

## Effect of effleurage on Pain Severity and Duration of labor among laboring Women

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### Abstract

**Background** complementary and alternative measures for managing labor pain have become more popular in developed and developing countries. One of them is effleurage, it is manipulation applied on the soft tissue to improve general well-being and reduce the labor pain. **Aim of this study**, is to assess the effect of effleurage on severity of labor pain and duration of labor. **Design**, quasi- experimental design was used to the current research. **Setting**, The study was conducted at Ismailia University Hospital, **Tools**, three tools were used for data collection; maternal interviewing schedule, visual analogues scale (VAS), and maternal evaluation sheet (Partograph). **Procedure**, apply effleurage for 30 minutes (massage on the abdomen during contraction as circular movement to minimized labor pain) for group(A) only at 4cm, 6 cm, 8cm. and 10 cm, and group (B) received standard routine care. **Results**, results indicated that, group who received effleurage is associated with lower score pain perceived than control group, and short in first and second stage of labor with statistically significant differences between both groups. Group who received effleurage is associated with decrease pain killer compared to control group with statistically significant differences. **The study concluded that**, effleurage have impact on minimized labor pain and short of the first and the second stage of labor than group who received standard routine care. **Recommendations**, based on the findings of this research the following recommendations suggest: further research for applying non-pharmacological method for minimized pain during labor than pharmacological methods.

**Key words:** labor, effleurage, severity, duration, pain

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### I. Introduction

Labor Pain is a physiological, complex, subjective and multidimensional response to the sensory stimuli principally generated by uterine contraction (Mello, Nobrega&Lemos, 2010). It is a complicated, personal, mental and multi- factorial phenomenon, affected by economic, social, cultural, biological and psychological factors. Continuous labor pain affects respiratory system, blood circulation, endocrine glands and other activities of the body (Behmanesh, pasha, &Zeinalzadeh, 2009). There are factors influencing the perception of pain during childbirth and they are physical and psychological factors such as intensity of uterine contraction, cervical readiness, fetal position, characteristics of the pelvis, fatigue, culture, anxiety, fear and previous experiences with pain parity (Mckinney, 2009 andFahami, Behmanesh, Valiani&Ashouri, , 2011).

Pain control during childbirth plays an important role during labor because it contributes to the physical well-being of both mother and fetus (Mello et al., 2011). Different techniques both regional and non-regional to provide labor analgesia. Non regional methods may be divided into pharmacological and non-pharmacological methods (Fahami et al., 2011; Wong, 2009 and Bajwa, Bajwa, Singh&Singh, 2010). Pharmacological agents include inhalational agents (nitrous oxide, Inhalation of halogenated agents) and systemic analgesics as morphine, diamorphin, fentanyl, meperidine (pethidine) (Anim-Somuah, Smyth&Jones,2011).

A according to Bajwa et al. (2010) non-pharmacological techniques includes transcutaneous electrical nerve stimulation (TENS), Relaxation and/or breathing techniques, Temperature modulation: hot or cold packs, water immersion, hypnosis, massage, Acupuncture, and Aromatherapy. One of the non- pharmaceutical methods for labor pain reduction is effleurage. Effleurage is one type of massage which include light or deep stroke by using a flat surface of hand or forearm over back and/ or abdominal areas of laboring women. Outcome of effleurage are reducing pain, relieving stress and anxiety, relaxation, comfort and decrease the labor duration of mothers in labor (Behmanesh et al.,2009).

A randomized control trail (RCT) done in Taiwan by Chang, Wang & Chen(2002) included 60 women, 30 of whom received massage and 30 women in a control group who received standard routine care.

The researcher gave massage three times, once during each phase of labor (**latent, active, and transition**). Massages lasted for 30 minutes in each phase. Pain intensity was measured by a nurse observing each woman's manifestations of pain using a present behavioral intensity scale. While, pain intensity increased gradually through progressing phases of labor, the group who received massage had statistically significant lower pain intensity scores at each phase of labor (0.73 versus 1.30 in latent; 1.73 versus 2.17 in active; and 2.17 versus 2.87 in transition phases) than group who received standard routine care. Approximately, eight seven percent of the women in the massage group stated that the massage was helpful in providing pain relief and psychological support during labor. New supportive methods like massage therapy could change the labor into a pleasant and desirable experience (**Chang, Chen & Huang, 2006 and Zohreh, Zahra & Fadaei, 2008**).

