

Effects of Continuous Labor Support Programs by Nurse on Fear of Childbirth and Childbirth Experience among Primiparous Teenage Pregnant Women Who Received Oxytocin

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ABSTRACT

This quasi-experimental research the objective of this study was to study the effect of continuous labor support programs on the fear of labor and the perceived birth experience among primiparous teenage pregnant women who received oxytocin. 60 women who gave birth at a general hospital in the southern of Thailand region were selected by purposive sampling. And simple random sampling into control and experimental groups, each group of 30. The control group received normal nursing care. The experimental group received a continuous labor support program by a nurse. The tools used in the study consisted of 2 parts: the tools used in the experiment and the tools used in the study is a continuous labor support program by nurses. The instruments used for data collection consisted of (1) the general record form, (2) the fear of labor during delivery, and (3) the perceived birth experience rating scale. Content validity was checked by 3 experts and the reliability was determined using Cronbach's alpha coefficients of .824 and .868. Data were analyzed using statistics of frequency distribution, percentage, mean, standard deviation. Independent statistical research hypothesis test. The results showed that both groups had fear scores. There was no difference in prenatal birth ($M = 83.97$, $SD = 5.80$, $M = 83.07$, $SD = 4.99$ and $t = 0.64$). In the postpartum period, the experimental group had fear of giving birth ($M = 43.30$, $SD = 8.89$) was significantly less than the control group ($M = 82.20$, $SD = 7.09$) at the $p < .001$ level., $SD = 9.29$) was significantly higher than the control group ($M = 62.67$, $SD = 7.57$) at $p < .001$ level. From the results of this study, it can be seen that primiparous teenage pregnant women in the experimental group receiving continuous support during labor by nurses had less fear of childbirth. And their perceived birth experience scores were higher than those of primiparous teenage pregnant women who received normal nursing care.

Keywords: Continuous labor support programs, Fear of childbirth, Childbirth experience, Primiparous teenage pregnant women who received oxytocin

INTRODUCTION

Teenage pregnancy continues to be a cumulative social problem. According to public health statistics from 2011 - 2021, teenage pregnancy rates were 16.0%, 16.2%, 16.8%, 16.2%, 15.3%, 14.2%, 12.9%, 11.5%, 10.7%, 10.2% and 9.3% respectively^[1]. And plans of the Ministry of Public Health, 2022 from the above statistics, it can be seen that teenage pregnancy is a major public health problem in Thailand. The target criteria is set at no more than 25 persons per 1000 adolescent female population.^[2] Although pregnancy and birth rates among teenage pregnant women are steadily decreasing, they are still classified as a social problem and in public health. This is because most of these pregnancies happen unplanned. Lack of knowledge about pregnancy as a result, it affects both physically, mentally, emotionally, economically and socially.^[3] Because the physical, mental, emotional and social development of these adolescent pregnant women is still not fully mature, leading to various complications for mothers and babies both during pregnancy and during delivery, such as pre-eclampsia, anemia in the mother, miscarriage, low birth weight infants, abortions, stuck stillbirths, stillbirths.^[4] Most teenage pregnancies are unprepared pregnancies. affect the mother's psyche may cause embarrassment affecting career and income Some people lose educational opportunities and lose their future.

Pregnant women at the end of their gestational age usually go into labor naturally. However, in some pregnant women, the duration of pregnancy is longer than usual, there is no natural labor, so induction of labor is necessary. And some cases may have labor but no progression of labor. Therefore, it is necessary to receive the drug to accelerate delivery. The most popular method for labor induction and labor induction. is the administration of oxytocin.^[5] Induction of labor and induction of labor with oxytocin increase the level of labor pain experienced by the mother. Due to the action of the drug, the uterus contracts more frequently and more intensely. Resulting in a higher pain level than natural labor, especially for teenage pregnant women who have never experienced childbirth before. ^[6] Brings fear of childbirth In addition, some people tend to think that childbirth poses a threat to their health and that of the baby. Resulting in the fear of harm to oneself during childbirth.^[7] Which is a fear that occurs up from before the pregnancy continued until the delivery period.^[8] Most teenage pregnant women are afraid of pain. Fear of being left alone and fear of personnel in the delivery room.^[9] In addition, the degree of pain that intensifies with the increased frequency of uterine contractions as you enter labor brings fear. Persistent stress is a cycle of fear, stress and pain^[10], leading to poor perceptions of the birth experience^[11] and pregnant women's perceived poor delivery experience may be at risk of postnatal depression. Affect child rearing future pregnancy and delivery.^[12]

