Effect of Benson Relaxation Technique on Intensity of Post Cesarean Section Pain among Primipara Women

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Abstract:

Background: Benson relaxation technique is an effective and safe method for reducing the intensity of post cesarean section pain. **Aim:** The present study aimed to evaluate effect of Benson relaxation technique on intensity of post cesarean section pain among primipara women. **Design**: A quasi experimental design was used to fulfill the aim of the present study. **Setting:** Post-partum unit of Obstetrics and Gynecology at Benha university hospital. **Sample**: A Purposive sample consisted of 120 primipara women after cesarean section which divided into two groups study and control group (60 for each). **Tools:** Data was collected through two main tools; I-A structured interviewing questionnaire, II-The short-form McGill pain questionnaire. **Results:** A statistically significant difference was observed in pain intensity between two groups after application of Benson relaxation technique at the four phases (p< 0.05) as pain intensity decreased in the study group more than the control group. **Conclusion**: Practicing of Benson's relaxation technique had a positive effect on reducing the intensity of post cesarean section pain among primipara women. **Recommendation:** Benson relaxation technique should be recommended as non pharmacological routine of care in maternity hospitals for reducing intensity of post cesarean pain.

Keywords: Benson relaxation technique, Cesarean section pain, Primipara

Introduction

Cesarean section is defined as an operation for the delivery of the fetus through surgical incisions in the anterior abdominal and uterine walls, cesarean section may be a planned or emergency procedure and considered as a lifesaving procedure if there are any complications related to pregnancy **(Byamugisha and Adroma, 2020).**

Cesarean section can be indicated if vaginal delivery puts the fetus or the woman at risk such as in cases of obstructed labor, problems with the umbilical cord or placenta, hypertension, twins pregnancy, breech presentation as well as the history of previous cesarean section **(Ramesh, 2020).**

Post cesarean section pain is the main cause for many problems during the postoperative period such as; woman discomfort, dissatisfaction, poor wound healing, delayed recovery, prolonged hospital stay, poor quality of life, poor the woman's interaction with the newborn and chronic pain. Having a newborn is considered as a pleasant event but may be a traumatic event if the woman is suffering from severe pain because of post cesarean section pain interferes with ambulation, breastfeeding, and care of the newborn **(Demelash et al., 2022)** Appropriate pain management after cesarean section can reduce the complications, duration of hospital stay, as well as earlier resumption of daily life normal activities. Optimal pain control is a key point for enhanced recovery after cesarean section and is considered an essential component for better quality of

recovery. Multimodal pain management should be used for faster recovery, fewer side effects, and also should be used according to woman's condition such as a history of chronic pain **(Byerly and Bryson, 2020).**

There are several techniques for pain management after caesarean section which is divided into pharmacological and non-pharmacological methods. Pharmacological methods which pain can be treated by administering analgesic drugs (non-narcotic analgesics such as non-steroidal anti-inflammatory drugs or narcotic analgesics). The advantage of pharmacological treatment is that pain can be treated quickly but have many side effects if used for a long time such as kidney disorders so that many efforts are used to reduce opioid use for enhanced recovery after caesarean section according to degree of pain **(Wilson and Kane, 2020).**

In addition, non-pharmacological methods of pain management are divided into three groups; cognitive, physical, and emotional methods. The non-pharmacological methods are a safe way on reducing post cesarean section pain without any side effects such as; warm or cold compresses, massage, acupuncture or acupressure, aromatherapy, electromagnetic therapy, music therapy, and relaxation techniques **(Zimpel et al., 2020).**

Relaxation techniques are non-pharmacological methods that are used to reduce post cesarean section pain effectively. There are four kinds of relaxation techniques: muscle relaxation, breathing exercises, meditation and behavioral relaxation. Benson relaxation technique is the development of a breathing relaxation method based on woman's beliefs that can help the woman to be calm and achieve a higher state of health and well-being **(Choirunissa et al., 2022).**

