

Effect of Self-Care Guidelines on Women Awareness Regarding Post-Partum Perineal Wound Care

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Abstract

Background: Postnatal care is one of the most important maternal health cares for prevention of maternal impairment and disabilities. So, there is an urgent need to increase women's awareness regarding self-care measures during postpartum period. **Aim:** This research aimed to evaluate the effect of self-care guidelines on women awareness regarding post-partum perineal wound care. **Research design:** A quasi-experimental research design was used in this research. **Sample:** Purposive sample include 70 post-partum women according to the G power formula. **Setting:** Minya University Hospital for Obstetric and Pediatric (MUHOP) at the postpartum ward. **Tools:** Two tools used in this research. **First tool:** Interview questionnaire include socio-demographic characteristic, **Second tool:** Perineal wound care knowledge questionnaire. **Results:** The finding of the study illustrated that (5.5 %) of studied women have good knowledge about perineal care on pre-self-care guidelines compare with (85%) of them on post self-care guidelines. **Conclusion:** There were a marked improvement in women's total knowledge as well as all items of the knowledge regarding post-partum perineal wound care on the post self care guidelines than pre self care guidelines with statistically significant difference. **Recommendation:** Self-care guidelines about women awareness regarding post-partum perineal wound care should printed and distributing to women who having perineal wound.

Keywords: Post-Partum Perineal Wound Care, Self-Care Guidelines, Women Awareness.

INTRODUCTION

Most women with stitched perineum after vaginal birth suffer some forms of postpartum complications. Pain is one of the distressing short term morbidity which interferes with the mother's ability to carry out activities of daily living and care for her baby. Wound infection and dehiscence are usually seen in some cases. Supportive information on postpartum perineal wound care was given less attention during Antenatal health education sessions thereby making parturient unable to know and practice proper wound care that will aid healing (Ari et al., 2019).

Also, Perineal wounds usually occur following trauma, ablation of malignancy of the genitalia, low pelvic tumors, or following thermal or electrical injuries. These wounds remain a significant problem and can commonly present as wound infection, abscess, dehiscence, delayed healing, or persistent perineal sinuses (McCraw et al., 2021). These wounds result in significant morbidity requiring prolonged hospital stay, hospital readmission, home-nursing wound care needs; all involving significant medical costs. Perineal wounds can also occur following Fournier's gangrene, hidradenitis suppurativa, or in chronically bed ridden patients where pressure sores can extend into the perineal region. For the patient, these wounds are painful, malodorous lesions requiring constant care and adversely affecting the quality of life (Touran et al., 2020).

The perineum includes the region between the pubic symphysis and the coccyx and is probably derived from the Greek words "perineal" meaning to "empty out". However, for this presentation we have included the genitalia, the rectum, anus, the sacral, and the groin region for description of perineal wounds (McAllister et al., 2022).

Additionally, the postpartum period is when the woman physically and psychologically recovers after her pregnancy and delivery. Following the conclusion of labor, a midwife must be present to care for the mother and child for a

minimum of ten days and for longer if the midwife deems it essential. The time period is arbitrarily divided into the first twenty-four hours after delivery, the first week after delivery, and the second to sixth weeks after delivery. The major objectives of postpartum care are to help and support the mother's return to her pre-pregnancy state and teach her about how to take care of herself (MacDougall et al., 2023).

Postnatal care is the care given to the mother and the infant from delivery up to six weeks. The principal objectives of postnatal care services are to evaluate, maintain and promote the health of the birthing woman and the new born and to foster an environment that offers help and support for diverse health and social needs. Postnatal care is one of the important maternal health care services for only prevention of complications of impairment and disability but also reduction of maternal mortality. Postnatal care services enable health professionals to identify post-delivery problems, individual potential complications and prompt treatments as well as promoting health of the mother and baby. Multiple factors have been identified worldwide to affect utilization of postnatal care services such as socio-demographic, economic and cultural factors as well as knowledge of women on postnatal care (Konje et al., 2022).

