#### Effect of Educational Intervention on Women's Knowledge, Practices and Believes Regarding Cesarean Section Wound Care and Healing Azaa Mohamed Elsayed <sup>(1)</sup>, Naeima Mohamed Elsayed Ahmed <sup>(2)</sup>, Nabila Salem Mohamed <sup>(3)</sup> & Howida Ragab Mohamed <sup>(4)</sup>

<sup>(1)</sup> Lecturer of Obstetrics and Gynecological Nursing, Faculty of Nursing Sohag University, <sup>(2&3)</sup> Assistant professor of Obstetrics and Gynecological Nursing, Faculty of Nursing , Zagazig university, &. <sup>(4)</sup> Lecturer of Obstetrics and Gynecological nursing, Faculty of Nursing Zagazig University

#### Abstract:

Background: Caesarean Section is one of the commonest abdominal surgeries among women which have a dramatic increment rate around the world. Addressing women's knowledge, believes and traditional practices should be recognized as being integral to redesigned post cesarean section care. Aim of the study: The current study was aimed to: Assess the effect of educational intervention on women's knowledge, practices and believes regarding Cesarean Section wound care and healing. Subjects and Methods: Research design: A guasi experimental design was adopted to carry out this study. Setting: The study was conducted at the Maternity Hospital at Zagazig University Hospital. Subjects: A purposive sample of 100 pregnant women was participated in the current study .Tools of data collection: Three tools were used: Tool I: Structured interview schedule, Tool II: Women's practices toward caesarean section wound care and Tool III: Women's believes related to post cesarean wound healing. Results: The study revealed a significant improvement of all participants' knowledge and practices where, 90% and 78% respectively of the studied women's total knowledge and practice score throughout study phases were had a unsatisfactory level in pre intervention phase and these percentage was changed to 12% & 9% respectively at the post intervention phase. Additionally. The Women total believes score was improved from 65% of negative believed in preintervention phase to 85% of positive believe in post intervention phase. **Conclusion:** The current study educational intervention was effective in increasing the level of women's knowledge and practice as well as acquiring positive believes toward cesarean section wound. Recommendations: Pregnant women's undergoing cesarean section should receive awareness sessions regarding post cesarean wound care as a part of ante natal care to enhance their knowledge & practices and correct a negative believes post cesarean.

**Key words:** An educational intervention, Women knowledge, Practice, Believes, Caesarean Section wound Care & Healing.

# Introduction

Caesarean delivery (CS) is defined as birth of a fetus through incision in the abdominal wall and uterine wall, it is one performed most commonly of the operation in women and can be life saving for the child, the mother or both in certain cases. Caesarean section is considered as a safer alternative to difficult vaginal deliveries in order to reduce maternal and perinatal morbidity and mortality <sup>(1)</sup>. During last few decades incidence of caesarean section has gone up manifolds, nearly, 20 to 35% of all babies are delivered by CS in high income countries <sup>(2)</sup>. In Egypt, cesarean birth rate has been raised drastically from 27.6 to 70  $^{(3)}$ .

Like any surgical procedure cesarean section increases the likelihood of many types of harm for mothers and

babies in comparison with vaginal birth.

Women undergoing CS are at risk of developing sepsis and postnatal infection, which are not only significant contributors to maternal morbidity and mortality but also barriers to postnatal recovery and maternal wellbeing that potentiates the risk for increased costs <sup>(4)</sup>.

Surgical site infections (SSI) are a common complication of surgery and are the most common healthcare associated infection .With the suggested increase in C-section rates, there is also increased incidence of surgical site infections <sup>(5)</sup>. Surgical site infection is one of the most common nosocomial infections associated with hematoma, serous, and scar opening, which is also one of the most common causes of post-cesarean deaths<sup>(6)</sup>.

Despite, the risk for emerging SSI has reduced considerably in the last three mainly decades. due to hygiene improvements, antibiotic prophylaxis, sterile process, and other methods, the problem is still of significant importance as the occurrence of surgical site infection is anticipated to escalate as the incidence of cesarean deliveries continues to raise (7).

