

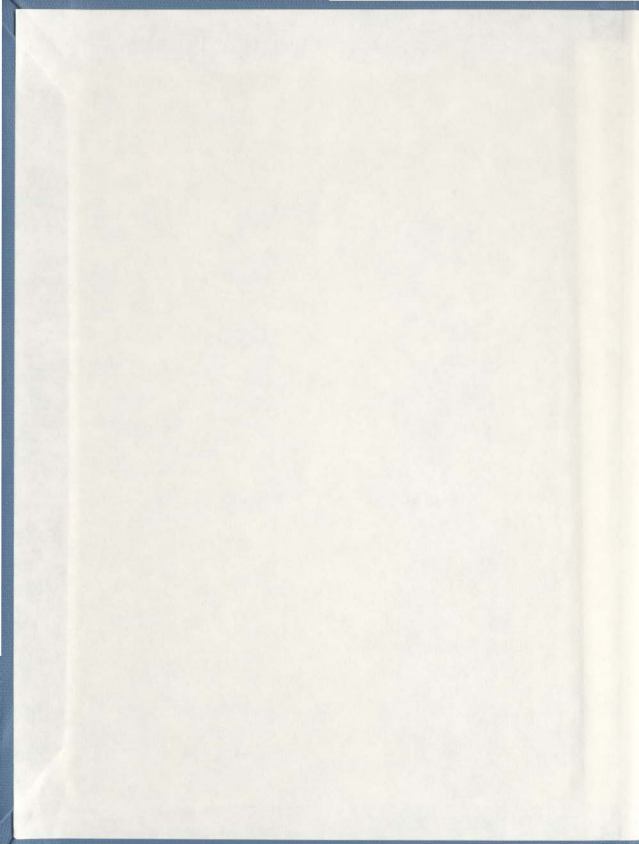
INFORMATION SEEKING OF PREGNANT WOMEN:
A GROUNDED THEORY APPROACH

CENTRE FOR NEWFOUNDLAND STUDIES

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**Information Seeking of Pregnant Women:
A Grounded Theory Approach**

by

©Doris Elizabeth Lundrigan, B.N.

**A thesis submitted to the
School of Graduate Studies in partial fulfillment
of the requirements of the degree of
Master of Nursing**

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Abstract

The primary aim of this study is to define the processes of information seeking used by pregnant women. The questions asked are "How and when do pregnant women seek information, who do they seek information from, and what information do they seek." The study involves 11 participants recruited through a Public Health Nursing District Office. Data collection is achieved using a semi structured interview schedule and tape recorded interviews.

A grounded theory method of data analysis is used. The data analysis process is adapted from Glaser and Strauss (1967) with procedural guidelines from Chenitz and Swanson (1986).

Two main processes of information seeking are identified: (a) the Health/Wellness Information Seeking Process (HWISP), that is concerned with information about activities participants used to achieve a healthy pregnancy, and (b) the Problem Initiated Information Seeking Process (PIISP), that is concerned with information about participants' signs and symptoms and suitable remedies. A third process identified is "making sure," the specific process used to confirm the pregnancy. The determinants of information seeking is the pregnant woman's attitude toward the information source, their valuing of a healthy pregnancy outcome, recognition of salient indicators and receiving cues to action.

The implications of these findings for nurses planning prenatal education programs and other prenatal services are discussed, as well as implications for future research.

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CHAPTER I

Introduction

Not participating in prenatal education programs and the late commencement of prenatal medical care is thought to have a negative impact on the health of the pregnant woman, her fetus and the eventual outcome of her pregnancy (Cogan, 1980; Gortmaker, 1979; Quick, Greenlick & Roghmann, 1981). In the majority of regions of Newfoundland and Labrador, pregnant women are offered two complimentary health services: (a) prenatal education classes conducted by Public Health Nurses or hospital affiliated nurses and (b) prenatal medical care. The prenatal education programs and prenatal medical care available to pregnant women are designed to enhance the health of the mother and the baby. If these services are not utilized, it may result in an adverse outcome for the pregnant woman and her baby and it is an inefficient use of public money.

The greater proportion of women who participate in prenatal programs are well educated, married, employed outside the home, and financially secure (Husband, 1983; Poland, Ager, & Olsen 1987; Vinal, 1982). The participation of women who have less formal education and are in lower income categories is sporadic; if, in fact, they do participate. Therefore, those who possibly could benefit most from prenatal education do not make much use of it. This has been observed by the

author through her work with prenatal and postnatal clients in a rural community health setting from 1978 to 1984. Discussions with Public Health Nurses indicate that this remains a concern. Statistics cited in the Newfoundland Health Review (1986) indicate that about 20% of pregnant women in Newfoundland and Labrador attend formal prenatal education programs. Therefore 80% of women who are pregnant do not seek information through these formalized programs that are conducted by nurses in Newfoundland and Labrador. There is no statistical data available on the characteristics of nonparticipants in prenatal education programs.