In caring for pregnant women, the ultimate goal is that the baby survives and the mother is safe. But under the supervision of the child being born, the mother is safe. Another important thing that cannot be forgotten is to encourage pregnant women to have a positive perception of the birthing experience.^[11] From a literature review to find ways to manage pregnant women receiving oxytocin to be able to cope with pain appropriately, reduce fear, anxiety. and having a good delivery experience is an important role of the delivery room nurse who will provide continuous care and support during the delivery period from the beginning until the birth. The ongoing care consists of 4 aspects: emotional and psychological support. Data Support Taking care of physical well-being and the advocacy of pregnant women.^[13] Therefore, pregnant women are continuously supported during childbirth by a nurse. more likely to have a successful vaginal delivery and decreased labor pain levels.^[14] In addition, one-to-one nurse labor support is of great benefit to teenage pregnant women during labor. Especially teenage pregnant women receiving oxytocin. Because in addition to reducing fear pain from childbirth It also

helps to cope with pain appropriately. Brings a good birthing experience^[15], resulting in a good attitude towards child rearing in the future.

From the work experience of the researcher It has been found that there are many cases where pregnant women in labor need to receive oxytocin according to the treatment plan. In order to give birth in a timely manner in addition, due to the Covid-19 epidemic situation, together with most government hospitals, relatives are not allowed to take care of pregnant women in the delivery room. Causing pregnant women in childbirth to be exposed to oxytocin alone in unfamiliar environments, frighten and showing inappropriate behavior, such as yelling and requested a caesarean section. Especially teenage pregnant. In addition, according to the standards of care of pregnant women receiving induction with oxytocin, close nursing care is required to prevent complications that may arise from induction.^[16] Therefore, care should be taken in the care of pregnant women undergoing induction with oxytocin. And provide continuous labor support by nurses at a ratio of 1: 1 because close care is an important support during labor to reduce the fear of childbirth. When fear is reduced, it can be appropriate to deal with the pain during childbirth, leading to a positive delivery experience for pregnant women.

OBJECTIVES

To study the effect of continuous labor support program on the fear of childbirth. and childbirth experience among primiparous teenage pregnant women who received oxytocin.