So, the perineal defects need to be assessed in three dimensions. The skin defects may be associated with a large dead space in the pelvis following surgical extirpation of tumors. The rigid bony pelvis does not allow the wound to collapse resulting in fluid collection. It is important to know if the patient has received or is likely to receive radiotherapy. Provision of a well vascularized muscle cover is very important in such a situation (Wiatrek et al., 2021).

Also, all women should be asked about discomfort in the perineal area, regardless of whether the birth resulted in actual perineal trauma. Advices from the midwife may be welcomed and clear information and reassurance are helpful where women have poor understanding of what happened and

are anxious about urinary, bowel or sexual function in the future. For the majority of women, the perineal wound gradually becomes less painful and healing should occur by 7-10 days after the birth (**McCauley et al., 2022**).

Additionally lack of knowledge is a significant predictor of utilization of most health services. Procedures require women's knowledge and that of health care providers. So, health care providers should disseminate appropriate information in an appropriate way in order for women to understand the information on why they need to utilise the services (**Okafor et al., 2022**).

Furthermore, nurses play a significant part in the perineal wound care. They must be able to effectively interact with their clients in a variety of ways (verbally and nonverbally) and take into account a wide range of factors (biological, psychological, sociocultural, spiritual, environmental). The position of nurse is highly complicated as it includes their role as advocator, educator, communicator, consultant, coordinator of care, leader or member of the profession, care giver, empowering agent, researcher user and health promoter, role model, and as a counselor (**Park et al., 2022**).

Nurses aid in the prevention and recovery can be from uncomfortable or painful, depending on how deep and long the tear is. It's most painful at the beginning, but should feel better each day. Pain typically affects sitting, walking, urinating, and bowel movements for at least a week. First bowel movement may be painful. A tear is usually healed in about 4 to 6 weeks (**Bordes et al., 2021**).

Significance of the research:

Early perineal wound complications occur in up to 35% of women, and 10% of women still have a wound complication even 1 year after the operation as perineal wound dehiscence's, perineal infection, and infected perineal seroma (**Sharabiany et al., 2020**). In hospitals, a large majority of women who give birth vaginally suffer from an injury to their perineum, the area of skin and muscle between the anus and the vagina. This injury may be bruising or tearing, or occur as a result of a deliberate cut to assist with childbirth. As women are often discharged from the hospital very shortly after childbirth, they may be left to care for this wound themselves, without healthcare supervision.

The type and extent of the injury vary, as does the treatment for these wounds. They might have stitches, need cold packs and analgesics or anti-inflammatories for pain relief; or salt baths, wound packing, and antibiotics to help with healing. Many women are not warned of the likelihood or prepared for a perineal wound. They do not know how to manage and care for the wound. This may result in complications such as increased pain and discomfort, distress, risk of infection, and difficulty with urination and having sexual intercourse (**O'Kelly & Moore, 2017**).

Also, the same author added that obstetric nurses are in the unique position of being able to provide up-to-date and accurate advice and can play a key role in educating women. Appropriate formal education provided before childbirth might lessen the shock and distress associated with a perineal wound, and empower the mother to manage the treatment of the wound, thereby reducing the risk of complications.

In additional Egyptian study done by **Hussein et al., (2018)** to identify postpartum learning needs as perceived by mothers at Suez Canal University Hospital which carried out in labor and postpartum units reported that all mothers

delivered by normal vaginal delivery, stated that information about episiotomy cares important learning needs for post-partum women.

Aims of the research:

The aim of the current research was evaluating the effect of self-care guidelines on women awareness regarding post-partum perineal wound care

Research Hypothesis:

- Women who utilize self-care guidelines will have high level of knowledge regarding post-partum perineal wound care.

Subjects and Methods:

Research Design

Pre/post quasi-experimental design was used in this study.

