

NURSING SUPPORT IN LABOUR AND DELIVERY

by

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Abstract

Continuous support for women in labour has been associated with both physiological and psychological benefits. However, few studies have focused on the amount of support provided by nurses on labour and delivery units. The purpose of this study was to examine the amount of nursing support provided by nurses during the intrapartum period as well as to identify factors that influence the provision of support. Support was operationalized within four categories: physical comfort measures; emotional support; instructional/ informational support; and advocacy.

The work sampling method was used to determine the percentage of time nurses spent in supportive care activities. Using this approach, each nurse, who met the inclusion criteria, was observed instantaneously at randomly selected times and the activity was recorded. Twelve nurses were observed over six non-consecutive day shifts on a labour unit of a teaching hospital in Montreal. A total of 404 observations were made. Nurses also were interviewed to determine their perceptions of what constituted supportive nursing care as well as the factors that facilitated or inhibited the provision of this care.

Findings of the work sampling portion of the study indicated that nurses spent only 12.4% of their total time providing supportive care to labouring women. Interviews with six of the nurses that were observed suggested that their perceptions of the components of supportive care were comparable to what had been identified in the

literature and with this study's operational definition of support with one exception: obtaining epidural analgesia was considered a key component of nursing support during labour. Further analysis revealed a major barrier to the provision of supportive care by nurses: the environmental control of labouring women and their partners by health care providers through the use of technology and rigid adherence to policy and procedure. The results of this study could encourage further research to examine interventions designed to enhance the amount of supportive care provided to labouring women.

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Chapter 1

Problem Statement

The advent of technology in the process of labour and delivery has brought a dramatic shift in focus for the caseroom nurse. In acute care hospitals, it is not uncommon to encounter labouring women, connected to an electronic fetal monitor, receiving an infusion of oxytocin to induce labour as well as an epidural infusion for pain relief. One must question whether the woman's needs are being met amidst the focus on technological interventions. Although nurses' competence with technology is crucial in caring for the labouring woman, it does not encompass all aspects of nursing care important in the birth experience.

Several randomized control trials have demonstrated the utility of continuous professional (midwives, midwifery students, childbirth educators, self-employed labour coaches) and non-professional labour support ("doulas") in improving maternal and fetal outcomes (Cogan & Spinnato, 1988; Hodnett & Osborn, 1989; Hofmeyr, Nikodem, Wolman, Chalmers & Kramer, 1991; Kennell, Klaus, McGrath, Robertson, & Hinkley, 1991; Klaus, Kennell, Robertson, & Sosa, 1986; Sosa, Kennell, Klaus, Robertson, & Juan, 1980; Wolman, Chalmers, Hofmeyr, & Nikodem, 1993). Supportive care in these trials included continuous presence; comforting touch; physical support; encouragement, praise and reassurance; information-giving; coaching with relaxation and breathing; and

advocating for the woman. Several physiological advantages have been associated with support: decreased requirement for pain medication (Hodnett & Osborn, 1989; Hofmeyr et al., 1991; Kennell et al., 1991); reduced incidence of instrumental vaginal delivery (Kennell et al., 1991); a reduction in the number of cesarean sections (Kennell et al., 1991; Klaus et al., 1986; Sosa, et al., 1980); and a decrease in perineal trauma (Hodnett & Osborn, 1989). Improved neonatal outcomes, such as lower incidence of fetal distress and higher appgar scores, also have been documented with the use of continuous support during labour (Cogan & Spinnato, 1988; Kennell et al., 1991; Sosa et al., 1980). Labouring women have confirmed the importance of nursing support during labour and delivery (Callister, 1993; Field, 1987) and have identified tangible benefits such as decreased anxiety and enhanced feelings of self-esteem.

Although evidence exists for the efficacy of support in labour and delivery, little is known about the amount of supportive care provided by labour and delivery nurses in hospitals. McNiven's (1991) work sampling study suggests that labour and delivery nurses in acute care centres spend approximately ten percent of their total time providing supportive care. Further research pertaining to the amount of nursing support being provided on obstetrical units is needed. Moreover, there is a need to examine factors explaining the amount of support, such as nurses' perceptions of which nursing measures constitute supportive care in labour and delivery and what factors facilitate or inhibit the provision of this care. It is this paucity in supportive nursing care research that provides the rationale for this study.

Study Purpose and Objectives

Clinical experience of the researcher has revealed that the process of childbirth is partially dependent on the setting in which it takes place. For example, in large teaching hospitals, the nursing care has been directed by the need to monitor technical equipment and the prevalence of instrumental and pharmacological interventions. In smaller community hospitals where there is less technology and intervention, nurses have appeared to focus on assisting the labouring couple to cope with the pain of labour and delivery and tended to employ more non-pharmacological measures such as ambulation, hydrotherapy and massage.

The purpose of this study was to examine the amount of support being provided by nurses to women during labour and delivery in a large teaching hospital and to examine factors that influence the provision of support.

The specific objectives of this study were:

1. to describe the amount of nursing support being provided to women during labour and delivery as measured by a work sampling technique.
2. to describe the perceptions of labour and delivery nurses regarding supportive care.
3. to describe the factor(s) that nurses perceive facilitate or inhibit the provision of nursing support during childbirth.

Study Assumptions

Because of the qualitative component of this research, it was considered important for the assumptions of the researcher to be explicitly stated in order to reduce bias as much as possible. It was felt that stating these assumptions would help the researcher to be aware of the biases and to bracket them as much as possible (Morse & Field, 1995).

The assumptions of this study are:

1. that maternity nurses in large teaching hospitals provide less supportive care to labouring women
2. that the use of technology and medical intervention interfere with the provision of supportive nursing care
3. that there is an increase in the medicalization of the childbirth experience in large teaching hospitals in comparison to smaller community hospitals.

Definition of Terms

The following are definitions of terms used in this study:

Social Support: Lazarus & Folkman (1984) conceptualize social support as a resource in the environment that individuals draw on to help them

cope with stress. The recipient's perception of the helpfulness of the support is a key factor. Support has three functions: tangible (or physical) support; emotional support; and informational support.

Nursing Support: Care provided by nurses during childbirth in an effort to assist women to cope with the stress. The activities encompass: physical comfort measures, (e.g., massage, assisting with ambulation for comfort purposes); emotional support, (e.g., reassurance, praise); providing instruction/information (e.g., explaining procedures, assisting with breathing and pushing techniques), and advocating for the woman (e.g., negotiating women's wishes with other health team members). (See Appendix A for complete list of supportive nursing care activities).

Intrapartum Period: For the purposes of this study, it includes the time frame from admission to the labour and delivery unit until discharge to the postpartum ward approximately two hours after delivery.

Labour and Delivery Nurse: Registered nurse working either full- or part-time on a labour and delivery unit who has specialized knowledge and skills to assist women and their partners in the childbirth process. Also referred to as caseroom nurse.

Policies and Procedures: Written guidelines for health care providers to follow in the provision of care to women and their babies during childbirth.

They include guidelines for care in: uncomplicated labour and delivery; childbirth associated with complications such as diabetes, hypertension, etc.; and care of women during procedures such as epidural analgesia and the infusion of oxytocic drugs. Also referred to on this study's labour and delivery unit as "Standards of Care".

Primipara: Woman who has given birth to her first child (Olds, London & Ladewig, 1992).

Multipara: Woman who has had more than one pregnancy in which the fetus was viable (usually 24 weeks gestation) (Olds et al., 1992).

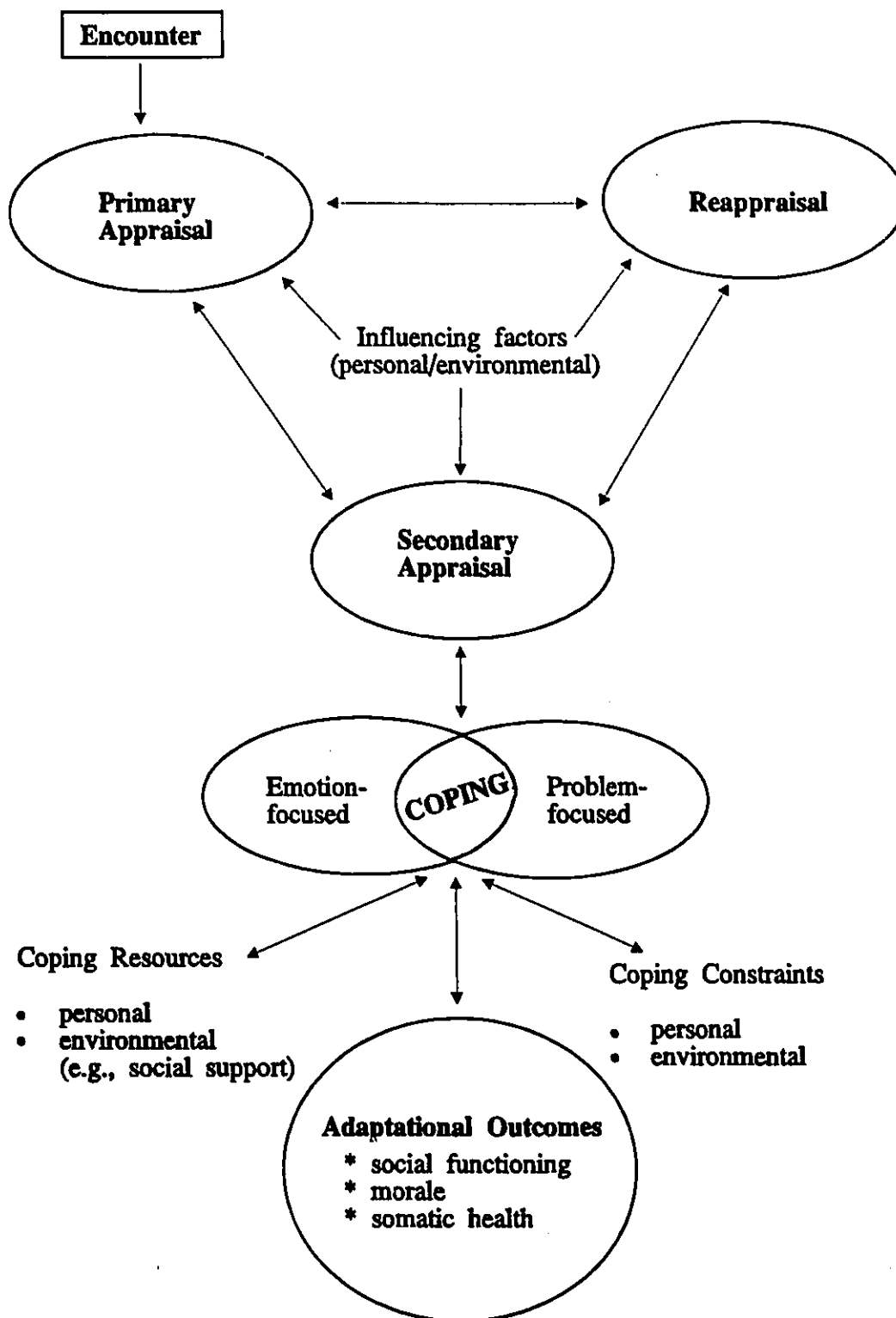
Chapter 2

Conceptual Framework

A variety of stressors are associated with childbirth such as pain, medical intervention and hospitalization which separates the woman from her family and friends. Given its focus on coping with stressful encounters, Lazarus & Folkman's (1984) mid-range theory of Stress, Appraisal and Coping provides an appropriate framework to conceptualize the labour experience. The physical, psychological, social and spiritual aspects of the person are considered and the focus is on the relationship between the person and environment which is compatible with nursing's contemporary view of the patient as a holistic being.

Following an encounter, an individual experiences a dynamic process of cognitive appraisal. Several factors can influence how an individual appraises this encounter. If appraised as stressful, coping strategies are mobilized to assist the individual in managing the stress. Resources, such as social support, can be cultivated by the individual to buffer the effects of stress which may, in turn, enhance adaptational outcomes. The author's schematic representation of this theory is presented in Figure 1.

Figure 1. Author's Schematic Representation of Lazarus & Folkman's (1984) Theory of Stress, Appraisal and Coping.



Stress

Lazarus and Folkman (1984) define stress as "a particular relationship between the person and the environment that is appraised by the person as taxing or exceeding his or her resources and endangering his or her well-being." (p. 19). Central to this theory is that the "relationship between the person and the environment is constantly changing from one moment to the next" and that stress, and the ability to cope with stress, is also dynamic. (Wrubel, Benner, & Lazarus, 1981, p. 65). This interaction between person and environment is more consistent with nursing's view of human experience than viewing stress simply as a stimulus or as a response.

To assist in determining what causes stress and explore why individuals react differently to stressful events, one must examine the cognitive appraisal and coping processes which mediate the person-environment relationship (Lazarus & Folkman, 1984).

Cognitive Appraisal

The manner in which a person appraises or evaluates a stressful situation is the key to understanding an individual's coping patterns and their emotional, physiological and behavioral reactions. These depend on the specific event and the varying patterns of appraisal used (Cohen & Lazarus, 1979).

Cognitive appraisal is a process whereby an encounter is evaluated with respect to its significance for well-being (Lazarus & Folkman, 1984). Appraisal refers not to

the environment or person alone but to the integration of both in a given transaction (Barnfather, 1993). Three types of cognitive appraisal are identified: primary, secondary and reappraisal.

Primary appraisal evaluates the impact of an event on one's sense of well-being and focuses on answering the question: "Am I okay or in trouble?". The answer to this question lies in the meaning of the event to an individual in relation to past experiences, resources, values, beliefs, goals and commitments (Folkman, Schaefer & Lazarus, 1979). Information provided by others directly influences an individual's primary appraisal of a situation (Stewart, 1989).

Through primary appraisal, the encounter is perceived and evaluated as: a) irrelevant, when the encounter is not considered to have any implication for personal well-being; b) benign-positive, where the outcome is foreseen as having a positive effect to preserve or enhance the individual's well-being and is associated with emotions of joy and happiness, or c) stressful, when appraisal reveals that demands, either internal or environmental, have taxed or exceeded the individual's adaptive resources (Lazarus & Folkman, 1984).

Stress appraisals include three forms: harm/loss, threat and/or challenge. In harm/loss, some damage to the person has already occurred and appraisal focuses on the nature and extent of the damage sustained. Threats are anticipated harms or losses which are characterized by negative emotions such as anger, fear and anxiety. Challenge, as opposed to threat, harm or loss, is considered positive in that the person perceives the

encounter as potential for gain, growth or mastery. A person is more likely to consider the stress challenging if he or she has a sense of control over the situation (Lazarus & Folkman, 1984). Threat and challenge can occur simultaneously in a given encounter.

Secondary appraisal is a complex evaluative process that focuses on answering the question: "What can I do about the trouble?" (Folkman, Schaefer & Lazarus, 1979). At this point, the person determines what coping options are available, whether the coping option will meet the individual's needs and whether or not one can apply a coping strategy or set of strategies effectively (Lazarus & Folkman, 1984). At this point, the person draws on coping resources to manage the situation.

Reappraisal will take place when new information is received from the environment or from the person's own reaction (Lazarus & Folkman, 1984). Reappraisal may result in modification of the original appraisal of the stressful encounter. For example, a woman connected to an electronic fetal monitor during labour hears an alarm sound on the machine. The primary appraisal of this event may be a threat--she is concerned about the well-being of her baby. Through secondary appraisal, she decides to call upon the nurse who reassures her that her baby's well-being is not in jeopardy. With this information, the woman reappraises the situation and, if satisfied with the information provided by the nurse, may now perceive the encounter as being irrelevant. Cognitive appraisal is clearly a process influenced by information received from the environment (information from the nurse).

Both personal and environmental factors are considered to influence cognitive appraisal. Personal factors include commitments and beliefs. Personal commitments are values and ideas that are important to an individual and which determine what is at stake in a stressful encounter. Beliefs are pre-existing notions about what is reality for the individual with respect to elements such as personal control and faith. For example, existential beliefs create meaning of life for some people and enable them to maintain hope. The extent to which an individual feels in control of a situation or alternately feels vulnerable or at a loss of control, affects whether an encounter is appraised as a threat or challenge or both (Lazarus & Folkman, 1984). There are also environmental variables affecting cognitive appraisal. These include novelty and uncertainty of the situation, as well as temporal factors of imminence, duration and temporal uncertainty. All of these factors inter-dependently affect the way in which a person appraises a stressful encounter (Lazarus & Folkman, 1984).

Coping

Coping is defined as "constantly changing cognitive and behavioral efforts to manage specific external and/or internal demands that are appraised as taxing or exceeding the resources of the person" (Lazarus & Folkman, 1984, p.141). It is a dynamic process that responds to continuous appraisal and reappraisal as the situation unfolds and is determined by the relationship between the person and the environment (Lazarus & Folkman, 1984).

Coping is classified into four modes: information-seeking on which reappraisal or action may depend; direct action to change the environment or self to undo the injury, prevent the harm or meet the challenge; inhibiting action because the action is considered morally wrong or dangerous; and cognitive or intrapsychic coping in which the person changes the way the situation is understood or diverts attention away from it in order to reduce the sense of injury or threat (Wrubel et al., 1981). A fifth form of coping has been suggested by Cohen and Lazarus (1979) and includes turning to others for support which may assist in managing stressful events.

Two major coping functions often occur concurrently and are strategies that one employs in an attempt to manage the situation. **Emotion-focused coping** is more likely to occur when the person feels that he/she is unable to modify the environment. It is an attempt to reduce or eliminate the emotional distress brought on by the stressful encounter. One may cope using a variety of strategies such as avoidance or may employ behavioral strategies such as crying, seeking emotional support or going for a walk to "forget" about a problem. **Problem-focused coping** is likely to be employed when the person feels that changing the situation is possible. It includes defining the problem, finding and then choosing the preferable alternatives and then acting on the problem. The person may attempt to change the environment by removing barriers or pressures or change the self by acquiring new skills. In problem-focused coping, an individual may decide to reach out to others to obtain information or for physical assistance. A stressful or threatening situation can interfere with this form of coping by reducing the person's ability to process information and to problem-solve (Lazarus & Folkman, 1984).

Coping Constraints and Resources

Several factors, both personal and environmental, can restrict the person's use of coping resources. For example, culturally derived values or norms may prevent an individual from reaching out for help because it implies being needy or helpless. On the other hand, limited availability or accessibility of a resource is considered an environmental constraint which can limit ways in which an individual can cope with a given situation (Lazarus & Folkman, 1984).

There are a variety of resources that people can mobilize in order to manage stress. Personal resources include good health and ample energy to expend on coping. As well, positive beliefs about God or about one's ability to cope with a situation, help sustain coping efforts and provide a basis for hope (Lazarus & Folkman, 1984). Problem-solving skills and social skills are other important resources that may be called upon. Environmental resources include, for example, money, and the goods and services that it buys, which facilitate coping by increasing coping options (Lazarus & Folkman, 1984). Central to this study is another environmental resource, that is, social support, that functions to assist an individual to cope with stress.