Furthermore, Benson relaxation technique (BRT) is one of the non-pharmacological methods which have been recognized as the most appropriate and cost-effective methods for reducing post cesarean section pain. Benson relaxation technique can reduce the use of postoperative opioid analgesics, reduce the intensity of postoperative pain, reduce anxiety, tension and postpartum fatigue, as well as increase the woman's satisfaction **(Kutenai et al., 2022).**

Nursing management for post cesarean section included continuous monitoring of vital signs, check the amount of vaginal bleeding, IV fluids should be given, prophylactic antibiotics are given, analgesics are administered to reduce post cesarean pain **(Kaushik, 2021).** The nurse should educate the women how to practice correctly Benson relaxation technique for reducing the need of analgesic drugs and managing post cesarean section pain without any side effects **(Abarghoee et al., 2022).**

Significance of the study:

Cesarean section is an essential life-saving surgery but can have unnecessary risks on the woman and the fetus when performed with no medical needs. Cesarean section rates continue to rise globally and account more than 21% of all child births, in the least developed countries about 8% of women gave birth by caesarean section with only 5% in sub-Saharan Africa but in Latin America and the Caribbean rates are high about 43% of all births. In five countries including (Dominican Republic, Brazil, Cyprus, Egypt and Turkey) caesarean sections now out number of vaginal deliveries **(WHO, 2021).**

There is a noticeable increase in caesarean section rates in Egypt, according to the data from the Central Agency for Public Mobilization and Statistics (CAPMAS) on the health of the Egyptian family which is performed in August 2021; cesarean section births increased to 72 % in 2021, compared to 52 % in 2014 **(CAPMAS, 2021).**

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Post cesarean section pain is a complex experience that result in delaying the post-operative recovery and impeded the women and newborn bonding. Severe acute post cesarean pain is a strong risk factor for postpartum depression and chronic pain which is associated with long-term psychological, social, and economical side effects **(Sangkum et al., 2021).**

Benson relaxation technique is an effective and safe method for reducing the intensity of post cesarean section pain without any side effects, considered as an appropriate and cost-effective method, easy for implementation, don't require any special effort as well as increasing woman's satisfaction. Therefore, this study was conducted to evaluate the effect of Benson relaxation technique on intensity of post cesarean section pain among primipara women.

Aim of the study

This study aimed to evaluate the effect of Benson relaxation technique on intensity of post cesarean section pain among primipara women.

Study hypothesis:

Application of Benson's relaxation technique would have a positive effect on reducing post cesarean section pain among primipara women than who didn't apply.

Subjects and method

Research design:

A quasi-experimental design was used to fulfill the aim of the present study.

Setting of the study:

This study was conducted at post-partum unit of obstetrics and gynecological department at Benha University Hospitals in Benha city, Egypt.

Sampling:

Sampling type: A Purposive sample.

Sampling size: A total of 120 primipara women were included in the study sample. The total number of post cesarean section women at Benha University Hospital at year 2021 was 1201 women **(Benha University Hospital census, 2021).** A 10% of annual rate of post cesarean section (120 women) was selected according to the following inclusion criteria.

Inclusion criteria: Primipara women in the first post-operative day. Not taken any analgesics. Accepted to participate in the study.

Exculsion criteria: Post cesarean section women who had any complications.

Sample technique:

The researcher visited the previous mentioned setting three days per week until the predetermined sample size was reached. A total of 120 women were divided into two equal groups; 60 women for control group who received the routine hospital care only and 60 women for study group who applied Benson relaxation technique beside routine hospital care.

Tools of data collection:

Two main tools were used for data collection:

Tool I: A structured interviewing questionnaire:

This tool was designed by the researcher into Arabic language in form of closed ended questions after reviewing related literature. It consisted of four parts:

Part (1): General characteristics of the studied sample, included (age, level of education, residence and occupation).

Part (2): Woman's obstetrics history, included (number of abortion, gestational age and having of antenatal following up).