There are a number of pregnant women in the province who do not seek prenatal medical care, or, seek and receive medical care only during the last two trimesters of pregnancy, which is generally recognized as less than the ideal time in order to ensure an optimal pregnancy outcome. According to raw data collected from the Newfoundland and Labrador Provincial Livebirth Notification Form for the period January to October, 1986 there were 6,305 live births in the province. Of that number, 1.8% received no prenatal medical care prior to the onset of labour; 2.9% commenced prenatal medical care in the third trimester; and 12.7% commenced prenatal medical care in the second trimester. In total 17.4% of mothers who delivered from January to October, 1986 did not commence prenatal medical care in the first trimester. However, 98.2% obtained prenatal medical care sometime during pregnancy as

opposed to 20% who attended prenatal education classes. Based on these figures, one might assume that some pregnant women do not value prenatal education programs as highly as prenatal medical care.

From the statistics cited above it is apparent that in the area of prenatal education and prenatal medical care there is a need to investigate the factors contributing to: (a) low participation in prenatal education programs, (b) time of commencement of prenatal medical care, and (c) where and from whom pregnant women receive information regarding their pregnancy. These three problems, especially the third, are the basis of this research. Specifically, this study is designed to determine the meaning and process of information seeking behaviour during pregnancy from the client's perspective and to show how that meaning influences the utilization of prenatal education and prenatal medical care services. It is assumed that clarification of the meaning and process of information seeking behaviour will assist health care planners, especially Public Health Nurses, in the development of more effective services to meet the needs of this target group. In short, an understanding of the information seeking aspect of the prenatal experience for pregnant women in rural Newfoundland communities will provide an insight into the problems of utilization of all prenatal services.

The Problem

The problem identified for this study is defining the process of information seeking used by pregnant women, specifically, how and when they seek pregnancy related information, who they seek the information from, and what information they seek. At present, there is not sufficient information on this process. A problem is manifested in the under utilization of services designed to enhance the outcome of pregnancy. There are many factors which may have an effect on the utilization of services. Apart from social characteristics of the target group, these include the design of the service, and the target group's perception of the value of the service. These factors must be considered in order to comprehensively assess the full extent of the problem. However, there has been no formal study conducted to determine why some Newfoundland women do not participate in prenatal education programs or seek prenatal medical care, or what their prenatal information needs might be or how they are met.

It appears, from initial observations, that the aims of present prenatal education programs are congruent with the needs of middle class pregnant women. This may relate to the fact that these programs are designed and implemented by middle class nurses with little input from other groups. There is a need to appraise the information requirements of all pregnant women in order to design appropriate prenatal education programs.

Considering the 98.2% attendance of pregnant women for prenatal medical care, it is strongly suggested that physician care is seen to be important by all social strata. Seeking answers to why physician care is seen as important and what information is sought from physicians may provide insight into the different value placed on prenatal medical care as opposed to prenatal education.

The under utilization of services or inappropriately designed services do little to alleviate poor health practices during pregnancy. The problems ensuing from poor health practices during pregnancy include poor, or less than ideal, pregnancy outcomes. These outcomes are manifested by low birth weight, morbidity and mortality of the neonate and the long range consequences of morbidity associated with poor health practices during pregnancy. The most notable of these practices are inadequate diet and use of tobacco and alcohol.

This research study is qualitative, exploring the meaning and patterns of information seeking behaviour of pregnant women. The design is chosen with the assumption that the value and meaning attached to prenatal education and prenatal medical care has an influence on the utilization patterns of these services.

Rationale

The importance of a study on information seeking during pregnancy is supported by demographic and health indicators.

The Newfoundland Health Review (1986) states: "A number of groups have been identified for whom prenatal care should be directed. These include teenagers, older mothers, females who have had a previous poor pregnancy outcome and the economically disadvantaged" (p. 81). Table 1 provides the Newfoundland and Labrador mortality rate per 1,000 based on birth weight.

Table 1

Neonatal Mortality by Birthweight

Birthweight	Deaths	Births	Mortality
	1980-84	1982 + 83	Rate/1,000*
501 - 1000	72	46	626.1
1001 - 1500	33	101	130.7
1501 - 2500	53	887	23.9
2501 - 4000	71	14,942	1.9
>4000	5	2,430	0.8
Not stated	23	58	-

Note: Calculated thus: numerator = deaths 1980 - 84, denominator = (births 1982 + 83) X 2 1/2.

