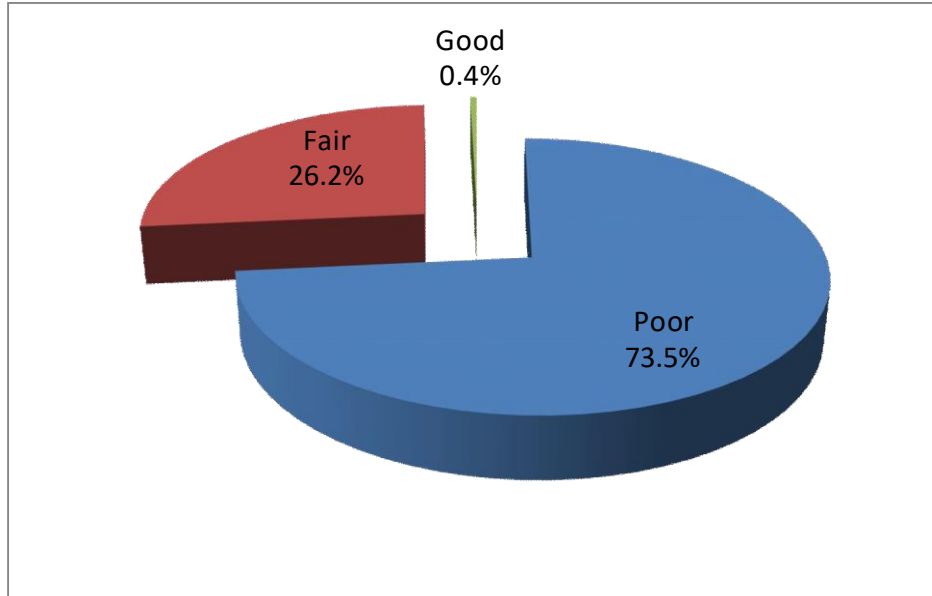
**Table (6):** Distribution of the Studied Women According to Their Knowledge Regarding the Gastro Intestinal Postnatal Minor Discomforts and Self Care Activities (n=520).

	Answers					
	Incorrect		Correct incomplete		Correct complete	
	No	%	No	%	No	%
Postnatal minor discomforts that occur for GIT.	26	5.0	434	83.5	60	11.5
Self care activities for relieving GIT postnatal minor discomforts.	104	20.0	414	79.6	2	0.4
Post natal nutrition that should be taken.	20	3.8	368	70.8	132	25.4
Importance of early ambulation and post natal exercises.	164	31.5	322	61.9	34	6.5

**Table (7):** Distribution of the Studied Women According to Their Knowledge Regarding Urinary and Psychological Postnatal Minor Discomforts and Self Care Activities (n=520).

	Answers					
	Incorrect		Correct incomplete		Correct complete	
	No	%	No	%	No	%
Postnatal minor discomforts that occur for urinary system.	220	42.3	288	55.4	12	2.3
Self care activities for reliving urinary postnatal minor discomforts.	304	58.5	216	41.5	0	0.0
How to perform kegel exercise and its importance.	450	86.5	58	11.2	12	2.3
Postnatal psychological minor discomforts.	60	11.5	442	85.0	18	3.5
Self care activities for reliving psychological postnatal minor discomforts.	82	15.8	432	83.1	6	1.2





**Figure (1):** Distribution of the Studied Women According to Level Of Knowledge Scores Regarding Postnatal Minor Discomforts and Self Care Activities (n=520).

**Table (8):** Relation Between Socio Demographic Characteristics of the Studied Women and Their Mean Score of Knowledge Regarding Postnatal Minor Discomforts and Self Care Activities (n=520).

Characters	Items	No	Score	Significance test
			Mean $\pm$ SD	
Age (Years)	18-25-30	394	18.32 $\pm$ 7.12	t = 5.663, P= 0.000**
		126	24.06 $\pm$ 6.36	
Education	Essential & less Secondary University	82	11.24 $\pm$ 4.28	F = 111.142 P= 0.000**
		274	18.42 $\pm$ 5.97	
		164	26.07 $\pm$ 4.87	
Residence	Rural Urban	290	18.10 $\pm$ 7.53	t = 4.078 P= 0.000**
		230	21.73 $\pm$ 6.60	
Occupation	House wife Working	440	18.51 $\pm$ 6.96	t = 6.611 P= 0.000**
		80	26.25 $\pm$ 5.86	

\*\* The Chi-square statistic is highly significant at the 0.001 level.

### Discussion:

A recent trend in the health care is self care. It refers to those activities the individuals undertake in promoting their own health preventing their own diseases, limiting their own illness and restoring their own health without assistance. Self care after child birth assures that the mother and baby should control puerperal discomforts (*Bick & Gichie, 2014*)<sup>(15)</sup>.

The present study was conducted to assess nulliparous knowledge about postnatal minor discomforts and self care activities and to set suggested guidelines. The study was carried out on 520 pregnant women that were attending to the antenatal clinic at two hospitals (Zagazig university hospital, Al-Ahrar hospital).