Part (3): Data about current cesarean section, included (type of cesarean

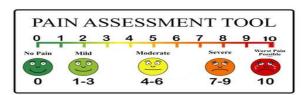section, type of anesthesia and duration of operation).

Part (4): Factors affecting pain intensity, woman was asked about factors affecting pain intensity which involved (early walking, movement in the bed, breast feeding, speaking, cough, sneezing, fear, stress and tiring).

Tool II: The short-form McGill pain questionnaire:

This tool was adopted from **Melzak, (1987)**, to assess the intensity of pain for primipara women after cesarean section and was consisted of two parts:

Part (1): Visual analogue pain scale (VAS): which include 10 points numerical scale, corresponding to the degree of pain. The researcher was assessed the intensity of pain for post cesarean section primipara women from those 10 points numerical continuum the degree that corresponded to the perceived pain intensity. The scale was composed of 5 items ranged from "no pain" to "worst pain possible".

Scoring system: the total scores of visual analogue pain scale ranged from 0-10, the higher scores reflected the worst pain.

Part (2): Pain rating index (PRI):

This scale was composed of 15 categories; 11 items reflected sensory sensation that associated with pain (throbbing, shooting, stabbing, sharp, cramping, gnawing, hot-burning, aching, heavy, tender and splitting) and 4 items reflected affective sensation that associated with pain (tiring-exhausting, sickening, fearful and cruel-punishing). Each item was rated as (none =0), (mild =1),

(moderate =2), (severe =3). The total score for the 15 items ranged from 0 to 45.

Scoring system: Each item was rated as (none =0), (mild =1), (moderate =2), (severe =3). The total score for the 15 items ranged from 0 to 45

Tools validity:

Tools of data collection were revised and ascertained by a panel of three experts (one professor and two assistant professor) in the field of obstetrics and gynecological nursing at Benha faculty of nursing to test clarity, relevance, applicability of tools and modifications were applied according to experts comments such as adding, rephrasing and omitting some questions such as question of type of wound

Tools reliability:

Reliability of tools was assessed by Cronbach's Alpha coefficient test to measure the internal consistency of the tools and assure that the tools were reliable before data collection. The internal consistency for visual analogue scale was 0.92 and pain rating index was 0.89.

Ethical considerations:

- An oral consent was obtained from each woman to participate in the study.
- The women were assured that all information would be confidential and it would be used only for the research purpose.
- The women would be free to withdraw from the study at any time without giving any reasons.
- The study conducted without causing any physical or psychological harm for the women.

Pilot study:

Pilot study was conducted one month before data collection on 10% of the total sample (12 primipara women from the study and control groups) in order to test the clarity, feasibility, and applicability of the

tools. As well as estimation the time needed for data collection and detect any possible obstacles that might face the researcher. The women who included in the pilot study weren't excluded from the study sample because no modifications were done after conducting the pilot study.

Field work:

This study was conducted in a period of six months started from the beginning of July, 2022 till the end of December, 2022. The researcher visited the previous mentioned setting three days per week (Saturday, Monday, Thursday) until the predetermined sample size was reached. The sample was divided into two groups (study group and control group). The researcher started with the control group to avoid contamination of the sample then the study group. The study was conducted through the following phases;

Assessment phase (pretest):

For both study and control group, the researcher greeted each woman, and introduced herself. Explain the purpose of the study to maintain assurance and cooperation from the women. An oral consent to participate in the study was taken from each woman. The researcher interviewed each woman to collect general characteristics, obstetric history, data about current cesarean section and factors affecting pain intensity using **(Tool I)**. Pain intensity was assessed using **(Tool II)** The short-form McGill pain questionnaire (Visual Analogue Pain Scale, pain rating index). This phase considered as pretest. The average time taken for completing each tool was around 15- 20 minutes. The number of interviewed women per week was 4-6 women.

Implementation phase:

For the study group only, the researcher provide brief overview about Benson relaxation technique then learned each woman

in the study group steps of Benson relaxation technique, how to practice Benson relaxation technique, time and duration of practicing technique, the woman practiced Benson relaxation technique for 10- 20 minutes, three times a day in quite room for 2 consecutive days post-operative.