Although knowledge of women towards CS is changing, there is still a wide knowledge gap between the developed and developing countries (8). Knowledge about the women's post cesarean practices helps to avoid identified factors that contribute to the presence of wound infection and comprehend the importance of effective post CS wound care<sup>(9)</sup> Furthermore, assessing patients" practices on wound caring in prevention of infection is of paramount significance since it gives an understanding of their cultural care practices and encourages the arrangement of the health care plan to provide intervention with their cultural environment (10) .

There is a scarce of information on culturally appropriate practice in wound management for parturient women with cesarean section. Most of researches discuss different view of cesarean wound techniques and its complications as well as women perception toward caesarean section as a choice for delivery. But never discuss the delivered women believes and practices toward wound care. A sense of empowerment during childbirth can be by choosing a childbirth achieved professional who values woman-centered Addressing care. women's views. concerns. believes and traditional practices should be recognized as being integral to redesigned post cesarean section care (11)

The lacks of knowledge about caesarean section women's wound caring practices have resulted in a misplacement of the efforts to prevent SSI. So, women awareness and her participation in selfcare reduce the hospitalization duration, referral to the hospital and reduce surgery related complications <sup>(12)</sup>. Women self-care instructions is a very important item for

woman during antepartum period as it improves woman's knowledge, practice and her self-care that avoid postpartum complications through guideline about woman's self-care . These guidelines empower women's knowledge and improve woman's practice for caring of CS wound and postpartum (13).

Maternity nurses have an important role as leader, researcher. administrator, manager, educator, care giver and counselor. Counseling is an important nursing role during antepartum postpartum period. and The most important role is being a counselor which the maternity nurses provide health education and counseling for the mother for important topics like; cesarean wound care, baby care, hygiene, and importance of self-care for herself and for her baby<sup>(14)</sup> Significance of the study

In Egypt CS rate increased from 19.9% in 2005 to 51.8% in 2014 <sup>(15)</sup>. In Eqypt there is a dramatic increase in the use of cesarean sections which has been seen over the last decade that possess risk to the health of mothers and newborns. In additions to the lack information of women's knowledge and practices of post cesarean section which is a cornerstone towards developing and implementing an appropriate intervention to address the problem of infections after section. Unfortunately, cesarean information on the knowledge, believes and the level of practice of post cesarean section wound care were scant. Also there are believes and practices related to cesarean wound healing need to be corrected among women undergo CS. need preparation Women through conducting mother classes conducted during antenatal period, after operation and before discharge. Information should direct to woman's needs and included both routine and additional care required where there is a deviation from normal recovery. So that the present study carried out to assess the effect of educational women's knowledge, intervention on believes practices and regarding Cesarean Section wound care and healing

#### Aim of the study:

The current study was aimed to: educational Assess the effect of intervention on Women's knowledge, and regarding practices believes Cesarean Section Wound care and healing

#### Research hypotheses

Women's knowledge practices and believes regarding post cesarean wound care and healing will be improved after application of the educational intervention. **Subjects and method** 

#### Subjects and metho

# Research Design:

A quasi experimental design with pre and post intervention tests was used to conduct this study and to fulfill the aim of the study.

#### **Study Setting:**

This study was conducted in the maternity hospital at Zagazig University Hospital, Sharkia Governorate, Egypt. It is divided into five flours which classified as admission area, follow up & postnatal area, high risk area, pre-labor room and delivery room with nursery attached to it .The reasons given for choosing the above mentioned setting, because women attending for receiving high natal care, also they cover a wide range of population with different socio-demographic and obstetrical characteristics as well as the flow rate was high.

#### Study Sample:

A purposive sample of 100 pregnant women who admitted to the previously mentioned setting during a period of 4 months according to **the eligible criteria:** 

Women ages was ranged between 18-35 years old, read and write, women with singleton low risk pregnancy and were be delivered an uncomplicated CS for the first time, no previous surgery in uterus and women within normal body mass index.

# Tools of data collections:

Data were collected utilized the following three tools.