Social Support as a Coping Resource

Social support refers to "the nature of the interactions occurring in social relationships, especially how these are evaluated by the person as to their supportiveness" (Lazarus & Folkman, 1984, p. 249). It can be provided by a social network of family

and friends as well as by professional caregivers. Social support is one of a variety of coping resources in the environment that individuals can draw on to help them cope with stress (Lazarus & Folkman, 1984).

Social support has the potential to influence primary appraisal through both direct and indirect modes. Information-sharing by others concerning events and stressors, for example, could directly affect the individual's appraisal of a situation. Indirect influence could result from social comparison and modelled responses (Stewart, 1989). Social support has the potential, through the acquisition of information, to broaden the individual's interpretation of the event and to promote a clearer understanding of it (Schumaker & Brownell, 1984).

Social support could be instrumental in influencing secondary appraisal. This could be accomplished, for example, by providing information regarding the coping options available to the person (Stewart, 1989). Hence, social support can function as a coping strategy by providing the individual with resources needed to manage the stressor (Schumaker & Brownell, 1984). Through either the altering of primary appraisal or as a resource to cope with stress, social support is perceived to act as a buffer to stress and its potentially destructive somatic consequences (Lazarus and Folkman, 1984).

Lazarus and Folkman (1984) describe three types of social support: tangible or physical, emotional, and informational. **Tangible support** includes the provision of "direct aid" (p.250) such as money, services or physically caring for a person. **Emotional support** is described as "attachment, reassurance, and being able to rely on and confide in a person" (Lazarus & Folkman, 1984, p. 250) which provides evidence

that one is cared for. Expressions of caring, reassurance and praise can instil feelings of self-confidence and self-worth (Schumaker & Brownell, 1984). **Informational support** involves "providing information or advice, and giving feedback about how a person is doing" (Lazarus & Folkman, 1984, p.250). Information-sharing can reduce ambiguity, fear and a sense of helplessness (Schumaker & Brownell, 1984).

There is some evidence to suggest that advocacy is an important component of professional supportive care during childbirth (Bryanton, Fraser-Davey & Sullivan, 1994; Field, 1987; Kintz, 1987; MacKey & Stepan, 1994). Women have described the importance of nurses helping them to adhere to plans for their birth experience and including them in the decision-making surrounding their care. Advocacy serves to ensure that coping options available to the labouring couple are optimized. Given its role in the childbirth experience, advocacy has been included as a component of supportive care for this study.

Adaptational Outcome

The way in which a person appraises and copes with stress may affect, in a complex way, both short- and long-term **adaptational outcome**. Both short- and long-term outcomes can be evaluated on three levels: social functioning, morale and somatic health. **Social functioning**, in the short-term, refers to how effectively people cope in a given situation. In the long-term, it refers to their ability to fulfil their life roles and the extent to which they can effectively maintain and be satisfied with their interpersonal relationships. **Morale** refers to people's feelings about themselves and their life

situation. In the short-term, it is reflected in how satisfied people are with their performance and if they have achieved their desired goal. Long-term morale is based on how effectively they cope with repeated stress (Lazarus & Folkman, 1984). Somatic health may also be affected by appraisal of stress and coping. Health status of the individual can be affected in a detrimental way through: neuroendocrine stress reactions; use of injurious substances (e.g., alcohol and tobacco) or activities that put the person at risk; or by responses such as denial which could impede adaptive health/illness behaviour (Lazarus & Folkman, 1984).

Application of Theoretical Framework

The literature has indicated that social support not only affects an individual's appraisal of a situation, but is also available as a resource in the environment that may influence the coping process. The interaction between stress, coping and social support may, in turn, influence an individual's health outcomes.

A variety of stressors are associated with childbirth such as pain, medical intervention and hospitalization that separates the woman from her family and friends. Whether this experience is evaluated as threatening or challenging is based on the mother's primary appraisal of the situation. In many circumstances, the mother's appraisal is a combination of threat and challenge in that the pain or fear of demise can pose as a threat to well-being while anticipation of her newborn provides impetus and challenge to endure the stress. The nurse, through supportive interventions, can alter

primary appraisal of the situation. For example, by sharing information and through reassurance, the nurse could change the woman's perception of stressful aspects of the childbirth process and could render them less threatening.

Secondary appraisal, which may occur in collaboration with the nurse, examines what can be done to assist the woman to cope with the stress. Factors such as commitments and beliefs, past experience with childbirth as well as how quickly the labour progresses will inter-dependently affect the woman's appraisal of the event.

Both emotion-focused and problem-focused strategies may be utilized to cope with the stress of labour and delivery. Emotion-focused strategies, such as crying out, will alert the nurse that the woman may need assistance in examining alternatives to manage the pain. Factors such as extreme fatigue resulting from a long labour or limited problem-solving skills may reduce the woman's ability to cope effectively. In problem-focused coping, the nurse can be instrumental in helping the woman to define the problem (e.g., source of pain), choose alternatives (e.g., comfort measures) and initiate specific action to lessen the stress of the labour experience. As new information evolves, reappraisal will take place at any time in the process.

Authors such as Kennell et al. (1991) have demonstrated that social support, provided as a resource to assist in coping with the stress of labour, has been found to improve maternal and fetal outcomes. Support, if perceived as helpful, can be cultivated and used as a coping resource to act as a buffer to the physiological effects of stress (Lazarus & Folkman, 1984). The neuroendocrine response to the stress of labour has been explored. For example, studies have found a relationship between acute maternal

anxiety and disturbances in the progress of labour and fetal heart rate patterns possibly due to an increase in circulating catecholamines (Lederman, Lederman, Work & McCann, 1981; Lederman, Lederman, Work & McCann, 1985). In animal studies, increased catecholamine levels resulted in decreased uterine and placental blood flow and subsequent fetal distress (Adamsons, Mueller-Heubach, & Myer, 1971; Myers, 1975). It has been suggested that support during labour may act as a buffer by reducing maternal anxiety which in turn decreases circulating catecholamines and facilitates uterine contractility and blood flow (Kennell et al., 1991).

The premise, underlying the current study, is that the support, provided by nurses to women during labour and delivery, is a resource that could assist them to cope with the experience of childbirth. Through the provision of support such as reassurance, praise and information-sharing, the nurse may reduce anxiety and instil positive feelings of self-worth and self-confidence. These positive beliefs, in turn, may influence whether the woman perceives the stress as a threat or a challenge. Lack of nursing support can be considered a coping constraint in that options are minimized to help women cope with the stress. This study seeks to determine how much support is being provided by nurses to labouring women and what factors facilitate or inhibit nurses in the provision of support.

Review of the Literature

The literature review is divided into four sections. The first part examines the evolution of the childbirth experience from the home to hospital setting. A historical

reflection of the effect that hospitalization has had on the childbirth experience provides context for labour and delivery in some acute care facilities today. The remaining three sections examine women's perceptions of supportive care needs; the effect of support on childbirth outcomes; and the prevalence of nursing support in labour and delivery.

"Capturing" the Childbirth Experience

History has revealed that women traditionally gave birth at home attended by female midwives. The transition from home to hospital birth was the result of a variety of factors. After a long yet precarious existence, midwifery was slowly being phased out in North America. The invasion of physicians in obstetrics between 1900 and 1930 necessitated the elimination of their opponent (Laforce, 1990). In this way, medicine gained control over the domain of childbirth.

Prior to the advent of sulpha and penicillin, maternal and infant mortality rates were high, most often the result of puerperal sepsis. The hospital, as promised by physicians, could provide a safe environment for women to deliver (Leavitt, 1986).

Few areas of medicine had seen the surge of new technology and scientific methods that obstetrics had seen in the inter-war period (1918-1939). Women no longer had to labour in pain as they could be rendered unconscious with "twilight sleep"--a mixture of scopolamine and morphine analgesia. As described in medical journals, this intervention promised "painless labour, better milk secretion, fewer cervical and perineal lacerations, fewer forceps deliveries, less strain on the heart, and a better race for future generations since upper-class women would be more likely to have babies if they could

have them painlessly." (Leavitt, 1986, p. 133). Caesarean sections (a growing operative procedure), aseptic technique, forceps, and devices to stop postpartum hemorrhage and induce labour were all "promises" to render childbirth less dangerous for women and lured them to the hospital setting. "The knowledge gap produced when medicine became increasingly technical put the uninformed in awe of medical science" and brought women who could afford it to the hospital (Leavitt, 1986, p. 174).

Leavitt (1986) also suggests that mobility and urbanization helped to ensure this shift from home to hospital birth by rendering women physically and psychologically isolated. Many women no longer had the social support they needed when confined at home. The number of hospitals grew and word spread between mothers that the worries of the household could be left behind when one went in to the hospital to deliver. In this sense, women themselves played a role in bringing childbirth to the hospital setting.

Despite promises for a safer delivery, maternal mortality remained high. In fact, maternal deaths in hospital deliveries increased in the early 1930s and were higher than deliveries done at home by lay midwives--5.3 per 1,000 births versus 2.3 per 1,000 births respectively (Oppenheimer, 1990). This was, in part, due to the lack of understanding of nosocomial infection at that time. As well, the role that obstetrical intervention, both surgical and medical, played in the morbidity and mortality of women at that time cannot be underestimated (Laforce, 1990).

The physical transfer of childbirth from home to hospital meant that physicians had ultimate control over the labour and delivery process in exchange for the promise of a safer delivery. Women left tradition and familiarity of their own homes to deliver in

a sterile, operating room environment where contact with family, even with the husband, was severely restricted. Husbands were permitted to visit only intermittently throughout labour and they were forbidden to attend the births. This policy continued well into the 1950s.

Physicians not only had control over who attended the birth, but what interventions would be done, when and by whom. An excerpt from a 1937 obstetrical text illustrates this point: "... The nurse watches the doctor for instructions as to whether he wishes more or less of the anesthetic given." (DeLee, & Carmon, 1937, p. 162). A woman was no longer a mother having a baby in control of the labour and delivery process, she was a *patient* being subjected to medical and surgical intervention for what once was considered a very "natural" process. Her genital area was now considered to be a "field of operation" and thus required shaving and frequent antiseptic washing (DeLee & Carmon, 1937, p. 175).

Surgical preparation with the onset of labour continued to objectify women. As Dr. DeLee (1937) declared, following his instructions on the care of women during childbirth:

It must now be plain to the nurse that an obstetric case is a surgical case, that labour is a surgical operation, and that the obstetric surgeon must prepare and care for it as does the general surgeon for his operations. ... And the nurse is to help him do all this! Truly a noble task. [p. 164-165]

The nurse's role in labour and delivery traditionally focused on assisting physicians to reduce maternal and fetal morbidity by monitoring the progress of labour and intervening as the physician deemed necessary. Today the birth experience in many urban institutions includes modern devices, such as electronic fetal monitors that document fetal heart and uterine activity and oxytocic drugs to induce labour. A question remains: Is this focus on the physiological parameters of childbirth meeting the needs of women during labour and delivery?.

Women's Perceptions of Supportive Care Needs

Childbirth is a highly significant experience for a woman. A study by Simkin, (1991) suggested that women, 15 to 20 years after delivery, have very vivid memories of the experience and that interactions with health care providers had a major long-term influence over how they felt about the birth experience. Nurses, in particular, were vividly remembered by many women.

Several studies have examined what nursing measures are considered important by women in helping them to cope with labour and delivery (Bryanton et al., 1994; Callister, 1993; Hutton, 1985; Field, 1987; Kintz, 1987; MacKey & Stepan, 1994; Shields, 1978). Hutton (1985) interviewed 50 women who had desired a non-medicated birth--21 of whom had additional support of a midwife during labour and delivery while 29 received routine nursing care. The purpose of this study was to examine the relationship among human support, medication during childbirth and maternal satisfaction with the birth experience. The main limitation of this study was the non-random

selection of participants. Women were selected based on whether or not they had chosen to have an additional support person during childbirth. Findings indicated that women who had the support of a midwife during labour were significantly less likely to use analgesia ($p < .01$). Women who had used analgesia, scored significantly lower ($p < .01$) in relation to perceived control (Labour Agency Scale: alpha reliability coefficient of .93) and maternal childbirth satisfaction (Birth Experience Rating scale: alpha reliability coefficient of .89). During the interview, women were asked to list aspects of care that they felt were most helpful and those they found least helpful during their birth experience. Content analysis revealed the following helpful aspects: emotional support (e.g., encouragement, reassurance); physical care (e.g., help with positioning, vaginal examinations to reveal progress, etc.); education (e.g., providing information, coaching); personal attributes of caregiver (e.g., competence, knowledge, attentiveness); the caregiver being present; being treated as an individual; and advocacy (e.g., the nurse or midwife communicating among other caregivers). Least helpful aspects included: lack of support; lack of continuity in care; inadequate provision of information; and restrictions imposed such as the inability to use birthing rooms when desired instead of delivery rooms.

Shields (1978) interviewed 80 postpartum women to examine their perceptions of nursing care they had received during labour and delivery. Using an interview questionnaire in the hospital during the postpartum period, women were asked to describe what nurses had done for them during labour and delivery, what was the most helpful nursing action they had received and what was not helpful about the nursing care they

had received. Women were also asked how many nurses had cared for them during labour and delivery, how much time the nurses remained with them and how much time they had wanted nurses to remain with them. Nursing care that women reported receiving was categorized into supportive care, physical care and medications as well as combinations of these. Over half of the women identified supportive care to be the most helpful measures provided by the nurses and they were ranked as follows: the nurse being present; explaining procedures and teaching breathing and pushing techniques; reassurance; comfort and concern; and conversing with the women. Women perceived, as unhelpful, nursing care provided in a "nasty" or "bossy" way. Other factors considered not helpful to the labouring woman included the nurse being absent and lack of attention to physical comfort such as changing soiled incontinence pads.

In Field's (1987) qualitative study, content analysis of interview data of 44 postpartum couples was done to determine what factors contributed to the couples' satisfaction and dissatisfaction with their childbirth experience. Interviews initially were conducted in hospital 1 to 3 days after delivery and then at home 15 to 25 days after delivery. Most of the 44 couples rated highly their satisfaction with nursing care in labour and delivery. Key themes evolved relating to positive satisfaction: the provision of personalized care; being treated with respect and the nurse being friendly; providing encouragement and praise; helping women feel at ease; providing distraction; advocating for the parents; and the nurses' ability to listen and respect mothers' opinions. Detractors from satisfaction included: failure to treat husbands politely; failure to provide individualized care; and lack of respect for the parents.

MacKey and Stepan (1994), using open-ended questions, interviewed 61 multiparous postpartum women who had experienced healthy, uneventful pregnancies, labours and deliveries. Verbatim transcripts of the tapes were analyzed to develop coding categories and to identify themes among the responses. Findings revealed that 90% of the women evaluated their nurses favourably. Their positive perceptions of the nurses were based on what was categorized as the nurses "positive participation" such as hand holding, massage, coaching and so on; their acceptance of the woman as a unique human being and allowing her to shape her own experience; information giving; encouragement; presence; and competence of the nurse. Of interest in this study is that these women described the importance of nurses being present "only when needed" (MacKey and Stepan, 1994, p. 416). Unfavourable evaluations of the nurses were described by 10% of the informants and were based upon: the nurses' lack of acceptance of the women's wishes; the lack of compassion and warmth of the nurses; lack of information obtained from nurses regarding progress of labour; and the nurse not being present when the labouring woman needed her.

Callister's (1993) qualitative study builds on these findings. Semi-structured interviews were conducted with a convenience sample of 26 primiparae within a two week period after childbirth. The interview guide for this study was developed on the basis of expert review and a pilot study. Findings revealed that mothers spoke of the comforting presence of the nurse and described the importance of the nurse providing reassurance and encouragement. Nursing behaviours providing informational and physical support were also described as helpful by the mothers.

In two descriptive studies (Bryanton et al., 1994; Kintz, 1987), participants were presented with a list of nursing support behaviours and were asked to rate them on a 5-point Likert scale as to which behaviours were most helpful in assisting them to cope with labour. The questionnaire also contained an open-ended question asking women to describe helpful behaviours not listed. An alpha reliability of .93 (Kintz, 1987) and .99 (Bryanton et al., 1994) were obtained for the instruments used in these studies. The results revealed that all nursing behaviours were seen as helpful. As in Field's (1987) study, important nursing behaviours included making the mother feel cared about as an individual; praising her; coaching her; and treating her with respect. Providing physical comfort had low ratings in both studies.

Women in each of the studies have described the importance of the nurse in the childbirth experience. Most of the women wanted the nurse present and identified important nursing care such as the provision of encouragement, praise, information about procedures and the progress of labour and helping with breathing and pushing techniques. These helpful nursing measures identified are the components of supportive care operationalized for this study. Consistent with Lazarus & Folkman's (1984) definition of supportive care, the manner with which the nurses provided this care influenced whether women perceived the nurses to be helpful or not.

Effects of Support on Childbirth Outcomes

Labouring women have described nursing support as being an important part of the childbirth experience. Research studies have shown that support can positively

influence the physiological and psychological outcomes of labour and delivery. For example, randomized control trials (Hodnett & Osborn, 1989; Kennell et al., 1991; Sosa et al., 1980) have been conducted to determine the effect of continuous intrapartum support on childbirth outcomes. Women were randomly allocated to either the experimental group, in which one to one continuous support was provided during labour by a support person referred to as a "doula" as well as routine care, or a control group which consisted of routine hospital care alone. Although these studies did not define routine care, from the researcher's clinical experience, this would include: intermittent maternal and fetal assessment (e.g., assessing fetal heart and maternal vital signs; vaginal examinations, etc.); assisting physicians with procedures; carrying out medical orders; and assisting women and their partners to cope with the stress of labour and delivery. The support provided by "doulas" is clearly described in all but one study (Hemminki, Virta, Koponen, Malin, Kojo-Austin & Tuimala, 1990). It included being present on a continuous basis, touching and providing praise, reassurance and encouragement, information giving and coaching with relaxation and breathing.

Sosa et al. (1980), in a Guatemalan study of 40 primiparae with uncomplicated labour and deliveries, found a significant reduction in length of labour ($p < .001$) for women in the experimental group who had continuous support throughout labour provided by an untrained lay person. This study also reported that mothers in the supported group stroked ($p < .001$), smiled at ($p < .009$), and talked to their infants ($p < .002$) more after delivery. Unexpected findings included a significantly large number of intrapartum complications such as cesarean section and meconium staining of

amniotic fluid ($p < .001$) among women of the control group who did not receive continuous support. This study had sampling problems. A high proportion of post-randomization exclusions due to these intrapartum complications required the investigators to admit more women to the control group in order to obtain a reasonable (but small) final sample to measure length of labour and maternal behavioral effects. As subjects did not have an equal opportunity of being allocated to either the experimental or control groups, a selection bias may have been introduced in this study threatening internal validity.