For control group: the control group received routine hospital care only such as; monitoring of vital signs, monitoring the amount of vaginal bleeding, giving IV fluids, giving antibiotics.

Evaluation phase:

This phase was done to evaluate the effectiveness of Benson relaxation technique by using the same format of tool for both study and control groups to evaluate pain intensity after 6, 12, 24 and 48 hours. The researcher evaluated both groups at 12, 24 and 48 hours through telephone.

Statistical Analysis:

Data was verified prior to computerized entry. The Statistical Package of Social Science (SPSS version 25) was used for that purpose followed by data tabulation and analysis. Descriptive statistics were applied (e.g., mean, standard deviation (SD), frequency, and percentages). Chi-square test (x2) of significance was used to study association between two qualitative variables, independent t-test was used for comparison between groups. Pearson correlation (r) was used for correlation between the study variables. Statistical significance was considered as following;

No statistically significant when p >0.05.

Statistically significant when p ≤0.05.

Highly statistically significant value was considered when p ≤ 0.001.

The limitations of the study:

Limitation of national and international previous studies regarding application of Benson relaxation technique in reducing post

cesarean section pain among primipara women lead to the researcher was used other applications of Benson relaxation technique in different studies from other specialties in discussion of present study.

Results

Table (1) clarifies that 68.3% and 53.3% of the study and control group were aged from 20- 35 years old with a mean age of 26.23±5.16 and 25.37±4.89 years old respectively. Moreover, 56.7% and 51.7% of both study and control groups respectively were lived in rural area. Concerning level of education, it was cleared that 46.7% and 50.0% of both study and control groups respectively had secondary education. As regards occupational status, 76.7%% and 70.0 of both study and control groups respectively were housewives. Generally, there was no statistically significant difference between study and control groups regarding general characteristics (p >0.05).

Table (2) displays that, 68.3% and 65.0% of both study and control groups respectively hadn't any previous abortion. It was cleared that 80.0% and 75.0% of both study and control groups respectively had gestational age from 37-40 weeks with a mean gestational age of 39.50±1.40 and 39.34±1.43 week. Furthermore, 80.0% and 88.3% of both study and control groups respectively had followed up during pregnancy. There were no statistically significant differences between study and control groups according to obstetric history (p>0.05).

Table (3) displays that, before application of Benson Relaxation Technique; there is no statistically significant difference was found in pain intensity between both study and control groups (p>0.05). Meanwhile, a statistically significant difference was
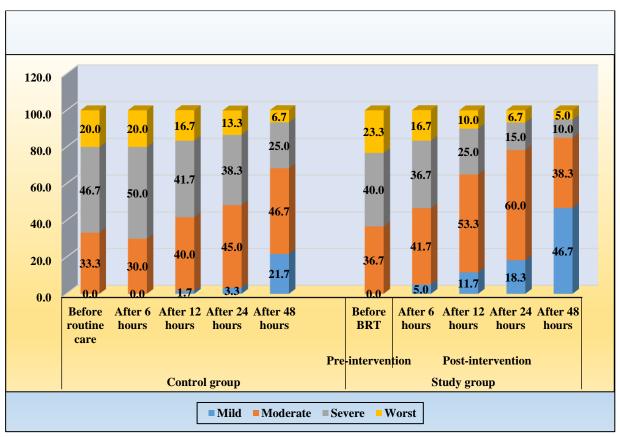
observed in pain intensity between two groups after application of Benson relaxation technique at the four phases (p< 0.05) as pain intensity decreased in the study group more than the control group.