**Tool I:** Structured interview questionnaire, which was developed by the researchers based on the recent literature review and included the following three parts:-

**Part (1):** To collect data related to women demographic characteristics' as age, education and occupation.

**Part (2):** It involved questions related the women's obstetric history as number of their parity and mode of last delivery.

**Part (3):** It contains 10 multiple choice closed ended questions that assess women knowledge regarding CS as definition, indications, signs of wound infection and the causes of wound infections.

#### Scoring system for knowledge part

For each query, the right answer scored as one and the wrong answer as zero, the knowledge score were calculated in the range of (0-10). Then all scores summed up and illustrated into two categories: Knowledge was considered satisfactory if the percent score was 60% or more and unsatisfactory if less than60%.

Tool II: A questionnaire sheet determines women's practices toward caesarean section wound care which contained fifteen items in terms of diet, daily activities, wound care, hygiene, pain and rest; these items was adapted from *Mohamed et al.*, <sup>(16)</sup> and modified by the researcher and were rated according to two level of likert scale and each item was categorized, and scored as follows: one for each disagree point and two for each agree point. The total scores of women's practice were calculated and classified as follows: A score of ≥60 % was considered unsatisfactory practice and the score of >60% was considered satisfactory practice.

**Tool III:** This tools reflect women's believes related to post cesarean wound healing which adopted from *Abdel Ghani.,* <sup>(11)</sup> and composed of 12 statement and the responses were scored on a 2-point Likert- scale (not agree or agree) which was 1& 2 respectively.

#### Scoring system for women's believes.

The believe score was graded in the range of 12 to 24 points by summing up the scores of the items, the overall score gave total believes' score. Woman's' total believes' score was graded as the following: Negative believes when total score was  $\leq$  60 % and positive believes when total score was > 60% based on statistical analysis

# **Content validity& Reliability:**

Tools of the study and educational brochure were submitted to a panel of five experts in the field of obstetric and gynecologic Nursing and Medicine to examine the content validity that covering clarity, relevance, comprehensiveness. applicability, understanding, and ease for implementation. Minor modifications were performed. Reliability of these tools was tested through measuring its internal consistency by using Cronbach  $\alpha$ , it was 0.82 for the knowledge part (Tool I), 0.87 for the women's practices (Tool II) and 0.77 for the believes (Tool III) and this denote that the tools were high reliability.

# Field work

After formal permission was obtained, the researchers begin the collection of data which took a period of Four months from the starting of February 2021 to the end of May 2021. The researchers collected data 3 days/per week (Saturday, Monday and Wednesday), sometimes in the morning or afternoon alternatively according to the women's attendance, these days were concerned to receive the cases for delivery at the previously mentioned setting. This was repeated until the sample size achieved. In order to achieve the research aim, the following steps were taken.

# I – Interview phase

the first meeting. At the researchers interviewed women who were eligible for the study and met the requirements for inclusion at two days from admission (preparatory days for CS delivery). Also, the researchers introduced themselves, clarified the study aim, and what it involved, and obtain the verbal approval from the women who participated in the study. The pretest questionnaire was distributed by the researchers to the women which was self-administered by the women's themselves and answers any explanation needed. The time used for answering the questionnaire was ranged from 25-35 minutes and the same

questionnaires was used after the intervention implementation for posttest assessment. The data were preliminarily tested to provide the basis for the design of the educational intervention.

# II – Planning & implementing phase

Following the interview phase, the researchers prepared a description of the contents and methods in simple Arabic language to match the educational level of the women based on the objectives and guidelines, which was then checked by experts in the same field. The educational intervention was implemented in 3 scheduled sessions. The duration of each session was 45 to 60 minutes, the number of women's in each session ranged between 5 to 7 in order to facilitate the learning process and allow every woman to participate in the discussion as well as ensure adequate supervision. Free and open discussion occurred and different and suitable teaching methods PowerPoint were used including presentations using a laptop computer, images and videos. At the end of the sessions the women received a copy of self-learning educational brochure. Women were encouraged to phone call if they had any problems to discuss.