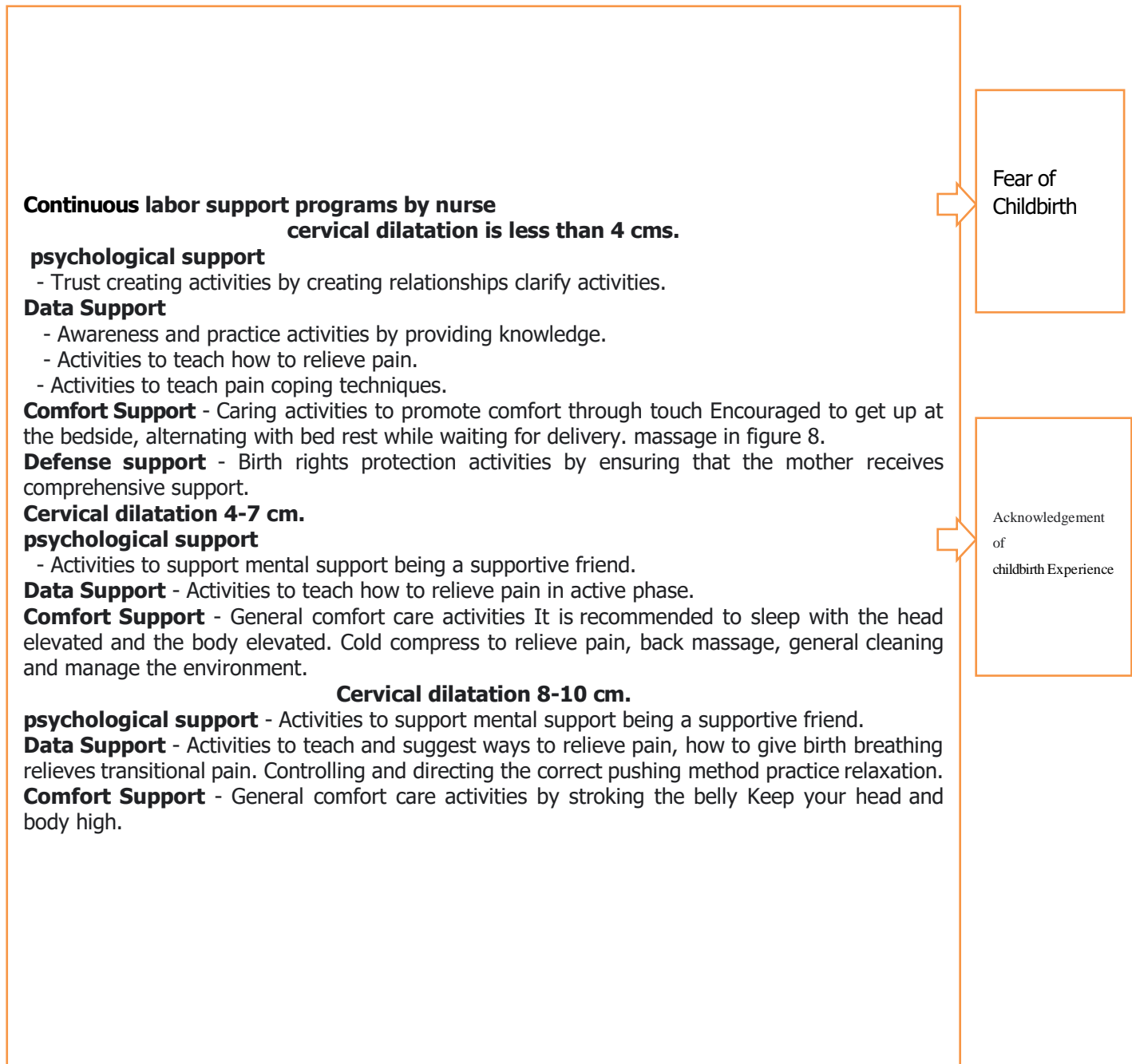
Hypothesis

1. Teenage pregnant women who receive oxytocin and receive continuous labor support program by nurses had less fear of childbirth. Primiparous teenage pregnant women receiving oxytocin and receiving normal nursing care
2. Teenage pregnant women receiving oxytocin and receiving continuous labor support program. Perceived childbirth experience scores were higher among primiparous teenage pregnant women receiving oxytocin and receiving normal nursing care.

Conceptual framework

In this study, we applied Borehn et al.'s continuation support conceptual framework^[13] together with literature reviews to develop a continuation support program in maternity. period of childbirth by a nurse. This is a continuous care of pregnant women in the delivery period, consisting of 4 aspects of support: 1) emotional support, 2) information support, 3) comfort support, and 4) advocacy support. The support of nurses will provide support according to the cervical dilatation as follows: cervical dilatation less than 4 cm. Have trust creating activities by creating relationships clarification of activities, information support there are educational activities and teaching practices during labor. Comfort Support there are caring activities to promote comfort through touch. Cervical dilatation 4-7 cm. Mental-emotional support there are activities to help support the mind by being a friend to encourage. Data Support there are activities to teach how to relieve pain during the early cervical dilatation period. Comfort Support there is a care activity by suggesting to sleep with the head elevated and the body elevated. Cold compress to relieve pain, back massage, general cleaning and manage the environment. And cervical dilatation 8-10 cm. Psychological support there will be activities to help support the mind by being a friend to encourage. Data support there will be activities to teach and suggest ways to relieve

pain. Teach the correct method of pushing, controlling and directing the pushing practice relaxation. Comfort support section there will be general comfort care activities by stroking the abdomen. Keep your head and body high. Defense support section there will be care activities to provide the mother with comprehensive support. Ensuring that risks are assessed at all stages of labor. And gives the opportunity to choose a pain relief method from the series of support activities during labor by nurses provided by the researcher, pregnant women reduced their fear of childbirth. Lead to a positive perception of the childbirth experience it affects raising children in the future. The aforementioned set of activities can be summarized as a conceptual framework as shown in the (Figure).



METHODOLOGY

This study was a quasi-experimental research, a two-group pre-test with details of the research methodology as follows.

Population and sample

The population consisted of primiparous teenage pregnant women receiving oxytocin.