Nurses have in an important role to provide childbearing women with balanced, clear, concise information regarding effective non-pharmacologic and pharmacologic measures to relieve pain. It is important for nurses to be knowledgeable about the most recent scientific research on labor pain relief modalities, to make sure that accurate and unbiased information about effective pain relief measures is available to laboring women, to be sure that the women determines what is an acceptable labor pain level for her, and to allow the women the choice of pain relief method. Nurse assists the women to cope with labor pain, built her self-confidence, and maintain a sense of mastery and well-being (**Youness & Moustafa, 2012**).

### **Problem Statement**

In Ismailia University Hospital labor pain for most of the woman are managed by pharmacological measures to relieve discomforts while the non pharmacological measures which are safer to women and their babies, rarely used. Also, not all nurses believe in use non pharmacologic approaches to relieve labor pain when caring for laboring women. The possible reasons could be, lack of familiarity with this techniques, the routine practices that tend to use pharmacological pain relief or fact that caring for a woman with analgesics is less physically and emotionally draining for the nurse.

From clinical observation, it was observed that there are various laboring women suffering from labor pain and Un-relieved pain can have an adverse effect on physiological and psychological wellbeing of the women. In Ismailia University Hospital, there were few scattered researches carried out to examine the effect of effleurage as non-invasive methods on pain relief during labor. **Chang et al. (2006)** reported that there are no harmful effects to the use of touch or massage for mother and her fetus.

### **Operational Definitions**

**Effleurage technique:** Effleurage is one type of massage which include light or deep stroke by using a flat surface of hand or forearm over back and abdominal areas of laboring women. Outcome of effleurage refers to beneficial of effleurage massage that are reducing pain, relieving stress and anxiety, relaxation, comfort and decrease the labor duration of mothers who are in labor.

### **Aim of the Study**

The aim of the current study is to assess the effect of effleurage on severity of pain and course of labor among woman.

### **Research hypotheses**

- H1. Laboring women, who receive abdominal effleurage, experience less pain score than women who receive standard routine care.
- H2. Laboring women, who receive abdominal effleurage, have shorter first stage of labor than women who receive standard routine care.
- H3. Laboring women, who receive abdominal effleurage, have shorter second stage of labor than women who receive standard routine care.

### **Subjects and methods will be discussed under the following four main designs:**

- I. Technical.
- II. Operational.
- III. Administrative.
- IV. Statistical.

## **I. Technical Design**

The technical design includes the research design, setting, subjects, and tools of data collection

### **Research Design:**

A quasi-experimental design was used to assess the effect of effleurage on abdominal on relief of labor pain and duration of labor.

### **Setting:**

The study was conducted at labor, at Ismailia University Hospital. It is a University-Affiliated Hospital provides free health care to maternity as well as gynecological clients. Labor and delivery unit's clients are from all over Port-Said including Upper and Lower areas.

### **Subjects:**

A total of 60 laboring women were recruited for this study according to the following exclusion criteria: woman who had previous surgical scar, malpresentation, multiple pregnancies, gestational age less than 37 weeks, fetopelvic disproportion, antepartum hemorrhage, women with gestational hypertension, polyhydraminus and oligohydraminus known with sonography, women with fetal movement reduction, intrauterine growth retardation, fetal death, history of chronic pelvic pain, receive pain medication and oxytocin during labor and at active phase of 1st stage of labor, in addition to women who had any medical problems. The sample consisted of two groups were constituted of 60 laboring woman group (A) consists of 30 woman who was receive effleurage on abdominal and group (B) consists of 30 woman who was receive standard routinecare.

### **Tools of Data Collection:**

Tools were developed by researcher after extensive review of the relevant current literature. a variety of tools were used to collect the study data: interviewing schedule, visual analogue scale and partograph.

### **Interviewing schedule**

This tool included 3 sections: the first section included data related to socio- demographic characteristics such as name, age, educational level, occupation. The second will include data related to reproductive profile as parity, number of abortion, mode of previous delivery and complications accompanied with pervious pregnancy and third will include assessment of present pregnancy which includes data related to gestational age, LMP, EDD, duration of rupture of membranes, characteristics of amniotic fluids, vital signs, and FHR.