A subsequent study was conducted in the same centre under the same conditions with a larger sample size (Klaus et al., 1986). The significant findings in this study were that the supported group had a lower cesarean section rate ($p < .01$) and used less oxytocic drugs to induce labour ($p < .001$). As well, when controlling for variables that could effect labour length such as initial dilatation as well as the use of forceps and oxytocic drugs, those women who received continuous support had a significantly shorter duration of labour (7.7 hours versus 15.5 hours in the control group; $p < .001$). This study confirmed and extended the results of the first.

Similar results to the Guatemala study were reported in a randomized control trial of 616 primiparous women conducted by Kennell et al. (1991) in Houston, Texas. The conditions under which this study was conducted were similar to Guatemala except that an element of control was provided by standardizing indications for specific obstetrical procedures prior to the study. Also, support was provided by a woman who had received training in labour support not by a lay person. A significant reduction in the

cesarean section rate ($p = .004$) and forceps deliveries ($p = .0006$) was reported in the supported group versus the control group. Among women who had spontaneous vaginal deliveries, less women in the supported group than the control group received epidural anaesthesia ($p < .0001$) or oxytocic drugs ($p < .0001$). There was also a decrease in the incidence of maternal fever in the supported group ($p = .002$) and newborns of mothers in the control group required a longer hospital stay for sepsis evaluation due to the existence of maternal fever ($p = .0005$).

It is not reasonable to suggest that the findings of these studies are generalizable to Canadian labour and delivery units. The labour unit in the Guatemalan hospital was extremely crowded (50-60 deliveries/24 hours) and provided little privacy. Also, cultural and socioeconomic characteristics of the women, lack of childbirth preparation and accompaniment during labour and possible differences in routine intrapartum practices of health care providers must be considered.

Hodnett and Osborn's (1989) clinical trial of 103 women in a Toronto teaching hospital found that women in the experimental group, who were continuously supported by a "monitrice" during labour, were significantly less likely to use pain medication ($p < .02$) or receive episiotomies ($p < .01$). As well, women who did not receive any medication in the intrapartum period had shorter labours ($p = .0004$) and reported higher levels of perceived control ($p < .0001$) as measured by the Labour Agency Scale. This scale was developed by Hodnett to measure perceived control (alpha reliability coefficient of .92). Of interest in this study is that, of the 103 women participating, only 8 (6 experimental and 2 control) laboured and gave birth without intervention of any kind.

Similar results were reported in Cogan and Spinnato's (1988) study of women in premature labour who were randomly allocated to either the experimental group (receiving continuous support during labour and delivery by a trained personal as well as routine hospital care; $n=14$) or the control group (receiving routine hospital care; $n=11$). Findings revealed: less frequent use of pethidine for pain control (experimental=43%; control=82%; $p = .05$); improved neonatal well-being determined by higher apgar scores ($p = .04$); and each phase of labour was shorter for women with continuous labour support ($p < .01$).

Unlike the Guatemalan and Houston studies, the trials by Cogan & Spinnato (1988) and Hodnett & Osborn (1989) did not reveal the dramatic benefits of support in reducing cesarean section rates. This is possibly due to the improved conditions in which the women were labouring in that they had labour partners, childbirth preparation and enjoyed privacy and relative calm on the labour unit.

A clinical trial of 189 women on a labour unit in South Africa (reported in two articles: Hofmeyr et al., 1991; Wolman et al., 1993) also found a reduction in analgesic use (pethidine and hydroxyzine) ($p < .03$) by the supported group. The most remarkable findings of this study are the apparent psychological effects of supportive care. For example, labour pain of supported women (rated within 24 hours of delivery using the McGill Pain Rating Index for labour pain) was one-half that of the control group ($p < .0001$) and more women in the supported group felt that they had coped well during childbirth ($p < .00001$) and had lower anxiety scores ($p < .00001$). At six weeks postpartum, supported women were significantly more likely to be exclusively

breastfeeding at flexible intervals ($p < .01$) and had significantly lower anxiety (Spielberger State-Trait Anxiety Scale; $p < .0001$) and postpartum depression scores (Pitt Depression Inventory; $p < .0001$). Higher self-esteem scores ($p < .0001$), as measured by the Coopersmith Self-Esteem Inventory, were reported in the supported group (Wolman et al., 1993).

Hemminki's (1990) trials in Finland, examining the effect of support in labour and delivery, reported shorter times from hospital admission to birth for the supported group ($p < .05$). As well, more mothers in the unsupported group experienced cessation of regular contractions after admission ($p < .001$). However, support had no significant effect on maternal or fetal outcome. Lack of cooperation of midwifery students providing support in the study and the non-continuous nature of the support may have contributed to the results. For example, these students did not consider the provision of support to be a professional task and felt that it was better done by fathers. This attitude may have influenced the manner in which the support was provided and also resulted in a smaller than anticipated sample size as investigators stopped the study due to the resistance of these students.

A retrospective cohort study in San Francisco of 4,607 "low risk" women analyzed the effect of midwives providing one-to-one care for women throughout labour versus women delivered by physicians with routine nursing care (Butler, Abrams, Parker, Roberts & Laros, 1993). A chart audit revealed a significant reduction in cesarean rates

($p < .02$) for clients cared for by midwives. Clients of midwives were also 50% less likely to be diagnosed with fetal distress, 25% less likely to have labour anomalies such as prolonged labour, or use epidural anaesthesia ($p < .001$).

These research studies have provided evidence of the importance of continuous support during childbirth in improving maternal and fetal outcomes. In several studies, childbearing women themselves have described this support as being a very significant aspect of their nursing care during labour and delivery. Given the value of this support, it is important to determine if it is currently being provided by nurses on labour and delivery units.

Prevalence of Nursing Support in Labour and Delivery

In Hodnett and Osborn's (1989) trial, conducted at a Toronto teaching hospital, 103 postpartum women were asked to complete a questionnaire indicating which of the 20 aspects of labour support (consisting of elements of physical, emotional, informational/instructional support and advocacy) they had received during labour and by whom it had been provided. Fewer than one-third of the women in the control group reported receiving any physical comfort measures or advocacy actions by nurses. Women who were continuously supported by a "monitrice" (labour support person) during labour identified 15.1 supportive actions while the average number of supportive actions by a nurse for a control subject who received routine hospital care was 8.6.

McNiven (1991) conducted a work sampling study of 18 labour and delivery nurses in a teaching hospital in Toronto. Using this method, nurses were observed at

randomly selected observation times and the activity that each nurse was doing at that time was recorded. A total of 616 observations were made on four selected day shifts, representing 160% of the sample size required. Activities were categorized as either "supportive care" or "other". Each of these two main categories were comprised of subcategories of nursing activities. Support was operationalized for this study based on findings of a qualitative study (Hutton, 1985) that examined the types of nursing activities perceived by labouring women to be most helpful to them during labour. Findings of McNiven's (1991) study suggested that 9.9% of nurses' time was spent providing supportive care (95% confidence interval: 7.5% to 12%). Providing instruction and information to labouring women accounted for the majority of this time spent in supportive care (41 of the 616 observations). Emotional support, including reassurance and praise, accounted for 16 of the 616 observations made. Meanwhile, physical support and advocacy actions on the part of the nurse were observed only twice. The majority of observations were related to the provision of "other" care which was found to be the following: direct care such as physical assessment (38.9%); indirect care such as charting out of the room, notifying physicians, etc. (42.5%); meal breaks (8.6%).

The results of McNiven's (1991) study suggested that minimal support was provided by nurses to labouring women. However, as this study was conducted on one labour and delivery unit during four selected days, results cannot be generalized. As well, interrater reliability of the tool needs to be established. Hence, further studies examining the amount of support being provided on labour and delivery units is needed.

Summary

The historical reflection presented provided insight into the transformation of the birth experience from home to hospital. At home, some women had midwives at their side providing encouragement and reassurance in familiar surroundings. Once in hospital, many women were removed from the support of their families and friends and childbirth became medicalized. Nurses assumed the role of physician's assistant in their attempt to reduce maternal and infant mortality. Birth went from a very natural process to one exemplified by high intervention and technology.

The descriptive studies conducted, examining women's perceptions of their needs during labour and delivery, all consistently reported supportive care as the most important nursing measures in assisting the women to cope with labour and delivery. These included such measures as being present with the woman, offering praise, reassurance and encouragement, coaching with breathing and relaxation and so on.

The randomized control trials provided evidence of the beneficial effects of continuous supportive care during labour and delivery. Results varied depending on the setting in which the study was conducted. In the more "chaotic" environments in Guatemala and Houston, such effects as a reduction in caesarean section rate and instrumental delivery were reported. In studies where the labour and delivery units provided relative calm and privacy, results revealed such benefits as a reduction in the use of pain medication, less episiotomies and higher levels of perceived control.

Despite the benefits of intrapartum support and its perceived importance by labouring women, there is some evidence to suggest that little support is being provided

by nurses during labour and delivery (Hodnett & Osborn, 1989; McNiven, 1991). However, Hodnett and Osborn's (1989) study provided crude estimates of the amount of support received by labouring women while McNiven's (1991) study was conducted on one labour delivery unit during four selected day shifts. Further supportive care research is needed to enhance generalizability of findings. As well, no studies have examined the nurses' perceptions related to supportive care in labour and delivery or the factors that facilitate or inhibit the provision of nursing support. The current study is designed to address this paucity in supportive care research.

Chapter 3

Methodology

Study Design

To reiterate, objectives of this study were three-fold: to describe the amount of nursing support being provided to women in labour; to describe the perceptions of labour and delivery nurses regarding supportive care; and to describe the factor(s) that nurses perceive facilitate or inhibit the provision of nursing support during childbirth.

The design of this study was descriptive due to the paucity of research examining the provision of nursing support in labour and delivery. A check-list observation guide was used to determine caseroom nurses' supportive care activities in one major acute care hospital in Montreal over a three week period in October 1995. One of the potential validity threats to using work sampling is the Hawthorne effect. If the participants were aware that their supportive care was being measured, one would assume that their behaviour would change. This could bias estimates of the proportion of time spent in direct supportive care activities for labouring women. McNiven's (1991) work sampling study, from which the observational check-list was derived, suggested a limited Hawthorne effect: only minimal supportive care was provided despite the presence of the data collector and the nurses' knowledge of the supportive care focus of the study.

However, in an attempt to address the potential for bias resulting from the Hawthorne effect, the researcher did not reveal the supportive care focus to the

participants in this study. Rather, the purpose was described in terms of assessment of general nursing activity. The unit manager was aware of the nature of the study and maintained discretion throughout the data collection process. As well, it is likely that the instantaneous and random nature of the observations helped to minimize any bias because nurses had minimal time to change their behaviour when the researcher entered the room (Smith, 1978).

In addition, interviews were conducted with random selection of the nurses to elicit their perceptions of the supportive care that they provide and the factors that affect its provision. These interviews were conducted following the work sampling portion of the study in order to prevent the supportive care focus of the interviews from influencing the type of care provided.

Setting

The labour and delivery unit of an acute care teaching hospital in Montreal was the setting for this study. This unit serves clients from a variety of different cultural backgrounds including families from Somalia, Vietnam and South America. The unit is categorized as a level II perinatal care unit based on the national guidelines for maternity care (National Health and Welfare, 1988). This includes maternity patients with selected high-risk problems such as pre-term labour not less than 32 weeks gestation, suspected neonatal sepsis, and other identifiable problems that do not require more specialized professional expertise provided at a level III maternity centre (National Health and Welfare, 1988). The statistics related to intervention on this unit are as follows: total

cesarian section rate: 19.2%; epidural rate for vaginal deliveries: 66.6%; percentage of women (vaginal deliveries) with electronic fetal monitoring: 92.1%; induction rate¹ (artificial methods to induce labour): 29.5%; use of oxytocic drugs to hasten labour (stimulation): 19.7%; episiotomy rate: 22.1%; and forceps rate: 4.9%. Of the deliveries, 40% of the women were primiparae and 60% were multiparae. These statistics were obtained for 3 months (November 1, 1995 through February 1, 1996) as those were the only recent statistics accessible to the researcher. However, these values have been compared with those of 1994 and are comparable. The unit is staffed with the intent to provide a 1:1 nurse/client ratio during active labour with seven nurses working on the average day shift, seven on evenings and six on nights. The labour and delivery unit for this study has nine labour rooms, three birthing rooms and three delivery rooms. The labour rooms are situated along one side of the unit and the delivery rooms along the other. Women's charts and medication are kept in the centre of the unit at a nursing station. The satellite fetal heart monitors are also located here. Following delivery, the woman remains with her baby for two hours in a room adjacent to the nursing station at which time she is transferred to the postpartum unit. Along the far corridor are the three delivery rooms where, according to the unit manager, approximately 50% of the deliveries are done. As opposed to the birthing rooms, women having their babies in delivery rooms must be transferred there by nurses when fully dilated.

¹ This includes inductions that are medically indicated for post-term pregnancy, gestational diabetes, pregnancy induced hypertension, etc.

All of the interviews with the nurses were conducted in a small private room on the unit. The taped interviews were completed at the nurses' convenience during their scheduled shifts on both days and evenings. Prior arrangement with the nursing unit manager ensured that, while the nurse was being interviewed, her patient assignment was being covered by another nurse on the unit.

Sample

Work Sampling

In order to meet objective # 1, to examine the amount of supportive care being provided by nurses, the sample consisted of the observation times that were randomly selected from all possible times during the six non-consecutive day shifts (Monday through Friday) over three weeks in October, 1995.

The observation times for this study were selected from a table of random numbers and allowed a minimum of nine minutes and no more than 20 minutes between observational periods. From the first pilot study, it was determined that this was an adequate time frame to complete an observational tour of the nurses on this unit. If a time was randomly selected that was less than nine minutes or more than 20 minutes from the previous time selected, it was discarded and the next time was selected. The unit of analysis was the exact activity that each nurse was doing at the time of observation.

Sample size for objective # 1 was statistically determined using the following formula (Smith, 1978):

$$N = \frac{1.96^2}{a^2} p (1 - p) \quad 95\% \text{ confidence level}$$

Where p = proportion of direct supportive care = 0.5

a = accuracy = 0.05 where accuracy is the width of the interval tolerable around the estimate of the proportion.

Based on this formula, it was concluded that a total of 384 observations would be required. The proportion of direct supportive care is an estimate of how much supportive care will be provided. This number can be taken from findings of previous studies or, if no previous research has been done, an estimate can be made. In consultation with an epidemiologist, it was decided to use a proportion of 0.5 rather than the proportion of supportive care found by McNiven (1991), that is, 0.1, in order to maintain a generous sample size. (Substituting a proportion of 0.1 in the formula yields a smaller sample size of 138 observations.) Estimating that 3 to 8 nurses meeting the inclusion criteria would be observed per day shift, it was concluded that 5 shifts with a minimum of 15 minute observation intervals would be required. However, due to the fluctuation in patient census typical of the labour and delivery area, one more shift was needed to obtain an adequate sample size. That is, after five shifts the researcher had not obtained the required number of observations ($n=384$) because there had been only a few women in labour for nurses to obtain a patient assignment. Data collection over

six non-consecutive day shifts provided a total of 404 observations. An epidemiologist was consulted prior to beginning data collection to ensure that the sample size was sufficient to meet the objectives and that randomization was satisfactory.

Observations were made of 12 nurses who had met the following inclusion criteria:

- 1) registered nurses working on the labour and delivery unit;
- 2) full- or part-time employees, not relief nurses;
- 3) had a patient assignment at the time of data collection;
- 4) gave consent to participate in the study.

Of the nurses approached to participate in the study, only one nurse refused. The number of years of nursing experience was as follows: a) 2 years or less (n=1); b) 2 to 5 years (n=2); c) 6 to 10 years (n=4); d) more than 10 years (n=5). The length of time that these nurses had worked in the labour and delivery area was: a) 2 years or less (n=4); b) 2 to 5 years (n=2); c) 6 to 10 years (n=4); d) more than 10 years (n=2). All of the nurses had worked in other clinical areas such as medicine, surgery and intensive care. Eight of the nurses had received their nursing education from a college program, two from a hospital training program, two from a university program and three had returned to obtain a post-R.N. bachelor degree in nursing.

Interviews

Objectives # 2 and # 3 for this study were to describe the perceptions of labour and delivery nurses regarding supportive care and to describe the factor(s) that nurses perceive facilitate or inhibit the provision of nursing support during childbirth. In order to minimize researcher bias in sample selection, probability sampling was used (Burns & Grove, 1991). All 12 of the nurses participating in the work sampling portion of the study possessed the information required by the researcher to answer the second and third research objectives. In consultation with a qualitative methodologist familiar with the purpose of this study, it was determined that data obtained from interviewing six of these nurses would be sufficient to meet the research objectives. Therefore, informants for the interviews were selected from all nurses who participated in the work sampling portion of the study using a small table of random numbers. All six of the nurses selected agreed to participate in the interviews.

Measurement and Data Collection

Work Sampling

The work sampling technique has been shown to be a reliable observational method of estimating the proportion of time nurses spend in various activities in a variety of clinical settings (Mayer, 1992; McNiven, 1991; Prescott, Phillips, Ryan, Thomson, 1991; Quist, 1992; Hagerty, Chang, Spengler, 1985). The results of McNiven's (1991) study suggested that it was a reliable method for measuring supportive nursing care in

the labour and delivery setting. It was considered to be a more reliable and accurate measure than self reports and less expensive and obtrusive than continuous observation over a prolonged period.

Work sampling is based on the laws of probability and the normal distribution as an approximation for the binomial distribution (Smith, 1978). Each activity that is observed is category exclusive, that is, it can be recorded in only one of two main categories, either as "direct supportive care" or "other". In this study, it was the probability of occurrence of supportive care activities that was of primary interest. The quality of the supportive activity was not measured. Randomness in selecting the observation times ensures that each moment within the study period has an equal probability of being selected and is designed to enhance representativeness of the sample (Smith, 1978).

At each randomly selected time, the researcher entered the labour and delivery unit and located each nurse participating in the study. For ease of identification and to ensure anonymity, nurses participating wore identification tags on their uniforms with their code number on it. The nurses were instantaneously observed and the activity that they were engaged in was recorded. All participating nurses with a patient assignment on the days of observation were observed. The activity was recorded on a work sampling data collection tool that was developed for a previous study (McNiven, 1991). (Appendix B).

According to Smith (1978), in order for the study to be valid, the work sampling activity elements must be:

1. Easily observable--in order to keep the obtrusiveness of the data collector to a minimum.
2. Mutually exclusive--that is, each observed action, must be classifiable in only one of the categories.
3. Collectively exhaustive--that is, each observed action must be classifiable and must correspond to one of the activity elements.
4. Reasonable in number--there must be five or more observations of an activity category due to the statistical approximation used to compute estimates of precision for work sampling studies.