The sample consisted of primiparous teenage pregnant women who received treatment at the delivery room a general hospital in the south of Thailand and induction with oxytocin, 60 cases

The sample size was determined by means of power analysis to determine the effect size from a review of similar studies. In this research the effect size was different from similar researches by Karaphakdee, C., Deawisaret, W., Chuahorm, U., 2020. The effect size was 3.82. The test power was set at .80 and a confidence level of .95 by using Polit & Beck's power table¹⁷ The sample size was 30 per group, for a total of 60 samples. The researcher selects a specific sample group (purposive sampling) according to the following characteristics. Primiparous teenage pregnant women under 20 years of age, 37-42 weeks gestational age, received oxytocin induction, no complications during pregnancy, the baby did not have any abnormalities, has vertex presentation, and are ready and willing to participate in research projects. Randomly enter the sample group according to the specified qualifications. After that, the samples were grouped into the control group and the experimental group by alternating into 1 control group and 1 experimental group until complete of 30 cases in each group to control the influence of external variables. During the study, if the sample had complications during the trial, such as fetal distress, premature abruption of the placenta. There is gray matter in the amniotic fluid. Abnormally severe uterine contractions to end the study for the safety of both mothers and infants.

Research tools

1. Instruments used in the experiment is a continuous labor support program by nurses. The researcher created the program based on the application of Borehn et al.'s continuation support theory¹³ together with a review of the literature.

1) The lesson plan contains contents about induction, birth process childbirth, how to relieve pain and practice in the delivery period from the time of receiving until the end of two hours after delivery.

2) Assessment questionnaire about giving birth control pills birth process childbirth, method pain reduction and practice during childbirth.

3) Support and help pregnant women closely during childbirth by nurses. Which has activities support during childbirth in all 4 aspects: mental and emotional support, data support, comfort support and advocacy support.

2. Tools used to collect data are:

Part 1 General information recording form it is a personal data questionnaire consisting of age, religion occupation, education level, income, gestational age.

Part 2: Fear assessment form during childbirth. It is a short question consisting of 5 positive questions and 5 negative questions, using numerical answers from 1-10 using its own opinion system. If the score is greater than or equal to 70 points, it indicates a severe fear of childbirth.

Part 3: Birth experience perception assessment form it is a 4-level estimation scale with a total of 6 categories and 42 items. The score is between 42-168. If the total score is high, it indicates that there is a good perception of the birthing experience.

Tool quality check

1. Check content validity by using the tools used in the experiment. The continuous support program during labor by nurses consisted of 1) a teaching plan 2) a knowledge assessment questionnaire on induction of labor, pain reduction methods, and practices during labor. Which passed 3 qualified persons, consisting of 1 nursing instructor in maternal and infant nursing, 2 professional nurses working in the delivery room. To consider and verify the appropriateness of the activity format, content, language used and illustrations, and then to revise and bring the tool to trial with a group of 10 similarly qualified samples before actually using it.

2. Checking the accuracy of the instrument reliability: The researcher used data collection tools to test the reliability of the fear rating scale during childbirth. and a childbirth experience perception assessment questionnaire. The intrinsic concordance was analyzed by calculating the Cronbach's alpha coefficient and the cognitive experience scale found that the Cronbach's alpha coefficients were .824 and .868, respectively. Therefore, the scale could be used.

Conducting research and collecting data

Pre - experiment

Control group: When adolescent pregnant women come to the delivery room and the doctor orders medication to induce labor as well oxytocin. The researcher signed a consent form to participate in the research project. Assess knowledge about induction of labor birth process labor, methods of pain reduction, and practices during labor with a knowledge assessment questionnaire about giving birth control pills birth process labor, methods of pain reduction, and practices during labor Collect data by answering general information questionnaires and the fear of childbirth was assessed using the fear of childbirth scale.

Experimental group: When adolescent pregnant women came to the delivery room and the doctor ordered oxytocin to induce labor, the researcher signed a consent form to participate in the study. Assess knowledge about induction of labor birth process labor, methods of pain reduction, and practices during labor with a knowledge assessment questionnaire about giving birth control pills birth process pregnancy, pain reduction methods, and practices during labor were collected by answering a general information questionnaire and the fear of childbirth was assessed using the fear of childbirth scale.

Experiment

The control group was administered oxytocin according to the treatment plan. Increase the dose of the inducer every 30 minutes until the uterus contracts well. Follow up on drug complications Follow up on uterine contractions and fetal heart rate every 30 minutes, and provided normal care according to the standard of care of pregnant women receiving oxytocin. From researchers and nurses in the delivery room

The experimental group received oxytocin according to the treatment plan. Increase the dose of the pill every 30 minutes until the uterus contracts well. Follow up on drug complications Follow up on uterine contractions and fetal heart rate every 30 minutes. Care as usual was provided according to the standards of care of oxytocin-treated pregnant women, and care was provided according to an ongoing support program during labor by a nurse practitioner. Research by stage of delivery.