### **Visual analogue Scale**

The visual analogue scale (VAS) is simple to use but it requires that the woman be able to conceptualize pain in this assessment tool (Dick, 1995). The visual analogue scale is adopted from **Gift (1989)** and consists of a blank line anchored at each end of the line by adjectives that describe the extremes of pain. For ease of measurement a 10 cm line usually is used. Scoring: the score zero (0) indicates no pain and the top score (10) indicates the worst possible pain. These scores were recorded every 20 minute for 3 groups. The VAS was divided into 3 mains parts: the first part graded from 1-3 cm which reflects mild pain, the second part graded from 4-7 cm for moderate pain and the third part graded from 8-10cm for severe pain .In order to be easily understood by the laboring woman and to achieve accurate scoring (**Abd EL Ghany, 2004**).

### **Labor Progress Record (Partograph)**

The partograph is a graphic representation of the condition of labor plotted against time. It is a standardized design designed by the World Health Organization (**WHO, 2000**) to help in the management of labor. The partograph was used to collect data related to labor progress. This tool included three main sections: maternal condition, labor progress, and fetal condition.

### **Tool Validity:**

Tool was submitted to a panal of three medical and nursing experts in the filled of obstetrics and gynecology to test the content validity, modification was carried out according to the panal judgment on clarity of sentences and the appropriateness of content.

## **B- Operational design:**

The operational design of this study entails two phase. The pilot study and the field work.

**Pilot study:**

A pilot study was conducted of 10 % of the sample to clarify the validity and reliability of the questionnaire and then modification was done and to test the research feasibility, clarity and objectivity of the tools as well to estimate the time needed for data collection.

**Field work.**

Before conducting the study, permission was obtained from the obstetric department in the hospital, after that, acceptance of the mothers who was participate in the study was obtained. Data collection was carried out through three phases: assessment, implementation phase and evaluation phase.

**Assessment phase:**

The researcher interviewed women to assess women knowledge about two sections: sociodemographic data which include age, educational level, occupation and reproductive data that will include data about parity, mode of delivery of previous deliveries, present pregnancy and medical history.

**Physical examination** which include vital signs especially blood pressure and observe general appearance and abdominal examination was conducted by the investigator and assess vital signs, uterine contraction, cervical dilatation, regular observation of the fetal heart rate and liquor recorded in partograph. Assess degree of the pain by visual analogue scale and repeated every 30 minute from active phase more than 3 cm, the interview was take 10-15 minutes to each woman.

**Implementing phase:**

In this phase the intervention was implemented for one group only. Group (A) who was receive effleurage and, while group (B) who was receive the standard routine care. Before the investigator applying the intervention you should be taking vital signs, uterine contraction, cervical dilatation, regular observation of the fetal heart rate and liquor according to phase, assess degree of the pain by visual analogue. Repeated these steps during contraction on cervical dilatation 4, 6, 8, 10 cm according to phase.

**Evaluation phase:**

In this phase, After interventions for group (A) it was evaluated. The mother evaluation to pain intensity by visual analogue scale, and assess maternal progress by using partograph.

**III. Administrative Design**

An official permission was obtained from the director of Ismailia University Hospital to conduct the study. Then, the researcher translated the tools and tests the content validity of the tools.

**Ethical consideration**

All pregnant women was informed that participation in this study is voluntary, they can withdraw at any time during the study without giving reasons and that their withdrawal was not affect the care they are receiving and the relationship with the researcher. The investigator was explained to all women in the study sample aim of the study, benefits, and complications. An informed written consent was obtained by the researcher and permission was taken from author to every tool if possible.

**IV. Statistical Design**

The collected data was scored, tabulated and analyzed using Statistical Package for the Social Science (SPSS) program version 16. Descriptive as well as parametric inferential statistics was utilized to analyze data pertinent to the study. Level of significance was set at  $p < 0.05$ .

II. Results

Table (1) Socio-Demographic Characteristics of the Control and Study Groups of Mothers.