In the present study, almost three fourth of the studied women aged from 18 to 25 years, while almost one fourth of them were 25-30 years with a mean age of  $22.67 \pm 2.15$  years. It also revealed that a higher percentage of the studied women were secondary and university educated than essentially educated. In addition, more than half of women were rural residents and more than four fifth of them were housewives.

On the contrary, *Shabaan et al (2018)*<sup>(14)</sup> in Egypt conducted a study on the effect of health teaching on post partum minor discomfort and found that The study subjects' age ranged from 20 to 40 years with a higher mean age  $25.78 \pm 4.233$  years. 52% of them were in the age group 20–24 years while 3.3% of them were in the age group 35– 40 years. As regards subjects' education level, 46.7% of the subjects can read and write, while 9.3% of them reached to high level of education. Also, 42.7% of them

lived in rural areas and 98% were housewives.

As for the source of women knowledge, the present study revealed that mothers were the main source of knowledge of nearly half of the studied women followed by antenatal advice given by doctors and nurses in almost two fifth of them, then social media in slightly less than two fifth of women. While almost one fifth of them get knowledge from other sources as friends, relatives and neighbors. On the contrary, *Timilsina & Dhakal (2015)*<sup>(16)</sup> in Nepal studied the knowledge on postnatal care among postnatal mothers and mentioned that friends and family were the main source of knowledge in 74.48% of women, while health personal, radio/television and newspapers were the source of information in (19.9%, 4.6% & 1.02% respectively) of the studied women.

It is evident in the present study findings that almost three fourth of the studied women correctly knew the definition and duration of the postpartum period and almost one fourth of them answered correct but incomplete, while the answer was incorrect in a very small percentage. As for definition of lochia and its types, more than three fourth of the studied women their answer was incorrect, almost one fourth of them their answer was correct but incomplete, while none on them correctly answered. As regards self care practice, three fourth of women correctly but incompletely defined it and less than one fifth of them incorrectly defined it, while a very small percentage correctly defined it. In addition, the majority of women correctly but incompletely knew the postpartum

dangerous signs that require seeking medical advice and a small percentage incorrectly answered, while none of them provided a correct answer.

Conversely, *Abd el-razek (2013)*<sup>(4)</sup> in Jordan conducted a study on enhancement of mother's self-care practices for relieving minor discomfort during post partum period and the pretest elaborated that 55.5% of women incorrectly defined the postpartum period, while 44.5% correctly defined it. As for, types of lochia, 74.5% incorrectly answered, while 25.5% correctly answered. As regards definition of self care practice, 72.5% incorrectly answered while 27.5% correctly answered. Moreover, 61.5% incorrectly answered the postnatal warning signs, while 38.5% of them correctly answered.

As for women knowledge regarding the postnatal minor discomforts that the woman may experience, less than three fourth of women correctly but incompletely knew them, while very small percentages of correct and incorrect answers were provided. Conversely, a higher percentage of incorrect answer was demonstrated by the pretest conducted by *Shabaan et al (2018)*<sup>(14)</sup> as 64.7% of the study subjects mentioned that they didn't know the expected minor discomforts during postpartum period.

As for self care activities for relieving after pain, almost two thirds of the studied women correctly but incompletely answered, while almost one third of them their answer was incorrect with a very small percentage of correct answer. Conversely, *Abd el-razek (2013)*<sup>(4)</sup> found that 70.0% of women incorrectly knew the self care activities for relieving

After pain, while 30.0% of women correctly knew them.

Concerning the woman knowledge regarding self perineal care, less than half of women incorrectly knew it, while more than half of women had correct incomplete knowledge and none of women correctly knew it. In addition, women knowledge regarding self care activities to encourage healing of perineal discomfort less than three fourth of women incorrectly knew these activities, and more than one fourth of women incompletely knew them, while none of women had correct knowledge. On the contrary, *Adam (2015)*<sup>(17)</sup> revealed a higher percentage (67.0%) of incorrect answer for women knowledge regarding self perineal care and 33.0% had correct answer. Moreover, 62.0% didn't know how to manage perineal discomfort, while a higher percentage (38.0%) correctly knew these management measures.

The present study findings elaborated that almost one fourth of women correctly knew the benefits of breast feeding for the baby, while a very small percentage knew its benefits for the mother. These findings were in partial agreement with the thesis of *Adam (2015)*<sup>(17)</sup> in Khartoum who assessed mother's knowledge regarding postpartum self-care in national Ribat university hospital and mentioned that 27.0% of women correctly knew the importance of introduction of breast feeding for both mother and baby.

As regards self care activities for relieving the postnatal breast minor discomforts, the present study findings illustrated that a very small percentage of women correctly knew them, while less than two thirds of them correctly but incompletely knew them and less than one

third of women didn't know them at all. On the contrary, the study of *Abd el-razek (2013)* <sup>(4)</sup> revealed that a higher percentage of women knew the self care activities for relieving breast engorgement and cracked nipple (47.5% & 38.5% respectively), meanwhile 52.5% & 61.5% respectively of women their answer was incorrect.