Source: Maternal & Child Health Statistics Newfoundland, Volume I, Perinatal Statistics (1985).

The mortality rate increases dramatically with decreasing birth weight. Infant mortality in Newfoundland approximates that for the whole of Canada (See Figure 1).

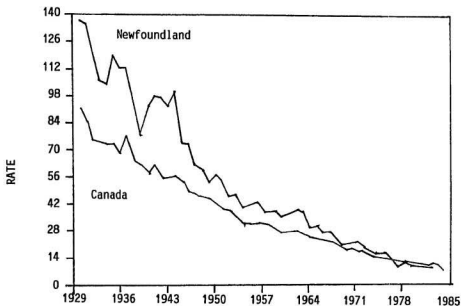


Figure 1. Infant Mortality - Newfoundland and Canada - 1930 - 1984

Source: Maternal and Child Health Statistics, Newfoundland, Vol. 2, Child Health Statistics (1985).

In 1984, the overall perinatal mortality in Newfoundland was 9.4 deaths per 1,000 births compared to 9.5 deaths per 1,000 births in Canada in 1983 (Newfoundland Health Review, 1986). Figure 2 indicates the components of overall perinatal mortality in Newfoundland for the period 1965 to 1984.

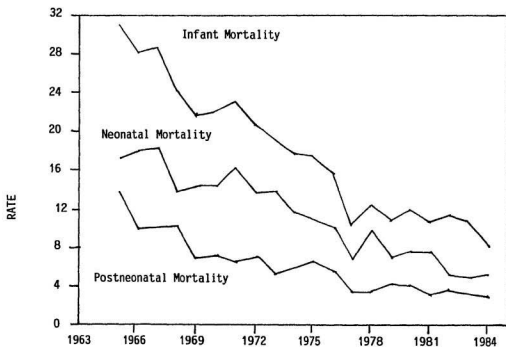


Figure 2. Infant Mortality and its Components - 1965-1984

Source: Maternal and Child Health Statistics, Newfoundland, Vol. 2, Child Health Statistics (1985).

Even though Newfoundland's recent perinatal mortality statistics are on par with Canada, it is important to realize that infant mortality in Canada is higher than that of Denmark, Finland, the Netherlands, Norway, Sweden, Switzerland and Japan (Maternal and Child Statistics, 1985). The relationship between perinatal mortality, low birth weight, social inequalities and utilization of prenatal services indicates the need to investigate the problem of under utilization of prenatal services and where pregnant women receive pregnancy related information through examining the process of information seeking during pregnancy. This under utilization of prenatal services should be a concern of health professionals in Newfoundland and Labrador.

Research findings reported in the literature indicate that the best predictor of who attends prenatal classes is the educational level of the pregnant woman (Husband, 1983; Nelson, 1982; Watson, 1977; Vinal, 1982). Statistics Canada figures for 1984, cited in the Newfoundland Health Review (1986) indicate that 30% of Newfoundlanders 15 years and older have eight years or less of formal education as compared to 20% of Canadians 15 years or older. The educational level of pregnant women in Newfoundland may have an impact on their attendance at prenatal classes.

Epp (1986) challenges health care professionals "to participate in the broad planning of social programs in order to be able to improve the health of all Canadians and not just

those who are well off" (p. 39). Epp postulates that low income Canadians perceive greater barriers to improving their health than do those with higher incomes. The debate over how the problem of poverty should be approached by health professionals, that is, change the conditions that create poverty versus helping people to cope with their poverty circumstances (Moccia & Mason, 1986) reflects the dilemma that health professionals face in reconciling their values with the values of those living in poverty. The Newfoundland statistics on female employment (Table 2) and family poverty (Table 3) and education, cited above, indicate that many of the clients or prospective clients for prenatal services do not fit the middle class social stratum. In short, a description of the information seeking behaviour of low to low middle income pregnant women would be beneficial in planning services for this target group.

Based on demographic and health indicators, and the literature, it is apparent that a study to determine the factors that influence the utilization of health services and information seeking by pregnant Newfoundland women is important. Providing information to pregnant women is one component of prenatal health services. Specifically, the purpose in this study is to describe when pregnant women seek or obtain information, how they seek or obtain it, what they obtain, under what circumstances they obtain it and how information is utilized.