Socio-demographic Characteristics	Control Group (n=30)		Study Group (n=30)		Chi-Square Test	p-value
	NO	%	NO	%		
Age(years):					X <sup>2</sup> =0.21	0.84
>20	6	20	7	23.3		
30-35	14	46.7	17	56.7		
36-40	10	33.3	6	20		
Mean ±SD	27.60±5.16		27.33±4.77			
Education:					----	----
Illiterate	13	43.3	12	40		
Read & write	14	46.7	16	53.3		
Formal education	7	23.3	4	13.3		
Formal education	3	10	2	6.7		
Occupation:					----	----
Housewife	25	83.3	26	86.7		
Working	5	16.7	4	13.3		
The residence:					----	----
Rural	19	63.3	21	70		
Urban	11	36.7	9	30		

Table 1 revealed the socio-demographic characteristics of the control and study groups. The average age of the sample was 27 years (range 16 – 40 years). The mean age of women in control group was 27.60 ± 5.16 compared to 27.33 ± 4.77 in study group, with no statistically significant difference between both groups (X<sup>2</sup> = 0.21, p = 0.84). In control group near half of women, (46.7%) could read and write compared to 53.3% in study group. In contrast, 43.3% of women in the control group could not read and write, while, 40% of the study group could do so. The remaining subjects in both groups had some formal education. Regarding to the occupation of women in each group was almost similar. The majority of laboring women in the study and control group were housewifed (86.7% & 83.3% respectively). Concerning the residence of laboring women in each group was almost similar. The highest percentage of women in study and control group were living in rural areas (70% & 63.3% respectively), while the lowest percentage of them lived in urban areas (30% & 36.7%).

Table 2 Reproductive History of the Control and Study Group of Mothers.

Reproductive history	Control group (n=30)		Study group (n=30)		Test	P value
	No	%	No	%		
Number of pregnancies:					Z=1.213	0.225
1	15	50.0	15	50.0		
2-3	9	30.0	15	50.0		
4	6	20.0	0	0.0		
Range Mean±SD	1-4 2.2±1.3		1-3 1.6±0.7			
Number of deliveries:					Z=1.169	0.242
Nullipara						
1-2	15	50.0	15	50.0		
3	9	30.0	15	50.0		
Mean±SD	1.1±1.2		0.6±0.7			
Duration of current pregnancy (weeks): Mean±SD	38.83±1.32		38.60±0.56		t=3.94	0.001*

t: t-test

Z: Mann Whitney test

\*significant at P≤0.05

Concerning the characteristics of reproductive history of the control and study group of mothers, **table 2** shows that number of pregnancies in the two groups control and study, with about half of the mother's primigravida. 50% of the mothers nullipara related to number of delivery. Thus, there was no statistically significant difference between the two groups regarding numbers of pregnancy and delivery.

As regards the duration of the current pregnancy at the time of delivery, the mean gestational age for the control group was  $38.83 \pm 1.32$  weeks compared to  $38.60 \pm 0.56$  weeks in the study group. It was also hypothesized that women who had received effleurage during active phase of labor would have fewer pain perceived. There was statistically significant differences in duration of the current pregnancy between the two groups.

**Table 3 The Mean Pain Score among Laboring Women in Control Group and Study Group**

variable	Control group n = 30	study group n = 30	p-value
4 cm	$5.30 \pm 1.20$	5.46 ± 1.65	>0.005
6 cm	$7.80 \pm 1.03$	$5.46 \pm 1.11$	<0.05*
8 cm	$7.33 \pm 1.71$	$6.30 \pm 0.92$	<0.05*
10 cm	$7.63 \pm 1.54$	$5.46 \pm 1.13$	<0.05*

\*significant at  $P \leq 0.05$

Table 3 presents the mean pain score among laboring women in control group and study group. The incidence of lower score pain section was significantly lower in the study group compared to control group at cervical dilatations of 6, 8 and 10 centimeters. There was statistically significant differences in relation to pain perceived between the two groups.

**Table 4 The Current Mode of Deliveries among Laboring Women in Control Group and Study Group.**

Mode of delivery	Control group (n = 30)		Study group (n = 30)	
	No	%	No	%
Normal vaginal delivery (NVD)	4	20	16	80
NVD with episiotomy	23	63.9	13	36.1
Cesarean section	3	75	1	25

$\chi^2 = 10.98$ ,  $p = 0.004$

According to table 4 the study group who received effleurage have high percentage of normal vaginal delivery than control group. While, a small percentage in both groups have cesarean section. There was statistically significant differences between both groups. Reason for doing cesarean section was prolonged first stage of labor, fetal and maternal distress in control group compared to prolonged first stage only in study group.

