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ABSTRACT

The purpose of this study was to learn about afterpains, a commonly experienced discomfort of the immediate postpartum period. Thirty patients experiencing afterpains were divided into three groups—a control group, a group in which the fundus of the uterus was massaged, and a group who rested on their abdomens. Patients were then asked whether or not they noticed a change in their discomfort from afterpains. The data were then examined for correlations between the nursing action and relief from afterpains. Comments made by the patients were described using content analysis.

The utilization of both nursing measures were significant in decreasing the mothers' afterpains as reported by the patients at the .01 level using the Fisher Exact Probability Test. The data suggest that massaging the fundus of the uterus was helpful to more patients having afterpains than lying in the postpartum relaxation position. Lying in the postpartum relaxation position was more helpful than doing nothing but wait for the afterpains to disappear.

The study findings seem to support the hypothesis that there is a relationship between the application of a nursing measure and a decrease in afterpain discomfort.
Several implications for nursing were evident resulting in some recommendations for the health team working in obstetrics.
CHAPTER 1

INTRODUCTION

One of the most common discomforts of the immediate postpartum period is afterpains. Ziegel and Van Blarcom (1964:431) say that about 75 percent of multiparas experience afterpains. In talking with both the patients and the nursing personnel, the investigator found that neither were aware of any method to relieve the pain other than the administration of an analgesic which was not always effective. Sine and Cameron (1968:327) point out that "There is a widely held belief among nurses working with maternity patients that since afterpains are unpreventable, unpredictable, and self-limiting, the most reasonable approach to their relief is to assure the mother that she will probably feel better tomorrow but that today she may have a pain pill." This emphasizes the need for exploring the availability and effectiveness of nursing measures other than the sole use of medication that would possibly relieve some of the discomfort of afterpains.

Statement of the Problem

Because of the apparent need of the patient to have relief from afterpains and the limited knowledge of both the patient and the postpartum nursing personnel on what to
do to relieve the discomfort, the investigator seeks to answer the following questions:

1. What are some nursing measures that can be utilized to relieve afterpains?

2. Upon application of some of these nursing measures, does the patient experience relief from her pain?

**Purpose of the Study**

The purpose of this study was to learn about afterpains. The investigator reviewed the literature for possible nursing measures that might be helpful in obtaining relief from afterpains, and then applied two of these measures to postpartum patients to determine their effectiveness in relieving afterpains.

**Hypotheses**

The research hypothesis to be studied was whether the application of some nursing measures is immediately followed by relief of afterpains as reported by postpartum patients. More specifically, the following two null hypotheses were tested:

1. Massaging a patient's fundus does not reduce afterpains as reported by the patient.

2. Resting in the postpartum relaxation position does not reduce afterpains as reported by the patient.
Significance of the Study

The study of this problem is significant in that there is a need for maternity nurses to know and to be able to teach postpartum patients some actions that the nurse as well as the patient may take to relieve afterpains. In Henderson's (1964:63) definition of nursing she says, "The unique function of the nurse is to assist the individual, sick or well, in the performance of those activities contributing to health or its recovery (or to peaceful death) that he would perform unaided if he had the necessary strength, will, or knowledge. And to do this in such a way as to help him gain independence as rapidly as possible." In applying this definition to maternity nursing, especially during the postpartum period, one of the major goals is to "... help the individual to be independent." The maternity nurse can facilitate this independence by planning with the patient for activities in the hospital as well as at home. Edwards (1970:84) says that "the principal nursing goal should always be to prepare the mother for resuming her home function, for being able to care for her baby comfortably and competently, in her roles as mother, wife, and woman."

Freedom from pain and worry often allows the patient to relax, rest, and sleep, all important to the mother for replenishing her physical and emotional energies in order for her to make a satisfactory adjustment to the
new situation (Bethea, 1968). Iorio (1971:143) also points out that a "relaxed mother who is serene and comfortable is better able to meet the infant's needs." Smith (1964:416) agrees that "unnecessary discomfort during the puerperium does not facilitate adjustment to parenthood."

Since afterpains are a source of discomfort and inhibit peaceful rest, it is important that nurses do all they can to help the patient obtain relief, and, when possible, teach the patient some possible aids that she can accomplish herself. Sine and Cameron (1968:329) say, "If the mother were aware of an effective way to relieve afterpains using her own effort, she could meet this need without assistance." By providing for planning and teaching, the patient can be more independent and better prepared for dealing with afterpains both during the hospital stay and at home. This accomplishes the goal of "helping the individual to be independent."

**Conceptual Framework**

Taylor (1971:204) says that immediately after delivery of the placenta the contracted uterus measures approximately 19 x 12 x 8 cm. and weighs about 1000 grams. At the end of six weeks the uterus measures 7.5 x 5 x 2.5 cm. and weighs 40-60 grams. Baird (1969:140) reports that the "rapid shrinkage of the uterine wall is chiefly due to autolysis of the muscle fibres, whereby their protoplasm
is broken down by proteolytic ferments into soluble end-products which are removed by the blood stream." Atrophy of the muscular fibers results in the rapid size and weight reduction of the uterus. "Two-thirds of the entire weight loss is accomplished by the end of the fourteenth day and over half of this extensive atrophy occurs within the first week. Autolysis of the cytoplasm is responsible for this remarkable change" (Baird, 1969:140).

During pregnancy the upper segment of the uterus hypertrophies in preparation for labor while the lower segment and cervix soften for a more passive role during labor. The physiology of involution is the reverse of the process observed in pregnancy. The lower segment restores muscle tone while the upper segment atrophies. Uterine activity which is strong during labor begins to diminish in frequency and intensity after the expulsion of the placenta (Bonica, 1967:58).

It is a widely accepted fact that afterpains are one of the most common discomforts of the immediate postpartum period. Lerch (1970:156) explains that "after the placenta has been expelled, hemorrhage from the placenta site is prevented by contractions and retractions of the uterine muscle." She goes on to say that it is the retractions rather than the contractions that allow for the permanent arrest of hemorrhage:
In the primiparous woman this mechanism takes place without causing too much discomfort, but the uterus of the multiparous woman lacks muscle tone and during this process of involution it does not remain contracted but relaxes at short intervals and gives the mother the sensation of cramplike pains called afterpains (Lerch, 1970:214-215).