The list of work sampling activities was borrowed with permission from McNiven's (1991) study (see Appendix A). The definition of support was operationalized for McNiven's (1991) study based on qualitative research that examined the types of nursing care that women perceived to be supportive during labour and delivery (Hutton, 1985).

Pilot Test # 1

Prior to beginning data collection, an initial pilot-test was conducted during an 8-hour day shift to assess the applicability of the activity list to the selected labour and delivery unit. Minor changes that were made to the list included: 1) an increase in the

examples describing certain activities that could be included in each subcategory to enhance clarity needed to test inter-rater reliability; 2) the inclusion of the care of mother and baby following delivery; 3) and the addition of activities in the "other" category that nurses were observed to be doing during the pilot study which were not included in the tool. This pilot was important to ensure that all activities were mutually exclusive and collectively exhaustive (Smith, 1978). It was also important for the researcher to develop and refine skills with the tool and with the observational method.

Pilot Test # 2

A second pilot test was conducted utilizing the revisions to the work sampling tool. The purpose of this pilot was to determine inter-rater reliability of the data collection tool. Data obtained from the second pilot-test were included in the analysis as no changes were made to the work sampling instrument during or subsequent to this shift.

Data Collection for Main Study

Data collection for the observation portion of the study was divided over a three-week period to reduce researcher fatigue which could have affected reliability of the findings. The results of random selection of days produced the following schedule: Week # 1: 1 day; Week # 2: 2 days; Week # 3: 3 days. All week-days from Monday to Friday were represented.

Due to the nature of support, there is a potential for overlap of some activity elements. For example, it is possible for the nurse to be providing reassurance while administering a medication. If an overlap occurred, and a supportive activity was observed, this activity was used in the analysis as it was the amount of supportive care being provided that was of primary interest. If on the other hand, the two activities occurring were not of a supportive nature, the first activity observed was used. If there was uncertainty regarding the nature of the activity, the nurse was asked to explain the nature of her actions.

Interviews

After completion of the work sampling portion of the study, interviews were used to collect data to elicit the nurses' perceptions of supportive care and factors that influence its provision. As there was a paucity of literature regarding nurses' perceptions of supportive care, interviewing was considered to be an effective way of obtaining this information (Polit & Hungler, 1991). Since the intent was to elicit nurses' perceptions, semi-structured interviews and open-ended questions were the methods chosen to obtain that perspective. It was anticipated that the information obtained in these interviews would supplement the findings of the work sampling portion of the study. Strauss & Corbin (1990) confirm that it is appropriate to use qualitative data, such as that obtained from open-ended questions, to illustrate or clarify quantitatively derived findings, such as those from the work sampling technique.

Permission was obtained from the unit manager to conduct the interviews during the nurses' working hours. All six of the nurses agreed to participate and each informant was interviewed once. Consent was obtained from each nurse prior to the interviews.

The interview guide used in this study is presented in Appendix C. All interviews were tape recorded and ranged from 30 to 50 minutes in length. Field notes were dictated into the recorder directly after each interview. Each interview and field note was transcribed verbatim using the Word Perfect® word processing package. Demographic data identifying nursing experience and educational background were obtained from all nurses participating in the study (Appendix D).

Reliability

Work Sampling

Reliability in quantitative research is concerned with how consistently the measurement technique measures the concept of interest. "Inter-rater reliability values need to be reported in any study in which observational data are collected ..." (Burns & Grove, 1993. p. 340). Inter-rater reliability of the work sampling instrument resulted in a percentage agreement of 90% across all activities. Discrepancies that occurred were within the "supportive care" and the "other" categories. For example, the nurse was holding the woman's hand while helping her with breathing techniques or charting while taking report. When activities were dichotomized as "supportive care" and "other", a Kappa of 1 was obtained (Brennan & Hays, 1992). This result contributes to the reliability of work sampling as a method of data collection.

Data collectors for pilot study # 2 included the researcher and a registered nurse previously unknown to the researcher but who had knowledge of the instrument and the work sampling technique for a study recently done in Montreal (results not yet published). Prior to starting data collection, this registered nurse was oriented to the unit and revisions that had been made to the instrument were reviewed with her. The data collected by the research assistant in pilot study # 2 were analyzed only for interrater purposes.

Data collection for the main study was done by the researcher who has extensive experience as a labour and delivery nurse and as a teacher in maternal-child nursing. The structured nature of the work sampling categories and the instantaneous nature of the observations helped to reduce the subjectivity of observations. Because all of the observations for the main study were conducted by one person, any bias in the observer would have been equally distributed throughout the sample.

The possibility of observer fatigue was considered. Scherubel & Minnick (1994) found that data collectors were able to observe 12 staff members at ten minute intervals for six hours before fatigue interfered with their ability to collect data. For the current study, one to five nurses were observed at a minimum of 9 minute and maximum of 20 minute intervals for a period of eight hours and the six day shifts were spread over a three-week period. Frequent breaks during the data collection, of five to ten minutes, helped to minimize fatigue and refocus the observer.

Interviews

In contrast to quantitative methods, it is not a concern of qualitative inquiry to obtain consistent findings from one informant to another. As Morse & Field (1995) suggest: "In field research, in which one assumes multiple realities, the notion of reliability is no longer as relevant." (p. 144). For this study, the researcher sought to obtain the unique views of each informant regarding supportive care. The concern, using qualitative data collection and analysis techniques, is with the trustworthiness of the data and results (Morse & Field, 1995). This will be discussed under validity.

Validity

Work Sampling

Content-related validity refers to "the extent to which the method of measurement includes all the major elements relevant to the construct being measured." (Burns & Grove, 1993, p. 351). Evidence can be obtained through the literature, content experts and representatives of the relevant population. The supportive care categories, that is physical, emotional, instructional/informational and advocacy, were derived from a qualitative study in which women were interviewed in the postpartum period to determine what aspects of nursing care were most helpful to them during labour (Hutton, 1985). Findings of several research studies examining women's perceptions of the helpfulness of nursing measures also substantiate the categories (Shields, 1978; Field, 1987; Callister, 1993; Mackey & Stepan, 1994; Bryanton et al., 1994). Supportive care has been operationalized using these categories for two other studies (Hodnett & Osborn,

1989; McNiven, 1991). As well, the supportive care activities included in this study are congruent with the support provided in the research trials examining the effect of support on childbirth outcomes (Sosa et al., 1980; Hodnett & Osborn, 1989) and with Lazarus & Folkman's (1984) operational definition of support.

The activity categories for the work sampling portion of the study were reviewed by two expert clinical researchers in labour and delivery who were familiar with the concept of support in labour and delivery and with the purpose of this study. They concurred that the activity categories included in the work sampling tool were representative of nursing care provided to women during labour and delivery.

Interviews

The questions developed for the interviews were reviewed by an expert in labour and delivery and pretested in two interviews with labour and delivery nurses from different hospitals. These interviews were audiotaped and transcribed verbatim and the responses were examined by the researcher and her advisor to ensure that relevant information was being obtained (Morse & Field, 1995). Questions were revised as necessary in collaboration with the qualitative advisor after a review of the two pilot interviews. Standard probes were added and reviewed with the advisor to ensure that consistency in questioning was maintained. Data from the pilot interviews were not used in the analysis. As well, the researcher identified and was conscious of the influence that

observations made of nurses in the work sampling portion of the study might have had on the questioning process and data analysis of nurses who participated in the interviews (LoBiondo-Wood & Haber, 1990).

The researcher's advisors examined the data obtained in the semi-structured interviews to verify the categories developed. To enhance rigor, the researcher had wanted to provide an independent qualitative expert with unmarked copies of transcripts of two interviews as well as a list of categories identified by the researcher. However, because the Letter of Information to study participants had stated that only the researcher and her committee would have access to the raw data, it was felt that it would not be ethical to proceed with this plan.

Data Analysis

Work Sampling

Data from the work sampling portion of the study were analyzed manually and using the SPSS-PC statistical computer program. Descriptive statistics were used to determine the frequency distribution of each activity category. Inter-rater reliability of observational data was calculated manually using the percentage agreement formula and Kappa (Brennan & Hays, 1992).

Interviews

Data from the semi-structured interviews were analyzed using two levels of content analysis. The first, manifest content analysis, was done to determine if any of

the four categories of supportive care - physical, emotional, instructional/informational and advocacy - were identified by nurses as components of nursing support during labour and delivery. With analysis at this level, no assumptions or interpretations were made about the data (Fox, 1982). Each time the respondent described examples of one of the components of nursing support, it was enumerated. It was felt that recording the number of times each category of support was mentioned would give an idea of the robustness of each category (Wise, Plowfield, Kahn & Steeves, 1992). For instance, if emotional support was mentioned much more frequently than any of the other forms of support, one would say that these nurses placed particular emphasis on emotional support as an aspect of supportive care. It was felt that this enumeration would provide an over-all picture of the nurses' perceptions of the components of support.

Descriptions of nurses' perceptions of supportive care were also obtained from the data. This was considered manifest analysis because it was a direct transcription of the response given by the nurse (Fox, 1982). Coloured highlighting pens were used to distinguish between each piece of the transcript that belonged to each of the four support categories and to the facilitators and barriers to the provision of care. Each of these coloured sections was then extracted and grouped together (Burnard, 1991).

A more in-depth analysis was also conducted called thematic content analysis (Burnard, 1991). Burnard's method was adapted from Glaser & Strauss' grounded theory approach as well as from key literature on content analysis. The stages using this method included several in-depth readings of the transcripts for underlying meanings,

memoing, "open-coding" (where the researcher looks for common words, statements and/or passages), category derivation, labelling of categories and cutting and grouping excerpts of each category together.

Ethical Considerations

Prior to beginning this study, approval was obtained from the University of Ottawa Human Research Ethics Committee of the Faculty of Health Sciences as well as the Research Ethics Committee and the Director of Nursing of the hospital where data collection took place.

Prior to data collection, all prospective participants in this study were provided with a written explanation of the project before being asked to sign the consent form (Appendices E, F, G). The researcher recognized that fully informed consent of the participants was not obtained. As it was the nurses' behaviour that was being observed, there was concern that this behaviour would change if the nurses were aware of the supportive care focus of this study. Therefore, it was decided that, in order to minimize this effect, it was necessary to describe the purpose of the study in terms of observing general nursing activity during labour and delivery.

Before collecting data, all patients were provided with a written explanation of the study (Appendix H). This explanation was also posted in each labour and delivery room and in the waiting area on the unit. The nurses were asked to provide a verbal explanation of the study to their patients and to inform them that they could refuse to have the researcher enter their room. Women and their partners also were assured that

it was the nursing activity that was being observed and that no identifying information about them would be obtained. No patients refused to have the researcher enter their room.

All participation was voluntary and nurses were advised that they could withdraw from the study at any time. They were also advised that whether or not they participated would not effect their employment in any way.

Code numbers were used to identify participants and were changed again in the research report to ensure anonymity. Consents and data collection forms were kept in a locked cabinet at the researcher's home. Tape recordings obtained in the interviews were erased once the data was transcribed. Participants were assured that only the researcher and her thesis committee had access to the raw data and that no individual would be identifiable in the study report. They also were advised that data of individual nurses would not be available to hospital personnel. There were no known risks to participants nor were there any obvious direct benefits.

Chapter 4

Study Results

Findings reported in this chapter are derived from the work sampling portion of this study as well as from the semi-structured interviews. Results will be presented to answer each objective of the study.

Objective # 1: to describe the amount of nursing support being provided to women during labour and delivery.

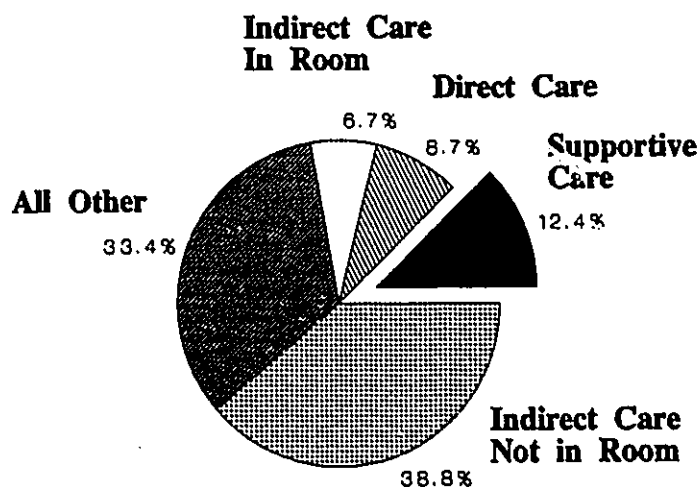
Data were collected for the work sampling portion of this study over six day shifts. Observations were made at random intervals of each caseroom nurse who had patient assignments on the day of observation.

Results from the work sampling study revealed that nurses spent 12.4% of their total time providing supportive care to labouring women. (95% confidence interval from 8.8% to 15.2%) (See Fig. 2.) This is consistent with the results of McNiven's work sampling study (1991) which reported a finding of 9.9%.

Tables 1 to 7 represent the total activity distribution for the data collection period and the activity distribution for each shift. Some of the nurses (e.g., Nurse # 6) appear more than once in Tables 2 to 7 because they were working on more than one shift during the data collection period. As is evident in Tables 2 to 7, the proportion of time spent in support care versus all other activity ranged from 6.7% (Shift# 3) to 25% (Shift

6). For shift # 6 with a high proportion of supportive care, all of the supportive care observations fell in the instructional/informational category.

Figure 2. Proportion of Supportive Care vs. Other Nursing Activities



The percentage of time each nurse spent in supportive care ranged from 0% to 36.8% (See Appendix I). The number of observations made of each of the nurses varied from 3 (Nurse # 1) to 105 observations (Nurse # 6). Nurse # 6 contributed so many observations because she had a patient assignment during 4 of the 6 data collection shifts. The percentage of time Nurse # 6 spent in supportive care activities versus all other activity was 16.2%. If you add the percentage of supportive care contributed by each of the 12 nurses (range: 0 to 36.8%) and divide by 12, you get an unweighted average of 13.8%. This was close to the weighted average of 12.4% calculated across all 404 observations. Therefore, even though Nurse # 6 contributed 26% of the total observations, this did not seem to unduly influence the overall calculated percentage.

Table 1. Activity Distribution for All Shifts

Shift #	Number of observations						Total	% of Total
	1	2	3	4	5	6		
A. Direct Supportive Care								
Physical support	2	2	0	0	1	0	5	1.2%
Emotional support	2	1	3	1	3	0	10	2.5%
Instructional/ Informational	7	9	1	4	8	6	35	8.7%
Advocacy	0	0	0	0	0	0	0	0.0%
Total Supportive Care Activities	11	12	4	5	12	6	50	12.4%
B. Other								
Direct care	5	11	2	1	12	4	35	8.7%
Indirect care in room	7	11	3	2	3	1	27	6.7%
Indirect care Not in room	30	54	20	15	28	10	157	38.8%
All other activity	28	51	31	4	18	3	135	33.4%
Total Other	70	127	31	22	61	18	354	87.6%
Total Observations	81	139	56	27	73	24	404	100.0%

Table 2. Activity Distribution By Shift – Shift # 1

	Nurse #					
	5	3	2	1		
Category	Number of observations				Total	% of Total
A. Direct Supportive Care						
Physical	2	0	0	0	2	2.5%
Emotional	0	0	1	1	2	2.5%
Instructional/ Informational	5	0	2	0	7	8.6%
Advocacy	0	0	0	0	0	0.0%
A. Total	7	0	4	1	11	13.6%
B. Other						
Direct Care	1	1	2	1	5	6.2%
Indirect Care in Room	2	3	2	0	7	8.6%
Indirect Care Not in Room	7	14	8	1	30	37.0%
All other activity	2	10	16	0	28	34.6%
Total	12	28	27	2	70	86.4%
Total Observations	19	28	31	3	81	100.0%

Table 3. Activity Distribution By Shift -- Shift # 2

Nurse #	7	8	9	6	16		
Category	Number of observations					Total	% of Total
A. Direct Supportive Care							
Physical	0	1	1	0	0	2	1.4%
Emotional	1	0	0	0	0	1	0.7%
Instructional/ Informational	3	2	0	3	1	9	6.5%
Advocacy	0	0	0	0	0	0	0.0%
Total	4	3	1	3	1	12	8.6%
B. Other							
Direct Care	0	4	6	1	0	11	7.9%
Indirect Care in Room	2	4	1	2	2	11	7.9%
Indirect Care Not in Room	10	13	14	10	7	54	38.8%
All other activity	10	9	11	16	5	51	36.7%
Total	22	30	32	29	14	127	91.4%
Total Observations	26	33	33	32	15	139	100.0%

Table 4. Activity Distribution By Shift -- Shift # 3

	Nurse #	7	8	10		
Category	Number of observations			Total	% of Total	
A. Direct Supportive Care						
Physical	0	0	0	0	0.0%	
Emotional	3	0	0	3	5.0%	
Instructional/ Informational	1	0	0	1	1.7%	
Advocacy	0	0	0	0	0.0%	
Total	4	0	0	4	6.7%	
B. Other						
Direct Care	2	0	0	2	3.3%	
Indirect Care in Room	1	2	0	3	5.0%	
Indirect Care Not in Room	8	6	6	20	33.3%	
All other activity	13	5	13	31	51.7%	
Total	24	13	19	56	93.3%	
Total Observations	28	13	19	60	100.0%	

Table 5. Activity Distribution By Shift -- Shift # 4

Category	Nurse #		Total	% of Total
	6	9		
A. Direct Supportive Care				
Physical	0	0	0	0.0%
Emotional	1	0	1	3.7%
Instructional/ Informational	3	1	4	14.8%
Advocacy	0	0	0	0.0%
Total	4	1	5	18.5%
B. Other				
Direct Care	1	0	1	3.7%
Indirect Care in Room	2	0	2	7.4%
Indirect Care Not in Room	10	5	15	55.6%
All other activity	4	0	4	14.8%
Total	17	5	22	81.5%
Total Observations	21	6	27	100.0%

Table 6. Activity Distribution By Shift -- Shift # 5

	Nurse #	6	11	12		
Category	Number of observations			Total	% of Total	
A. Direct Supportive Care						
Physical	0	1	0	1	1.4%	
Emotional	1	2	0	3	4.1%	
Instructional/ Informational	3	3	2	8	11.0%	
Advocacy	0	0	0	0	0.0%	
Total	4	6	2	12	16.4%	
B. Other						
Direct Care	5	2	5	12	16.4%	
Indirect Care in Room	0	3	0	3	4.1%	
Indirect Care Not in Room	11	6	11	28	38.4%	
All other activity	8	4	6	18	24.7%	
Total	24	15	22	61	83.6%	
Total Observations	27	21	24	73	100.0%	

Table 7. Activity Distribution By Shift -- Shift # 6

<hr/>					
		Nurse #	6	<hr/>	
Category	Number of observations	Total	%		
<hr/>					
A. Direct Supportive Care					
Physical	0	0	0.0%		
Emotional	0	0	0.0%		
Instructional/ Informational	6	6	25.0%		
Advocacy	0	0	0.0%		
<hr/>					
Total	6	6	25.0%		
<hr/>					
B. Other					
Direct Care	4	4	16.7%		
Indirect Care in Room	1	1	4.2%		
Indirect Care Not in Room	10	10	41.7%		
All other activity	3	3	12.5%		
<hr/>					
Total	18	18	75.0%		
<hr/>					
Total Observations	24	24	100.0%		
<hr/>					

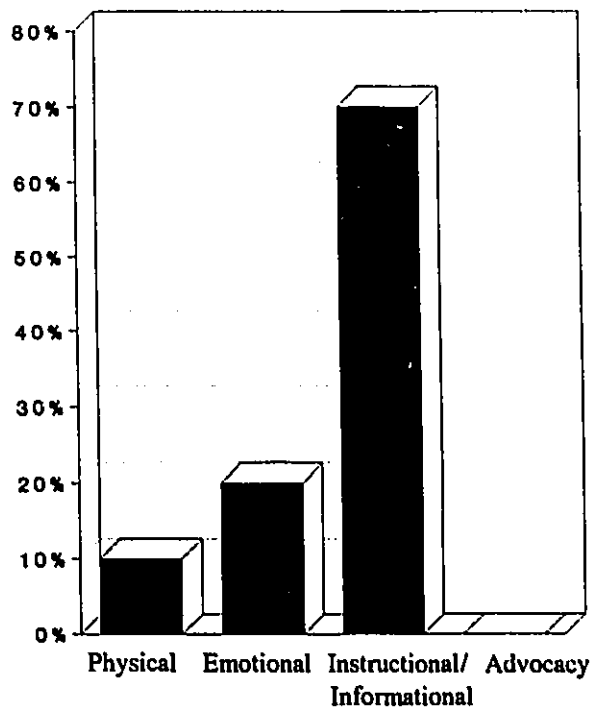
Results revealed that supportive care activities accounted for 50 of the 404 (12.4%) observations made and were subdivided as follows: physical support (n=5); emotional support (n=10); instructional/informational support (n=35); and advocacy (n=0) (see Table 1). The most frequently observed supportive care, instructional/informational support, included answering the women's questions about procedures and protocols as well as helping the women with breathing and pushing during labour and delivery.

