

## Effect of comfort measures on relieving pain for women with cesarean section

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### ABSTRACT

**BACKGROUND:** Cesarean section is a potentially life-saving operation that may be deemed necessary to prevent morbidity and mortality in both mother and baby. The objectives of the nursing care for women with cesarean delivery is to prepare them physically and psychologically for surgery tend to have better surgical outcomes, overall assessment of women's health and identify significant abnormalities that may increase operative risk. **AIM** of this study was to assess the effect of comfort measures on relieving pain after cesarean section. **DESIGN:** A quasi experimental study design. **RESEARCH HYPOTHESIS:** Provision of comfort measures (physical activity & relaxation technique) would minimize pain after cesarean section. **SETTING:** The study was conducted at the postpartum unit in the obstetric department at Benha Teaching Hospital. **SAMPLE,** convenient sample, sample size is 140 women. **TOOLS:** Interviewing questionnaire sheet, Pain progress observation sheet, VAS and FRS to assess degree of pain. **RESULTS:** The study showed that there was a significant positive relation between degree satisfaction and comfort measures used to relieve their pain ( $p < 0.05$ ). **CONCLUSIONS:** The present study concluded that, women undergoing cesarean section and utilized comfort measures (physical activity and relaxation technique) have a positive effect on relieving the post cesarean pain. **RECOMMENDEDATIONS:** The study recommended that women should follow comfort measures to relieve post cesarean pain which emphasize the importance of practicing these exercises regularly. Guidelines regarding the importance of comfort measures as (deep breathing exercises, relaxation techniques, massage and circulation) immediately post cesarean should be distributed in all units of obstetric departments.

**Key words:** Cesarean section, comfort measures, post cesarean care.

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Classical Caesarean Section (*Ngala Family Resource Centre, 2011*).

### INTRODUCTION

Caesarean section is a major operation where the baby is born through a surgical incision made in the abdomen, There are two types of cesarean section the incision is usually made just above the pubic bone in the lower part of the abdomen this is often referred to as a Lower Uterine Segment Caesarean Section. The other type of incision is less frequently be made in the upper segment of the uterus and this is called a

Caesarean section (CS) is recommended when vaginal delivery might pose a risk to the mother as Prolonged labor, apparent fetal distress, apparent maternal distress, complications (pre-eclampsia, active herpes), catastrophes such as cord prolapse or, multiple births, abnormal presentation, failed induction of labor, failed instrumental delivery, the baby is too large, placental problems, contracted pelvis and previous caesarean section (*Bick and Macarthur, 2010*).

Cesarean sections have become a safe surgical procedure, although it remains a major abdominal surgery. The medical risks of C-sections are: complications with the anesthesia; complication by infections; post-surgery complications like peritonitis, embolism, pneumonia, infection of the scar, anemia; lower subsequent fertility; damage to the urinary bladder, causing incontinence; complications in breastfeeding; death of the mother and/or baby; more complication in the next pregnancy and birth (*Wagner, 2009*).

Women should only be discharged from the recovery area once they have been assessed by a trained recovery staff member and should be taken to the postoperative ward with all of their case notes. In addition no patient should be returned to a general ward unless control of emesis and postoperative pain is satisfactory (*Brockington & Wilson, 2012*).

Pain is an unpleasant, distressful and uncomfortable feeling. Studies have showed that unrelieved pain can affect the quality of life of the woman, cause physical and emotional effects, impact family, as well as increase the costs for health care, the individual and society, thus; pain is a critical problem in the health care system (*Baernholdt & Clarke, 2010*).

Post CS delivery pain relief is important; management of acute pain after CS has evolved considerably over the decade. Pain may also impair the mother's ability to optimally care for her infant in immediate post-partum period and may adversely affect early interactions between mother and infant (*Jeff, 2010*).

Management of pain after cesarean section encompasses various types of pain experiences that include wide range of non-pharmacological comfort measures such as positioning, gentle massage and some exercises like breathing, stomach, pelvic and back exercises (*Boersma, & Linton, 2009*).