**Table 5 Duration of Labor among laboring women in Control group and study Group**

variable	Control group n = 30	study group n = 30	p-value
1 <sup>st</sup> stage of labor	$181.10 \pm 153.96$ min	$113.33 \pm 70.52$ min	< 0.005*
2 <sup>nd</sup> stage of labor	$30.47 \pm 18.32$ min	$19.20 \pm 8.56$ min	<0.005*
3 <sup>rd</sup> stage of labor	$4.80 \pm 1.88$ min	$4.76 \pm .36$ min	>0.005

\*significant at  $P \leq 0.05$

Regarding duration of labor among laboring women in control group and study group, Table 5 show that there are shortage in first and second stage of labor in the study compared to control group. In contrast, there are no differences in both groups regarding third stage of labor.

### III. Discussion

New supportive methods such as massage therapy can change the labor to a pleasant event. Effleurage Massage therapy during delivery would lead to relaxation and consequently, a rapid and easy delivery (**Rajeshwari, 2013**). Therefore, the current study was conducted to investigate the Effect of effleurage on abdominal in active phase of labor on severity of pain and duration of labor among woman attending at Ismailia university hospital.

The current study revealed that, the pain perceived was lower in group who received effleurage compared to group who received standard routine care at cervical dilatations of 6, 8 and 10 centimeters. This may be related to massage provide sensory input to promote relaxation, enhance positive thought and transmission of noci-ceptive stimuli, and effleurage are sensory strategies that may promote comfort during labor. The result of the current study agrees with data reported the effect of massage therapy in both decreasing of labor pain and in the acceleration of delivery, education and then using of the method in labor centers would result in decreasing of proposed caesarean sections (**Safarzadeh, Khodakarami, Fathizadeh, Safdari, shariati&Zahedan, 2008**). In addition, **Mortazavi, Khaki , Moradi , Heidari&VaseghRahimparvar(2012)** reported that massage has been found to be an effective therapy to decrease pain, anxiety, agitation, and depressed mood during labor. **Gallo, Santana, Marcolin, Ferreira& Quintana (2012)** mentioned that pharmacological measures are more effective than non-pharmacological measures in decrease labor pain, while, pharmacological methods are costly, have adverse side effect on mother and her fetus.

In the same line with, **Cherian& Peter, (2016)** who demonstrated that the massage group had significantly lower pain reactions in the latent, active and transitional phases. This results contract with **Chang et al., (2006)** who mentioned that a study about the effect of massage on pain and anxiety during childbirth have reported no significant difference during childbirth in study and control groups. Even a slight increase was reported in the first stage of labor in study group the reason for this contradiction might be due to the fact that only women with first pregnancy were chosen for investigation and this is a good indicator because a woman expecting her first child gives priority to lifestyle change compared with a woman with two or more children, who has less time to spend on herself, compared with a woman expecting her first child.

Regarding mode of deliveries, findings of the current study stress that the study group who received effleurage have high percentage of normal vaginal delivery than control group. While, a small percentage in both groups have cesarean section. This result supported by **Rajeshwari, (2013)** who stated that hence massage therapy during delivery would change the delivery process into a desirable experience, by providing an effective emotional support. If this happens, induced labour pain and anxiety and therefore, tendency toward elective cesareans would be reduced. Today, the indication of many cesareans is not saving the life and health of mother and baby, but it is performed to avoid labor pain. Which can be prevented by process of massage.

Considering duration of labor, findings of the current study indicate that the mean duration of labor was slightly shorter in the group who received a effleurage during labor than the group who received the routine standard care, with statistically significant difference between both groups. The result of the current study agreed with the results of **Neetu, Sheoran, Panchal(2015)** who indicated that, although massage cannot change the characteristics of pain experienced by women in labor, it can effectively decrease duration of labor at latent phase and active phase of labor. According to **Abasi, Abedian&Fdaii(2008)** have found that average duration of labor first and second stage in massage receivers was significantly lower than the subjects of control group. The agreement with **Field, (2010)** reported that massage mothers had significant shorter labor, a shorter hospital stay, and decrease incidence of postpartum depression.

### IV. Conclusion

The hypotheses were formulated for this study are accepted due to the result of this study illustrate that using effleurage during labor is more effective than pharmacological measures for minimizing pain during labor, as well as short in the first and the second stage of labor.