Physical comfort measures, accounted for 10% (5 of 50) of the supportive care provided to labouring women (Fig. 3). These nursing measures included such things as hand holding, reassuring touch, linen changing and positioning to increase comfort.

Emotional support included such measures as providing encouragement, praise, and being present in the room. Despite the importance of these measures to labouring women (Callister, 1993; Shields, 1978), this type of support accounted for only 20% of the total support given and 2.5% (10 of the 404 observations) of the total activities observed.

The final subcategory, advocacy, was operationalized for this study as: the nurse negotiating women's wishes with other health team members (e.g., for "natural" child birth, for epidural, etc.); asking for women's birth plans; and discussing with visitors about women's wishes (e.g., asking visitors to leave the room at the woman's request, etc.). No advocacy actions by nurses were observed during the work sampling period. These findings are consistent with McNiven's (1991) study in which 0.3% of the nurses time was spent advocating for labouring women.

Figure 3. Distribution of Supportive Care Activities Provided by Nurses



Nursing care, other than supportive care, accounted for 87.6% of the nurses time in caring for women during labour. These activities were classified as: direct patient care (direct assessment, performing procedures, etc.); indirect care in the woman's room (helping physician with procedures; talking with partner; charting or reporting in room, etc.); indirect care not in the woman's room (preparing medication and equipment; charting; checking satellite fetal monitor; giving or taking report, etc.); and all other activity (transferring women to other units; meal breaks and personal time; social discussions or discussions concerning unit policies; physical care of the baby following delivery, etc.). Of these four subcategories, nurses spent the most time engaged in indirect care out of the woman's room (38.8%) and in all other activity (33.4%). Of

these activities, charting out of the women's room/checking satellite fetal monitor ($r = 71$), meal breaks/personal time ($n=62$) and social discussion/discussion regarding unit policy ($n=62$) were the most frequent activities observed.

Overlap occurred in 14 of the 404 (3.5%) observations made: two were both "supportive care" activities (e.g., the nurse was holding the woman's hand while helping with breathing techniques); two were both "other" care activities (e.g., the nurse was charting while giving report on her patient); and the remaining ten overlaps consisted of a "supportive care" and "other" activity (e.g., the nurse was reassuring the woman while conducting a vaginal examination). When overlap occurred across categories, the observation was classified as "supportive care". This caused a slight increase in the amount of time spent in supportive care activities by nurses. If "other" activities had been calculated instead of "supportive care", the overall percentage of time spent in supportive care would have been 9.9%.

Objective # 2: to describe the perceptions of labour and delivery nurses
regarding supportive care.

The purpose of the semi-structured interviews was to elicit the perceptions of nurses on this unit with regard to supportive care in an effort to supplement the results of the observation portion of this study. Demographic characteristics of each nurse are not presented with the excerpts to ensure anonymity.

A data grid representing the various aspects of support as mentioned by each nurse during the interviews is presented in Figure 4 (Wise et al., 1992). Four of the six nurses described physical comfort measures as a component of supportive nursing care. Emotional and instructional/informational supportive measures were described by all six of the nurses. Congruent with what was observed in the work sampling portion of the study, instruction and information was a major component of what these nurses perceived supportive care to be. Advocacy was mentioned during the interviews by three of the six nurses. However, advocacy measures were not observed during the work sampling portion of the study.

Figure 4. Data grid representing number of times informants described each of the four components of support.

Informants Code #	Physical	Emotional	Instructional/Informational	Advocacy
2	•	•••	••••••••	
3	•	•••••••• ••	••••••	•
7		•••	••••••••••	•••
8	•	••••••••	••••••••••••	
10		•••	•••	
16	••••	••••••••	••••••••••••	•••••• ••

Physical Support.

Physical support is considered the physical comfort measures that nurses provide to help women cope with the pain and associated discomforts of labour and delivery. The nursing care that has been identified by women to be most helpful include such measures as back massage, bathing or assisting with a shower, changing soiled linen, assisting with ambulation for comfort purposes and so on. A most interesting finding in this study was that when the nurses were asked: "What do you do when the woman is asking for something for pain?" the response for half of the nurses was to obtain epidural analgesia for the woman. This was expressed in the following examples:

- # 2: ... when I go in, if they're hyperventilating or they're not coping with contractions, breathing, I ask them if they want an epidural. ... I offer them the epidural 'cause that's the only thing we give for pain ...
- # 7: If they come in with ruptured membranes but they aren't in labour, if they have to be stimulated, then we offer them something for pain right away. ... We just let them know that we offer one procedure for pain management and it's to have an epidural.

For another nurse, the epidural was particularly helpful when it was busy and she felt that none of the care that she was providing was helping the woman to cope with labour:

- # 16: Though sometimes I listen and I revert back to, "Oh please just take the epidural", you know, 'cause it's so busy I figure if she'll at least be comfortable and none of what I'm doing is working, you know.

However, one nurse felt that it was important for labouring women, particularly primiparas, to try other coping measures before resorting to the epidural:

#10: We try different techniques before resorting to an epidural. I encourage their breathing as much as possible.... I try different positions.... I make sure they always have ice chips.

Encouraging labouring women to ambulate was mentioned by all nurses as a physical comfort measure. Given the propensity for the use of epidural analgesia (which may render the lower limbs unsteady or immobile) and the policy for continuous fetal heart monitoring, particularly during induction of labour, the use of ambulation to increase comfort was limited. As two nurses said:

2: If they can walk then I'll let them walk. If they're being induced then they can't walk. So it's just the position of the bed that we can adjust.

16: If they get up to the bathroom I'll say to them: "Listen, as long as the baby's heart beats okay, I'll let you stretch. Walk around the room for a couple of minutes before I have to put you back on the monitor."

The minimal use of ambulation as a physical comfort measure was also confirmed during the work sampling portion of the study in that, during six day shifts, the researcher did not see one woman ambulating. Rather, all women laboured in bed. This

was due in part to the high rate of induction and of epidural analgesia on this unit and the protocol requiring continuous fetal heart monitoring during these procedures.

Other physical support, described by four of the nurses, included such measures as back rubs, hand holding, providing warm blankets, position changes and giving ice chips to the labouring woman.

Emotional Support.

For all of the nurses, emotional support included "being there" for the women to answer questions, to explain policies and procedures and to encourage, praise and reassure them. This was expressed in the following examples:

- # 7: We just help them through it by being calm. By talking them through everything. Um it's very important to let them know you are there for them and that they can look to you if there's anything that they need.

- # 8: ... support is letting her talk about how she feels. Especially if it's their first baby they're not sure exactly what to expect.... and be there to answer questions.

For four of the nurses, "being there" did not mean continually being present, although during induction their presence was required more often to assess the fetal heart and uterine activity. For example:

- # 3: ... often the patients are being induced so ... you're seeing them at least every 15 minutes. I would say mostly they are seen about every 15 minutes.
- # 2: If they're being induced, then I go in about every 15 minutes and I check and assess the labour pattern.... If she's not being induced, then I'll go in about every 20 to 30 minutes or so.
- # 10: I go in about every 15 minutes, sometimes every 1/2 hour depending. If it's an induction of labour well then, you know, she has to be seen more regularly because she is receiving a medication.

One nurse felt that she had to be present more often if the partner was not available for support:

- # 16: ... and her husband was in admitting so I was the one in there. I didn't leave the room basically. I just said keep breathing ...

This philosophy of intermittent presence was congruent with the results of the work sampling where only 2.5% of the nurses' total time was spent providing emotional support of which "being with" the woman was one component.

The "Standards of Care" of this unit confirm the frequency of assessments mentioned by these nurses which state that the fetal heart should be assessed every 15 minutes. The Standards also direct nurses to be present in the woman's room on an intermittent basis: "The nurse returns to the patient's room periodically as necessary to check the fetal heart and assess the contractions.". For induction, the Standards

prescribe the following: "If no monitor is available, the nurse must stay with the patient continuously to assess labour.". As it is, each bedside unit is equipped with a monitor and the tracings can be read from satellite monitors at the central nursing station.

These same Standards also direct the nurses to "give frequent reassurance and encouragement" to the labouring woman and constant reassurance when delivery is imminent. However, as revealed in the work sampling portion of the study, nurses spent only 2.5% of their total time providing emotional support.

For Nurse # 3, emotional support meant "normalizing" the experience for the labouring woman and instilling confidence in her as a nurse:

3: ... a lot of them, you know, these days, it's their first or second baby and they're always nervous and it's always a new experience. So, it's a matter of getting them through that. Making them realize that they're not the only ones who have, who go through it. Or the only ones that are nervous and need help. That's what we're here for and we've seen it all before and anything goes, kind of thing.... I try to instil, I guess, a feeling of confidence in me and in the system because I think they need that strength.

However, this quote makes no reference to the role of the nurse instilling confidence in the woman as to her own ability in the birthing process.

Instructional/Informational Support.

For all of the nurses interviewed, this form of supportive care was termed "coaching" and included helping the women with breathing and pushing during labour

and delivery. Two of the nurses felt that the partners should be encouraged to assist the mother with this:

2: I'm the nurse but they don't know me you know. It's better when it comes from the husband.

16: If the father's come in and I see that they're really in synch. That they've taken classes. Then I, I try to make him more the focal point. Because that's what they've practised. That's what they've wanted to do. So if that's the question then what I'll do is I'll stand back a little and let the two of them do their breathing.

For Nurse # 2, then, when partners were absent, it was the nurses' job to assume the role of "coach":

2: And when they [the husbands] leave then it's up to us to be the coach and to help them, and to lift up their heads when they do push you know, to be there for them.... So when the husbands are not there, then we do it.

Three of the nurses described their philosophy of partner involvement in the labour and delivery experience. Nurse # 7 felt that it was very important for the father to be involved:

7: I feel that it's extremely important to have the father involved in the care just because this is their child. Not just mom's.

Nurse # 16 also felt that it was important, but that cultural norms impeded this involvement:

16: I think it's very important for the father to be at the delivery. Unfortunately with the multiculturalism that you find here, not a lot of men, but you'll find men that do not want to be involved and you'll have the mother or the sister or an aunt or something. So if the father's in the waiting room then I'll try to get him involved as soon as possible.

Nurse # 3 cautioned that, given the multicultural clientele, partner involvement depended on each situation. She presented this caveat:

3: Some wives would rather their husbands just sit in the corner and just be there while they carry on. In our culture we tend to think that they should be more present and um, doing more. Like holding their hands and telling stories and playing music. So again, it depends. You have to work it out for each one.

Explaining policies and procedures (particularly of epidurals) was considered, by the nurses, to be another component of instructional/informational support:

16: If they want to walk and they can't, I explain why. Like with induction.

7: You start coaching them by telling them what you are going to do for them. By explaining why they're here and what you're going to be doing.... We do explain every

procedure to them that we usually do after them being here for various hours. So we just go through all of the hospital, um the regulations of our unit.

- # 8: Tell her why you're doing the vital signs. Why you need this information. Why you put her on the monitor and what you're waiting for. Listening to. Explain to her that she's going to have an induction and why she's having it....

Most nurses also felt that it was important to keep the woman informed of her progress during labour and delivery. This is congruent with the directives in the "Standards of Practice" of this unit which states: "Keep patient and partner informed of the progress of labour."

Advocacy.

Advocacy, as defined for the work sampling tool, included: asking for the women's birth plans; negotiating women's wishes for labour and delivery with other team members; and discussing with visitors about woman's wishes (e.g., asking visitors to leave at the woman's request etc.). Only one nurse mentioned the term "advocacy" during the interviews. When asked to clarify how the nurse advocates for the woman, it meant getting pain medication for her when needed and doing things for her that she cannot do for herself. This was described by her in the following way:

- # 7: How the nurse advocates? For example if she needs something for pain, we get it organized. We call whoever's on call to give the epidural. If there's any complications with this patient or with this baby we call to let the obstetrician know. Any questions that she has,

we're there to answer. Just by doing things for her that she can't do at this time for herself. That's just acting as a patient advocate.

For nurse # 16, advocacy meant finding out the couple's plans for the experience and respecting their wishes:

16: I see what they had planned. Like if they say, a lot of them come in and they don't want an epidural. Then I say: "That's your choice.".... if they don't want anything for pain, it will never be forced on them.

For this nurse, advocacy also meant encouraging the woman to "confront" the doctor:

16: If the doctor comes in and they [the women] don't want their water broken I usually tell them to discuss it 'cause, if they have their reasons, they should be allowed to voice them.

However, reference was also made by this nurse to the compromise of couple's wishes in order to maintain the mandate of unit policy:

16: And then I hear their reasons as to why they may not want that [the procedure] done. And we try to compromise. Such as fetal monitoring. That's the big one. 'Cause a lot of people want to walk around so, you know, I generally bargain with them.

Two of the nurses described advocacy in terms of the nurse negotiating on the woman's behalf with other health care providers:

- # 3: I just decided that I should take a stronger stand with the doctor and say that *I felt* [italics added] she should go home...
- # 16: Like before I go into the delivery room I always ask the father if he wants to cut the cord so that I know so that I can stop the physician if it's important to them.

Additional Results

Empathy was described by one of the nurses as being a key component of nursing support during labour and delivery. Empathy has been defined in the literature as "the ability to perceive the meanings and feelings of another person and to communicate that understanding to the other.... It is sensing the client's world as if your own and being able to communicate that understanding to the client." (Gagan, 1983, p. 66.). It has been found to be a difficult concept to operationalize. When asked to describe what she meant by "empathy", Nurse # 10 stated:

- # 10: One does not have to have had children to be a good labour and delivery nurse. But it is to show also you have to be strong but also show empathy [sic]. Because you deal a lot with pain all the time. And pain is something experienced differently by everyone.... Empathy. It's to feel.... it's to feel the person's pain. To put yourself in their place a bit, you know. And to try to understand them as much as possible.

According to this nurse, empathy appears to be an important part of caring for women during labour and delivery--perhaps a component of supportive care not measurable using this tool and the work sampling method.

Objective # 3: to describe the factor(s) that nurses, perceive facilitate or inhibit the provision of nursing support during childbirth.

In order to meet the final objective of the study, nurses were asked the following questions: "What helps you to provide the care that you want to give on the unit?" and "Does anything get in the way of providing this care?". Opportunity was provided by the researcher, through standardized probes, for the nurses to elaborate on any aspect of care which referred to support.

Facilitators

Factors that nurses perceived helpful entailed having a positive working environment, including: availability of equipment and supplies; having a good rapport with physicians and other nurses on the unit; and availability of other team members for consultation. Time, related to having only one patient, was another factor that facilitated their provision of care.

Nurses also felt that because they enjoyed their job, it made it easier to provide the care that they wanted to give to labouring women. One of these nurses also felt that because she was "flexible" and "open to new things" she found it easy to care for women and their families during labour. This nurse also felt that abiding by the philosophy of "treating people the way you would want to be treated" helped her to care for her patients.

Barriers

When asked by the researcher to describe barriers to the provision of care, all of the nurses described having "too many patients" and "lack of staff". This resulted in having less time to spend with women, to answer their questions and to teach. However, according to one of the nurses, this was not a common occurrence:

7: We usually only have one patient here so we usually have time to answer their questions and to be with them.... One on one most of the time. I would say 75% of the time it is one on one.... And sometimes you have two, occasionally.

All of the nurses stated that it was most common to have a single patient assignment and, on occasion, two patients. This was confirmed during the observation portion of the study where, during six day shifts, the nurses did not have more than one patient assignment. Despite this "one-on-one" assignment, the provision of supportive care occupied less than 13% of the nurses' total time. Nurses described other barriers, which interfered with the provision of nursing care to be: having other "duties" such as restocking shelves and checking emergency carts and being assigned to the triage assessment unit or operating room to scrub and circulate for caesarean sections.

Cultural factors were described by two of the nurses as a barrier to them in providing nursing care. For these nurses, language presented a barrier:

- # 16: There was a language problem so I found my presence was just aggravating her. So, it wasn't good for her so I distanced myself....
- # 3: There are cultural problems, you know, with the patients. Sometimes we feel quite frustrated when we can't relate or explain something to them.

Two of the nurses described "personal vibes" as influencing the amount of time spent with women:

- # 16: Some people don't want you near them in labour. So you have to respect what that patient wants too.... You know, because she seemed to be fine as long as it was just with her own family.
- # 3: Well it depends ... on the rapport that you build with the couple. I mean, some you feel that you're wanted and others you feel that they don't really want you there so you have to sort of take a cue from that, I think.