Setting

This study was conducted at Minya University Hospital for Obstetric and Pediatric (MUHOP) at the postpartum ward. Minya University Hospital built 2005 and consists of two main departments and units providing multi services. The hospital consists of four-floor building. The first floor includes the outpatient clinics, department and emergency unit beside kitchen, laundry and sterilization unit. The second floor hosts the NICU, x ray, sonar units and laboratory department beside outpatient. Third floor consists of delivery room, pediatric operation and economic operation. Fourth floor obstetric departments, physician resting suit and pediatric department. Hospital's bed-capacity is (306). Finally, the postpartum unit contained 9 rooms

Sample

A purposeful sample was used in this study. The sample size was (70) post-partum women according to the G power formula after using type 1 error = 0.05 and power of 0.80 and assuming the standard deviation of the (NRS=2).

Inclusion criteria:

- Primiparous women aged between 17-35 year.
- Had medio-lateral episiotomy, laceration or tear.
- No history of disease impaired wound healing.

Exclusion criteria:

- Median episiotomy.
- Having valvovaginitis and hematoma or abscess in perineum.

Tool for data collection:

Data were collected through the utilization of two tools as follows:

The first tool: Structure interviewing questionnaire: it was designed by the researcher and consisted of **demographic data** such as age, residence, education level, and receiving antenatal health education about perineal care

The second tool: Perineal wound care Knowledge Questionnaire:

It was developed by the researcher through reviewing of related literature **Odo et al., (2021); Hables, (2021); Yang**

and Bai, (2021) to assess women knowledge related (perineal wound care and outcomes associated with episiotomy), it include knowledge about perineal wound care and vaginal tears wound care, minor discomfort in the postpartum period, postpartum self-perineal care, ways to speed healing and relieve discomfort, call your doctor if any symptoms and this is a superficial tear of the skin, which will sometimes heal without the need for stitches.

Scoring system for knowledge:

Knowledge questions were given scores 3, 2 and 1 for complete correct answer, incomplete correct answers, and don't know respectively. The score of total knowledge was classified as the following: - Poor knowledge when the total score was (< 50 %), fair knowledge ranged from (50%-75%) also the good knowledge when the total score was (>75%).

Validity of the research tool:

Tool was tested for the content validity by a jury of five experts in the field of Obstetric Nursing and necessary modifications were done. The jury composed of (two professors as well as one assistant professor of Obstetric Nursing, and two professor of Community Health Nursing) from Faculty of Nursing, Minia University. Each of the expert panel was asked to examine the tools for content coverage, clarity, wording, length, format and overall appearance.

Reliability of the study scales

Reliability of the tool was performed to confirm consistency of tools. The internal consistency measured to identify the extent to which the items of tool measured the same concept and correlate with each other by Cronbach's alpha test that revealed good internal reliability for the tool in the current research; it was 0.876.

Pilot study

A pilot study conducted on (10 %) of the total number of study sample to test the feasibility, objectivity, and applicability of the items. In addition, the pilot study helped the researcher experience to estimate the needed time to fill the data collection tools. Based on the results of the pilot study, tools not needed any modifications; so that the (10%) of the study sample who shared in the pilot study were included in the actual study.

Data collection Procedure:

The current study was achieved through four phases; assessment phase (pretest), planning, implementation, and evaluation phase (post -test).

1-Assessment phase:

This phase involved interviews with the studied sample. The researcher was available at the previously mentioned settings twice weekly from October to November 2021 (all duration two months) at morning and afternoon from 10 am to 2pm by rotation in each study setting. First, the researcher was introduce herself and briefly explained the

nature and the purpose of the study and obtained the acceptance from the women who participate in the current research, the researcher provided an overview and clarification about the data collection tool questions to the whole group and start to give women a questionnaire to fill it. The time required for finishing each questionnaire was around; 20-30 minutes. The average number collected was group consists of (4 -6) women per day.

2-Planning phase:

Based on baseline data obtained from pre-test assessment and relevant review of literature, the educational program was developed by the researcher. This was taken two months from the beginning of October to November 2021. Program construction in a form of printed Arabic form to improve the women knowledge regarding postpartum self-care that led to positive effect on women.