Post - experiment

Control group, postnatal mothers within 2 hours after birth. Data were collected by evaluating the fear of postpartum labor with the Fear of Perinatal Scale. and the perception of birth experience was assessed using the birth experience perception scale at the postnatal ward one day after delivery.

The experimental group, postpartum mothers within 2 hours after birth were collected data by assessing the fear of postpartum with the fear of parturition scale. and the perception of birth experience was assessed using the birth experience perception scale at the postnatal ward one day after delivery.

Data analysis

1. Analyze personal data to analyze data by frequency distribution, percentage, mean, and Chi-square standard deviation.
2. A comparative analysis of the fear of childbirth and the perception of childbirth experience among adolescent pregnant women who received oxytocin and received a continuous labor support program by nurses and those receiving oxytocin. Oxytocin and received normal nursing care. The independent t-test was used before data analysis. The researcher tested the normal curve distribution of the data using statistics. The Kolmogorov-smirnov test reveals that the data are normally curved ($\text{sig}=.200$).

Research Ethics

A study on the effect of a nurse-led continuous support program on fear of childbirth and the birth experience of primiparous adolescent pregnant women receiving oxytocin. Which were considered by the human research ethics committee of Boromarajonani College of Nursing Nakhon Si Thammarat No. F05/2565 dated 19 July 2022. And if the sample feels uncomfortable, uncomfortable, can leave the research at any time and there was no effect on receiving nursing services from the maternity ward. If complications that is dangerous to both the mother and the baby. The researcher and delivery room staff provided care according to professional standards. Guidelines for emergency care and consider to stop participating in the research. In this study, there was one patient who had a complication who had to stop participating in the study due to fetal distress requiring an emergency caesarean section.

RESULT

1. Personal data the results of the study of the characteristics of the sample group were adolescent pregnant women who received oxytocin delivered in the delivery room. There were 60 cases in a general hospital in the southern of Thailand, divided into a control group and an experimental group, 30 people each. Both groups had an average age of 17.53 years ($SD = 1.24$). Most of them were Buddhists, accounting for 73.3%. Studied in junior high school accounted for 43.3% and high school or vocational education accounted for 56.7%. Most of them were students, accounting for 53.3 %, followed by employment, accounting for 26.7%, and agriculture and trading careers, equal 10%, with the lowest average monthly income of 5,000 baht, the highest of 35,000 baht, most of them earning not enough to spend in the family representing 58.3%, they were married, living with their husbands and parents. Representing 68.3% of all pregnant women did not plan to become pregnant. accounted for 100%. Most of them completed 5 prenatal visits, representing 53.3%, and had heard from other people about the delivery experience. Representing 60% when comparing the number, percent, personal difference between the control group and the experimental group classified by occupational education level. The sufficiency of income, marital status, religion by Chi-Square Test ($N = 60$) found that both groups had personal information and pregnancy data were not different.

2. To compare the fear of childbirth among adolescent pregnant women receiving oxytocin between the groups. Received a continuous labor support program by a nurse versus the usual nursing group. Comparison of the fear of childbirth and the perception of childbirth experience among adolescent pregnant women receiving oxytocin.

variable	Control group n = 30		Experimental group n = 30		t	p-value (one-tail)
	M	SD	M	SD		
Prenatal fear of childbirth among primiparous pregnant women	83.07	4.99	83.97	5.80	0.644	0.261
Postnatal fear of childbirth among primiparous pregnant women	82.20	7.09	43.30	8.89	18.734	0.001*
The perception of the birth experience of adolescent pregnant women	62.67	7.57	142.23	9.29	36.369	0.001*

* p < .001

From the research results (Table), it was found that There was no difference in fear scores for both groups in the prenatal period (M = 83.97, SD = 5.80, M = 83.07, SD = 4.99 and t = 0.64). There was a statistically significant lower birth rate than the control group at the p < .001 level as follows: The experimental group had less fear of childbirth scores (M = 43.30, SD = 8.89) than the control group (M = 82.20, SD = 7.09, and t = 18.73). Birth was statistically significantly higher than the control group at p < .001 level as follows: The experimental group had a perceived birth experience score (M = 142.23, SD = 9.29) higher than the control group (M = 62.67, SD = 7.57 and t = 36.36).

From the study, it can be seen that primiparous adolescent pregnant women in the experimental group receiving continuous labor support by nurses had less fear of labor and the perceived birth experience score was higher than the control group receiving normal nursing care. which is in accordance with the research hypothesis.