Smith (1964:415-416) also writes that "the multiparous puerperal uterus lacks muscle tone owing to numerous distentions by pregnancies. In its involutional process, this uterus does not remain contracted; it contracts and relaxes at intervals, causing pain." Wiedenbach (1967:338) essentially agrees when she writes that afterpains are "... due to the loss of tonicity in the uterine musculature with the resultant inability of the uterus to maintain itself in a persistent contracted state." Eastman and Hellman (1966:482-483) and Iorio (1971:143) also agree that afterpains are experienced frequently by multiparas because of the uterus having lost some of its tonicity resulting in the uterus contracting and relaxing at intervals rather than remaining tonically contracted as in primiparas.

Because the fundus of the uterus is so sensitive to touch, massage or pressure on the uterus frequently causes it to contract.

It is not only important that the physiological reasons for afterpains be considered, but the psychological aspects are equally important. In searching for an effective method of dealing with afterpains, it is essential to be guided by the psychological principle described
by Lambertson (1965:62) "... that individuals respond differently to seemingly similar situations and the behavior of an individual is determined by his perception of the total situation and its requirements." Even though two persons are subjected to the same degree of pain, each will react to the pain in view of his own life experiences. As expressed by Bonica (1967:98), "Although the original stimulus may be the same for all individuals, it promptly loses that sameness as a result of modifying neuronal and emotional influences."

Individuals express their needs in ways peculiar to them. It takes an alert, sensitive nurse to identify the patient suffering from afterpains. Although some patients may loudly demonstrate their need for relief of pain, others may feel the afterpains are a part of the childbirth process that must be endured without seeking relief. They may feel that ignoring the pain will make it disappear. Ziegel and Van Blarcom (1964:431) say that "women often accept afterpains as a discomfort that may be expected following delivery and they may not inform the nurse of pain." She suggests telling multiparas that they may experience afterpains and that medication is available.

Afterpains are such a frequent happening that both nurses and patients accept them as an inevitable occurrence.
Assumption

The basic assumption for this study is that women have afterpains following delivery.

Definitions

The following definitions of terms were used for the purpose of this study:

1. **Afterpains**: "Those pains, more or less severe, after expulsion of the afterbirth, which result from the contractile efforts of the uterus to return to its normal condition (Fitzpatrick and Eastman, 1960: 535). The definition given to the patients when asked about afterpains was--the cramplike feelings sometimes experienced in the lower abdomen.

2. **Immediate postpartum period**: The interval from the expulsion of the placenta until discharge from the hospital--approximately three days.

3. **Nursing measures**: Those activities based on scientific principles that can be performed by nursing personnel to maintain or restore normal life processes (Lambertson, 1965:64).

4. **Multipara**: A woman who has had two or more live births.
A goal of postpartal nursing care is to aid the mother in developing maternal and mothering skills which will aid in her adjustment to motherhood and family member role change that necessarily accompanies the arrival of a baby. Because of the relatively short hospitalization of maternity patients, it is important to utilize this time wisely and constructively to help the new mother accomplish some basic mothering skills involving both herself and the baby. Only if she is comfortable can she be receptive to any suggestions or teaching. For this reason it is necessary for nurses to know and teach their patients with afterpains some of the methods that can be used to obtain relief from afterpains. Some basic concepts of pain must be examined to understand some of the problems confronting nurses caring for patients with afterpains. Literature on afterpains and nursing intervention were also reviewed.

**Literature on Pain**

Pain is a complicated phenomenon which accompanies almost all illnesses. It not only can warn of impending danger and the need to seek medical attention, but the fear of pain may prevent or delay the seeking of treatment that
is needed (Shafer, 1961:69). According to Wiedenbach (1967:388-389) all pain has two components—the physiological and the psychological. Blaylock (1968:263) also divides pain experience into two parts, but he refers to them as "the perception of pain and the reaction to it."

Any of a number of physical factors may act as a pain stimulus which causes the sensation of pain to be equal in the majority of normal persons. One's tolerance for pain, however, is a subjective reaction to the pain stimulus; the intensity of the pain is subject to interpretation of the one experiencing the pain and is increased or decreased according to the perception of it. This aspect of pain is usually referred to as the "pain threshold" (Shafer, 1961:69). Blaylock (1968:264) says that "the threshold for reaction to pain varies widely in different individuals and in the same individual under different circumstances." This is illustrated by Hunter (1961:97) when he wrote, "The pain of martyrdom may seem insatiable; the burn of personal carelessness may be deemed trivial; in time of stress and danger a major pain source may be given the conscious significance of a scratch; at another time a minor wilful injury by an adversary may be prolonged and intensified."

One's entire life situation influences what is perceived as pain. Reaction to pain is influenced by one's previous experiences, conditioning, memory, and judgment,
his social and cultural values as well as by his mental and physical health. Blaylock (1968:265) says that "once pain has been experienced, psychic stimuli are capable of triggering the mechanism for pain even in the absence of peripheral stimulation." Malmo and Shogass (1949:9) found that patients who were fearful and anxious, anticipating pain were apt to over-react to the pain stimulation. "Anticipation of pain based on past experience may intensify pain" (Shafer, 1961:70). Some factors that may decrease one's pain tolerance are fatigue, anger, apprehension, time of day, and age.

Hardy (1952:262) says that "... the culture in which a man finds himself becomes the conditioning influence in the formation of the individual reaction pattern to pain..." A child's lifetime reaction to pain may be determined by parental attitudes toward pain. In some cultures such as the American Indian, parents teach their children to endure severe pain without expressing it outwardly. Certain environmental factors affect one's expression of pain--some pain, such as a sports injury, is endured without reacting outwardly, whereas pain experienced from an automobile accident may be externally expressed (Shafer, 1961:71).

Zborowski (1969:28) discusses some cultural aspects of pain by writing:
The acceptance of pain does not mean that the feeling quality of the sensation has changed. The sensation is always unpleasant (although in some cases one may "enjoy" even its unpleasantness, such as in childbirth or in masochistic experiences), but the displeasure of pain is tolerated when cultural tradition calls for its acceptance. Thus the original cognitive response to the sensory phenomenon is modified by the cultural meaning attributed to it. Pain is no more than just "pain," an objective, physiological sensation; it acquires cultural properties that make for its acceptance or non-acceptance and for its avoidance or tolerance.