Nurse # 8 described relatives of the labouring women as occasionally interfering with women's wishes and with nursing care. When asked to explain this, she stated:

- # 8: An example of this is the patient saying: "Nurse, I can't take this pain any more. I want an epidural.". The husband says: "**No**. She's not having it.". Then usually they'll go off on their own tangent in their own language and you can't understand what's going on but the patient is crying. You want to help and you can't. Then she [the woman] turns around and goes with the family.

The effects of institutionalization and lack of acceptance from some nurses when trying different pain relief techniques were also described as barriers to providing the care that the nurses wanted to give to labouring women:

- # 16: Well I find, here in a hospital institution, they don't really like to let you do different positions. Like even some of the nurses they'd laugh at it you know. Like "Oh she's rolling on a ball or she's squatting" and stuff, and I find if that's what's working for the patient then do it, you know.

Another inhibitor to the provision of care was described by one of the nurses as the perceived lack of assistance from some more senior nurses when new to the unit.

Having to transfer the women to another room for delivery was described by three of the nurses as a barrier. They felt that transferring the women through a central hallway resulted in decreased comfort and privacy for the women. The delivery room was described by one nurse as a cold, impersonal environment complete with gowns and caps, much like "going into an operation".

Environmental Control of the Childbirth Experience

From the analysis of the interview data, one central theme emerged--the control of labouring women and their partners by health care providers. Through the use of interventions such as epidural analgesia and electronic fetal monitors, health care providers assume control of the labour process. For example, even if a woman has not received an epidural for analgesia and is able to ambulate, she is told that she can only

walk for a specified period of time because she has to be put back on the monitor. Through the use of oxytocic drugs, which hasten the process of labour, medical intervention assumes control of the childbirth process. In addition, nurses are required to adhere to policies surrounding these interventions such as continuous electronic fetal monitoring during induction. Consequently, the woman has limited say in how the childbirth experience will proceed. This control may influence the amount and nature of the supportive care that is provided as caregivers assume to know what was best for the labouring woman. Their focus seems to be on the technology and intervention involved in the process, not on the psychological needs of the woman. Factors that help to foster the establishment and maintenance of this control are discussed.

Establishing Control

Upon entering the hospital setting, labouring women are required to be admitted into the "system". Health care providers appear to establish control over the woman and her partner beginning with the admission process. The partner is sent to admitting to ensure that the administrative part is taken care of. Then, the admission ritual begins with the nurse having the woman put on a hospital gown, after which a fetal monitoring tracing is done, a vaginal examination is performed and hospital forms are completed. These ritualistic procedures set the stage for the nurse "running the show". Through this admission process, the woman is transformed into a "patient" by the system. As one nurse described her admission of a woman in labour:

7: We ask them to get undressed. We put them into bed. On the monitor. We ask the family members to go to the admitting department. We let them know what we're offering for them, for example, for pain.... They are admitted into the hospital as all patients are.... They aren't allowed to eat. We put in an IV.... So we just go through all of the hospital, um, the regulations of our unit.

All of these methods ensure that a healthy, active woman, entering an institution intended to cure the sick, becomes a passive recipient of care dependent on health care providers.

For Nurse # 7, the establishment of control was overt and was described as "setting limits" right from the beginning:

#7: It's very important to let them know right from the beginning where they stand and where you stand.... You know, like I feel that at first you have to set your limits. You have to explain what you will do and what you expect them to do.

Once the labouring women has been admitted onto the unit, control over them is further established through the implementation of routine standards of care. There are specific policies and procedures that nurses are expected to adhere to while caring for "patients". This strict adherence to policy was illustrated by Nurse # 16 as she described her care of a labouring woman:

16: If they want to walk around I say: "You can walk around if you let me monitor you for ten minutes every hour or every half hour.".... Since she's in my institution I have to make sure that her and the baby are safe. And go by my guideline protocols that inductions are seen every 15

minutes.... they understand the responsibility of being in a hospital that we have to do some monitoring and certain invasive procedures.

It appears in this excerpt that nursing care is driven by unit policy and does not focus on the individual needs of the woman. These standards of care clearly involve the use of technology and define what the childbirth experience will be for both the labouring woman and the nurse. The control assumed by the nurse is postulated by her to be in the best interests of the woman and baby.

This form of control was evident in another nurse's description of the care she provided to a woman receiving epidural analgesia:

2: I made her get up to pee first because she's got to void before the epidural.... I take, uh, four blood pressures. The first 2 are three minutes apart and then again in five minutes.... once everything's done, my blood pressures are taken and she's stable then I tell her to sleep. I basically, I shut the lights off and I tell her to sleep. Meanwhile, I'm still checking the fetal heart. I mean that's always there. It's automatic, you know.

Of note in this and previous excerpts was that the establishment of control was reflected in the choice of words that nurses used in describing the care of labouring women. They were clearly directive--"I made her"; "I tell her". There was no indication that the woman was asked what she would like during labour. This was confirmed during the interviews with the nurses when only two of them described asking the woman for her birth plans as being part of the care they provide. As well, these

excerpts illustrated mechanical behaviour on the part of the nurse in that they appeared unquestioning and not geared to the individual needs of the woman.

This ability to control the labouring woman and the birthing process through technology and intervention was evident in the following excerpts of three nurses describing their nursing care:

- # 1: I do all the admission questions and blood pressures and temperatures and so on. And then you have them monitored *all the time* [italics added].
- # 10: She was always on the monitor because she was being induced and also she did receive an epidural. I also have to be careful in her case because she had a cesarian before. And well, my gosh, in about five hours *I* [italics added] brought her to fully dilated!
- # 2: Usually what we do if the contractions slow down [after the epidural] then we call the doctor and we tell him that she needs to be stimulated because it's either six or seven minutes apart. Especially for a primip.

The use of oxytocic drugs for the induction of labour, or more frequently to stimulate labour that is not progressing at a "satisfactory" rate, further disallows the physical or psychological control of the labour process by the woman. It also undermines the ability of the mother's body to manage the childbirth process on its own.

The effect that epidural analgesia has in controlling the birth process is described as Nurse # 9 clarified what she meant by the labouring woman being "committed" to caregivers following insertion of the epidural:

- # 7: Well um this, this is a very, it's invasive. To have an epidural. It's a big procedure. They are committed to us, number one because they're paralysed from their lumbar spine down. They just can't get up and move. There are complications that are involved with epidurals. You can run into many complications. So, then again, we are responsible to care for them. Just in case something should go wrong.

Maintaining Control

It appeared from the interview data that maintaining control was an on-going process requiring reinforcement. As Nurse # 7 described: "I feel it [setting limits] is an ongoing process. So, you know, throughout their stay here you just have to reinforce it."

The nurses appeared to employ a variety of strategies to maintain control over the labouring woman and her partner. One of the nurses used the power of explanation and brought in policies and procedures to rationalize the control. Policies were also used to exclude the partner from the room during a "procedure". This was revealed as Nurse # 16 described what she perceived her responsibilities as a nurse to be:

- # 16: If they're upset about getting the IV, I explain to them that their doctor has ordered the IV and the importance of it. I'm not doing it because it's just something that we do. Everything has a reason.

If they've [partner] been asked to leave the room during the procedure or something I try to let them know that it's not because we don't want them there. There's certain policies to be followed and it's the doctors decision.

It appeared from these excerpts that policies took precedence over the needs of the labouring couple. The excerpts also revealed the strategy of using the authority of the physician to validate the nurses' control.

Nurse # 7 also maintained control by the way she explained the process. Through "coaching" she was able to maintain control by "setting limits" for the patient. Again, it was postulated by the nurse to be in the best interests of the woman. As she described:

7: I know that some of them get out of control and you have to tell them, for example, "You have to listen to me. Like I'm your coach and I know what I'm doing. And you have to listen to me when I ask you to push or when I ask you to stop pushing.". You have, by setting limits, you have to let them know that I'm in control now and I'm here to help you.

Two of the nurses described the control that physicians assume over the childbirth experience. For one of the nurses, this control was exerted through the physician's insistence on continuous fetal heart monitoring which, in turn, influenced the nurse's actions:

16: A lot of doctors, "Oh my gosh she's off the monitor!". To them that's their security blanket, you know. So certain doctors you know you have to do more monitoring because they tend to rely on the monitor's strip.

Nurse # 10 felt that physicians exerted control by insisting that the labouring woman receive an epidural when *he* felt that she needed it. As she described:

10: Often it [the epidural] is encouraged strongly by the doctor. Sometimes they are not even asking for something for pain and the doctor is saying: "You're going to have the epidural now. It's better for you.".... They don't take time to listen or speak with their patient. Some will order an epidural right away and not give her [the woman] a chance to deal with the pain. A lot of people believe in their doctor, you know and they will abide by his orders.

Implicit in all of the excerpts is the assumption that health care providers are the experts and know what is "best" for the labouring woman. Technology and intervention are useful in validating this assumption. The health care provider's control of information and technology seems to imbue them with the mystique that they have the knowledge to ensure a safe outcome for the labouring woman and her baby.

This presentation of the analysis of the interview data reveals that health care providers use various strategies to establish and maintain control over the labouring women and their partners. This control seems to be initiated during the admission process when the woman is transformed into a patient through the admission rituals. Delivering in an institution that is designed for the provision of acute care services requires the use of such strategies to validate the role of the hospital in the birth process. Rigid adherence by nurses to policies and procedures of the unit further enhances the nurses' control and disallows control over the childbirth experience by the labouring couple.

Summary of Findings

Work sampling of this labour and delivery unit over six non-consecutive day shifts revealed that nurses spent 12.4% of their total time providing supportive care to labouring women. When combining supportive care with direct care and indirect care in the patients room, nurses spent only 27.8% of their total time in contact with the women.

Of the supportive care activities, instructional/informational support was the category most frequently observed. Interviews with six of these nurse confirmed that this kind of support, referred to as "coaching", was considered a main component of nursing support during labour and delivery.

Factors that were perceived by nurses to facilitate their care of labouring women included, for example: availability of equipment and supplies; having a good rapport with physicians and nurses on the unit; and having ample time to care for patients. Being flexible and empathetic were other examples of facilitating factors.

A major barrier to the provision of nursing care, described by all of the nurses, was having too many patients and not enough staff. This, however, was described as an infrequent occurrence. This infrequency was confirmed during the work sampling portion of the study where nurses were observed to have only single patient assignments. Other barriers described by nurses included, for example, language barriers and having to perform non-nursing duties such as restocking shelves.

Analysis of the interview data revealed to the researcher that the control that health care providers assumed over the childbirth process was another barrier to the

provision of supportive care. In the hospital setting, nursing care of the labouring woman appears to be directed by policies and procedures to which nurses are required to adhere. The Standards of Care of this unit provide minimal prescription for nurses in supportive care other than to suggest that "frequent" reassurance be provided as well as keeping the couple informed of the progress of labour. Nurses are directed in these Standards to visit labouring women periodically for assessment purposes and continuous presence is prescribed only in the case of induction when an electronic fetal monitor is unavailable.

Due to the propensity for the use of oxytocic drugs, epidural analgesia and electronic fetal monitoring, focus seems to be shifted away from the woman herself and toward the technology typical of level II and III obstetrical units. This legitimizes the role of health care providers as the "experts" and requires that the labouring woman and her partner relinquish control over their childbirth experience.

Chapter 5

Discussion

This chapter begins with a discussion of the study findings related to each of the research objectives. This is followed by recommendations and implications for nursing and concludes with directions for further research.

Prevalence of Nursing Support in Labour and Delivery

The findings revealed that nurses on this labour and delivery unit spent 12.4% of their time providing supportive care and, in fact, spent only 27.8% of their total time in contact with the labouring woman. These results were comparable with those of a work sampling study conducted at a teaching hospital in Toronto which found the percentage of supportive care to be 9.9% (McNiven, 1991). The percentage of time nurses spent in each of the four subcategories of supportive care was also similar to McNiven's (1991) findings.

Based on Lazarus & Folkman's (1984) theory of Stress, Appraisal and Coping, support provided by nurses to women during labour and delivery should be available as a coping resource to help them through the childbirth process. Support is considered to attenuate the adverse effects of stress by affecting both behavioral and physiological

mechanisms. Individuals who feel that they have adequate support may perceive a stressful event as less threatening, hence, deterring the activation of the neuroendocrine system (Cohen, 1988).

Within the supportive care activities, instructional/informational support was most frequently observed. This form of supportive care consisted primarily of answering the mother's questions and helping with breathing and pushing techniques. The observational findings are compatible with results of the interviews in which nurses stressed the importance of this form of supportive care in helping women to cope with labour.

Different strategies that the nurse employs can assist the labouring woman to cope with the birth experience. Through the provision of information and explanation, for example, nurses can be instrumental in rendering women's primary appraisal of events during childbirth less threatening. The nurse may alter the woman's appraisal of the situation by enhancing, through praise, her belief in her ability to cope with the experience. If she believes that she can cope, she may appraise childbirth as a challenge rather than a threat. Nurses are also in a position to assist women in secondary appraisal by increasing the number of coping options available to the labouring woman. For example, by discussing different strategies, the woman can choose a resource that is best suited to her needs. Providing choice may also serve to enhance feelings of control over the experience by the woman.

Findings of this study, and those of McNiven's (1991), suggested that nursing support as a coping resource, was minimally available to labouring women. In the current study, the majority of the nurses' time was not spent in direct contact with the

women (72.2%). This finding can be explained, in part, by the physical lay-out of this unit. Because of the small size of the labour rooms, most of the equipment used in providing nursing care such as linens, medication and intravenous equipment are kept at designated areas on the unit. Charts are stored at a central nursing desk where nurses complete their charting. The satellite electronic fetal monitors, which display the fetal heart tracing and uterine activity, are also located at this central station. Consequently, these physical assessments can be interpreted and documented without entering the woman's room. This central nursing desk also provides a milieu for group discussion which accounted for 59 of the 404 observations made (14.6%).

The importance of the nurse "being there" for women during childbirth is described in the literature as a vital component of supportive care (Field, 1987; Callister, 1993; Shields, 1978). It is continuous presence and support that has been identified in research as having a positive effect on maternal and fetal outcomes (Sosa et al., 1980; Hodnett & Osborn, 1989). Given the research evidence of the importance of support, the findings of this study underscore the need to implement strategies to increase the amount of supportive care provided by caregivers on labour and delivery units.

Nurses' Perceptions of Supportive Care

All of the nurses in the interviews described supportive care in terms of physical, emotional and informational/instructional support, consistent with the operational definition used in this study. However, discrepancy existed in the perceived importance of certain components of support and what was observed during work sampling. For

instance, nurses frequently mentioned the importance of providing emotional support such as praise and encouragement to labouring women yet this accounted for only 2.5% of the nurses' total time.

Studies in the education literature have described incongruity related to the performance in case studies versus actual practice. A study by Goran, Williamson and Gonella (1973) compared responses of a clinic team on a simulated patient management problem (PMP) pertaining to a urinary tract infection, with the actual care provided to patients with urinary tract infections. A significant difference was found between what clinicians said they would do and what they actually did. A similar study was conducted comparing Nurse Practitioners' performance (as measured by chart audit and direct observation of care) with performance on a simulation of the management of a patient with hypertension (Holzemer, Resnik & Slichter, 1986). Again, no significant correlation was found between the care described in the simulation and that which was observed. For both of these studies, care was more thorough in simulations than in actual practice.

There are other reasons that must be considered in explaining this discrepancy between what was described in the interviews and what was observed in this study. When asked during an interview about their care of labouring women, one would expect that few nurses would exclude the provision of psycho-social care as it is this aspect of care that is deemed an important focus of nursing practice. However, the translation of this emphasis into care at the bedside may not occur due to competing demands for the

nurses' time in the workplace. As well, because interviews were conducted over a one-month period, the possibility exists that nurses shared the content of the interviews which may have alerted nurses to the supportive care focus of the interviews.

Nurses' in this study perceived epidural analgesia to be a key pain control measure in helping women to cope with the pain of childbirth. These findings are congruent with those of a British study where health care providers' perception of pain relief measures tended to be restricted to pharmacological methods (Rajan, 1993). In this nation-wide survey, data from women ($n=5,632$) were obtained through a questionnaire examining their perceptions of pain during labour and the effectiveness of pain relief methods. The findings were compared with those derived from questionnaires eliciting the same information from health care providers (midwives, obstetricians, general practitioners and anaesthetists) that cared for them during labour and delivery. Results revealed that a significant number of health care providers ($p < .0001$) tended only to view pharmacological methods as being efficacious in relieving pain during labour. As well, perceptions differed significantly between health care providers and the women as to the effectiveness of analgesia ($p < .0001$), with professionals tending to feel that the pain was relieved, while the women did not.

This preference by caregivers for pharmacological methods of pain relief in labour seriously limits the coping resources available to the labouring women. Women are not being provided with alternate options such as hydro-therapy or different positions to assist them to cope with the pain. The use of jet hydrotherapy in labour has been associated with decreased pain and anxiety and potentially shortened labour (Aderhold

& Perry, 1991). The upright position has been demonstrated to reduce front and back pain (Melzack, Belanger & Lacroix, 1991) and length of labour (Andrews & Chrzanowski, 1990). Few of these techniques are possible when the use of epidural analgesia limits mobility. This propensity for pharmacological control on the part of caregivers conveys the message that pain is a threat, not a challenge, and that it should be eliminated with the use of analgesia. However, research has indicated that the use of epidural analgesia does not result in greater maternal satisfaction with the childbirth experience and that women who did not rely on analgesia, or those who used simpler forms of analgesia, had higher satisfaction rates despite higher pain scores (Morgan, Bulpitt, Clifton & Lewis, 1982; Green, Coupland, Kitzinger, 1990; Hutton, 1985). These findings suggest that maternal satisfaction with the childbirth experience is complex and not merely the result of adequate pain management.

As well, epidural analgesia has been implicated in increasing the rate of cesarean section (Morton, Williams, Keeler, Gambone & Kahn, 1994), in prolongation of labour and an increase in instrumental delivery (Avard & Nimrod, 1985). Investigators have indicated that instrumental delivery has been associated with maternal dissatisfaction with the childbirth experience (Morgan et al., 1982; Paech, 1991). Based on the results of these studies, the judicious use of epidural analgesia is warranted.

Studies have shown that the support provided by the partner during childbirth is important to labouring women (Klein, Gest, Nicholson & Standley, 1981). However, the presence of a partner does not lessen the women's desire for nursing presence and support. The literature suggests possible reasons for this including: the reassurance of

having a trained health professional present and assistance from someone who is less anxious and emotionally invested (Keirse, Enkin & Lumley, 1989). As well, there is no conclusive evidence to suggest that the presence of a labour partner improves maternal or fetal outcomes whereas multiple trials have been conducted revealing the advantages of an additional support person such as a nurse. This challenges the premise presented by two of the nurses interviewed, that support is best provided by the partner. As well, one of the nurses interviewed suggested that the desire to have partners involved in the childbirth process varies and that it is important for nurses to assess the couple's wishes and guard against imposing their own biases. Hence, nurses should be cognizant of the influence of culture on the provision, acceptance and effectiveness of social support (McCauley, 1995).