3-Implementation phase:

An educational program in form of an Arabic brochure designed by the researcher for women, based on the findings of their knowledge. It was be developed to cover all necessary knowledge needed. An essential prerequisite thorough review of the up-to-date literature relevant to the study subject (nursing textbooks, journals, and internet resources) before the development of an interview questionnaire. In this phase the women divided into small groups, each group consists of (4 -6) women, the researcher used brochure about post-partum wound care, to enhance post-partum women.

4-Evaluation Phase:

After delivery, the post-test was conduct by using the same tool to evaluate the effectiveness of the educational program on post-partum women knowledge about the episiotomy among postpartum women.

Administrative design

Written permission was granted from the director of the MUHOP after explained the aim and nature of the research. The researcher visited the postpartum ward at the MUHOP to explained the aim of the research to the women to gain their cooperation and consent for sharing in this research. After oral explanation; oral consent obtained from every subject who accepts to participate in the research. The tool filled by the women. Voluntary participation, confidentiality, and anonymity were assured.

Statistical analysis of data

The data obtained from the study tools were categorized, tabulated, analyzed and data entry was performed using the SPSS software (statistical package for social sciences version (25.0). Descriptive statistics were applied (e.g., mean, standard deviation, frequency and percentage).

Chi square test for qualitative data between the two groups. A significant level value was considered when $p < 0.05$, also highly statistically significant difference ($p < 0.01$)

Results

Table (1) Frequency distribution of the studied women regarding their demographic data (no=70).

Demographic data	NO	%
Age		
15-20	11	15.71
21-25	42	60.00
26-30	12	17.14
> 30	5	7.15
Mean ± SD 22.64± 1.79		
Residence		
Rural	55	78.58
Urban	15	21.42
Education level		
Illiterate	9	12.85
Reads and writes	12	17.15
primary education	8	11.42
Secondary education	35	50.00
University	6	8.58

Table (1) shows that more than half (60 %) of the women are in the age group range from 21-25 years with mean age ± SD 22.64± 1.79. As regards the residence (78.57 %) of them are live in rural area, also (50 %) of them have secondary education.

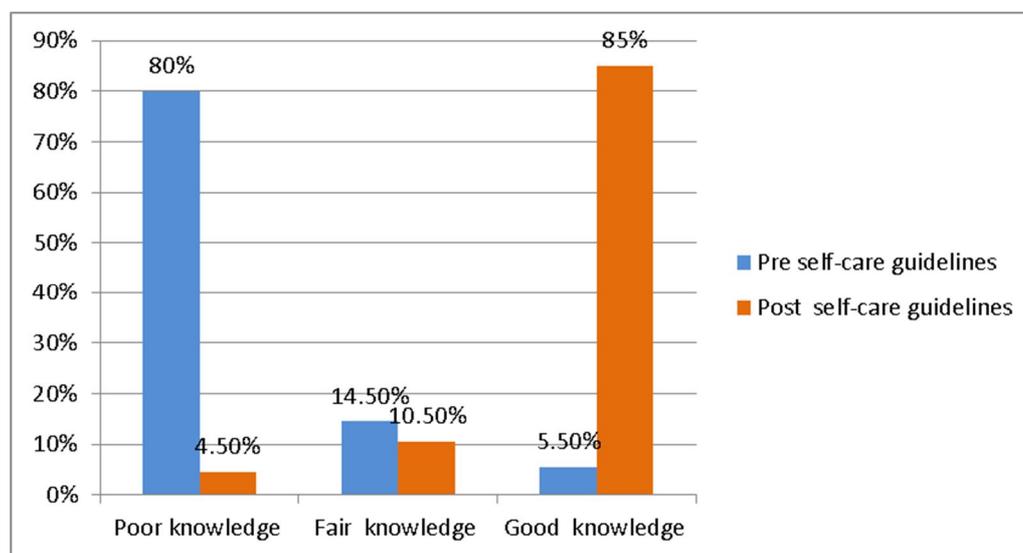


Figure (1): Frequency distribution of the studied women regarding their knowledge about perineal care on pre as well as post self-care guidelines (no =70).