# **III – Evaluation Phase**

All participants were contacted by telephone within 7-10 days after delivery by the researchers and tell women to visit the outpatient clinics in order to remove suture and to check on their wound posttest condition and take the assessment.

# Pilot study:

A Pilot study was conducted on 10 women (10% of the eligible sample). The goal was to check the clarity, applicability, relevance and feasibility of the tools and to identify the difficulties may be faced during the application. It also helped to estimate the time needed to fill in the questionnaire. Since no modifications were done, the subjects who shared in the pilot study were included in the main study sample. We conducted the pilot study once obtained authorization for going ahead with the suggested study.

#### Administrative and ethical considerations:

An official permission for data collection was obtained from the responsible authorities at Zagazig university hospitals based on letter from the dean of faculty of nursing explained the aim of the present study to obtain permission for data collection and to gain their cooperation and support. The study was approved by the Research Ethics Committee (REC) of the Faculty of Nursing at Zagazig University. Verbal agreement was obtained from the women after describing the purpose of the study. The participants informed that they were free to participate, could withdraw from the study at any time without any explanation. Their identifications would be kept confidential. The researchers assured women that their information was utilized only for the research purpose and data anonymity and confidentiality were considered. Additionally, women were assured that the study maneuver wasn't cause any actual or potential harm to her. Also, they were assured that professional help will be provided for her whenever needed.

# Statistical analysis:-

All data were collected, tabulated and statistically analyzed using SPSS 20.0 for windows (SPSS Inc., Chicago, IL, USA 2011)). Quantitative data were expressed as the mean  $\pm$  SD & (range), and qualitative data were expressed as absolute frequencies (number) & relative frequencies (percentage). Percent of categorical variables were compared using Chi-square test or Fisher's exact test when appropriate. McNemar test was used to compare between two dependent categorical variables. All tests were two sided. P-value < 0.05 was considered statistically significant p-value < 0.001 was considered statistically highly significant and p-value  $\geq$  0.05 was considered insignificant. statistically % of improvement = (after value – before value) / before value) \* 100. Table of women's believes n = 100**Results:-**

Table 1 shows that 88% of thestudied women their age range wasbetween >25-35years old and 67% % ofthe study sample had basic or secondary

education; also, 61 % of the studied women were housewives. Additionally, the same table reveals obstetric history of studied women. It was revealed that 21% of the studied women were primiparous who delivered normally.

**Figure 1** illustrates that 90% and 78% respectively of the studied women's total knowledge and practice score throughout study phases were unsatisfactory in pre intervention phase and these percentage was changed to (12% & 9% respectively ) at the post intervention phase.

**Figure 2** clarifies the distribution of the studied women according to their total score of their believes toward wound healing after a cesarean delivery throughout study phases. The Women total score was improved from 65% of negative believed in pre intervention phase to 85% of positive believe in post intervention phase.

**Table 2** shows that there was a statistically significant difference between women age and level of education and total score of knowledge in pre intervention phase as women who had unsatisfactory total knowledge score were in >25-35and those who had university education (94.3%&100% respectively)

**Table 3** shows that there was a statistically significant difference between women age, education, occupation and total score of knowledge in post intervention phase as women who had satisfactory total knowledge score were in >25-35, university education, employee (94.3%&100%&97.4% respectively)

**Table 4** shows that there was a statistically significant difference between women age, education, occupation and total score of practice in pre intervention phase as women who had unsatisfactory total practice score were in >25-35, university education, employee and (85.2%&90.9%&89.7%& respectively)

**Table 5** shows that there was no statistically significant difference observed between women age, education, occupation and total score of practice in post intervention phase as women in all socio-demographic category had satisfactory score of practice.

Table 6 shows that 93% of study women reported normal wound healing only 7% reported systemic reaction with local infection. Concerning to the extension of infection. 57.1% the wound infection was extended to only part of the wound and this infection accompanied by discharge in 100% of all cases of infection. As regards duration of wound healing 35% reported complete wound healing within 8 days and 58% within 9-15 day only cases of infection reported delay wound healing for more than 15 day.