In the present study, more than four fifth of women incompletely knew the gastro intestinal minor discomforts, while small percentages either correctly or incorrectly knew them. *Shabaan etal (2018)* <sup>(14)</sup> was in partial agreement with these findings and reported that in the pretest 13.2% correctly mentioned the postnatal gastrointestinal minor discomforts, while 86.8% incorrectly knew them.

It is obvious from the present study that almost three fifth of women had incomplete knowledge regarding the post partum exercises and their benefits and almost one third of women had no knowledge, while small percentage correctly knew them. Conversely, *Alharqi & Albattawi (2018)* <sup>(18)</sup> assessed knowledge and attitude of women towards postpartum exercise in Saudi Arabia and revealed that 72.5% of women had adequate knowledge about postpartum exercises, while 27.5% hadn't adequate knowledge.

Concerning urinary postnatal minor discomforts, it was evident in the present study that more than half of women had incomplete knowledge and less than half of women had no knowledge while correct knowledge was provided by a very small percentage of women. In partial agreement with these findings *Shabaan etal (2018)*

<sup>(14)</sup> reported that 9.4% of women in the pretest knew the postnatal urinary minor discomforts while 90.6% had no knowledge regarding them.

The present study revealed that the majority of women didn't know kegel exercise and its benefits while small percentages of women their knowledge was either incomplete or complete. In contrast with these findings *Faiza (2016)* <sup>(19)</sup> in Khartoum studied women's perception and experiences regarding post partum exercise in Khartoum university hospitals –Khartoum Locality ,Sudan and found that a higher percentage (46.8%) of women correctly knew kegel exercise and its benefits.

It is evident in the present study that the level of women knowledge scores regarding postpartum period, breast and perineal postnatal minor discomforts and self care activities for relieving them was poor (< 50.0%) in less than two thirds of women, fair (50.0 - < 75.0%) in almost one third of them and good ( $\geq$  75.0%) in a very small percentage. Inconsistent with the present study findings *Gadiya etal (2014)* <sup>(20)</sup> studied the effectiveness of planned teaching program on episiotomy care in India. The pretest showed that the maximum score was 25 and the mean score of women knowledge was  $5.77 \pm 2.126$ , and the level of knowledge scores was poor in 66.5% of women, average in 35.0% of them and none of them had good knowledge.

In contrast to the present study findings, *Timilsina & Dhakal (2015)* <sup>(16)</sup> found a higher level of women knowledge regarding postpartum period care; as it was poor in 0.5% of women, average in 62.76% and good in 36.73% of women.

Moreover, *Kavitha et al (2012)* <sup>(21)</sup> conducted a study to assess the knowledge regarding postnatal care among the postnatal mothers in Eritrea. This study also revealed a higher level of women knowledge; as none of women had inadequate knowledge, 85.0% of women had moderately adequate knowledge and 15.0% had adequate knowledge.

The present study findings explained that the mean score of women total knowledge regarding all postnatal minor discomforts and self care activities for relieving them was higher in age group 25-30 years than those in 18-25 age group. Also, the mean score of university educated women was higher than secondary and essentially educated women. In addition, the mean score of urban women was higher than rural women. Moreover, the mean score of working women was higher than housewives. All the differences observed reached high statistically significance.

Similarly, *Lalitha (2016)* <sup>(22)</sup> conducted a study to assess the knowledge on self care during post natal period among primipara mothers in a selected maternity hospital in India and revealed a statistically significant association was observed between knowledge and age between 20-30 years ( $\chi^2 = 10.2$  at  $df = 49$ ,  $p < 0.05$ ), high educational status ( $\chi^2 = 9.01$  at  $df = 49$   $p < 0.05$ ), urban residence ( $\chi^2 = 4.11$  at  $df = 49$   $p < 0.05$ ) and with employment ( $\chi^2 = 15.9$  at  $df = 49$   $p < 0.05$ ).

### Conclusion

Based on the present study findings, it can be concluded that almost three fourth of nulliparae had poor knowledge regarding the postnatal minor discomforts

and self care activities. Moreover the socio-demographic characteristics highly significantly affected the mean knowledge score; as young nulliparae below the age of 25, low level of education, rural residents and housewives their mean knowledge score was low.

### Recommendations

In the light of the present study findings, it can be recommended that

- Health teaching supported by prints and drawings should be given to pregnant women especially nulliparae in their antenatal visits that involve information about the postpartum period, minor discomforts that may arise during this period, how to alleviate these discomforts and how to differentiate them from danger signs that require seeking advice of health care giver.
- Clear and comprehensive discharge instructions about these discomforts should be given to parturient women and their companion.
- Mass media should pay a great attention to increase women awareness at all age, education, occupation and residence classes regarding these discomforts in a simple, entertaining manner.

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