**Recommendation:** based on the findings of this research the following recommendations suggest:

- 1- Further studies are needed to proven using alternative measure during labor.
- 2- Replicated the study with large sample size to be generalized.
- 3- Availably of booklet in maternity word for nurses to know various non- pharmacological measures for pain severity during delivery.
- 4- Increase nurses awareness regarding use effleurage for pain severity.

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## الملخص العربي

تأثير تدليك البطن علماً الامومة والولادة للسيدات أثناء الولادة بمستشفى الإسماعيلية العام

الولادة حدث مهم تنتظره الأم ولكنها مصحبا بالآلام على البطن الظهر لتقليل هذا الألم هنا كطرق العلاجية تدويأتي هذا الطر قشاعة الإستخدام أيضا طر قع الجاخر بديلة أكدنا الأبحاث الدرسات أن استخدام العلاج بالطر ق الطبيعية ينفذ علنطاق واسع فجميع أنحاء العالم التدليك على البطن احد منهذ الطر ق البديلة الأمانتو ليس مصاحبها المضاعفات لأمومعجبتها.

هدف البحث:

الهدف منهذ هالدرساسة هو تقييم دور التدليك على البطن علماً الامومة والولادة.



**العينة:**

طبقت هذه الدراسة على 60 سيدة حاملات أثناء الولادة من المترددات تعلمن مستشفى الإسما عيالية العام . تم تقسيمهن إلى مجموعتين . (30 سيدة أثناء الولادة) مجموعة البحث (و30 سيدة أثناء الولادة) مجموعة الضابطة.

**طرق جمع البيانات وأدوات البحث:**

جمع البيانات استغرقت شهرين وتمتعت لثلاث أشهر حلوهي

- 1- مرحلة المقابلة الشخصية : وفيها قامت الباحثة بجمع البيانات الديموجرافية للسيدات في المجموعتين .
- 2- مرحلة التقييم : وفيها قامت الباحثة بتقييم الإكلينيكي للسيدات في كلتا المجموعتين .
- 0- مرحلة التقويم : وفيها تم تقويم كل سيدة أثناء مرآحلالو الة المختلفة.

**الأدوات المستخدمة في البحث:**

- 1- استمارة المقابلة الشخصية : حيث استخدمت لجمع البيانات الشخصية , التاريخ الطبي والتاريخ الإنجابي للسيدات .
- 2- استمارة التقييم : حيث استخدمت لجمع البيانات الخاصة بتقييم الألم أثناء الولادة (visualanalog scale)
- 3- تقدم الولادة متابعة استمارة (partograph)

**النتائج التي توصلت إليها الدراسة:**

وكانت أهم النتائج التي حققتها هذه الدراسة على النحو التالي:

- اثبتت نتائج الدراسة أن متوسط عمر السيدات للمجموعة الضابطة كان  $27.60 \pm 5.16$  سنة مقارنة بـ  $27.33 \pm 4.77$  في مجموعة الدراسة دون وجود فروق ذات دلالة احصائية بين المجموعتين .
- هنا كتأثير للتدليك على الأم البطن حيث ان المجموعة التناجر لها التدليك على البطن من صاحبة بتقليل الألم أثناء الولادة مع وجود فروق ذات دلالة احصائية بين المجموعتين .
- كما ان المجموعة التناجر لها التدليك على البطن من صاحبة بتأسياعنق الرحم من 2 سم إلى 6 سم، 8 سم، 10 سم مع وجود فروق ذات دلالة احصائية بين المجموعتين .
- بالإضافة لذلك مدة الولادة كانت أقصر للمجموعة التي استخدمت التدليك مقارنة بالمجموعة الضابطة.

**في ضوء ما سبق من النتائج خرجت الدراسة الحالية بالتوصيات التالية:**

- 1- أوصت الدراسة باستخدام الطرق الطبيعية أثناء الولادة .
- 2- أوصت هذه الدراسة بتدريب جميع الممرضات في أقسام النساء والتوليد على التدليك على البطن أثناء الولادة بدون أي مضاعفات للأم أو الجنين .
- 3- أوصت الدراسة أيضاً بضرورة إعداد كتيبات تكون متوافرة بأقسام النساء والتوليد للممرضات والأطباء والمتخصصين لمعرفة الطرق الطبيعية المختلفة التي تستخدم خلال الولادة .

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