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Table (1): Distribution of studied women according to general characteristics (n= 120)

General characteristics	Control group (n=60)		Study group (n=60)		X^2	P value
	No.	%	No.	%		
Age (in years)						
<20	15	25.0	10	16.7	0.283	0.242
20- 35	32	53.3	41	68.3		
>35	13	21.7	9	15.0		
Mean ±SD	25.37±4.89		26.23±5.16			
Residence						
Rural	31	51.7	34	56.7	.302	0.583
Urban	29	48.3	26	43.3		
Level of education						
Read and write	6	10.0	6	10.0	1.08	0.781
Primary education	7	11.7	11	18.3		
Secondary school	30	50.0	28	46.7		
University education	17	28.3	15	25.0		
Occupation						
Housewife	42	70.0	46	76.7	.681	0.409
Employee	18	30.0	14	23.3		

Table (2): Distribution of studied sample according to obstetrics history (n= 120)

Obstetrics history	Control group (n=60)		Study group (n=60)		X^2	P value
	No.	%	No.	%		
Number of abortion						
No	39	65.0	41	68.3	1.02	0.795
Once	9	15.0	6	10.0		
Twice	6	10.0	8	13.4		
3 times or more	6	10.0	5	8.3		
Gestational age (in weeks):						
< 37	5	8.3	7	11.7	2.09	0.351
37-40	45	75.0	48	80.0		
> 40	10	16.7	5	8.3		
Mean ±SD	39.34±1.43		39.50±1.40			
Follow up during pregnancy						
Yes	53	88.3	48	80.0	1.56	0.211
No	7	11.7	12	20.0		

BRT: Benson relaxation technique.

Figure (1): Comparison between level of pain among women in studied sample (control and study group) before intervention and four phases after intervention (n=120)

Table (3): Mean scores of pain intensity of studied women before intervention and four phases after intervention. (n=120)

Time of application		Control group n=60	Study group n=60	Independent t-test	p-value
		Mean ±SD	Mean ±SD		
Pre-intervention	Before	6.55±1.67	6.20±1.96	1.02	0.306
Post-intervention	After 6 hours	6.80 ±1.89	5.83±2.09	2.65	0.009*
	After 12 hours	5.37±1.76	4.82±2.32	2.43	0.016*
	After 24 hours	4.48±2.19	3.40±1.89	2.89	0.005*
	After 48 hours	2.77±1.21	2.13±0.95	3.16	0.002*

* A Statistical significant p ≤ 0.05

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Discussion

The present study aimed to evaluate the effect of Benson relaxation technique on intensity of post cesarean section pain among primipara women. The findings were discussed in the following sections; general characteristics of the studied sample. Intensity of pain among studied samples through different phases of intervention.

Regarding general characteristics of the studied sample, the current study findings showed that no statistical significant differences were existed between study and control groups regarding general characteristics which may be due to the harmony of both groups.

These results were supported by **Elsherif et al., (2023),** in their study entitled "Effect of gum chewing on gastrointestinal proplems among primipara women immediately after cesarean section" who found that there were no statistically significant differences between groups in any baseline data.

Also, this result was agreed with **Ismail and Elgzar, (2018),** in their study which titled as "The effect of progressive muscle relaxation on post cesarean section pain, quality of sleep and physical activities limitation" found that no statistically significant difference was found between study and control groups regarding their socio- demographics.

Concerning the age, the current study showed that more than two-thirds of the study group and more than half of the control group aged (20- 35 years old) with mean age of 26.23±5.16 and 25.37±4.89 years old. From the researcher point of view, this age represents female reproductive age and in Egypt, the majority of females married and delivered at this age.

These results were agreed with **Parmar and Tiwari, (2021),** in study entitled " Effect of Benson's Relaxation Therapy on Post Caesarean Section Pain and Stress: A Pilot Study " who mentioned that majority of women in both groups belonged to age group of 23 to 32 years old.

In addition, this result was consistent with **Eid et al., (2023),** in the study entitled "Effect of pre-gynecological counseling sessions on relieving women's pain, discomfort and enhancing their satisfaction" who found that two thirds of study sample were from the age 35 years old or less.