# Discussion:

Caesarean section is one of the most recurrent surgical interventions performed worldwide and accounts for up to 60% of deliveries in a number of countries. The progressive increase in the incidence of caesarean birth has been a notable feature of contemporary obstetric practice and caesarean delivery is now the most frequent maior surgical procedure performed in obstetrics and gynecology. In Egypt the rate of cesarean delivery is 51, 8 % of all deliveries (Demographic and Health Survey<sup>(15)</sup>.

Extensive efforts have been made to reduce surgical site infection after CS. Surgical site infections occurring after delivery may lead to substantial physical and emotional burden on the mother and to a significant financial burden to the health care system **Hickson et al.**, <sup>(17)</sup>.

Regarding demographic and obstetrics characteristics of the study subjects, the present study revealed that majority of the studied women were between >25-35 years of age and more than half of them had basic or secondary education and were housewives. This was expected as this represents the reproductive age group commonly seen in our country. Furthermore, nearly one quarter of the studied women were primiparous who delivered normally. This finding is congruent with study carried out in Egypt by **Abdel Ghani**<sup>(11)</sup> who study women believes and practice toward cesarean section wound healing and reported thatwomen's age ranged between 18-35 years old. Most of them had secondary and university education. Most of them nullipara and primipara were with

gestational ages ranged between 37-40 weeks. Additionally, the current finding was in the same line with *(Atuhaire, <sup>18</sup>)*who stated that the majority of their participants were in the age range of 25 years and above and the majority of the participants had a secondary education.

Concerning to the answering of main study hypothesis, that women knowledge and practice will be improved after application of the educational intervention, the current study clarified that, the overall score of knowledge and intervention practice in pre was unsatisfactory and this score was changed become satisfactory in and post intervention. This study finding highlighted the urgent need for implementing post cesarean wound care intervention where knowledge and practice often comes from educational intervention and the post cesarean wound care is mandatory for women.

The present study findings supported by Atuhaire (18) reported that the knowledge of post-cesarean section self-care among postpartum women in Mbarara was poor as the majority of the participants reported to have never heard about post cesarean self-care. In a similar finding, a previous studies conducted by John., <sup>(19)</sup> who evaluate the effectiveness of self-instructional module on knowledge post-operative self-care of among caesarean mothers with pretest posttest assessment, and revealed that, there was significant difference found between the mean pre-test knowledge score and mean post- test knowledge score which showed that educational instructional module was effective in improving the knowledge of women on post caesareans care.

The high level of satisfactory score of practice in posttest was in similar to *Kadhim& Ali*<sup>(20)</sup> in Iraq and **Mohamed et al.**, <sup>(16)</sup> in Egypt who reported a highly statistically significant difference in women self-care practices concerning post cesarean wound care post intervention and the study women's had a good successful either for instruction of selfwound care post cesarean section and for evaluation of complications after the operation. In the light of the fact that health education and information help to improve the base knowledge of self-care as well as change believe of the studied women, when investigating women's believes toward all areas of post cesarean wound care and healing in the present study denoted that women total score improved from more than half had negative believed in pre intervention phase to majority of cases had positive believed in post intervention phase. This finding may be attributed to the health educational sessions which played a significant role on improving believes scores among women.

In agreement with the previous finding **Abdel Ghani.**,<sup>(11)</sup> reported that there are believes and practices related to cesarean wound healing need to be corrected and women need preparation though mother classes conducted during antenatal period, after operation and before discharge. Information should directed to woman's needs and include both routine and additional care required where there is a deviation from normal recovery.

As for the relation between demographic characteristic of women and total score of knowledge and practice in intervention phase, and pre post intervention and women age, education and occupation, there was a statistically significant difference in women's general characteristics. In the same line Qasem & Hweidi .,<sup>(21)</sup> revealed that correlations assessment showed statistically significant correlations of p-value < 0.01 between all tested ongoing personal features and complete knowledge score.