**Literature on Afterpains**

According to Ziegel and Van Blarcom (1964:431) afterpains are a common problem, occurring in about 75 percent of multiparas. Afterpains are generally described as the alternate contracting and relaxing of the uterus causing painful sensations. Blakely (1939:411) says that "they are intermittent; are associated with visible and palpable uterine contractions as evidenced by hardening, rounding, and elevation of that organ; and are localized in the lower abdomen and (occasionally) the upper thighs, but rarely--possibly never--felt in the sacral area." They rarely appear immediately after delivery, usually beginning about 5-6 hours postpartum and lasting 48-72 hours; but, according to Bryant and Overland (1966:268) they may last as long as a week. Their occurrence is irregular, ranging from a few minutes to hours.

Pain does not seem to accompany every contraction. Blakely (1939:411) says that "afterpains vary from a vague
discomfort to an unnerving agony, severe enough to induce even vomiting and shock. Not only do patients themselves present great variations in psychic reaction to pain in general; but uteri, also, exhibit a wide range of sensi­tiveness and reaction to local and other stimuli." The fundus is especially sensitive to touch. Other possible means of initiating afterpains include a full bowel or bladder, eating or drinking, turning in bed, and frequently breast stimulation, especially that found during breast feeding. Sucking stimulates the sympathetic nervous system to release oxytocin which stimulates contractions.

While some theories seem to be more widely accepted, there is not complete agreement on the cause of afterpains. As outlined in the conceptual framework, the theory supported by Eastman (1966:482-483), Wiedenbach (1967:338), Smith (1964:415-416), and Iorio (1971:143) is that the puerperal uterus of the primipara tends to remain tonically contracted whereas the multipara's uterus often contracts and relaxes at intervals causing the discomfort known as afterpains. Blakely (1939:414) contradicts this theory by saying that all uteri exhibit contractions and relaxations after labor. His theory is that ischemia of the uterine muscle is the cause and that more multiparas experience afterpains because of circulatory compromise of their uteri due to involutional structure changes. When a primipara experiences severe afterpains, the uterus may
have placenta fragments, blood clots, or other foreign bodies in it and is actively contracting to expel them (Eastman, 1966:482-483).

There do seem to be some predisposing factors which increase the likelihood of a patient's experiencing afterpains. Vietor (1971:279) mentions the following four reasons for a patient to experience afterpains: (1) multiparity, because of the decreased muscle tone of the uterus; (2) multiple pregnancy; (3) mothers delivered of babies of excessive size, resulting in an overdistended uterus; and (4) nursing mothers because of the hormonal influence nursing has on the uterus. Davis and Rubin (1966:365) and Taylor (1971:312) both mention that rapid forceful labors as those experienced by multiparas may be a predisposing factor leading to afterpains.

**Literature on the Nurse's Role**

Although pain is basically a physiological phenomenon, the meaning and appropriate reaction to the pain are determined by cultural influences (Saunders, 1958:538). Because pain is such a universal experience that elicits individual reactions, the nurse must recognize that no two people are going to react the same way in the same situation. However, if the nurse is aware of some of the psychological, social, and cultural influences that are associated with pain, she can better prepare herself to
care for the patient. Since afterpains are considered by many to be an inevitable part of childbearing, they may not be mentioned by either the patient or the nurse. For this reason it is important for the nurse to recognize that afterpains are a common discomfort in the immediate postpartum period and that she has a responsibility to identify the patient who is uncomfortable and to help that patient obtain relief. Wiedenbach (1967:389) emphasizes that "whatever its cause or interpretation, [pain] is always distressing and a major threat not only to the mother's comfort, but also to her progress." Sine and Cameron (1968:32) point out that nurses accept the inevitability of afterpains by saying, "There is a widely held belief among nurses working with maternity patients that since afterpains are unpreventable, unpredictable, and self-limiting, the most reasonable approach to their relief is to assure the mother that she will probably feel better tomorrow, but that today she may have a pain pill."

Upon reviewing the literature it was not surprising that such an attitude is prevalent. Several authors (Davis and Rubin, 1966; Eastman and Hellman, 1966; and Hamilton, 1971) admit to the existence of afterpains in most multiparas, and all gave analgesics as the means of relief. However, as Sine and Cameron (1968:329) reported, "routine administration of analgesics does not always lead to alleviation of afterpains." Smith (1964:416)
recognizes the importance of obtaining relief for patients suffering from afterpains when she writes, "Just as no woman should be allowed to martyr herself in labor, no woman should be made to suffer during the time of afterpains." However, she gives no suggestions for the relief of afterpains except by the use of analgesics.

In discussing the treatment for the relief of afterpains, there are both medical and nursing methods. Medical treatment includes the removal of any retained placenta, blood clots, or foreign bodies vaginally, probably with the patient anesthetized. Also included under medical treatment would be the ordering of medications, especially those that stimulate the uterus to contract such as the oxytocins and the analgesics for the relief of afterpains.

The remainder of the care is a nursing responsibility. The most important factor is to recognize that the patient is having afterpains. Edwards (1970:84) says that "the nurse must know that new mothers have a need to be cared for, without their expressing that need directly. This may be the first time since reaching adulthood that the new mother had been placed in a position of dependency." The patient may not be able to verbally express her need for pain relief or she may share the common nursing belief that afterpains are an inevitable occurrence and not mention afterpains to the nurse. She may express this need by tossing about in the bed, lying tense and
motionless, or by frequently putting on her light for insignificant complaints. Whatever the patient's manner of expressing her discomfort the nurse must utilize her own abilities to discover and identify the patient suffering from afterpains.

Lambertson (1965:62) explains that "individuals react differently to illness, disability, and dependency, because a person's adaptation to a new experience is closely associated with his experience to date and his unique pattern of behavior." Thus the nursing care is based on the adaptive capacity of the patient to the current situation. Recognizing that each person reacts to discomfort and pain in his own individual way is important to help understand the responses displayed by each postpartum patient.

A second important factor to consider is the position of the uterus. If it is displaced to one side or the other a probable cause may be a full bladder or blood clots in the uterus. Any sources of discomfort such as a full bladder, sore stitches, or tender breasts may increase the reaction to afterpains. Because of the extreme sensitivity of the uterus to the slightest touch, the nurses hands should be warm. Cold hands on the abdomen may induce afterpains (Wiedenbach, 1967:390).