Manual therapies such as physiotherapy, osteopathy and chiropractic treat the underlying mechanical joint problem with the aim of relieving pain and preventing deterioration. (*Hattan et al., 2012*). Other recommended exercises post-surgery are diaphragmatic deep breathing ,huffing, bridge and twist, pelvic rocking, lying on left side with knees curled up while gently kneading abdomen in clockwise direction take as many naps as possible and ask for extensive assistance with daily tasks (*Noble, 2010*).

The nurses role following caesarean section includes assessing fundamental needs, basic services for postpartum women, assessing the physiological, psychosocial and emotional adaptations of the woman and the baby, promoting the physical well-being of both mother and baby, promote maternal rest and recovery from the physical demands of pregnancy and the birth experience, support the developing relationship between the baby and the mother, and support(s)/family (*Eccles, M. and Mason, 2011*).

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

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Cesarean section rates have been increasing worldwide, but little research exists on trends of cesarean section delivery for any country in the Arab world and there is no previous studies regarding utilization of comfort measures for reliving post cesarean pain at Benha Teaching Hospital so this study aimed to assess the effect of comfort measures on reliving pain after cesarean delivery (*El-Zanaty et al, 2010*).

### **AIM OF THE STUDY**

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Assess the effect of comfort measures on relieving pain after cesarean section. This aim was achieved through the following:

- 1) Assessing the degree of pain after cesarean section.

- 2) Applying of comfort measures after cesarean section.
- 3) Evaluate the effect of comfort measures (physical activity and relaxation technique) on relieving post cesarean pain.

**Research Hypothesis:**

Provision of comfort measures (physical activity & relaxation technique) would minimize pain after cesarean section.

**SUBJECTS AND METHODS**

**Research design:**

A quasi experimental study design has been adopted to fulfill the aim of the present study.

**I- Technical Design:**

Technical design includes the research setting, sampling method and technique as well as tools of data collection.

**A) Research Setting:**

The study was conducted at the postpartum unit in the obstetric department at Benha Teaching Hospital.

**B) Sampling:**

**Sample type:** convenient sample

**Size and technique:**

- 140 women attended to the setting with studied criteria.
- The flow rate of cesarean section at Benha Teaching Hospital in the year of (2012- 2013) was 1400 cases.
- 10% was the size of the sample (140 women).

- All women attended to the setting with studied criteria was included in the study) three days / week.

**Inclusion criteria:** primi para, post CS women (free from medical diseases & obstetric complications).

**C) Tools of Data collection:**

Three tools of data collecting were designed and used after reviewing related literature in this study and included:.

**First tool:** - was structured interview questionnaire was developed by researcher to collect the information from the mother& It consists of:

- A. **Socio demographic** data such as ((age, level of education and occupation ....., etc).
- B. **Present obstetric history**, Items about the current pregnancy. It was divided into two major parts of questions:
  - Part (1) about the current pregnancy (4questions).
  - Part (2) about the current labor (3 questions).

**C. Mother information about pain reliving methods:**

It included that factors which increase pain and decision of the physician and nurses toward this pain.

**Second tool:** - Was observational sheet for Assessing pain progress:

To assess pain intensity, its cause, duration, frequency, methods to relive pain.

**Third tool: - Visual Analog Scale (VAS) and Wong Baker faces pain rating scale (FRS) to assess degree of pain.**

**Regarding VAS it consists of** 10 cm vertical line, the lowest end is marked 0 which indicates "no pain", the highest end is marked 10 which indicates intolerable pain. **The scoring of this scale consists of** the following grades: No pain graded (0), Mild pain ranged from (1 to 3). Moderate pain ranged from (4 to 7), Severe pain ranged from (8 to 10). **Regarding FRS, it consists of** six faces at different facial expressions, the pleasant one is marked (0) which indicates "no pain", the angry and weeping one are marked (10) which indicates severe and unbearable pain.

#### **Ethical considerations:**

- The researcher took oral consent from women included to participate in the study.
- The research tools didn't embarrass of modesty and didn't cause any harm or pain for the participant women.
- The research tools did not cause any physical, psychological and social risks.
- The participant has a right to withdrawal at any time of the study.

#### **Administrative Design:**

An official approval to conduct the study was obtained. The title and objectives of the study were illustrated as well as the main data item to be covered, and the study was carried out after gaining the necessary approval from the Dean of Faculty of Nursing, Director of Benha Teaching Hospital and from all participants in the study.