As regards CS wound healing status, the majority of the studied women revealed that their wound status within normal healing and only less than tenth reported systemic reaction with local infection in one suture or part of CS wound and this infection accompanied by discharge all cases of infection. This finding was in agreement with Kose&Sadhvi., (22) who reported thatout of 1461 women (14.09%) women had various complications mainly gaped wound (5.20%) and wound infection (4.38%),

Concerning to the duration of wound healing the present study demonstrated that more than half of cases reported complete wound healing within 9-15 day and more than one third reported complete wound healing within 8 days. The present results go on the same line with Abdel-Ghani., (11) who mentioned that most of women in their study had appropriate external wound healing within the first week after cesarean section surgery with no sign of inflammation reaction. Such results were in line with the inclusion criteria of our study which aimed to include all women with low risk factors. In addition, the formation of collagen during the first fourth to fourteen days after surgery results in marked increase in the wound strength. As well as Zarei et al., <sup>(23)</sup> reported that a self-care training program is effective in accelerating the surgical incision wound healing in women undergoing cesarean section.

# Conclusion:

Based up on findings of the present study, and answering the research hypothesis, the current study educational intervention was effective in increasing the level of women's knowledge and practice as well as acquiring positive believes toward cesarean section wound.

# **Recommendations:**

Based on results of the present study the following recommendations were suggested:

- Pregnant women undergoing cesarean section should receive awareness sessions regarding post cesarean wound care as a part of ante natal care to enhance their knowledge & practices and correct a negative believes post cesarean.
- Nurses should teach women delivered by cesarean section the principle of self –care post cesarean section while they perform such procedure for them during postpartum period
- All Maternity hospitals and antenatal units should include in their instruction educational intervention methods of self –care post cesarean section to teach pregnant and puerperal women.

 Future researches needs to focus on conducting multinational interventional studies to evaluate the effect of education on women's' knowledge, sustainability of the practice and to achieve generalization of the results.

Demographic characteristics'	Frequency (No)	Percent	
Age per years			
18-25	12	12.0	
>25-35	88	88.0	
Education			
Basic and secondary education	67	67.0	
University education	33	33.0	
Occupation.			
House wife	61	61.0	
Employee	39	39.0	
Obstetrical history:			
Parity			
Primi-para	79	79.0	
Para 1	21	21.0	
Mode of last delivery:			
Normal Vaginal delivery	21	21.0	

**Table 1:** Demographic characteristics and obstetrical history of studied women (n=100)



**Figure1**: Studied women total knowledge and practice score about wound care after a cesarean delivery throughout study phases (n=100)



**Figure 2:** Distribution of the Studied women according to their total score of believes toward cesarean section wound healing throughout study phases (n=100)

**Table 2**: Pre intervention relation between demographic characteristics of the study subject and total knowledge score about wound care after a cesarean delivery (n=100)

	Pre intervention Knowledge level				n.	χ²	p-value
_	Satisfactory Unsatisfacto		atisfactory	_			
	No.	%	No.	%			
Age per years							
18-25	5	41.7	7	58.3	12	f	0.002*
>25-35	5	5.7	83	94.3	88		
Education							
Basic and secondary education	10	14.9	57	85.1	67	f	0.028*
University education	0	.0	33	100.0	33		
Occupation							
House wife	9	14.8	52	85.2	61	f	0.084
Employee	1	2.6	38	97.4	39		

χ 2 Chisquare test

f =Fisher Exact test \*p<0.05 significant

**Table 3**: Post intervention relation between total knowledge score about wound care after a cesarean delivery among studied women and their demographic characteristics (n=100)

	Post intervention knowledge level				n.	χ <sup>2</sup>	p-value
-	Satis	atisfactory Unsatisfactory		_			
	No.	%	No. %				
Age per years							
18-25	5	41.7	7	58.3	12	f	0.0001*
>25-35	83	94.3	5	5.7	88		
Education				•			
Basic and secondary education	55	82.1	12	17.9	67	f	0.008*
University education	33	100.0	0	.0	33		
Occupation							
House wife	50	82.0	11	18.0	61	f	0.026*
Employee	38	97.4	1	2.6	39		