Figure (1) mentions that (80 %) of studied women have poor knowledge about perineal care on pre-self-care guidelines compare with (4.5%) of them on post self-care guidelines. while (5.5 %) of studied women have good knowledge about perineal care on pre-self-care guidelines compare with (85%) of them on post self-care guidelines

Table (2) Comparison between mean-scores of studied women knowledge about wound of the episiotomy on pre as well as post self-care guidelines (no =70).

items	Pre	Post	X ²	P
	Mean ± SD	Mean ± SD		
Have you ever heard of episiotomy	.875±.693	1.66±.654	6.612	.000
What do you think the term episiotomy means	.802±.651	1.33±.606	35.85	.000
Why do you think episiotomy is used during childbirth? All the following except	.815±.756	1.69±.844	105.6	.000
Circumstances that necessitate episiotomy all the following except	.842±.658	1.32±.617	27.71	.000
What are the minor discomfort in the postpartum period	.922±.653	1.52±.791	47.47	.000
From postpartum self-perineal care	.592±.776	1.36±.719	78.18	.000
From the ways to speed healing and relieve discomfort	.530±.591	1.13±.339	6.554	.000
Call your doctor if any of the following symptoms are occurs	.842±.658	1.32±.617	27.71	.000
This is a superficial tear of the skin, which will sometimes heal without the need for stitches	.802±.651	1.33±.606	35.85	.000

- Chi square test for qualitative data between the two groups
- **=highly statistically significant difference (p<0.01)

Table (2) explains that, there are statistically significant differences in all knowledge items regarding wound of episiotomy pre as well as post self-care guidelines with p-vale (0.000).

Table (3): Comparison between mean-scores of studied women knowledge about outcome of the episiotomy on pre as well as post self-care guidelines (no =70).

items	pre	post	X ²	P
	Mean ± SD	Mean ± SD		
What is the prevalence of postpartum hemorrhage compared with women without episiotomy	.875 ±.693	1.66 ±.654	6.612	.000
What is the prevalence of fetal distress compared with women without episiotomy	.802 ±.651	1.33 ±.606	35.85	.000
Is the episiotomy being faster wound healing compared with women with second-degree laceration	.815 ±.756	1.69 ±.844	105.6	.000
Is the episiotomy being less perineal pain compared with women with second-degree laceration	.842 ±.658	1.32 ±.617	27.71	.000
Is the episiotomy is accompanied by urinary incontinence compared with women without episiotomy	.922 ±.653	1.52 ±.791	47.47	.000
Is the episiotomy is accompanied by pelvic organ prolapsed compared with women without episiotomy	.592 ±.776	1.36 ±.719	78.18	.000

- **Chi square test for qualitative data between the two groups**
- ****=highly statistically significant difference (p<0.01)**

Table (3) reveals that, there are statistically significant differences in all knowledge items regarding outcome of episiotomy pre as well as post self-care guidelines with p-vale (0.000).

Discussion

Perineum wound care is one of the factors to prevent infection during the puerperium. some women have a surgical cut called an episiotomy when they deliver a baby. It is sometimes done to speed up a delivery. An episiotomy is a clean cut, rather than a tear, so it may heal better. Sometimes the skin tears anyway and needs suturing. Some women perform perineal massage during their pregnancy to try to prevent some of the pain and other problems after delivery (**Chalmers et al., 2020**). This method has not been shown to lessen or prevent any of the symptoms experienced after delivery. Injury to the vagina and the perineum during delivery may cause swelling, bruising, or a collection of blood under the skin called a hematoma. Any of these injuries can cause severe pain. After delivering the baby, the perineum must be kept clean. Lochia may drain for up to four weeks, so pads should be changed frequently (**Gabbe et al., 2019**).