#### **Operational Design:**

##### *Preparatory Phase:*

A review of the current and past relevant literatures related to cesarean section using the available national and international books, magazines, periodicals and computer search was done to identify comfort measures to relieve post cesarean pain.

##### *Pilot Study:*

- A pilot study was done to test the efficiency, clarity and applicability of the study tools and to test study process.
- It involved 10% of the total sample (14 women) accordingly the necessary modification was done in form of adding or omission of some questions and change types of some questions from open ended questions to closed ended questions.
- The women involved in the pilot were excluded from the study.

##### *Field work:*

Data had been collected for six months started from beginning of April 2014 to the end of September 2014. Data were collected as follow three days/week from post-partum unit in obstetric department At Benha Teaching hospital. The researcher attends previous mentioned setting for data collection from 8am to 2 pm. The researcher greeted the mother to gain her confidence, introduced herself and explained the purpose of the study briefly. The time used for filling each sheet ranged between 20-30 minutes, throughout the interview relating information and recorded in the designed sheet depending upon the response of the participant, observational check list for assessing pain progress were filled. Visual Analog Scale (VAS) and Wong Baker faces pain rating

scale (FRS) to assess degree of pain were filled. Mothers were reassured that information obtained was confidential and would be used only for the purpose of the study. The work is divided into three phases which include:

- The first phase was after recovery (first 4 hours).
- The second phase was the frequent two hours (6 hrs.).
- The third phase was eight hours from recovery.

**1) After recovery:**

- The researcher made assessment of pain using VAS& FRS for both groups (study and control).
- Applying comfort measures for the study group, women were instructed to apply comfort measures according to the pain cause which is mentioned in the table of comfort measures.

**2) After two hours (6 hrs.):**

- Assess pain for the two groups using FRS.
- Continue to assist the women to continue practicing comfort measures for the study group.

**3) Eight hours from recovery:**

- Assessing pain for two groups using VAS & FRS.
- The women practice comfort measures spontaneously.
- The control group was collected firstly and made assessment by using VAS for first and last hours and by FRS for the rest hours.

**1- Application of comfort measures to the study group:**

The women were instructed to use comfort measures according to the pain cause as shown in this table.

Comfort measures for reliving post cesarean pain

Pain cause	Exercise type	Purpose of exercise	Technique
1- Chest	- Deep breathing exercise	- Helps reduce the effect of the anesthesia.	Ask her to take slow deep breath in and hold it for 3 seconds then relax to breath out.
2- Coughing	- Huffing	- To clear phlegm from the chest	Take a medium sized breath in and then force the air out through a rounded mouth.
3- Leg	- Walking Circulation	- Promote circulation and facilitate the movement.	Start with frequent short walks. Move feet up and down briskly at the ankles at least ten times per walking hour even if out.
4- Back	- Getting out of bed after the operation. - Back massage	- Relief pain of the back. - Reduce muscle tension.	Bend her knees up and roll onto her side then push up with her hands to a sitting position , swing her legs down over one side of the bed, sit on the edge of the bed with her feet flat on the floor, then lean forward and stand up

Degree of women satisfaction about comfort measures:

- Poor satisfaction → 1.
- Average satisfaction → 2.
- Good satisfaction → 3.

**2- Instructional pursuer for the women to show how to practice measures to relieve pain.**

It is in simple Arabic language with simple pictures about different exercises which included deep breathing exercises, huffing, early walking, and circulation, moving from bed, pelvic rocking and knee rolling. The researcher distributed pursuer for each mother and thank them. This was consulted by medical advice.

**Statistical Design:**

The collected data were organized, categorized, tabulated and analyzed using electronic computer. Data was presented in the table by using Mean, number and percentage and other statistical tests such as chi-square test correlation coefficient was calculated between degree of women satisfaction and the comfort measures practiced.

**Limitation of the study:**

- Some mothers were unable to be interviewed and inability of them to continue because of severity of pain.
- Some mothers hadn't attention for effectiveness of comfort measures.