Relief of afterpains during hospitalization may be an immediate need of the postpartum mother to facilitate
her adjustment to parenthood. If she knew how to relieve them she would not need assistance from nurses. Since most mothers do not know what to do, nurses must show them the measures that may be helpful. An old European belief that "some of the lochial blood swallowed by the woman would stop afterpains, which were thought to be due to the animal nature of the uterus seeking wildly for the child it had lost..." (Blakely, 1939:416) does not lend itself to ready acceptance in our society. Some of the measures that are acceptable in our society include expressing blood clots, providing for emptying the bladder, massaging the fundus of the uterus, and applying pressure to the abdomen to maintain the uterus in a contracted state. All of these measures are simple so that the mother can be taught to do them herself.

In a study done by Sine and Cameron (1968:32) at the University of Utah an attempt was made to validate some of the above measures. They had three steps to be taken before administering medication for pain in the lower abdomen. The first was to have the patient empty her bladder, as it may become distended without the patient being aware of it. The second was for the patient to gently massage the fundus four or five times. This would contract the uterus and possibly push out any clots or blood. Third, the patient was to lie on her abdomen with a pillow under the lower abdomen for ten minutes. This,
again, is an aid to the involutional process in that it keeps pressure on the uterus to promote contraction. Their study showed that patients using these techniques were able to utilize their own efforts toward their care and comfort and required less medication for the relief of pain.

Ebner (1967:147) and Heardman (1959:144) both report that the woman can get relief from afterpains by the conscious contraction and relaxation of her abdominal muscles. Since the other three methods are impossible to perform while nursing an infant this last suggestion may be a means for the mother to try.

In discussing this study with some maternity nurses, it was suggested that afterpains be treated like menstrual cramps—with an application of heat to the abdomen. Wiedenbach (1967:389) gave an account of one mother with lower abdominal pain. The patient reported that at home with her other newly delivered babies, she had applied heat to the abdomen and obtained relief. The nurse discussed this with the physician and a warm bag of water was applied giving the woman instant relief. The source does not say that this treatment was specifically for afterpains, but this is one instance in which heat was applied to the abdomen of a delivered mother. This example illustrates the importance of understanding the principle that one's reaction to pain and discomfort is governed by past experiences, and what has helped before very likely will
relieve the pain again. A familiar and trusted treatment is apt to change the patient's perception of her discomfort so that relief is experienced.

Another nursing measure mentioned by Ziegel and Van Blarcom (1964:431) and Blakely (1939:416) was the use of ice. Ziegel and Van Blarcom (1964:431) say that "... an ice bag over the lower abdomen may help to keep the uterus contracted and promote comfort." Blakely (1939:416) says that "whatever relief is experienced by the application of an ice bag would seem to be due to the local effect on the skin and not the stimulation of the uterus."

Most authors seem to agree that identifying the patient suffering from afterpains and attempting to obtain relief for them is desirable for adaptation to motherhood. However, there is little agreement about just how this relief may be obtained, except by the use of analgesics, which are not always effective and may carry with them undesirable side effects. It is the nurse who can help the patient identify the pain. She, then, may suggest and evaluate certain activities that may make the postpartum period a more comfortable, happy time in which to adjust to the new infant and the accompanying role changes.
CHAPTER 3

RESEARCH DESIGN

This study was concerned with some possible nursing measures that the postpartum patient might utilize to help relieve discomfort from afterpains. The research was constructed to determine whether patients experienced a decrease in discomfort when one of three selected nursing measures was attempted at a time when the patient was experiencing afterpains. The design of the study was such that the investigator would be present in the hospital setting during the time when the patient would be most likely to be experiencing afterpains. As reported in the literature, afterpains are commonly experienced as early as five or six hours postpartum (Blakely, 1939:411). Some authors (Blakely, 1939:483; Eastman and Hellman, 1966:483) say that afterpains begin to decrease in 48 hours although Bryant and Overland (1966:268) say that they may last as long as a week. Because afterpains are stimulated by nursing, and because most babies are being fed by their mothers by 24 hours of age, the investigator chose to include only patients between 24-48 hours post-delivery. By 24 hours postpartum the mother is becoming more independent in her own care.
The population included all multiparas who had delivered at a private hospital during the month of February, were 24-48 hours postpartum, had a living infant that they were either breast or bottle feeding, and who said that they were experiencing afterpains. Those excluded from the study were any patients with new abdominal incisions, anyone with an infant in an Isolette, and anyone who was taking part in a special project being conducted at the hospital since these patients were discharged from the hospital before the selected 24-48 hour postpartum time period. Reasons for excluding those with abdominal incisions include the possible difficulty the patient might have in differentiating between pain from her abdominal incision and afterpains, as well as the problem of being unable to massage her fundus which is one of the methods to be used by the investigator. Mothers without infants to feed were excluded because the actual feeding of infants may stimulate the uterus to contract and afterpains may be increased.

The sample includes those in the population who reported experiencing afterpains during the time the investigator was in the area. These patients were then randomly placed into three groups. One group served as a control group. The second group had their abdomens massaged and the third group rested in the postpartum relaxation position. Sine and Cameron (1968:332) used
emptying the bladder as the first step in their treatment. Rather than using the emptying of the bladder as a nursing measure for this study, this investigator recognized that a distended bladder might increase uterine irritability and also that other measures may not be effective if the bladder is distended. Therefore, before the application of each measure, the patient was asked if she felt the need to void and the investigator palpated each patient's abdomen above the symphysis pubis and observed visually for bladder distention. When satisfied that the bladder was not distended, the investigator proceeded with the groups.

Control Group

The patients falling into the control group were not involved in any physical measure to reduce afterpains. Instead the investigator stayed in the room with the patient for 15 minutes lending psychological support and allowing the patients to direct the verbal interaction. At the end of 15 minutes, the approximate time involved in the other two measures, the investigator asked whether or not they noticed any difference in their afterpains. Their responses and any comments they made about afterpains were recorded.
Group Using Fundal Massage

Blakely (1939:411) reports that the most sensitive part of the uterus is the fundus. As reported by Sine and Cameron (1968:331) the investigator placed one hand above the symphysis pubis and cupped the apex of the fundus with the other hand. The massage was completed by rotating the hand around the fundus four to five times. The patient was allowed to rest five minutes and the procedure repeated once. After resting 10 minutes the patient was asked whether she had any relief from the afterpains and her remarks were recorded.