So the aim of the current research was evaluating the effect of self-care guidelines on women awareness regarding post-partum perineal wound care

Regarding demographic data of women, the present study, it has been noticed that more than half of the study sample 21-25 years, the mean age of women was 22.64 ± 1.79, also the majority of them were live in rural area. From researcher point of view the most age of post-partum perineal wound starts 21 years or more, also regarding the majority of them from the rural area due to decrease of health services in this area. This result is similar to a study conducted by **Nursupma et al. (2021)** they found that, more than two third of women the main age 21-26 years, the mean age of women was 24 .18 ±6.9 years and two third of them from rural area. Also, this finding was in accordance by **Mila et al. (2022)** they found that, two third of the studied women live in rural area and one third of them lived in urban area.

Moreover, the research finding illustrated that nearly two thirds of women were received antenatal education about perineal care, due to they went to the antenatal clinic and receive the teaching on this clinic. This finding was in accordance by **Mulliwati et al. (2021)** they found that, more than two thirds of women were receiving antenatal health education about perineal care.

Regarding total knowledge of women, The present study showed that, statistically significant improvement in women’s knowledge level at the post self-care guidelines test, than pretest in all knowledge items such as episiotomy means,

episiotomy is used during childbirth, circumstances that necessitate episiotomy, minor discomfort in the postpartum period, postpartum self-perineal care, ways to speed healing and relieve discomfort, call your doctor if any of the following symptoms are occurs and superficial tear of the skin, which will sometimes heal without the need for stitches where P< 0.001. From researcher point of view the self-care guidelines effect on the knowledge og the women so the women have more knowledge post the self-care guidelines.

The present study results are on the same line with **Beleza et al. (2021)** they found that, educational program can educate women on the varying options and resource regarding practice of episiotomy and perineal wound care and well-being for behavioral changes for controlling physical, sexual and psychological problems. From the researcher point of view the implementation the health education program improved the women’s practice of episiotomy and perineal wound care.

As regarding to items of knowledge about episiotomy wound, the finding of current study show statistically significant improvement of total knowledge regarding episiotomy and episiotomy wound, the current study revealed that, less than half of them no heard of episiotomy, compare with the majority of them heard after the self care guidelines, this due to the sessions introduced through self care guidelines. This finding agrees with **Sulistiorini et al. (2022)** they found that, less than half of the sample never heard of episiotomy. This finding agrees with **Pillitteri (2020)** he found that, the highest percent of the sample heard of episiotomy after attending the educational sessions about the episiotomy.

As regarding to women’s knowledge of episiotomy wound care, the finding of current study show statistically significant improvement of total knowledge about the episiotomy and perineal wound care, the current study revealed that, means of episiotomy more than half of them give wrong answer about means of episiotomy, quarter of them give true answer about episiotomy means pre the self care guidelines, from the researcher point of view present gap in the knowledge on the primigravida women about the episiotomy. This finding agrees with **Lam et al. (2019)** they found that, 53 % of the participants give wrong answer about episiotomy means, 25 % of them give correct answer about episiotomy means, so the participants need to the educational program about the episiotomy.

As regarding to women's knowledge of episiotomy and perineal wound care, the finding of current study show statistically significant improvement of total knowledge regarding episiotomy and perineal wound care, the current study revealed that, the majority of them give right answer about the minor discomfort in the postpartum period post self care guidelines compare with pre the self care guidelines. This finding agrees with **Kettle et al. (2020)** they found that, more than two thirds of them give right answer about the minor discomfort in the postpartum period, 11 % of them give wrong answer about minor discomfort in the postpartum.

Conclusion:

There was a marked improvement in women's total knowledge as well as all items of the knowledge regarding post-partum perineal wound care on the post self care guidelines than pre self care guidelines with statistically significant difference.

Recommendation:

Based on the findings of the current study, the following recommendations are suggested.

- Implementation of the program for women practice regarding post-partum perineal wound care.
- Nurses providing postpartum care should be given self-perineal care instructions by hospitals and birthing facilities.
- Health education should give to the mothers about post-partum perineal wound care.
- Self-care guidelines about women awareness regarding post-partum perineal wound care should printed and distributing to women who having perineal wound.
- Conduct a study about the most common risk factors associated with perineal wound.

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