**RESULTS**

**Table (1): Distribution of both study and control groups according to their demographic characteristics (N0 = 140).**

demographic characteristics	Study group n=70		Control group n=70		X2	P value
	No	%	No	%		
<b>Age in years</b>					10.65	0.05>
25-	16	22.9	23	32.8		
35-	49	70	43	61.5		
40 – 50	5	7.1	4	5.7		
Mean ± SD	25.24±3.16		25.27±2.58			
<b>Degree of education</b>					5.59	
Illiterate	4	5.7	7	10		
Read & write	2	2.9	1	1.4		
Preparatory	1	1.4	5	7.1		
Secondary(Technical)	24	34.3	28	40		
University	39	55.7	29	41.4		
<b>Working</b>						
Work	4	5.7	13	18.6	5.42	>0.05
Don't work	66	94.3	57	81.4		

No significant difference was observed (p 0.05>)

This table shows that, 70% of the study group & 61.6% of the control group were in between 35- 39 yrs. Regarding degree of education 55.7% of the study group & 41.4% of the control group

were university. While the majority of the sample 94.3% of the study group & 81.4% of the control group were don't work.

**Table (2): Distribution of both study and control groups according to history of current pregnancy ( No= 140).**

Item (Knowledge)	Study group n= 70		Control group n= 70		X2	P value
	No	%	No	%		
<b>Having any information about type of operation</b>					1.22	>0.05
Yes	52	74.3	46	65.7		
No	18	25.7	24	34.3		
<b>Source of knowledge( If yes )</b>					2.15	>0.05
Physician	28	40	26	37.1		
Nurse	20	28.5	20	28.5		
Relatives	4	5.7	0	0.0		
<b>Type of the wound</b>					--	--
Transverse	70	100	70	100		
Classical	0	0.0	0	0.0		

No significant difference was observed.( $p > 0.05$ )

This table reveals that, 74.3% of the study group & 65.7% of the control group had information about cesarean delivery. Regarding type of the wound for the total sample was transverse 100% .

**Table (3): Comparison of pain degree between study & control groups that scored using visual analogue scale before intervention**

Time of assessment	Study group	Control group	X2 test	P value
	N=70	N=70		
<b>Pain intensity:</b>				
<b>moderate</b>	13	16	2.7	> 0.05
<b>Sever</b>	57	54		
<b>Mean ± SD</b>	8.4±1.2	8.3±1.3		
<b>Pain type:</b>				
<b>Continues</b>	61	59	2.1	> 0.05
<b>intermittent</b>	9	11		

No significant difference was observed (  $p > 0.05$  )

Regarding pain intensity in both study & control groups before intervention, this table illustrates that more than half of them have severe pain, with insignificant difference. Also less than two thirds of them have continuous pain.

N.B→ Women response for mild pain immediately after delivery was negative.

**Table (4): comparison of factors increase pain intensity among both study and control groups(No= 140).**

Items	Study group N= 70		Control group N= 70		X <sup>2</sup>	P
	No	%	No	%		
Early walking	36	51.4	39	55.7	0.258	> 0.05
Mobility from bed	57	81.4	56	80	0.046	> 0.05
Anxiety	45	64.3	37	52.9	1.88	> 0.05
Cough	45	64.3	48	68.6	0.288	> 0.05
During lactation	40	57.1	40	57.1	0.000	> 0.05
Bathing	48	68.6	48	68.6	0.000	> 0.05

Answer is not mutually exclusive.

No significant difference was observed ( $p > 0.05$ ).

This table shows that, the mobility from bed increase pain intensity for both the study group 81.4% & the control group 80%. Regarding cough 64.3% of the study group & 68.6% of the control group also increase pain intensity.

**Table (5): Comparison of pain mean score between study & control group that scored using visual analogue scale at first and last hours of assessment after intervention (No=140).**

Time of assessment	Study group	Control group	Independent T test	P value
	Mean $\pm$ SD	Mean $\pm$ SD		
1st hrs.	7.57 $\pm$ 1.6	8.21 $\pm$ 1.5	2.38	< 0.05*
8th hrs.	2.97 $\pm$ 0.48	7.18 $\pm$ 0.39	56.86	< 0.001**

\* Significant ( $p < 0.05$ )      \*\*A highly significant ( $p < 0.001$ )

This table reveals that, the rate of pain reduction was higher in study than control groups. As well as there were a significant difference between study and control groups regarding 1st hour of pain assessment using VAS ( $p < 0.05$ ). While there were a high significant difference regarding 8th hour of pain assessment ( $p < 0.001$ ).