Group Using the Postpartum Relaxation Position

Wiedenbach (1967:388) gives a detailed description of this position. The patient was instructed to lie on her abdomen with two or three pillows supporting the lower abdomen and symphysis pubis. A small pillow can be put under her ankles. Her head was turned to one side and not placed on a pillow. Her arms were placed under the pillows. This position was suggested by Wiedenbach (1967:390) and utilized by Sine and Cameron (1968:332) in their study. This is an aid to the involutional process in that it keeps pressure on the uterus to promote contraction. After each patient had been on her abdomen for 10 minutes, she was asked whether she experienced relief from afterpains. Her comments were recorded.
Collection of Data

Prior to the selection of the participants in the study, a letter (Appendix A) was sent to the hospital in which the research was to be done, asking permission to perform the study. Following the granting of permission, the researcher was on the maternity unit daily to identify patients eligible for the study, according to the previously defined limitations.

The patients were randomly placed in the three groups with 10 persons per group. One of the two nursing measures was then applied to the participants as described previously.

A paper with information from the labor record was made for each participant (Appendix B). On this paper was recorded the response the participant gave to the question of whether or not she felt the nursing measure was helpful in relieving her afterpains. Other comments relative to the study that were made by the patient following the nursing treatment were recorded.

Analysis of Data

Those participants answering "yes" to the question of whether or not relief was obtained and those answering "no" to the same question in each group were tabulated. A comparison was then made to see whether participant's
answers indicated that one method was more effective than another, using Fisher's Exact Probability Test.

Since the answer required from the participant was a strict "yes, the pain is less" or "no, the pain is not less," there was not allowance for variation in pain relief. Therefore, comments were recorded to allow for more detailed reaction to the nursing method should the patient want to qualify her answer or elaborate on the treatment. These were summarized collectively as well as for the individual groups. Content analysis utilizing a card sort for categorization was done. Direct quotations were also used to describe typical responses.

The information obtained from the labor record was used to describe the groups. A comparison of averages of age, parity, and number of hours post delivery was done for each group. Also compared was the number in each group who were bottle feeding and those who were breast feeding. Type of delivery, anesthesia, and medications received were recorded and tabulated for each group.
CHAPTER 4

PRESENTATION OF FINDINGS

This chapter describes some of the characteristics of the three groups being utilized in this study. Responses given by the patients to the question of whether or not they felt the particular nursing measure was helpful in relieving their afterpains as well as any comments made to the nurse about their afterpains are presented.

Total Sample Findings

The sample utilized in this study included the first 30 patients delivering and meeting the criteria previously mentioned. The ages ranged from 19 years to 33 years with a mean age of 24.7. Gravidity ranged from two through seven, with a mean of 2.7; parity ranged from two through seven, with a mean of 2.6. Five patients had recorded one abortion each prior to this pregnancy, and one patient had a set of twins with a previous pregnancy. More mean averages appear in Table 1.

Of the total 30 patients, 18 were breast feeding and 12 were formula feeding their infants. Nineteen of the patients delivered their infants spontaneously, while 11 were delivered using low or outlet forceps. Six of the labors were induced and two others were stimulated with
Table 1. Table of Mean Averages

<table>
<thead>
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<th></th>
<th>Control</th>
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</tr>
</thead>
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<td>2.9</td>
<td>2.5</td>
<td>2.6</td>
</tr>
<tr>
<td>Hours Post Delivery</td>
<td>31.0</td>
<td>30.6</td>
<td>30.6</td>
<td>30.7</td>
</tr>
</tbody>
</table>

Pitocin in glucose water via intravenous drip. Each patient was seen from 24-48 hours post deliver with the mean being at 30.7 hours after delivery.

The patients received a variety of types of anesthesia. Twelve of the patients received paracervical blocks; each of these patients also received an additional anesthetic. Twelve patients had local anesthesia, 11 had pudendal blocks, three had saddle blocks, two had penthrane inhalation only, and two had general anesthesia. All infants presented cephalic except for one breech presentation. Additional information appears in Appendix C.

An attempt was made to determine the length of therapeutic action for each of the analgesics ordered for the patients, but due to inconsistent values given in the pharmacological literature, the investigator fell back on empirical data. Since each of the analgesics was ordered to be given every three to four hours when needed by the
patient, the investigator counted the number of patients receiving an analgesic within the last four hours. Three mothers in the control group and in the massage group had taken an analgesic within four hours of the nursing interaction, while four patients in the group trying the postpartum relaxation position had received an analgesic within four hours of the nursing contact.

The patient was randomly assigned to one of three groups: the control group, or the treatment group in which the patient's abdomen was massaged, or the treatment group in which the patient was asked to lie on her abdomen for ten minutes; by drawing the name of the group from a box. When the patient reported to the investigator that she was experiencing afterpains, the investigator determined that the bladder was not distended and proceeded with the appropriate nursing measure.

Content analysis was used to further analyze the findings of this study. The comments that each patient gave about their afterpains or treatment were placed on sort cards. Cards were coded as to patient and assigned group. The comments were then sorted into different stacks, revealing that several persons were expressing the same idea. By combining these comments, it was possible to gain more insight into the expressed feelings of the mothers.
The patients' comments fell into 12 categories. A list of these can be found in Appendix D.

There was a general feeling expressed by all patients that afterpains were uncomfortable. There seemed to be two approaches toward afterpains taken by the patients in the study. Some of the patients accepted afterpains as part of their recovering process. They described afterpains as being very uncomfortable and unpleasant. Another said they "were not real bad, but were annoying." One said that her afterpains were not unbearable, but that she would welcome anything to make her more comfortable. The second approach was to disregard or ignore the afterpains. Three mothers commented that they ignored or tried to forget that they had afterpains, feeling they would go away.

Five of the mothers used the word "cramps" to describe their afterpains. Two mothers likened afterpains to menstrual cramps they had experienced prior to pregnancy. Another mentioned that she did not remember such cramping with her first baby. Two mothers remarked that there were measures that helped relieve discomfort from stitches, but they were not aware of measures to help the cramping.