Table 2**Female Labour Force - Newfoundland and Canada 1984**

	Newfoundland	Canada
Female Labour Force Participation (all ages)	41.0%	53.5%
Female Unemployment	19.9%	11.4%
Employed: Population Ratio	32.9%	47.3%

Source: Newfoundland Health Review (1986). Government of Newfoundland and Labrador, Department of Health, p. 61.

Table 3**Family Poverty - Newfoundland and Canada 1981**

	Newfoundland	Canada
Number of Families in Poverty	23,000	786,000
Percent of All Families	17.4%	12.2%

Note: Poverty defined as 62% of average income for family and community size.

Source: Newfoundland Health Review (1986). Government of Newfoundland and Labrador, Department of Health, p. 61.

Purpose

This research study is designed to assess information seeking during pregnancy from the pregnant woman's perspective. The purpose of the study is to determine the process of information seeking and to discern the meaning (value) of prenatal education and prenatal medical care for pregnant women. Specific objectives of the study focus on information seeking behaviour of pregnant women, including their use of both lay and professional sources of information. The following objectives are formulated to achieve an understanding of the information aspect of the prenatal experience for pregnant women in rural Newfoundland communities:

1. To document the sources of prenatal information for pregnant women in the study area.
 2. To identify the types of information sought by pregnant women in the study area.
 3. To identify the significance and importance of the information required by the pregnant women in the study area.
 4. To identify the information seeking patterns of the pregnant women in the study area, that is, when do they seek information, who do they approach for information, and in what sequence do they approach their sources.
 5. To discover the pregnant woman's perceptions of the type of relevant prenatal information available from Public Health Nurses and physicians.
- By examining the pregnant women's perspectives on

information seeking, the factors which necessitate and facilitate information gathering will be explicated in this study. Also, some of the factors that deter them from seeking information or that deter them from using obtained information will be assessed.

CHAPTER II

Literature Review

Information seeking during pregnancy is related to a number of factors. In particular, information seeking behaviour is related to health and illness behaviour patterns. Information seeking behaviour is influenced by social and cultural factors, and the role of the pregnant woman is determined by the sociocultural context of her community. The purpose of the literature review is to provide a theoretical and research basis on which to assess the findings of this study. Although it is recognized that information seeking during pregnancy is related to the general areas of seeking information in other health and illness situations, this is such a vast amount of literature that selection was made based on its relevance to information seeking during pregnancy.

The specific areas included in this review are maternal role attainment, selected concepts and models of health and illness behaviour, health behaviour and pregnancy, and factors influencing utilization of services, including information seeking.

Some of the limitations of the literature for this study include: (a) a paucity of literature dealing directly with information seeking during pregnancy, (b) health and illness behaviour is a broad topic with no clear consensus on the factors that influence this behaviour, and (c) much of the

information on health and illness behaviour is based on research conducted on characteristics of users of health services and does not consider the wider context of what influences this behaviour.

Maternal Role Attainment

Pregnancy is recognised as a period of role transition (Meleis, 1975). Information is integral to role transition and to maternal role attainment. Maternal role attainment is described by Rubin (1984) as the process that "... requires an exchange of a known self in a known world for an unknown self in an unknown world" (p. 52). Role is defined as a set of expectations thrust upon the incumbent of a social position (Thornton & Nardi, 1975). The sources of these expectations include society, the incumbent and other individuals who occupy the role. The expectations include the acquisition of behaviours, skills, attitudes, values and knowledge that are seen as inherent to the specific role. Information is a key component necessary to meet the role expectations.

"Role transition denotes a change in role relationships, expectations, or abilities. Role transitions require the person to incorporate new knowledge, alter his behavior, and thus change his definition of himself in his social context" (Meleis, 1975, p. 265). The acquisition of new knowledge and skills and the 'trying on' of knowledge derived from a variety of sources is part of the maternal role attainment process.

Information and knowledge are interdependent, similar concepts. Information is defined in Webster's (1978) as "knowledge acquired in any manner; facts; data; learning; lore" (p. 940). Knowledge is defined as "information; the body of facts accumulated by mankind" (p. 1006). Information is an integral component of the knowledge required to attain a new role.

One source of information for pregnant women are role models (Rubin, 1967). There are many role models for the pregnant woman and thus many sources of information. Rubin found that role models were a diffuse group with no specific reliance on medical or nursing personnel as either models or referents. All study participants initially used their mother as a model. However, the mother was soon replaced by the participant's peers who were at an advanced level of role acquisition. Primiparas tended to chose their non familial peers as models whereas multiparas tended to use models within the extended family system. Rubin used an interactionist research approach in her study.