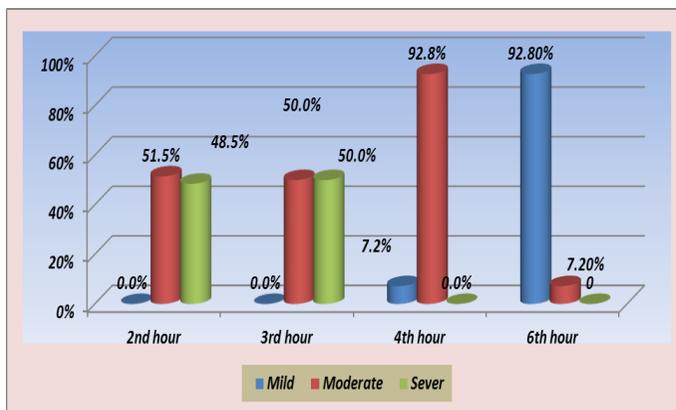


Figure (1): Percentage distribution of the pain degree among study group at the first 2<sup>nd</sup>, 3rd, 4th, and 6<sup>th</sup> hours.

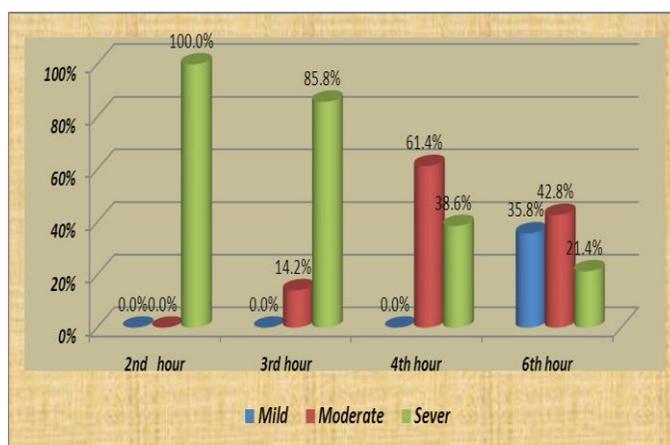


Figure (2): Percentage distribution of the pain degree among control group at the first 2nd, 3rd, 4th, and 6th hours.

Table (5): Distribution of study group regarding degree of satisfaction with comfort measures demonstration.

Degree of satisfaction	Study group N= 70	
	No.	%
-Average satisfaction	18	25.7
- Good satisfaction	52	74.3

This table reveals that three quarters (74.3%) of study sample have good satisfaction regarding comfort measures used for pain relieve .

N.B → No unsatisfactory response.

**Table (6): Correlation between degree satisfaction and Comfort measures used to relieve their pain**

Comfort measures	Study group		Total	r & P value
	Degree of satisfaction			
	Average n=18	Good n=52	No	
Relaxation technique	6	20	26	0.89**
Back massage	5	28	33	0.93**
Kegal exercise	7	4	11	0.54*
Early ambulation	4	66	70	0.98**

This table shows that there was a significant positive relation between degree satisfaction and Comfort measures used to relieve their pain.

**DISCUSSION**

The cesarean delivery rate has also increased throughout the world, but rates in certain parts of the world are still substantially lower than in the United States. The cesarean delivery rate is approximately 21.1% for the most developed regions of the globe, 14.3% for the less developed regions, and 2% for the least developed regions (CDC, 2010).

The management of pain is one of the main goals of maternity care. The two models of care, often referred to as the medical model and the midwifery model, use fundamentally different means to achieve that end. In the former, the emphasis is largely on the elimination of the physical sensation of pain, whereas in the latter, emphasis is largely on the prevention of suffering. Suffering includes any of the following psychological elements: a perceived threat to the body and/or psyche; helplessness and loss of control; distress; insufficient resources for coping with the distressing situation; even fear of death of the mother or baby. (Joanna Briggs Institute, 2009).

The present study was undertaken to assess the effect of comfort measures on relieving the post cesarean pain. This aim was achieved through, assessing the degree of pain after cesarean delivery, utilization of comfort measures (relaxation technique & physical activity) after cesarean section and

evaluate the effect of comfort measures on relieving the post cesarean pain.