Another commonly expressed idea was that afterpains were not present all the time. Six mothers commented about the appearance and subsiding of afterpains. Four mothers said the afterpains had been "coming and going all day."
Two others indicated that they experienced the same happening when they said that they expected the afterpains to "disappear soon, as they had done before."

Frequent reference was made to the occurrence of afterpains at the time of nursing. Four mothers said that afterpains were worse when they nursed their infants. One mother said that after nursing she felt a gush of blood and then the afterpains disappeared. Another reported that "the afterpains usually go away within the hour" after she had nursed her baby.

Some patients voiced their feelings about experiencing afterpains. One patient said she thought she would not have any afterpains because she was not nursing her baby. It was even more distressing to her to have afterpains, because her roommate (who also had one child at home) was breast feeding her new infant and not experiencing any afterpains. Another mother felt extremely lucky to have had a very short labor, but was quite upset to find that since the delivery she had had severe afterpains. One mother commented, "Now, it's depressing after the whole thing is over to still have pains!" Another patient did not know what was happening when she started having afterpains in recovery room. She said, "I thought all the pain and cramping was over. I didn't have afterpains with the first baby." One mother whose physician had placed her on
Ergotrate for 24 hours was anticipating fewer afterpains as she had taken the last of "those clamping down pills."

Some mothers mentioned activities that they had found to help them cope with afterpains. Five mentioned a change in position. One mother was most comfortable while lying on her side; another reported that lying on her side made her afterpains increase. Lying flat on her back and breathing deeply brought relief to one mother. Another reported that she had lain on her stomach before the investigator suggested the measure and found it helpful. Using the pillows for positioning was even more helpful to her. One mother reported that the only thing she had found helpful was to move around including walking in her room. Moving the sanitary belt very low on the abdomen was another patient’s way of making herself more comfortable. She said that the pressure of the belt on her abdomen when she was experiencing afterpains was very uncomfortable. Another patient said that drinking milk helped her gain relief from afterpains.

Most comments were made about the patient's feelings about taking the analgesics prescribed by their physicians. Two mothers expressed exactly the same feeling that medication should not be taken except when it is absolutely necessary. Two other patients had taken analgesics and said they helped their afterpains, but they really did not care to take them often. The drowsiness experienced by two
mothers after taking an analgesic was given as the reason they preferred not to take one. One mother expressed concern that medication she took might affect the baby through her breast milk. Still another did not want to become dependent on a pain medication as she was going home in the morning and did not want to have to take any medication at home. Three mothers stated their reluctance to take any medication for pain unless the afterpains became more uncomfortable.

Comments were made about the effect patients felt the analgesic had on their afterpains. Three felt that the analgesic had not given them any relief. One patient said that she was comfortable for about an hour after taking an analgesic, and then the afterpains returned. Two mothers reported that the medication did not make the afterpains go away, but that "it did help to take the edge off the pain." One patient said that the analgesic was very effective in reducing her discomfort from afterpains.

After the introduction of the nursing measures, comments were given by some patients comparing the nursing measure with pain medication. Two mothers stated, "I'd rather rub my stomach than take pain medication." Another mother who was in the postpartum relaxation position group also expressed the desire to do something for her afterpains besides take medication. One mother felt that the nursing measure "helped me more than any pain pill."
While the nursing measure utilized did help make some of the patients more comfortable, it did not make the afterpains completely disappear. Seven patients commented about feeling more comfortable after the application of the nursing measure, but still being aware that they were experiencing afterpains. One said, "They're not as strong as before." Another said, "They don't reach as high a peak." Still another said, "Now they're bearable." One mother whose afterpains subsided after nursing each time, said that the nursing measure "helped them to go away faster."

Another idea that was expressed by a number of patients was the willingness to do these measures for themselves. Two remarked that they did not know why they had not thought of trying this for themselves. Three stated that lying on their stomachs was their favorite position in which to sleep. One remarked, "I'm going to stay like this any time I can." Another said that she was glad to know that something so simple was helpful. She said, "I'll be able to do this at home."

The last common area of general comments was concerned with the surprise and pleasure that such nursing measures were helpful. Three expressed surprise and went on to say, "I never thought that would work." Two mothers whose abdomens were sore and tender, did not think massaging would give any relief. Another mother who had not been
able to rest comfortably on her abdomen since her last child was born, was very surprised to find that her afterpains decreased, and she was actually comfortable in the postpartum relaxation position. Another mother had been resting on her stomach earlier in the day but not when she was experiencing afterpain. She was delighted when she found that this position helped to relieve her afterpains.

Findings Specific for Each Group

Control Group

Patients in the control group received no physical nursing intervention specific for afterpains. Instead the investigator was present in the room giving psychological support and interacting with the patient for fifteen minutes, the approximate time required to perform the other two nursing measures. Pain medication was not given nor was it requested or desired by all the patients except one who received an analgesic after the 15 minute period.

Nine of the ten patients in this group reported that the afterpains being experienced were no better after 15 minutes than they were when the investigator entered the room. One mother reported that she experienced less discomfort in 15 minutes. She remarked, "The afterpains have been coming and going all day. They don't seem to come at any special time, such as at infant feeding time, and
sometimes they last a lot longer than at other times." She was one of the six who had not taken an analgesic.

Three patients in this group commented that they either ignored or tried to forget the afterpains, feeling that they would go away before long. Two mothers experienced such a sense of happiness and relief that the waiting and discomforts of pregnancy were over that they did not mind the afterpains.

Group in Which the Patient's Abdomen was Massaged

Patients in this group were asked to try a specific nursing measure and report any change in their discomfort from afterpains. With the patient lying flat in bed, the investigator put one hand over the symphysis pubis, and cupping the apex of the fundus, rotated the hand around the fundus four or five times. After allowing the patient to rest for five minutes, the procedure was repeated. The patient was then asked whether or not she felt any change in her discomfort from afterpains.

All ten patients reported that their afterpains were less severe after the application of this nursing measure. The null hypothesis that massaging the fundus of the uterus had no effect on the perception of afterpains as reported by postpartum patients was rejected at the .01 level using the Fisher Exact Probability Test. Therefore,
it can be concluded that massaging the fundus of the uterus was helpful in relieving discomfort from afterpains.