Instructional/informational support provided by nurses in this study consisted of answering questions, explaining policies and procedures assisting with breathing and pushing techniques; and involving the partner in the experience. These activities accounted for 8.7% of the total time caring for women. This aspect of supportive care is perceived by women to be helpful nursing care (Shields, 1978; Field, 1987; Callister, 1993; Bryanton, 1994; Mackey & Stepans, 1994). In a qualitative study by McKay and Smith (1993), interviews with 20 women in the postpartum period revealed that they wanted more information provided by nurses about procedures and about the progress of labour. Green, Coupland & Kitzinger (1990) found that women who felt that they had been kept fully informed about the progress of labour and who felt that they were able to discuss concerns with staff were more likely to feel that birth had been a fulfilling and

satisfying experience and were more positive about the baby in the postnatal period. These findings are congruent with the framework of this study that describes informational support as an important resource that the nurse can provide to decrease, both the likelihood of a stressor being appraised by the mother as threatening, and to increase the number of options available as resources to cope with the labour experience. Information regarding anticipated sensations and normal physical and emotional responses may allow cognitive reappraisal of any stressful situation surrounding birth.

Advocacy was operationalized in this study to include the following: asking for the woman's plans for the birth experience; negotiating women's wishes with other health team members; and discussing with visitors about women's wishes (e.g., asking visitors to leave at the woman's request). Advocating for the woman was described by three of the nurses in the interviews to mean, respectively: answering women's questions; arranging for an epidural and keeping the physician abreast of changes in the progress of labour; supporting the couple's birth plans, if congruent with unit policy; encouraging the woman to discuss concerns with the physician or letting the physician know about the partner's desire to cut the baby's umbilical cord; and confronting the physician with what the nurse felt was best for the woman. Although the literature describes advocacy in terms of negotiating *women's or couple's* wishes with other health team members as having importance to labouring couples (Bryanton, 1994; Field, 1987; Kintz, 1987; Mackey & Stepan, 1994), this aspect of advocacy was not seen in the work sampling

portion of this study and was only mentioned in one of the interviews. This is compatible with what has been reported in other childbirth research (Hodnett & Osborn, 1989; McNiven, 1991).

An additional finding of the current study was one nurse's perception of the importance of being "empathetic" and "understanding" when supporting women in labour. This may be a very important component of supportive care not measurable using work sampling and this study's operational definition of support. Work sampling measures the behavioral aspect of nursing care, that is, the physical activity that the nurse is doing, and does not measure the manner with which the care is given. Whether a woman perceives the support as helpful or not may be dependent on the manner of the health care provider. According to Lazarus & Folkman's (1984) definition of support, it is the person's perception of the helpfulness of the support that is key.

Factors Affecting the Provision of Supportive Care

Nurses described several factors that helped them to care for women during labour, such as having only one patient and having a good rapport with physicians and other nurses on the unit. Two of the nurses felt that the fact that they loved their job made it easy to care for women in labour. For one of the nurses, treating women according to their wishes, served as a guide for her nursing care.

The main factor that nurses felt impeded the provision of nursing care was having "too many patients" or "not enough staff". However, it was also confirmed by the nurses that this was not a frequent occurrence and that the usual patient load was one to

two patients. This is congruent with findings of the work sampling portion of the study. This would suggest that there are other factors prohibiting nurses' provision of supportive care on this unit.

Control of the labouring woman and her partner by health care providers is a theme that emerged from the interviews in this study and appears to be a major barrier to nurses' provision of supportive care. Nurses' narratives described the ritualistic nursing care of labouring women, driven by intervention and institutional policy rather than the needs of the women themselves.

As was evident in the historical account of the evolution of childbirth from home to hospital, the childbirth experience for women was transformed by medical technology and intervention. Women no longer had complete control over the birth process. What was once considered a very natural female occurrence became a complex illness requiring medical and surgical intervention. Intervention continues to be very prevalent today even in uncomplicated pregnancy and labour. If labour is perceived to progress too slowly or exceeds acceptable time limits, health care providers hasten the process by medication or by artificially rupturing the amniotic membranes. Intervention fosters more intervention as the use of induction or stimulation procedures result in policies which stipulate continuous electronic fetal monitoring. The extensive clinical experience of the researcher has revealed, through discussion with labouring women, that oxytocin intensifies the pain of labour. This intense pain often leads to epidural analgesia and exposes the woman to further intervention. The concept of childbirth as an illness often becomes a self-fulfilling prophecy as one intervention such as induction leads to another,

such as epidural analgesia, which can lead to iatrogenic complications. This propensity for intervention was clearly described in the interviews. As revealed in this study, the nurse becomes preoccupied with setting up and monitoring these devices and with charting the findings. The use of satellite monitors, on this unit, appears to further alienate nurses from the women for whom they are caring.

The use of technology and intervention during childbirth further enhances the control that the health care providers have over the women and their partners. For example, the induction of a woman requires continuous fetal monitoring which means that she must remain in bed and assume a position that enables the monitor to pick up the fetal heart and contractions. Artificial rupture of the membranes, frequently done to stimulate labour, also necessitates that the woman remain in bed until the fetal presenting part is in a position to prevent the umbilical cord from prolapsing. This places the woman in a dependent position reliant on nurses to monitor the labour process after the intervention and to manage the technology. In this way, as this study shows, it is technology and intervention that legitimizes the role of nurses in the childbirth process and not the support they could provide.

Nurses become the "experts" in the labour and delivery process as they are perceived to possess the knowledge and skill necessary to ensure a successful outcome. They have the knowledge required to manage the fetal monitors and the intravenous pumps that are in place to "assist" the woman through the childbirth process. All of this further validates the necessity of the nurse, as the labouring woman truly becomes a patient connected to all of this technology. This scientific and technological "expertise"

provides health care professionals with power over patients and renders patients' opinions about their health care unimportant (Wells, 1995). Thus, paternalistic dominance prevails--paternalistic in that action taken and decisions made for women are well intended and considered to be for the woman's own good (Sherwin, 1992).

As revealed in the current study, there is a prevailing acceptance of the medical model that encourages fragmentation of care and separation (Sandelowski, 1988). Inherent in the acceptance of the biomedical approach is the belief that childbirth is an illness requiring intervention and control by health care workers to ensure a successful outcome. Comments from the interviews such as: "she [the labouring woman] is admitted to the hospital *as all patients are*" [italics added] illustrates this point. Scepticism about whether the women's body is capable of ensuring a successful outcome is implicit in the implementation of such measures as oxytocic drugs to induce or hasten the labour process. Although a healthy outcome is the key concern of this model, the psychological process is not an inherent component (Callaghan, 1993).

Feminist scholars present cogent arguments for why nursing has introjected this biomedical approach to childbirth. Few would refute the subordinate role that nursing has traditionally assumed to medicine. Historically, nurses have been seduced by medical technology and delegated tasks in the hope for increased recognition of nursing in a patriarchal society. Ashley (1980) suggests that the consequent fragmentation of care and illusion of power separates nurses from the experiences of women. Nurses are

entrenched in the myriad of tubes and machinery and the task at hand and have undervalued the importance of the experience of childbirth for women and the support nurses can provide.

Research findings have confirmed health care providers' control over the childbirth experience described in this study. For example, Bergstrom, Roberts, Skillman & Seidel (1992) video-taped 23 women in the second stage of labour to identify patterns of behaviour of health care providers performing sterile vaginal examinations. Vaginal examinations were done either to determine the progress of labour or to "help" the woman to push. The researchers found that the caregivers rarely told the woman the purpose of the examination and that the labouring women were generally passive and unquestioning during the procedure. Donning the sterile glove was done in a ritualistic manner in front of the women. If the health care provider wanted to examine the woman only during a contraction, they waited with the gloved hand held up in a fist in front of their body in the woman's direct line of vision. Health care providers gave little attention to displays of pain during the procedure and did not ask the woman whether having a gloved hand in their vagina during pushing was, indeed, helpful to them. All of these behaviours communicated an implicit message that the caregivers were in control.

Beaton (1990) conducted a study in Winnipeg that analyzed the nurse-patient verbal interactions for 33 women in labour. A total of 9,918 nurse "utterances" and 2,183 patient "utterances" were analyzed. Results of this study suggested that nurses seldom acknowledged the viewpoint of the labouring woman. For example, analysis of

the nurse-patient interactions during coaching revealed that nurses consistently focused on directing the woman with their breathing and pushing and failed to acknowledge the women's comments. Nurses ignored the women's perceptions of their experience because they "consistently presumed knowledge of what the patient's experience was or should be and patients accepted the nurses' presumption of greater authority and knowledge", (Beaton, 1990, p. 403). In doing so, the nurses "maintained their control over the woman and the childbirth experience by ignoring the woman's attempts to express her view of the experience", (Beaton, 1990, p. 406). They were able to "get the job done" with minimal interference from the woman.

According to Lazarus & Folkman's (1984) definition, the support provided must be perceived as supportive by the recipient in order to be a true coping resource. Evidence from this study and those previously discussed (Beaton, 1990; Bergstrom et al., 1992) suggested that nurses did not routinely ask for feedback from the women to determine if the strategies they were employing to help them cope with childbirth, such as coaching with breathing and pushing, were indeed helpful to them. They presumed to know what was best for the labouring women and minimal input from the women was sought or considered. It is imperative to determine what actions are perceived to be helpful. This feedback would be valuable in determining if the situation was being appraised as threatening or challenging; in enabling the woman to employ problem-focused coping strategies; and could broaden the number of coping options available to the labouring woman.

Although studies have provided evidence of the physiological and psychological benefits of continuous support and its value to labouring women, this finding should not be interpreted to mean that all women would perceive continuous support as helpful. For example, Mackey & Stepan's qualitative study (1994) of 61 Lamaze-prepared multigravidae found that 53% of the women felt that it was important for the nurse to be present only when needed but to convey a sense of availability by checking on them frequently. It may be that, for some women with substantial prenatal preparation, continuous nursing support is not desired. Shields' study (1978) with 80 postpartum women, also provided evidence that, although the majority of women wanted nurses to be with them most of the time, 18% wanted the nurse to be present as little as possible. Results from these studies illustrate the importance of tailoring nursing care to meet the needs of each woman. Instead of presuming to know what is best for the labouring woman, nurses must determine with the woman if she finds the presence of the nurse helpful to her and assess, on an on-going basis, the perceived helpfulness of nursing strategies employed to assist with childbirth.

Study Limitations

Some of the limitations of this study have been mentioned. A convenience sample of nurses was used for the work sampling portion of the study and, it was conducted on only one labour and delivery unit during six weekday shifts. It is possible that the results obtained were not representative of nursing activities on evenings, nights or week-ends

or of other labour and delivery units. Therefore, the findings of this study are not generalizable beyond the population of these participants on this labour and delivery unit.

Sampling error exists in the work sampling method as analysis does not "include every possible unit in the population being sampled" (Smith, 1978, p. 17). Sampling error decreases as the number of observations increases, therefore it was determined that a minimum of 384 observations must be made to decrease sampling error.

Another limitation of this study is the ability of the work sampling technique to measure an abstract concept such as support. As McNiven (1991) suggests: "There may be some non-behavioral aspects of the nurses' support that cannot be observed and therefore are not measured in work sampling." (p. 25). Therefore, it is possible that the operational definition of support used did not include all possible aspects of support. As well, supportive care, by Lazarus & Folkman's (1984) definition, is only considered supportive if it deemed so by the recipient. No assessment was made in the study to determine whether or not labouring women considered the care supportive.

Finally, the semi-structured interview technique presents limitations. Social desirability effect occurs when informants respond in a certain way to create a favourable impression (LoBiondo-Wood & Haber, 1990). Nurses may have described "ideal" nursing care rather than what is actually practised in order to appear auspicious to the researcher. It is also possible that some of the informant's responses may have been abbreviated as interviews were conducted on the unit while they were on duty rather than in a place of their choosing.

Recommendations and Implications for Nursing

This section begins with a discussion of the implications for nursing and recommendations based on the findings of this study. This is accomplished by presenting an integrated perspective of the four major roles of the Clinical Nurse Specialist (CNS)--educator, clinical practitioner, researcher and consultant (Hamric & Spross, 1989). Suggestions for further research in supportive care of labouring women ensues.

The Society of Obstetricians and Gynecologists of Canada (SOGC, 1995) prescribe intrapartum support in their guidelines as a key intervention in enhancing maternal and fetal outcomes during childbirth. Given the benefits of continuous intrapartum support, and its importance to most labouring women, labour units need to analyze how they can enhance the provision of this valuable resource.

In order to enhance supportive care on labour and delivery units, the CNS must disseminate research findings regarding supportive care. Nursing and multidisciplinary grand rounds provide opportunity for the CNS to educate health care providers as to the importance of incorporating supportive care into daily practice. It is essential for nurses to understand how beneficial their support is to labouring women both from a psychological and physiological perspective. Staff who are unable to attend rounds should receive the information in a hand-out. A task force comprised of interested nurses, physicians, and administrators can then be formed to assist the CNS in the implementation of supportive care.

Another important challenge for the CNS is the implementation of the current guidelines for fetal heart monitoring during labour and delivery established by the SOGC

(1995). Electronic fetal monitoring (EFM) has been used at an increasing rate in hospitals over the last 25 years with the intention of improving fetal outcomes. However, it was implemented prior to the evaluation of its efficacy (SOGC, 1995). Evidence from clinical trials (SOGC, 1995) now implicates EFM with an increase in operative delivery and, when compared with intermittent auscultation of the fetal heart, it is not associated with any measurable improvement in outcome for neonates. This is due, in part, to the subjective nature of interpreting EFM tracings (SOGC, 1995). Furthermore, the use of EFM, as revealed in this study, means that women must remain in bed and do not benefit from the advantages of such strategies as hydrotherapy and ambulation during labour.

Recommendations for fetal health assessment are described in the guidelines and include intermittent auscultation (IA) with a hand-held doppler rather than EFM for "low risk"² women (SOGC, 1995). Incorporating these guidelines is an important step in reducing health care providers' focus on technology. Since labouring women will no longer be connected to a machine, physical contact should be enhanced with IA because it requires health care providers to be in direct contact with the woman. Through the incorporation of these guidelines, as well as supportive care practice, the CNS clearly fulfils the sub-role of patient advocate as options to cope with the stress of childbirth are maximized through research-based imperatives.

² "Low risk" has yet to be clearly defined by the SOGC. This needs to be accomplished prior to implementation of the guidelines in order to link decision-making with probability of risk.

Given the present reliance by health care providers on EFM, the transition to IA will not be easy. The public has also been conditioned to the use of EFM as it has been the routine standard in fetal monitoring during childbirth for several years. Hence, research results of EFM need to reach both health care providers and the public.

The utilization of research by the CNS in the clinical setting requires a strategic plan (Hickey, 1990). The literature has shown that the greatest success with the implementation of research findings in clinical practice is achieved through collaboration with staff (Dufault, Bielecki, Collins & Willey, 1995; Lyons, Reinke, Sutherland & Zelenkov, 1992). In order to successfully incorporate supportive care in daily practice, it is imperative that nurses, physicians and administrators work together with the common goal of enhancing the quality of care provided during childbirth.

With regard to staff education, the CNS can work collaboratively with the clinical educator to develop a fetal health surveillance workshop that incorporates the SOGC (1995) guidelines. A workshop for health care providers that teaches the "why's" and "how-to's" of supportive care and IA is currently being developed by a researcher in Ottawa³. This workshop places particular emphasis on the importance of respecting the birth plans of the labouring couple and allowing the woman and her partner to define what the experience will be. Opportunity is provided for caregivers to examine personal

³ For information regarding the workshop in Ottawa, contact: Barbara Davies, University of Ottawa, School of Nursing, 451 Smyth Road, Ottawa, Ontario. K1H 8M5

attitudes toward their role in the childbirth experience, to examine whether their practice is patient or policy and procedure driven and to develop skills in providing supportive care.

The workshop on IA must be designed for nurses and physicians to become confident and competent in its use as well as to gain a clear understanding of the physiological underpinnings of fetal assessment during childbirth. Certification of health care providers in fetal health surveillance is necessary to ensure the safe delivery of care.

Education of the public regarding the advantages of IA during childbirth can be accomplished in a variety of ways. The CNS can collaborate with physicians to have pamphlets distributed to pregnant women and their partners during routine office visits. These brochures should present the rationale for the transition from routine EFM to IA as well as a description of the IA procedure. Physicians also need to discuss the use of IA with the couples and respond to any concerns that they may have. Prenatal classes are another valuable avenue to disseminate this information. Couples need to be aware of the rationale for changes and become familiar with the "when's and how's" of IA to prepare them for their experience. The CNS can consult with prenatal instructors to develop strategies to disseminate information regarding supportive care and intermittent auscultation. On admission to the obstetrical unit during labour, the woman and her partner should also receive information regarding the transition to IA.

There are other methods that can be utilized to enhance supportive care on labour and delivery units. Role modelling has been described as an effective strategy in nursing education (Driggers, Nussbaum & Haddock, 1993). This competency has long been

recognized as an inherent component of Clinical Nurse Specialist practice (Hamric & Spross, 1989). The CNS is in a position to demonstrate professional supportive care for others, such as nurses, physicians and students, to emulate in their practice. Midwives may also be valuable as role models as support is an integral part of their care of labouring women. As well, representatives from hospitals should be invited to share successful strategies for incorporating the SOGC guidelines into daily practice.

Education alone regarding supportive care is not sufficient. The environment must be conducive to the provision of supportive care. As was evident in this study, the physical layout of labour units in large teaching facilities may impede the provision of supportive care by nurses. The CNS can act as consultant to administration to enhance the current physical layout of the unit. Caseroom nurses can contribute valuable suggestions of the changes needed as they provide the majority of care to labouring women and are most familiar with the unit. A recommendation from this researcher is that units avoid the use of central nursing stations where health care providers can assemble. Charts should be kept in women's room which may substantially increase the amount of time nurses spend in direct contact with women in labour. Implementation of the IA guidelines will also negate the use of satellite monitors, further reducing the need for a central nursing station.

The use of birth plans, completed by the woman and her partner prior to admission, is a valuable way of enabling the couple to discuss their wishes for their childbirth experience with their nurse and physician. Birth plans will help to emphasize to caregivers that the needs of the couple are a priority.

Charting tools, such as the nursing admission history and labour and delivery flow sheets, need to be revised to reflect a supportive care focus. It has been the researcher's experience that input from staff nurses has been extremely valuable in the modification of charting tools.