**Regarding for characteristics of the study subjects**, the present study revealed that women who delivered by CS were (92.9%) < 40 years old with the mean of (25.24±3.16) for the study group & (25.27±2.58) for the control group. This finding of the present study is supported by Han and Qin (2010), who found that age of their total sample, was ranged from 25 and 34 years in their study to examine the rate of cesarean section and its effect factors in Shanghai.

The present study also revealed that (74.3%) of the study group & 65.7% of the control group for urgent delivery, this means that cesarean delivery was life saving for those women. This study was supported by Anpalagan & Condous, (2008), who studied the CS advances and advantages on The first 135 cases at the Kaiser Foundation Hospital in San Francisco, stated that most of women in his study (75) women was done CS to save life of women and babies.

In relation to the level of education the findings indicated that the majority of the sample received university education while a few of them were illiterate and this may explain their cooperation and understanding, sharing and compliance with procedure which may contributed that there

is no effect of level of education on mean score of post cesarean pain.

Concerning other factors as occupation, the present study revealed that 94.3% of the study group were (house wife) don't work. While 5.7% were working women, and there is no significant relation between both study and control group in relation to their occupational status ( $p>0.05$ ). These findings are d with (*Solehati T and RustinaY, 2013*) in their study to identify the effect of Benson Relaxation technique on pain intensity among mother with post cesarean section. They found Mother's education level of post Caesarean section in this study the majority (43.30%) was senior high school education.

Regarding studied women knowledge about cesarean section, the present study illustrated that 74.3% of women, had previous information about CS .This finding was not supported by (*Montgomery et al., 2010*) who mentioned that Preoperative patient education improves expectations, compliance and ability to effectively interact with pain management techniques. Postoperative anxiety is most related to preoperative anxiety and postoperative complication, this may be due to inadequate knowledge may lead to increase muscle tension and excessive fear and may reflects lack of health education during antenatal period from health team. From point of this view that ,the women undergoing cesarean surgery must be had specific information about surgery such as what women could expect to happen, details of postoperative expectations, exercises, activities and what to expect regarding pain and discomfort to improve care and recovery.

In relation to women knowledge regarding practicing exercises as a pain relief measure after cesarean delivery, the present study reveals that the majority of the sample weren't have any knowledge about practicing exercises before or after delivery, and there was a statistical significant difference for both study and control group ( $p\leq 0.05$ ).This

wasn't supported by (*Noreen., 2010*) who said that Kegel exercises don't only strengthen the pelvic floor, but also help support the abdomen. Like abdominal breathing exercises, Kegels can be done as soon as two days after delivery, and the two exercises combined provide an effective way to begin women rehabilitation. Lie on back with head supported and breathe in just like did for abdominal breathing. This time, as exhale, slowly raise the pelvic floor muscles and try to hold for five seconds. Relax on the inhale and repeat four to six times.

Also (*Buyukyilmaz and Asti 2010*) reported that, sitting down and standing up followed by walking were the physical activities with the highest pain scores among Cesarean section women. Furthermore(*CDC, 2011*) After CS, women should be observed on a one-to-one basis by an anesthetist, recovery nurse, midwife or other properly trained member of staff until they have regained airway control and cardiorespiratory stability and are able to communicate.

**In addition** factors that increase pain intensity among the study and control group , this study revealed that the mobility and cough are the most factors that increase pain after CS 81.4% , and this was accepted by (*Boyle P,and Parbrook GD 2009*) who stated in his study that the mobility from bed will experience pain which can be explained in terms of tissue injury that when the tissues , blood vessels, abdominal surface area nerves and the uterus are destroyed with the surgery knife which increased by mobility and also the pressure of coughing. This may be due to pain has a different meaning for each person and it considered an important protective function.

As regards to the effect of non-pharmacological comfort measures on post cesarean pain using VAS at different 6 phases of assessment of pain . The present study revealed that before intervention of comfort measures the majority of the sample had a severe pain score and there is no

statistical significant difference among the groups, while after intervention of comfort measures on post cesarean pain at first, second and third hours the present study revealed that there was a significant difference between both the study and the control group regarding pain assessment ( $p \leq 0.05$ ), and there was a high significant difference regarding fourth, sixth and eighth hours of pain assessment ( $p \leq 0.001$ ). The findings of this study might be due to application of comfort measures on suitable time and by correct way during first hours post cesarean, and therefore it reduced pain and improved comfort to women.