Three patients in this group said that while massaging did make them more comfortable, the afterpains were still present. Two mothers indicated that they were skeptical that massaging would be helpful. One said she got so tired and sore from the frequent massaging in recovery room the day before that she did not expect massaging to help. One mother put it this way, "My stomach seemed so tender all day, I didn't think any touching it would help."

Another expression voiced by two mothers was that they would much rather rub their stomachs than take medication for afterpains. One mother said, "Massaging my abdomen helped more than taking any pain pill."

Group Who Tried the Postpartum Relaxation Position

The patients in this group were helped to position themselves on their abdomens with two or three pillows supporting the lower abdomen and symphysis pubis. Their hands were placed palms up under the pillows. The head was turned to one side and not placed on a pillow. After staying in this position for 10 minutes, the patients were asked whether they noticed a change in the afterpains.

Eight of the ten persons in this group felt the postpartum relaxation position helped them. The null
hypothesis that lying in the postpartum relaxation position had no effect on the perception of afterpains as reported by postpartum patients was rejected at the .01 level using the Fisher Exact Probability Test. Thus, one can conclude that resting in the postpartum relaxation position was helpful in obtaining relief from afterpains.

Two patients said they were uncomfortable lying on their abdomens. One said, "I felt like I was lying on something I should not be lying on," and the other said, "I felt like I was lying on a big ball." Although the positioning did not help one mother's afterpains, she said her stitches were more comfortable.

Three mothers were surprised that lying on their abdomens helped them and remarked about wondering why they had not tried this before, as they all liked to rest in that position. Two mothers said that they still could feel the afterpains, but they were not as severe. One mother expressed it like this: "It doesn't make them go away completely, but it does make them more bearable. It feels like lying on my stomach when the pain starts keeps the pain from reaching such a high peak." Another mother said that lying on her abdomen after nursing "helped the afterpains go away faster."
CHAPTER 5

INTERPRETATION OF FINDINGS

This chapter discusses the conclusions and implications for nursing care as indicated by this study and some recommendations for further study into this problem.

Conclusions

The study does make a contribution toward evaluating specific nursing measures for the relief of afterpains. The nursing measures performed apparently did help those mothers experiencing afterpains to be more comfortable. Eighteen of the 20 patients who were in the groups in which nursing measures were applied, reported that their afterpains were less painful. This relief may have been a direct result of the applied nursing act or a difference in perception of the pain as a result of the patient feeling that either the nurse or the patient herself was doing something about the afterpains.

Although all the patients reported discomfort from afterpains, their reactions to afterpains seemed to follow two different patterns. Some of the patients verbally identified and described their discomfort from afterpains, while others seemed to ignore or tried to forget that they
were having afterpains, feeling that the afterpains would disappear soon.

A common term used by the patients in the study to describe afterpains was "cramps." Two mothers likened afterpains to menstrual cramping.

Afterpains, as reported by the patients in this study, were intermittent in that they appeared and subsided throughout the day. These patients identified a relationship between nursing their infants and an increase in afterpains.

Not all patients in the study were prepared for the onset of afterpains. Some did not know that such an entity as afterpains occurred; others were aware that some mothers experienced afterpains, but they, themselves, did not expect to have them.

Many of the mothers expressed a desire to actively participate in activities to decrease their afterpains. Some of the mothers reported having tried to find ways to make themselves more comfortable, such as changing position, walking, and moving the sanitary belt low on the abdomen. Others expressed willingness to carry out the suggested nursing measures for themselves, wondering why they had not thought of doing them before. Some mothers showed surprise and pleasure that such measures were helpful, stating that they could do the same thing at home should they still be having afterpains.
Approximately the same number of patients in each group had taken an analgesic within the last five hours. Patients were very verbal about their feelings regarding the taking of prescribed analgesics. Most did not wish to take an analgesic unless necessary, for various reasons. Some felt the analgesic was not helpful in reducing their discomfort; others felt the analgesic helped a little. Patients preferred to try other nursing measures instead of taking an analgesic to obtain relief. While the two nursing measures did seem to help make some patients more comfortable, the afterpains did not completely subside.

The method of infant feeding chosen by the mother may have influenced her afterpains. Five patients in the control group breast fed their infants while six in the group that had their abdomens massaged breast fed. The group that tried the postpartum relaxation position had seven mothers who breast fed their infants.

Even though the utilization of both nursing measures were significant in decreasing the mothers' afterpains as reported by the patients at the .01 level, the data seem to suggest that massaging the fundus of the uterus was helpful to more patients having afterpains than lying in the postpartum relaxation position. Lying in the postpartum relaxation position was more helpful than doing nothing but wait for the afterpains to disappear.
Implications for Nursing

The following implications for nursing care were noted from the study:

1. Since afterpains are uncomfortable and annoying to the patient, they need to be identified by both the patient and the nurse so that nursing care specific for afterpains may be planned.

2. Information regarding possible means of relief from afterpains, similar to the information they had received about self care for the relief from stitch discomfort, may be helpful to postpartum patients.

3. Nurses should look for afterpains in patients' rooms during feeding times or shortly thereafter and suggest possible measures that might be helpful in relieving the afterpains. Both nursing personnel, who are present in the patient's room at feeding time, and postpartum personnel, who are present in the patient's room during her hospital stay, should be informed about nursing care specific for afterpains.

4. Since many patients expressed not knowing about afterpains, the possibility of afterpains occurring as well as encouragement to make them known to the nurse should be discussed with the mother during the immediate postpartum period. Such anticipatory guidance may result in the patient recognizing that
she has afterpains and seeking methods of relief sooner.

5. Reviewing the patient's response to similar painful situations may help the nurse to incorporate the patient's past experiences with the present situation to find an appropriate approach to coping with afterpains.

6. Nurses need to determine exactly how the patient feels about taking medication before an analgesic is offered for afterpain relief. Maybe another method would be equally or more acceptable to the mother.

7. Nursing includes as part of its goal, helping patients to gain independence. From the comments made by these patients, it can be implied that they wanted to function independently in carrying out some self care for their afterpains. Not only did they express their intentions of utilizing a nursing measure at the hospital, but also indicated that they would continue to carry on the activity at home if necessary.

8. Even though some mothers said that lying on their abdomens was a favorite resting position prior to pregnancy, frequently they had not been in this position since delivery. They had assumed other positions for resting while pregnant and had not
thought of resting on their abdomens since delivery. Therefore, a suggestion by a nurse to try the postpartum relaxation position may be readily followed.