Nursing policies and procedures need to be developed that prescribe for supportive care. Based on the previous discussion of the benefits of the presence of a trained professional, if so desired by the labouring woman, this form of support should be a goal of all labour and delivery units. If nurses are to be the providers of intrapartum support, a re-examination of non-nursing duties such as restocking shelves and checking supplies, described by nurses in this study, should be undertaken by the CNS in collaboration with administrators. Allocation of these duties to other staff would allow nurses more time to spend in supportive care. Flexible staffing may also be considered so that nursing allocation, based upon patient census, would ensure a 1:1 nurse/client ratio during labour.

It has been the researcher's experience as a nursing instructor that little emphasis is placed on the supportive role of nurses during childbirth and that nursing students tend to focus primarily on technical skills and the physiological process of childbirth. During the work sampling portion of this study, medical students and interns were observed to be in contact with the labouring women only to perform procedures or when delivery was imminent. It appeared that psychological support of labouring women was not considered part of their learning responsibility. Students, if enlightened regarding the role of supportive care, could be a valuable resource to labouring women. The

philosophy of a client-centred experience, with emphasis on supportive care during childbirth, needs to be integrated within nursing and medical curricula. The CNS can function, in her role as consultant, to enhance the supportive care focus in college and university programs.

The research evidence has demonstrated the relationship between epidural analgesia and decreased maternal satisfaction with the childbirth experience as well as the iatrogenic sequelae of epidurals during labour. Other less invasive methods are available such as inhalation analgesia which has been shown to provide effective analgesia with minimal side effects (Stefani, Hughes, Shnider, Levinson, Abboud, Henriksen, Williams & Johnson, 1982). However, caution should be considered when implementing this pain management strategy as there has been minimal research examining childbearing women's perceptions of its utility. For women requesting a non-medicated birth, alternate coping resources should be available such as hydrotherapy and ambulation. Thus, pain control could be achieved through a variety of strategies of which epidural analgesia is only one option. By a reduction in the use of epidural analgesia and EFM, the CNS will be in a position to work with a multi-disciplinary team to examine the effectiveness of alternate pain management strategies.

Unit-based research should be conducted to determine if strategies developed, such as educational programs, are effective in enhancing the amount of supportive care provided by nurses. A longitudinal design would be advantageous in determining if nurses, over time, continue to provide supportive care.

Research results have revealed that the use of supportive care interventions significantly reduces the cesarean section rate and other outcomes and enhances women's satisfaction with the birth experience. Further research is needed to uncover the barriers to providing supportive care as evidenced in this study. Finally, it is important to obtain feedback from nurses regarding their perceptions of the efficacy of supportive care on their unit and assess, on an on-going basis, barriers to the provision of this care.

In our efforts to ensure the highest quality of care possible to labouring women and their partners, we must be careful not to assume a familiar paternalistic stance that continuous supportive care should be provided for all women because it is in their best interests. Continuous supportive care may not be perceived as supportive by all women and this must be assessed and modified on an individual basis.

Directions for Further Research

This study, and that of McNiven's (1991), provides some evidence that supportive care is not a major focus of nurses in large teaching hospitals. Research studies need to be conducted examining the amount of supportive care being provided by nurses in other settings such as community hospitals and birthing centres where technology tends to be less prevalent.

Findings of this study reflect the amount of supportive care provided during week day shifts and may not represent the care provided on week-ends, evening and night shifts. Studies should examine the prevalence of nursing support during those shifts.

Results of this study, and those examining women's perceptions of nursing care during labour and delivery, suggest that the manner with which the nurse provides the care is a key factor in the women's perceptions of its utility as a coping resource. Further research examining the manner with which nursing support is provided, such as the empathy described by one of the nurses interviewed in this study, is needed.

There is a paucity in nursing research focusing on women's perceptions of the efficacy of non-pharmacological methods of pain control during childbirth as well as less invasive pharmacological methods such as inhalation analgesia. Further research is needed in this area to examine the perceived effectiveness of alternate coping resources.

Qualitative studies identifying stressors during childbirth would be helpful in providing insight into what events women perceive as stressful. Finally, results of the interview portion of this study suggest that women's perceptions of supportive nursing care may be influenced by cultural factors. Qualitative studies examining the role that culture plays in the appraisal of stressors during childbirth as well as cultural preferences for nursing care would be helpful in ensuring that the needs of all women during childbirth are being met.

Conclusion

Data from interviews conducted with six nurses of a level II labour and delivery unit in Montreal suggested that supportive care is considered to be a component of obstetrical nursing practice. All of the nurses described emotional and instructional/informational support, four described physical comfort measures and three

of the six nurses described advocacy actions. However, findings of the observation portion of this study revealed that nurses spent only 12.4% of their total time providing supportive care to labouring women, the majority of which included instructional/informational support. These results support those of an earlier work sampling study (McNiven, 1991) conducted at a teaching hospital in Toronto.

During the interviews, nurses described various factors that helped them in their provision of care to women in labour. These included, for example, having a good rapport with physicians and other nurses on the unit; being flexible; and treating patients the way that one would want to be treated.

Nurses described a variety of barriers that they felt impeded the provision of their nursing care. All of the nurses referred to limited time with labouring women due to having "too many patients" and "not enough staff". However, results of the work sampling portion of the study revealed that, despite single patient assignments, supportive care remained a minimal component of the nursing care provided. Other barriers to the provision of care included such factors as language barriers; relatives who interfere with women's wishes; and having non-nursing duties to complete.

Through analysis of the interview data, the researcher perceives that another barrier exists: the control that health care providers exert over labouring women and their partners through technology, intervention and rigid adherence to policy and procedure. Labouring women perceive health professionals as possessing the expertise necessary to ensure a safe outcome. This may result in the labouring couple assuming

a dependent role and relinquishing control of their childbirth process to these experts. Consequently, a barrier to the provision of supportive care exists as caregivers assume control of the birth experience by minimizing input from the woman and her partner.

Women have reported the perceived importance of nursing support to them during childbirth as evidenced by its impact on their memory of the birth experience for years after. As Simkin (1991) states: "In addition to a safe outcome, the goal of a good memory should guide our care." (p. 210). Health care providers must recognize that the evaluation of childbirth must not rest on physiological outcome alone and that the care they provide has a major influence on how women perceive this pivotal experience.

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Appendix A

List of Work Sampling Activities

A: Supportive Care

Code # Category 1: Physical Comfort Measures

1. Using cold face cloth, warm compresses, putting on an extra blanket.
2. Bathing or assisting with shower.
3. Linen and underpad changes; pericare for comfort purposes; changing gown.
4. Giving ice chips or fluids.
5. Positioning for woman's comfort not in order to get a better fetal monitor reading.
6. Massage.
7. Reassuring touch, hand holding, stroking
8. Assisting with ambulation, helping in and out of bed, walking in hall, walking to bathroom.
9. Reducing environmental stimuli e.g., turning lights down.

Category 2: Emotional Support

10. Encouraging verbalization of fears, concerns, needs.
11. Reassurance, encouragement, praise.
12. Being with woman, keeping company.
13. Social conversation with woman.

Category 3: Instruction/Information

14. Instructing or coaching e.g. with breathing, pushing, verbal or non-verbal; (e.g., demonstrating position for pushing); helping newborn latch on to breast or showing woman how to hold infant; suggesting techniques to promote relaxation or comfort e.g., imagery, use of focal point, etc.
15. Explaining/providing information e.g. about progress of labour, monitoring procedures, fetal/neonatal well-being, explaining hospital routines, getting information from patient, etc.
16. Involving partner in woman's care e.g., demonstrating how to assist with breathing, pushing.

Category 4: Advocacy

17. Asking for woman's birth plan e.g., for pain control, partner involvement, etc.; listening to women's requests; supporting women's decisions.

18. Negotiating women's wishes with other team members, e.g., desire for "natural childbirth", for epidural, for no episiotomy; discussion with physicians about woman's wishes (may be out of the room).
19. Discussing with visitors about women's wishes e.g., asking visitors to leave at patients request, etc.

B. Other

Code # Category 1. Direct Care.

20. Nursing assessment including vaginal exam; taking vital signs; adjusting monitor/reading monitor, listening to fetal heart; giving/removing bedpan, inserting catheter; starting/adjusting IV; taking blood; giving IV meds; changing woman's position to get a better monitor reading.

Category 2. Indirect Care In Room.

21. Assisting with procedures (i.e. epidural, changing epidural syringe, vaginal exam, rupturing of membranes, insertion of internal monitor, helping MD at delivery), talking to partner, listening while MD talks to woman, washing hands; getting equipment ready; transferring patient to or from D.R.; completing hospital forms with patient or significant other.
22. Charting; giving or taking report in room.

Category 3. Indirect Care Not In Room.

23. Preparing medication, getting equipment, preparing delivery set ups, getting ice, showing partner where to get ice, washing hands, walking in hall, pushing beds or stretchers; arranging blood work (requisitions, tubes, etc.).
24. Charting out of woman's room; checking satellite fetal monitor.
25. Giving or taking report, discussions with other staff members or unit agent regarding patient care/status, phoning doctor.

Category 4. All Other Activities.

26. In operating suite for cesarean section.
27. Transferring patients to other units.
28. Working in other department; meetings.
29. Meal breaks, personal time.
30. Social discussions; discussion re: unit policy; just sitting quietly.
31. Checking/restocking equipment; answering phone.
32. Physical care of baby.

Borrowed with permission from P. McNiven.

Appendix C

Interview Guide

Introduction

As you know, I have been on the unit observing the work activities of labour and delivery nurses for a study that I am doing. What I would like to do now is explore with you your ideas and feelings of what you do as an obstetrical nurse.

- * Tell me how you care for a women during labour? (If uncertain, probe with: What are the different things you do for women during labour and delivery?)
- * What else do you do? (probe)
- * Now I will ask you to think about your most recent patient and tell me what your nursing care of her was from the time that you received her as a patient until she was either discharged from the unit or your shift ended. (Probe only with: Describe for me what you did?)
- * What do you do when the woman is asking for something to help her with the pain?
- * What about the father during labour and delivery? (If uncertain, probe with: What is his role in all of this?)
- * Describe the function of the labour and delivery nurse.

End with these questions:

- * What helps you to provide the care you want to give on the unit? (Probe: What else helps you?)
- * What gets in the way? (of providing this care?) (Probe: What prevents you from giving the care you want to give to labouring women?) (Probe: What else gets in the way?)
- * What would you change?
- * What does nursing support mean to you?
- * (Probe) What else do you want to talk about?/Add?

NURSES' DEMOGRAPHIC DATA QUESTIONNAIRE

Please complete the following:

1. **Your present age: _____ years.**

2. **How many years have you been nursing? (Please circle appropriate response.)**
 - a) 2 years or less
 - b) 2 - 5 years
 - c) 6 - 10 years
 - d) more than 10 years

3. **How long have you worked as a nurse in the labour and delivery area? (Please circle appropriate response.)**
 - a) 2 years or less
 - b) 2 - 5 years
 - c) 6 - 10 years
 - d) more than 10 years

4. **Have you nursed in any other area other than labour and delivery? (Please circle appropriate response.)**
 - a) yes
 - b) no

If yes, please specify _____.

5. **Which of the following best describes your nursing education? (Please circle appropriate responses.)**
 - a) RN - hospital training program
 - b) RN - college diploma
 - c) Bachelor's degree
 - d) Master's degree

Appendix E

INFORMATION SHEET FOR NURSES

TITLE OF PROJECT: A study of the work activities of labour and delivery nurses.

RESEARCHER: Jill Stevenson-Gale
M.Sc.N. Student, University of Ottawa
363 Woodcroft
Hudson, Quebec, J0P 1H0
Telephone: (514) 458-5903

The purpose of this nursing research study is to examine the work activities of labour and delivery nurses. It is not intended to measure the quality of care being provided.

Data collection for the work sampling portion of the study will take place during day shifts over in October, 1995. Each nurse participating in the study will be asked to wear a coded name tag for easy identification. At prescheduled times, the data collector will locate each nurse and will record what the nurse is doing at that moment. Observations will be made of the activities of all nurses participating in the study for each eight hour shift. Each nurse will be asked to sign a sheet located at the nursing station if you leave the unit stating where you will be. Nurses will also be asked to explain the implications of the study to their patients and obtain their acceptance to have the researcher enter the room.

You may be asked to participate in an interview with the data collector that will explore certain aspects of nursing care in labour and delivery. The interview will be tape-recorded and should take no longer than 30 minutes. All tapes used to record this interview will be erased by the principal investigator once the data is transcribed. Responses will be grouped into categories in the research report. The only use of a quote from an interviewee will be on the occasion of an isolated comment which would add substance to the results. To ensure anonymity, no identifying information would be included with this quotation.

Complete confidentiality will be maintained throughout the study. Only the researcher and her thesis committee will have access to the raw data. Once the data is analyzed, no individual will be identifiable. Data of individual nurses will not be available to the hospital. Consent forms and data collection forms will be kept in a locked cabinet.

It is understood that participation is voluntary and that you may withdraw at any time without any implications regarding your employment or work on the unit. It is also understood that participation in this study will not affect your employment in any way. Although you will not benefit directly from this study, information gained may be useful in the future development of strategies to provide optimum care to labouring patients. There are no anticipated risks or foreseeable discomforts from participating in this research. There will be no remuneration/compensation for participating in this study.

If you agree to participate in the study, you will be asked to sign a consent form and complete a basic demographic questionnaire.

This study is being conducted in partial fulfilment of a master's degree. It has received approval from the Research Ethics Committee and the Director of Nursing of this hospital. It has also been approved by the University of Ottawa Human Research Ethics Committee of which Dr. Francis Reardon is Chair. If you wish, you may contact the person supervising this study at the hospital, Ms. Rosa Sourial at 345-3066.

If you have any questions at any time please feel free to ask them.

Appendix F

CONSENT FORM FOR NURSING STAFF
Work Sampling

TITLE OF PROJECT: A study of the work activities of labour and delivery nurses.

RESEARCHER: Jill Stevenson-Gale
M.Sc.N. Student,
University of Ottawa
363 Woodcroft
Hudson, Quebec
J0P 1H0
Telephone: (514) 458-5903

I have been asked to participate in a nursing research study the purpose of which is to examine the work activities of labour and delivery nurses.

I understand that my participation in this study will include allowing the data collector to make observations of the nursing activities in which I am involved at random times throughout my shift and record this data. The activity observed will be classified into several broad categories and there will be no assessment of the quality of care being provided.

I understand that confidentiality will be maintained throughout this study and that code numbers will be used instead of names to protect anonymity. All consent forms and data collection forms will be kept in a locked cabinet. I understand that my name will not be used in the written report and that data of individual nurses will not be available to the hospital.

I understand that participation in this study is voluntary and that I can withdraw at anytime without any implications regarding my employment or work on the unit. I know that I may ask now or in the future any questions about the study. I am aware that I will receive a copy of this consent form. I am aware that I will not benefit directly from this study and that there are no known risks or discomforts from participating.

This study is being conducted in partial fulfilment of a master's degree. It has received approval from the Research Ethics Committee and the Director of Nursing of this hospital. It has also been approved by the University of Ottawa Human Research Ethics Committee, of which Dr. Francis Reardon is Chair. If you wish, you may contact the person supervising this study at the hospital, Ms. Rosa Sourial at 345-3066.

I agree to participate in this study.

Signature: _____ **Date:** _____

Witness: _____

Appendix G

CONSENT FORM FOR NURSING STAFF
Interview

TITLE OF PROJECT: A study of the work activities of labour and delivery nurses.

RESEARCHER: Jill Stevenson-Gale
M.Sc.N. Student, University of Ottawa
363 Woodcroft,
Hudson, Quebec
JOP 1H0
Telephone: (514) 458-5903

I have been asked to participate in a nursing research study the purpose of which is to examine the work activities of labour and delivery nurses.

It has been explained to me that participation in this portion of the study involves an interview of a maximum of 45 minutes at a time that is convenient for myself and the unit. This interview will consist of responding to a few open-ended questions. I am aware that this interview will be audio-recorded and that the tapes will be erased once the data is transcribed. I understand that my name will not be used nor will any identifying information about me be collected. I understand that responses will be grouped into categories in the research report. The only use of a quote from an interviewee will be on the occasion of an isolated comment which would add substance to the results. To ensure anonymity, no identifying information will be included with this quotation.

I understand that confidentiality will be maintained throughout this study and that code numbers will be used instead of names to protect anonymity. All consent forms and data collection forms will be kept in a locked cabinet. I understand that my name will not be used in the written report and that data of individual nurses will not be available to the hospital.

I understand that participation in this study is voluntary and that I can withdraw at anytime without any implications regarding my employment or work on the unit. I am also free to refuse to answer any questions that I am asked during the interview. I know that I may ask now or in the future any questions about the study. I am aware that I will receive a copy of this consent form.

This study is being conducted in partial fulfilment of a master's degree. It has received approval from the Research Ethics Committee and the Director of Nursing of this hospital. It has also been approved by the University of Ottawa Human Research Ethics Committee of which Dr. Francis Reardon is Chair. If you wish, you may contact the person supervising this study at the hospital, Ms. Rosa Sourial at 345-3066.

I agree to participate in this study.

Signature: _____ **Date:** _____

Witness: _____

Explanation to Patients

This labour and delivery unit is presently participating in a nursing study. This study is about nurses' work activities and requires the researcher, Jill Stevenson-Gale, to enter patients' rooms briefly and intermittently in order to make observations of the nurses. The researcher will be wearing a white lab coat and a name tag identifying her as a Masters of Science in Nursing (M.Sc.N.) student from the University of Ottawa. The nurses participating in the study are wearing coded name tags so that they may be easily recognized. No identifying information will be obtained about patients.

Please feel free to ask to speak to the researcher or the unit manager if you have any questions.

Appendix I

Supportive Care (S.C.) Activity Distribution by Nurse

Nurse #	6	5	16	3	2	1	7	8	9	10	11	12	
Category	Number of observations												Overall Total Across Nurses
A. Direct Supportive Care													
Physical	0	2	0	0	0	0	0	1	1	0	1	0	5
Emotional	2	0	0	0	1	1	4	0	0	0	2	0	10
Instructional/ Informational	15	5	1	0	2	0	4	2	1	0	3	2	35
Advocacy	0	0	0	0	0	0	0	0	0	0	0	0	0
Total # S.C.	17	7	1	0	3	1	8	3	2	0	6	2	50
Total Observations	105	19	15	28	31	3	54	46	39	19	21	24	404
% of Supportive Care for Each Nurse	16.2	36.8	6.7	0	9.7	33.3	14.8	6.5	5.1	0	28.6	8.3	50 = 12.4% 404
% Observations Contributed by Each Nurse	26.0	4.7	3.7	6.9	7.7	0.7	13.4	11.4	9.7	4.7	5.2	5.9	100.0%