χ 2 Chisquare test f =Fisher Exact test \* p<0.05 significant

_	Pre intervention practice level				n.	X <sup>2</sup>	p-value
_	Satisfactory		Unsatisfactory		_		
	No.	%	No.	%			
Age per years							
18- 25	9	75.0	3	25.0	12	22.3	0.0001*
>25-35	13	14.8	75	85.2	88		
Education		•					
Basic and secondary education	19	28.4	48	71.6	67	4.7	0.029*
University education	3	9.1	30	90.9	33		
Occupation							
House wife	18	29.5	43	70.5	61	5.1	0.023*
Employee	4	10.3	35	89.7	39		

**Table 4:** Pre intervention relation between total practice score about wound care after a cesarean delivery among studied women and their socio-demographic characteristics (n=100)

χ 2 Chi-square test

f =Fisher Exact test \* p<0.05 significant

**Table 5:** Post intervention relation between total practice score about wound care after a cesarean delivery among studied women and their demographic characteristics (n=100)

	Post intervention practice level				n.	χ <sup>2</sup>	p-value
	Satisf	actory	Unsatisfactory		_		
	No.	%	No.	%			
Age per years							
18-25	8	66.7	4	33.3	12	f	0.011
>25-35	83	94.3	5	5.7	88		
Education	-			-			
Basic and secondary education	59	88.1	8	11.9	67	f	0.26
University education	32	97.0	1	3.0	33		
Occupation		•					
House wife	53	86.9	8	13.1	61	f	0.086
Employee	38	97.4	1	2.6	39		

χ 2 Chisquare test f =Fisher Exact test \* p<0.05 significant

Wound status	No	%
Normal wound healing	93	93
Systemic reaction with local infection	7	7
Extension of infection		
Just one stitch Part of wound Whole wound	2 4 1	28.4 57.1 14.5
Discharge		
Yes No	7 0	100 0.0
Days of healing		
8 days 9-15 days > 15 days	35 58 7	35 58 7

Table 6: Distribution of study subjects according to the condition of wound healing post CS (n=100)

#### **References:**

- Rao JH &Rampure N.: Study of primary caesarean section in multiparous women. J Evol Med Dental Sci. 2013; 2(24):4-7.
- 2) Betrán AP, Ye J, Moller A-B, Zhang J, Gülmezoglu AM &Torloni MR: The Increasing Trend in Caesarean Section Rates: Global, Regional and National Estimates: 1990–2014. PLoS One [Internet]. 2016; 11(2):e0148343. Available from:

http://dx.plos.org/10.1371/journal.pone.01 48343.

- Al-Rifai R., & Aziz, F.: An Apparent Lack in Level of Basic Knowledge of Caesarean section Delivery among Egyptian Females: A population- Based cross-Sectional survey. Gynecolobstet, 2018, 8(463), 2161-0932.
- 4) Center for Disease Control, (2016): Surgical site infection event. Procedureassociated Module SSI. Retrieved from <u>http://www.cdc.gov/nhsn/PDFs/pscManual</u> /9pscSSIcurrent.pdf. Accessed on : April 2021.
- Menacker, F & Hamilton, B.E., (2010). Recent trends in cesarean delivery in the United States. NCHS Data Brief. Retrieved from <u>http://www.gapha.org/wpcontent/uploads/2</u> 010/03/cesarean.pd. Accessed on: April 2021.
- 6) Clay FS, Walsh CA & Walsh SR: Staples vssubcuticular sutures for skin closure at cesarean delivery: a meta-analysis of randomized controlled trials. Am J Obstet

Gynecol. 2011; 204(5):378–83. doi: 10.1016/j.ajog.2010.11.018.