Also this result was supported by **Sindhumol and Thadathil, (2018),** in the study entitled "A study to assess the effect of Benson relaxation therapy on pain among post caesarean mothers admitted in selected hospital" who mentioned that the majority of the studied women were from the age group 20-30 years old.

Regarding the residence, the current study showed that more than half of both study and control groups respectively were lived in rural area. This result may be due to the location of Benha university hospital, which receives women from surrounding rural areas.

This study was consistent with **Mansour and Saadoon, (2022),** in the study entitled "Effect of Benson's relaxation therapy on pain and sleep quality among post cesarean mothers " who found that more than half of both groups lived in rural areas.

While, this result was in contrast to **Abd El Rahman et al., (2022),** in the study entitled "Effect of Benson relaxation therapy on post-operative pain and stress among nulliparus women undergoing cesarean section" who found that the majority of women in both groups resided in urban areas.

Concerning the educational level, the result of the present study was cleared that less than half of study group and half of control group had secondary education this may be due to that Egyptian culture in the rural areas don't appreciate the value of completing education for women.

This result was consistent with, **Zaghloul et al., (2022),** in their study entitled " Effect of Benson relaxation technique on pain intensity, anxiety level and sleep quality among post caesarean women " who illustrated that nearly an equal percent of both groups had secondary education

As well as, this study was agreed with **Fitri et al., (2020),** in their study entitled "The effect of relaxation of Benson on the intensity of post cesarean section pain at Muhammadiah hospital in 2018 " who found that most of studied sample had secondary education. While, this result was in contrast to **Raj and Pillai, (2021),** who found that more than half of study group and control group were graduated.

Regarding the occupation, the current study showed that more than three-quarters of study group and less than three-quarters of control group were housewives. This result was agreed with **Parmar and Tiwari, (2021),** in study entitled " Effect of Benson's Relaxation Therapy on Post Caesarean Section Pain and Stress: A Pilot Study " who mentioned that majority of women from both groups were housewives. As well as, this study was agreed with **Fitri et al., (2020),** who found that most of studied sample were housewives.

In relation to obstetrics history of studied sample, the current study showed that more than two-thirds of study group and less than two-thirds of control group hadn't any previous abortion. This result was in the same line with **Salmanzadeh et al., (2018),** in their study entitled "The Effect of Benson's relaxation on pre-operative anxiety in cesarean section in nulliparus women" who found that majority of women were without any abortion history.

Concerning gestational age, the current study showed that the majority of study group and three-quarters of control group had gestational age from (37-40 weeks). This result in the same line with **Ismail and Elgzar, (2018),** who documented that the majority of the women had gestational age at 39 weeks.

Also, this study was agreed with **Radha et al., (2020),** in study entitled " Effectiveness of Benson's Relaxation Therapy on Pain and Stress among Post Caesarean Mothers" who documented that most women 38 weeks of gestational age.

In relation to following up during pregnancy, the current study showed that the majority of both study and control groups had followed up during pregnancy. This result was consistent with **Nazarinasab et al., (2018),** in their study entitled "Investigating the effects of relaxation therapy on decreasing anxiety in patients with elective caesarean section in Imam Khomeini Hospital, Ahvaz, Iran during 2016" who found that the majority of women had antenatal follow up visits.

This result was in contrast with **Raj and Pillai, (2021),** in the study entitled "Effectiveness of Benson's relaxation therapy on reduction of post cesarean pain and stress among mothers in a selected hospital at Kochi" who found that the more than half of women not had antenatal visits.

Regarding data about current cesarean section, the current study found that two-thirds of study group and the majority of control group planned for cesarean section. This result was supported by **Morabad et al., (2022),** in study entitled "Efficacy of Benson's Relaxation Technique on Reduction of Pain and Anxiety among Post Cesarean

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Mothers" who found that more than three quarters of women had planned for cesarean section.

While, this result was contradicted with **Parmar and Tiwari, (2021),** who mentioned that, two thirds of women had emergency cesarean section. In addition, this study was in contrast with **Mansour and Saadoon, (2022),** who found that the majority of cesarean section was emergency.