*Solehati, Tand Rustina, Y (2013)* supported this study by using VAS for assessing pain after cesarean section and showed that there was a significant differences in average pain intensity both control group and intervention group before and after the intervention period ( $p < 0.005$ ,  $\alpha = 0.05$ ).

Concerning duration of pain experienced by women after application of comfort measures between the study and the control group at different six phases of pain assessment, the present study revealed that there was a highly statistical significant difference regarding duration of pain through third, fourth, sixth and eighth hours of pain assessment ( $p \leq 0.001$ ). This finding was supported by *(Melzack R, and Bonica JJ. 2009)* who stated that quantifying the intensity and duration of pain is an essential part of initial and ongoing pain assessment.

Regarding the effect of non-pharmacological comfort measures on score of post cesarean pain. The present study revealed that the majority of women had a high degree of pain relieve after making splint incision with a pillow and distraction, while more than three quarter of women had a moderate degree of pain relieve after practicing exercises and back massage. These findings might be due to that distraction and movement may get the attention away from

the pain and therefore reduces its severity. These findings are in accord with *(Arslan, S. & Carroll, A. 2009)* who reported that the idea of technique is to increase the tolerance for pain and decrease the sensitivity for pain. Also *(Seers & Carroll 2009)* added that relaxation and distraction may reduce the pain and anxiety without having drug related side effects and also can be used with other methods.

Furthermore, the effectiveness of relaxation technique in the present study depends on its consistent practicing through postoperative period (8 hrs) and the learning of relaxation technique in the time of absence of consistent with *(Kim et al., 2008)* who suggests that the effectiveness of practicing relaxation technique depends on its consistent use over time.

Concerning back massage, the present study revealed that slightly less than half of the sample practiced back massage, this may be due to practice back rub provide additional comfort measures, improves the circulation and reduce the muscle tension and anxiety associated with pain. This finding in accordance with *(Hashemi et al., 2008)* who stated that back massage reduce postoperative pain intensity and unpleasantness.

As regarding maternal satisfaction related to using comfort measures, the present study showed that three quarters (74.3%) of the study sample had good satisfaction regarding practicing comfort measures for relieving post cesarean pain. Meanwhile 25.7% of them had average satisfaction. This findings might go back to the fact that non-pharmacological measures for relieving pain are economic, available, had not any side effect and did not need doctor's orders.

## CONCLUSION

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In the light of the results of the present study, it could be concluded that; Physical

activity and relaxation technique have a positive effect on reliving pain for women undergoing cesarean section who were practice it than who did not. The best method for relieving pain for women undergoing cesarean section is early walking, back massage and subsequently relaxation technique. Meanwhile the majority of the women were used kegel exercises was unsatisfied.

## **RECOMMENDATIONS**

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In the light of the results of the present study, the following recommendations can be suggested:-

- Simple Arabic guidelines regarding the importance of comfort measures as (deep breathing exercises, relaxation techniques, massage and circulation) immediately post cesarean should be distributed in all units of obstetric departments.
- Prenatal mother classes should include with preparation for women to practice post cesarean comfort measures.
- Further research for nurses including awareness protocol regarding the importance utilization of comfort measures on reliving pain after cesarean section.
- Further research for applying the same study in large sample in other settings.

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## الملخص العربي

### تأثير وسائل الراحة على تخفيف ألم ما بعد الولادة القيصرية

تعد الولادة القيصرية واحدة من أشهر التدخلات الجراحية لإنقاذ حياة الأمهات والموليد معا على حد سواء. مما أدى إلى ارتفاع نسبتها على مستوى العالم في الثلاثة قرون الماضية.

حيث تتم هذه الولادة من خلال فتح جراحي في جدار البطن والرحم عنة من خلال المهبل. ومن نتائج هذه الولادة حدوث ألم حاد وأيضاً تعب وإجهاد وقلة القدرة على العمل الجسماني والعقلي بالمقارنة للولادة التي تتم طبيعياً. مما أدى إلى بذل كثير من الجهد لتقليل الشعور بهذا الألم وهذه المتاعب عن طريق وسائل الراحة اللادوائية وأساليب الاسترخاء المتاحة التي تقدم إلى كل النساء ومن أبسط هذه الوسائل مثل المشي التي يجب أن تمارسها النساء مباشرة بعد الولادة القيصرية وذلك للحصول على أقصى حد لتخفيف الشعور بالألم وتعافى النساء سريعاً.