- Zuarez-Easton, S., Zafran, N., Garmi, G. &Salim, RL: Post cesarean Wound Infection: Prevalence, Impact, Prevention, and Management Challenges. International Journal of Women's Health.2017; 9, 81–88.
- 8) Amiegheme, F. E., Adeyemo, F. O., &Onasoga, O. A: Perception of pregnant women towards caesarean section in Nigeria: a case study of a missionary hospital in Edo state, Nigeria. International Journal of Community Medicine and Public Health.2016; 3(8), 2040- 2044.
- 9) Peter E. G: Knowledge and practice of wound care and their influence on surgical site infection among post caesarean section women in Dodoma region (Master's Dissertation).2020. The University of Dodoma, Dodoma. Available at:

http://hdl.handle.net/20.500.12661/2724 . Accessed on June 2021.

- **10)** Lube, C., Chibante, D. P., Porto, I. S., &Daher, D. V.: Knowledge and practices in care focused on individuals with wounds.2017; 21(2), 1–8.
- **11)** Abdel- Ghani, R, A: Women Believes and Practice toward Cesarean Section Wound Healing. *Journal of Biology, Agriculture and Health*, 2013; *3*(20), 100-108.
- **12)** Moulton LS, Evans PA, Starks I & Smith T: Pre-operative education prior to elective hip arthroplasty surgery improves

postoperative outcome. IntOrthop. 2015; 39(8):1483–6.

- **13)** American college of obstetricians and gynecologists: 2014 Mar-Apr; 4(2): 210–216. 2014 National Partnership for Women & Families.
- Holland, C., Foster, P., Ulrich, D., & Adkins, K.: A practice improvement project to reduce cesarean surgical site infection rates. *Nursing for Women's Health*,2017; 20(6),
- **15) Demographic and Health Survey (2014):** Egypt, Ministry of health and population. The DHS program, dhsprogram. com/ pubs/ pdf/ FR302/ FR302.pdf CESAREAN SECTION DELIVERIES IN EGYPT: TRENDS, PRACTICES, PERCEPTIONS, AND COST :(2018)The Population Council.
- 16) Mohamed S S, Hamido S , Talaat A &Farrag R : Effect of Self-Care Guideline versus Counseling on Post Cesarean Section Women Practices. Egyptian Journal of Health Care, 2019 ,Vol.10 .No.3:126-137.
- 17) Hickson, E., Harris, J., & Brett, D., (2015).
  A journey to zero: Reduction of post-operative cesarean surgical site infections over a five-year period. *Surgical Infections*, *18(2)*, 174-177. doi: 10.1089/sur.2014.145.
- 18) Atuhaire S: Knowledge and Practices of Post Cesarean Section Mothers towards Self-Care after Delivery at Mbarara Regional Referral Hospital. Accepted: 11th/02/2021 Journal of Obstetrics and Gynecology
- **19)** John P.: A study to evaluate the Effectiveness of structured teaching programme on knowledge regarding selected home based postnatal care among primi mother underwent cesarean section in selected hospital Hassan. MSc., Rajiv Gandhi University of Health Sciences, Karnataka, Bangalore, 2013.
- 20) Kadhim, A.,& Ali R:Effectiveness of Women's Self-care Instructions concerning Wound, Perineal& Urinary System Care post cesarean section in Baghdad teaching hospital .Iraqi National Journal of Nursing Specialties,2018; Vol. 31 (1):1-11
- 21) Qasem, M. N &Hweidi, I.M.: Jordanian Nurses' Knowledge of Preventing Surgical Site Infections in Acute Care Settings" Open Journal of Nursing.2017; 7: 5.
- 22) Kose V., &Sadhvi K., :Study of caesarean section at tertiary care centre: a retrospective study International Journal of

Reproduction,Contraception,ObstetricsandGynecologyIntJReprodContraceptObstetGynecol.2020;9(5):2138-2143Gynecol.

23) Zarei M., Rostami F., Bozorghnejad M., Ardebili1 F., Mamashli L., Eliasi S., and Khachian A:Effect of Self-care Training Program on Surgical Incision Wound Healing in Women Undergoing Cesarean Section: A Quasi-Experimental StudyMed SurgNurs J. 2020 ; 9(4):e108800 Azza Mohamed Women's knowledge, practices and believes regarding Cesarean Section Wound