Regarding to type of anesthesia, the current study showed that the majority of study group and more than three-quarters of control group underwent general anesthesia. This result was in accordance with **Mohamady et al., (2022),** in study entitled "Effect of Benson Relaxation Technique on Reducing Pain and Stress among Post Cesarean Section Mothers" who found that the majority of women had a general anesthesia.

Also, this result was agreed with **Jayanti et al., (2020),** in the study which titled as "The effect of Benson relaxation technique on pain intensity in post cesarean section women in Puri Raharja general hospital denpasar" who emphasized that about more than half of studied sample had a general anesthesia.

Owing to duration of operation, the current study showed that duration of cesarean section operation in less than three-quarters of study group and the majority of control group was 30-60 minutes. This result was supported by **Abarghoee et al., (2022)**, in study entitled " Effects of Benson Relaxation Technique and Music Therapy on the Anxiety of Primiparous Women Prior to Cesarean Section: A Randomized Controlled Trial " who documented that majority from both groups was duration about 60 minutes.

In relation to intensity of pain before intervention and four phases after intervention, the current study demonstrated that, before application of Benson relaxation technique; there was no statistically significant difference in pain intensity between both study and control groups. Meanwhile, a statistically significant difference was observed in pain intensity between two groups after application of Benson relaxation technique at the four phases. This result support the study hypothesis which stated that "Application of Benson's relaxation technique would have a positive effect on reducing post cesarean section pain among primipara women than who didn't apply " .

This result was consistent with **Mansour and Saadoon, (2022),** who showed that there was a highly statistically significant reduction in the mean of post cesarean pain degree after application of Benson relaxation technique for the study group than the control group.

This result was supported by **Sindhumol and Thadathil, (2018),** in the study entitled "A study to assess the effect of Benson relaxation therapy on pain among post caesarean mothers admitted in selected hospital" who found that after all the four sessions there was statistically significant reduction in pain perception at ninety five percent.

This result was consistant with **Raj and Pillai, (2021),** who reported that there was a statistically significant difference found in the post test for pain and stress scores in the experimental group. The same finding was reported by **Abd El Rahman et al., (2022),** who showed that nearly two-fifths of the women having cesarean section experienced with only minimal pain during the post-test following Benson relaxation therapy.

Additionally, **Morita et al., (2020),** in study entitled "The Effect of Benson's

relaxation technique on pain reduction among in post-operative cesarean section patients at RSUD Dr. Ahmed Mochtar Bukittnggi" who found that the difference between both groups before and after intervention was statistically significant.

Also, this result was agreed with **Morabad et al., (2022),** in study entitled "Efficacy of Benson's relaxation technique on reduction of pain and anxiety among post cesarean mothers" who found statistically significant difference between the two groups.

As well as, this result with the consistent with **Jayanti et al., (2020),** who reported that the difference between the study group before and after intervention was statistically significant, compared to the difference between the control group before and after intervention was not statistically significant.

Moreover, **Macwan et al., (2022),** in the study about "Effectiveness of Benson's Relaxation Therapy on reduction of pain And Stress among Post L.S.C.S Primigravida Mothers" reported that mean difference of pretest and posttest in the study group is 3.24 but in the control group, mean difference of pretest and posttest is 0.30.

In the relation to the above-mentioned results findings, there was a highly statistical difference on intensity of post cesarean section pain between the both study and control groups before and after intervention. This indicated the beneficial effect of Benson relaxation technique on reducing the intensity of post cesarean section pain among primipara women and support hypothesis of this study which stated that "Application of Benson's relaxation technique would have a positive effect on reducing post cesarean section pain among primipara women more than who didn't apply.

Conclusion:

Practicing of Benson's relaxation technique had a positive effect on reducing the intensity of post cesarean section pain among primipara women as pain intensity decreased in the study group of more than control group. Therefore, the study hypothesis was supported and aim of the study was achieved.