DISCUSSION

This research was to study the continuous labor support programs by nurse on fear of childbirth and childbirth experience among primiparous teenage pregnant women who received oxytocin. It was found that women. The prenatal adolescent pregnancies in both groups had no difference in fear of childbirth. Can explain fear of childbirth among primiparous adolescent pregnant women is the initial fear that occurs before conception and continues until delivery^[18] The experimental group receiving continuous labor support by nurses had less fear of labor than those receiving usual nursing care and the perceived birth experience score was significantly higher than the control group receiving normal nursing care at p < .001. The findings can be explained as follows obtaining a continuous labor support program by nurses based on the concept of continuous labor support by Bohren et al.^[13] combined with a literature review for continuous labor support by nurses which is a continuous care for pregnant women during childbirth, consisting of 4 support areas: 1) emotional support, 2) information support, 3) comfort support, and 4) advocacy support. It is a care for pregnant women to receive comprehensive care both physically and mentally. In which the support of the nurse will provide support

according to the stage of dilatation of the cervix. Pregnant women who are supported and cared for by nurses, husbands, relatives or friends participate in self-care decisions. Starting from before birth, giving birth to various information about labor^[19] and oxytocin-treated birth including various changes that occur during childbirth. In addition, psychological support by being a companion to the birth. Say comforting words and praise making the mother feel warm, encouraged and confident, and protecting the mother's rights by explaining the reasons and necessity of receiving oxytocin. Open the opportunity to ask questions and answer questions willingly will give birth to confidence in nursing care.^[20] In addition, continuous labor support gives the mother confidence. Feeling not alone, reassuring, comfortable, not having to face childbirth alone as a result, the fear of childbirth is reduced.

According to the study of Karaphakdee, C., Deawisaret, W. and Chuahom, U. in 2019 first pregnancy It was found that the experimental group had less fear of childbirth and perceived the birth experience better than the group receiving normal nursing care.

Adolescent pregnant women receiving oxytocin had higher scores for their perceived birth experience than those receiving normal nursing. Which can explain research results according to academic principles with empirical evidence. That is, pregnant women who received support from nurses, husbands, relatives or friends participated in self-care decisions and did not receive pain medication. These pregnant women have a perception of experience positive birth^[21]. And from a study of Prisanayakul, S., Baotuang, S. and Prasitwattanaseri, P in 2013 found that factors that can predict women's perception of a positive childbirth experience are the level of anxiety in the process. low birth low level of labor pain high birth satisfaction touching and embracing the child in the early stages after birth and early postpartum breastfeeding.^[12] Nurses play a role in promoting a quality birthing experience for mothers receiving oxytocin. During the care of the mother, the mother must be adequately supported with information about oxytocin-treated labor and delivery.^[11] Drugs are categorized as stimuli that stimulate the sensory cognitive system that the mother may interpret from previous experiences, values, attitudes, needs, beliefs as perceived negative experiences. The nurse must provide care to create a positive perception of the mother. Understand the positive effects of medication on labor and discomfort that will occur promote awareness of the positive experience of the mother. And obtaining adequate information about health conditions and treatment guidelines. Help mothers understand their own birth situation, which makes mothers more likely to perceive the birth experience in a positive way.^[22]

From the study, it can be seen that primiparous adolescent pregnant women in the experimental group receiving continuous labor support by nurses had less fear of labor. And the perceived birth experience score was higher than the control group receiving normal nursing care. Which is in accordance with the research hypothesis.

Application of research results

1. Nursing practice nurses can use the results of the study to take advantage of helping women adolescent pregnancy receiving oxytocin. Including other pregnant women can also take advantage.
2. In terms of policy, the delivery room unit can use the results of the study to set guidelines for taking care of pregnant women with oxytocin. It requires continued care of pregnant women receiving oxytocin from the time. The doctor orders to induction with oxytocin until the end of two hours after delivery to improve the service quality of the agency.

3. Nursing education teachers can apply the principles in the program to their teaching so that students can apply knowledge to care for pregnant women during childbirth. It is a promotion to receive supportive things that are useful in taking good care of pregnant women in the future.

Suggestions for further research

In this study, pregnant women receiving a continuous labor support program by nurses resulted in less fear of labor among pregnant women receiving oxytocin. And perceived the birth experience better than the group receiving normal nursing care. In future research, 1:1 care nursing practice may be difficult due to limitations in the workload. In future studies, other dependent variables should be studied, such as self-control in childbirth, self-efficacy in childbirth. In addition, factors affecting the success of maternity support may be studied in order to develop a more comprehensive maternity support program.

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