9. Accurate recording on nursing notes and the nursing care plan which provides information about the individual and her reaction to afterpains, as well as what has given the patient relief from afterpains, might be helpful to the nursing team in planning for future care.

**Recommendations**

Some recommendations for further study are that:

1. The study be replicated using a larger sample size including greater socioeconomic representation.

2. A study be done to compare other nursing measures with those tried in this study.

3. The development of a questionnaire designed to test some specific categories of responses related to afterpains.

4. A study to determine the incidence, scope, and treatment of afterpains including both primiparous and multiparous women.

5. Such a study begin immediately after delivery and continue into the home.
SUMMARY

The purpose of this study was to learn about afterpains. The investigator reviewed the literature for possible nursing measures that might be helpful in obtaining relief from afterpains, and then applied two of these measures to postpartum patients experiencing afterpains to determine their effectiveness in relieving afterpains. The investigator had to rely on the patient being able to tell whether or not she experienced relief from afterpains. Comments that patients made about afterpains or the nursing measure utilized were recorded.

The theoretical framework provides a basis for studying afterpains, including both physiological and psychological aspects.

A review of literature was carried out to better understand some basic concepts of pain, as well as afterpains, and nursing intervention specific for afterpains.

The data for this study were collected and described using a card sort method of content analysis. Mean averages and correlations were calculated. The sample included 30 multiparous mothers experiencing afterpains who were delivered in a private hospital in the southwest.
during the month of February. These 30 patients were randomly placed in one of three groups. One group served as a control group in which no physical nursing care was given. A second group of patients were asked to lie in the postpartum relaxation position for 10 minutes and the third group of patients had the fundus of the uterus massaged. Each patient was asked whether or not the nursing measure was helpful to her.

The limitations of the study were that the sample was small, composed of only English-speaking middle-class women, and the investigator was a participant observer.

Nine of the ten patients in the control group reported that their afterpains were the same as when the investigator first entered the room. All of the patients in the group who had their fundi massaged reported that this was helpful in reducing their afterpains. The null hypothesis that massaging a patient's fundus would not reduce afterpains was rejected at the .01 level. Eight of the ten patients who rested in the postpartum relaxation position reported that this was helpful in decreasing their afterpains. The null hypothesis that resting in the postpartum relaxation position does not decrease afterpains as reported by the patients was rejected at the .01 level.

The comments that were made by the patients could be sorted into 12 categories with similar meanings. They were: (1) afterpains are uncomfortable, (2) use of the
word "cramps" to describe afterpains, (3) afterpains are not present all the time, (4) afterpains are experienced at the time of nursing, (5) personal reaction to afterpains, (6) feelings patients had about taking an analgesic for afterpains, (6) activities tried by the patient to relieve her afterpains, (8) effectiveness of the analgesic, (9) comparing nursing measure with pain medication, (10) afterpains still present but improved, (11) patients' willingness to do something for themselves, and (12) patients' surprise at the outcome.

These twelve categories can be summarized into three general concepts. The first five categories provide a description of afterpains as related by the patients. Numbers 6 and 7 discuss the action to be taken to gain relief from afterpains. Evaluation of the action taken is described in the remainder of the categories.

The study findings seem to support the hypothesis that there is a relationship between the application of a nursing measure and a decrease in afterpain discomfort.
APPENDIX A

LETTER REQUESTING PERMISSION TO CONDUCT RESEARCH STUDY IN THE HOSPITAL

January, 1973
701 S. Sarnoff Drive
Tucson, Arizona 85710
885-4898

Office Of:
Director of Nursing Services

Dear Mrs.

A research study is being conducted by Cheryl West on maternity patients to evaluate the effectiveness of nursing measures on the relief of afterpains. The purpose of this letter is to ask permission for the researcher to conduct this study in the maternity unit at.

If you will allow her to do so, multiparous maternity patients will be visited 24-48 hours after delivery and those experiencing afterpains will be included in the study. A total of 30 patients will be divided into three groups. One group will serve as a control group, in which the presence of the nurse is the only intervention. A second group will have the fundus of the uterus massaged, and a third group will lie on their abdomens in the postpartum relaxation position for ten minutes. After each of these measures, the patient will be asked whether or not she felt the nursing measure was effective. Each of these nursing measures is listed in the master care plan kardex on the maternity unit, so no new method is being introduced. Hopefully the ones we have will be evaluated as to their effectiveness.

All information will be identified by number in the study and all the information will be kept confidential.

Mrs. West is a graduate student at The University of Arizona working toward a Master of Science degree in maternal-newborn nursing. She is at present a registered nurse in the state of Arizona and works part time in the newborn nursery at . Her advisor is Miss Betty Jo
McCracken, Associate Professor, and can be reached at the University of Arizona College of Nursing.

It is hoped that this study will contribute some valuable information to health workers who are seeking ways to be more helpful to patients. Thank you.

Sincerely,
APPENDIX B

DATA COLLECTION FORM

Information obtained from the labor record kept by nurses.

Patient's assigned number: __________

Age: __________

Gravida ________, Para ________

Breast Feeding ________, Formula Feeding ____________

Type of Delivery ____________

Time of Delivery ____________

Medications received ____________

_______________________________

Hours After Delivery ____________

Assigned Group _________________

After the nursing measure was utilized the patient was asked whether she felt the nursing measure was helpful in relieving her afterpains.

Yes _____  No ____

Other comments by the patient:
## APPENDIX C

### FREQUENCY DISTRIBUTION OF OBSTETRICAL VARIABLES BY GROUPS

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<td>Penthrane</td>
<td>--</td>
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<td>Analgesic taken 4 or less hours prior to interaction</td>
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APPENDIX D

CATEGORIES OF COMMENTS GIVEN BY PATIENTS

1. Afterpains are uncomfortable.
2. Use of the word "cramps" to describe afterpains.
3. Afterpains are not present all the time.
4. Afterpains are experienced at the time of nursing.
5. Personal reaction to afterpains.
6. Activities tried by the patient to relieve her afterpains.
7. Feelings patients had about taking an analgesic for afterpains.
8. Effectiveness of the analgesic.
10. Afterpains still present, but improved.
11. Patients' willingness to care for themselves.
12. Patients' surprise at the outcome.
SELECTED BIBLIOGRAPHY