Recommendations:
- Benson relaxation techniques should be recommended as non-pharmacological routine of care in maternity hospitals for reducing intensity of post cesarean pain.
- Distribute posters and pamphlets to post cesarean section women to clarify steps of Benson relaxation technique.
- Replication of the study using a larger probability sample from different geographical regions for generalization of results.

Further studies:
- Conducting in-services training program for maternity nurses about of Benson relaxation technique on reducing intensity of post cesarean section pain.
- Similar studies are needed to assess the long-term effects of Benson's relaxation technique on reducing of post cesarean section pain and stress.

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تأثير تقنية بنسون للإسترخاء على حدة آلام ما بعد الولادة القيصرية بين السيدات البكريات

فاطمة مصطفي محمد ــ أمل أحمد حسن عمران ــ هند عبدالله السيد عفيفي ــ مي محمود حسن

تُعرَّف الولادة القيصرية بأنها عملية ولادة الجنين والمشيمة من خلال شق جراحي في جدار البطن والرحم بعد 28 اسبوعا من الحمل. حيث يتم إجراء الولادة القيصرية عندما تسبب الولادة الطبيعية خطرعلي حياة الأم أو الجنين وإذا كان هناك أي مضاعفات متعلقة بالحمل. تعتبر آلام ما بعد الولادة القيصرية هي السبب الرئيسي لضعف التئام الجرح بعد الولادة، تأخر التعافي, قلة تفاعل السيدة مع الطفل حديثي الولادة وتأخر السيدة في العودة الي الأنشطة اليومية. لذلك, هناك العديد من التقنيات الجديدة لمعالجة الألم بعد الولادة القيصرية. وتُعد تقنية إسترخاء بنسون إحدى التقنيات الغير الدوائية وتعتبر أكثر الطرق الملائمة والفعالة من حيث التكلفة لتقليل آلام ما بعد الولادة القيصرية من خلال التركيز علي تكرار كلمات مهدئة ترتبط بمعتقدات السيدة . لذلك هدفت هذه الدراسة إلى تقييم تأثير تقنية بنسون للإسترخاء على حدة آلام ما بعد الولادة القيصرية بين السيدات البكريات. وأجريت هذه الدراسة في وحدة ما بعد الولادة بقسم أمراض النساء والتوليد بمستشفيات بنهاالجامعي. وقد تم اخذ عينة غرضية مكونة من 120 سيدة بكرية تم تقسيمهم إلى مجموعتين (60 سيدة للمجموعة الضابطة التي تلقت الرعاية الروتينية للمستشفى فقط و 60 سيدة لمجموعة الدراسة التي قامت بتطبيق تقنية بنسون للإسترخاء بجانب الرعاية الروتينية للمستشفى). حيث كشفت النتائج انه لا توجد فروق ذات دلالة إحصائية في حدة الألم بين مجموعتي الدراسة والمجموعة الضابطة قبل تطبيق تقنية بنسون للإسترخاء. في الوقت نفسه، كان هناك فروق ذات دلالة إحصائية لوحظت في حدة الألم بين المجموعتين بعد تطبيق تقنية بنسون للإسترخاء في المراحل الأربعة (6, 12, 24, 48 ساعة). بناءً على نتائج الدراسة الحالية، يمكن الإستنتاج أن ممارسة تقنية بنسون للإسترخاء كان له تأثير إيجابي على تقليل حدة آلام ما بعد الولادة القيصرية بين السيدات البكريات حيث أن حدة الألم قلت في مجموعة الدراسة عن المجموعة الضابطة. لذلك تم دعم فرضية الدراسة وتم تحقيق الهدف من الدراسة. وأوصت الدراسة باسخدام تقنية بنسون للإسترخاء كروتين غير دوائي للرعاية في قسم النساء والتوليد لتقليل حدة آلام ما بعد الولادة القيصرية وتوزيع الملصقات والنشرات على السيدات بعد الولادة القيصرية لتوضيح خطوات تقنية بنسون للإسترخاء.