#### الهدف من الدراسة:

تهدف هذه الدراسة إلى تقييم تأثير وسائل الراحة على تخفيف الألم ما بعد الولادة القيصرية.

#### ▪ إفتراض البحث:

استعمال وسائل الراحة مثل ( النشاط الجسماني وأسلوب الإسترخاء ) يقلل حدوث ألم ما بعد الولادة القيصرية .

#### ▪ المكان:

وحدة ما بعد الولادة القيصرية بمستشفى بنها التعليمي.

#### ▪ العينة وطرق البحث:

نوعية الدراسة: دراسة شبه تجريبية

#### 1- التصميم الفني:

#### أ) مكان البحث :

أجريت الدراسة في وحدة ما بعد الولادة بقسم النساء والتوليد بمستشفى بنها التعليمي

#### ب) العينة

نوع العينة : عينة غرضية

#### حجم العينة :

تم تطبيق هذا البحث على 140 سيدة ولدن للمرة الأولى ولادة قيصرية دون حدوث اي مضاعفات لهن.

#### ▪ أدوات جمع البيانات :

ثلاثة استمارات استبيان إستخدمت لجمع البيانات

١ - استمارة استبيان وتشتمل على:

تقييم الصفات العامة للسيدات عن البيانات الشخصية مثل (العمر، الحالة الاجتماعية، مستوى التعليم، الوظيفة)، وأيضاً بيانات عن التاريخ الإنجابي الحالي و معلومات السيدات عن الحمل الحالي وعن الولادة الحالية كما تشتمل على معلومات الأم عن طرق كيفية إزالة الألم.

٢ - استمارة لملاحظة تقدم الألم وذلك لتقييم مدى شدة الألم وسببه ومدته وتكراره وأيضاً طرق إزالته.

٣ - مقاييس لتقييم درجة الألم مثل المقياس المرئي والمقياس الوجهي.

**التصميم الإجرائي:-**

**١- الدراسة الميدانية:**

تم اختيار عينة إسترشادية تمثل 10% (14 سيدة) من إجمالي العينة ، لتقويم صلاحية الأدوات المستخدمة في البحث بعد النتائج الإحصائية لهذه العينة ، وطبقاً لهذه النتائج تم عمل التعديلات اللازمة .

**ب- مطوية تعليمية:**

تم وضعها بواسطة الباحث باستخدام اللغة العربية المبسطة والصورالتوضيحية المختلفة من أجل تعليم السيدات عن كيفية تطبيق وسائل الراحة لتقليل الاحساس بالألم.

■ **نتائج الدراسة :**

نتائج هذه الدراسة يمكن تلخيصها على النحو الآتي :

- أظهرت الدراسة أن السيدات اللاتي أجريت لهن عملية الولادة القيصرية في عينة البحث كان لديهن معلومات ضعيفة حول ممارسة وسائل الراحة والتمارين اللازمة لتخفيف ألم ما بعد الولادة القيصرية.
- كما أظهرت الدراسة أيضا أن معظم السيدات اللاتي استعملن وسائل الراحة شعرن بدرجة أقل للألم بعد الولادة القيصرية.
- كان هناك علاقة ذات دلالة إحصائية كبيرة جدا بين وسائل الراحة ودرجة إحساس السيدات بالألم.

■ **توصيات الدراسة :**

وفي ضوء النتائج التي توصلت اليها الدراسة الحالية ، اقترحت التوصيات التالية :

- إتاحة كل ما هو جديد في المعلومات والتمارين الخاصة بالرعاية التمريضية في وحدة ما بعد الولادة القيصرية بناء على تقييم وإحساس السيدات بالألم في كتيبات ومطبوعات إرشادية بالوحدة.
- نشر أبحاث مستقبلية لإلقاء الضوء على أهمية البرامج التعليمية الدورية لتحسين معلومات وأداء الممرضات في وحدة ما بعد الولادة القيصرية.