Rubin (1975, 1984) describes four maternal tasks that are part of the development of the maternal role: (a) seeking safe passage, (b) ensuring acceptance of the child by significant others, (c) binding in to the child, and (d) giving of oneself for the 'good' of the child. These four tasks are accomplished by the mother over the course of the pregnancy. Each task is aided by the use of information and knowledge.

In seeking safe passage the pregnant woman hopes to

secure a safe outcome for herself and her baby. The mother engages in certain self protective behaviours to prevent any accident. The seeking of prenatal care is one aspect of seeking safe passage.

It is in the awareness and attachment to her child that she seeks prenatal care, in order to make a good baby and in order to protect the child from being marked or damaged. Prenatal care is available in many forms. She will seek out and use every form available to her; books, magazines, movies, television, women whose expertise in childbearing is recognizable, doctors, and nurses. (Rubin, 1984, p. 146)

On the contribution of physicians to the task of seeking safe passage Rubin (1984) states:

The vigilant, knowledgeable, and competent doctor is the major source of help in ensuring safe passage for herself and her child. She needs to know if there is anything wrong or going wrong within her-- "Is everything alright?"--and whether the symptom-atological aches and functional changes are normal. (p. 56)

It is with a view to obtaining a healthy outcome for the baby that the mother seeks prenatal care.

The pregnant woman also has the task of securing acceptance of her unborn child by significant others in her family and social network. Rubin (1975) maintains that this is the "keystone of a successful pregnancy" (p. 147). This task begins early in pregnancy when the woman realises that she is pregnant by assimilating the information supplied by her body, such as amenorrhea. Throughout the pregnancy she conceptually prepares herself and her family for the changing bonds and relationships that are necessitated by the coming birth.

The task of binding-in to the unborn child is aided by the information the woman receives from her body-self and from the fetus. Initially the sensations associated with early pregnancy the 'symptomatology' of pregnancy that Rubin (1984) describes as a series of body-self deprivations provides the information that fuels the binding-in process: "... a woman takes these losses in functional capacity and well-being, reads them as signs of the expected normal pregnancy, and feels good about herself as a functionally competent woman despite the feelings of irritability and self-disparagement" (p. 63). As the pregnancy progresses the exteroceptive sensations provide the woman with information about the activity of the unborn child and strengthen her images of the child, further aiding the binding-in process. As the binding-in occurs the baby becomes very dear to her. She is further motivated to ensure the health and well being of the baby. As

Rubin (1975) states: "She invests in making a good baby, in providing a good home for him, in utero now, in her household later, and in protecting and safeguarding that which she has and is so precious to her" (p. 150).

The final maternal task is giving of oneself. This task is characterised by the pregnant woman's recognition of the sacrifices that are integral to the maternal role. The symptomatology of pregnancy makes many demands of the pregnant woman and deprivations are common place as the woman attempts to change her lifestyle to insure a healthy outcome for baby and realigns relationships to make social room for the new infant in the lifespace. Information is utilized as the woman changes her lifestyle and is alerted to changes in body function.

In summary, the maternal tasks hinge on the utilization of information. In particular the tasks of safe passage and binding-in are dependent on information received both from the pregnant woman's body-self and external environment. Maternal role attainment within Rubin's framework depends on the acquisition and utilization of information. This is also congruent with the views of role acquisition of Thornton and Nardi (1975) and Meleis (1975).

Although Rubin (1967, 1975, 1984) is clear on the social process of developing a maternal identity and maternal role attainment, it is recognised that the role of the pregnant woman within society is somewhat ambiguous. McKinlay (1972)

attempts to determine if the social position (role) of the pregnant women is similar to the social position (role) occupied by the sick in society.

It must be considered that some aspects of the pregnant woman's role and the maternal role attainment process approximate aspects of the sick role defined by Parsons (1958), in that, the pregnant woman is expected to meet her obligation to seek appropriate care and cooperate with her care givers and, in some instances, the pregnant woman is exempt from her "... normal role and task obligations" (p. 117). McKinlay (1972) maintains that pregnancy is a normal state and cannot be considered congruent with the sick role described by Parsons.

However, McKinlay (1972) tacitly equates Parson's (1958) paradigm with aspects of the pregnant woman's social position when he argues that pregnant women either consciously or semi-consciously manufacture symptoms that make them eligible for a "special exemptive role" (p. 570). The set of symptoms "manufactured" by the pregnant woman legitimizes her taking the sick role. McKinlay maintains that the "manufactured symptoms" are not part of a normal pregnancy. It is agreed that symptoms associated with pregnancy do provide for exemption from certain responsibilities, however, that they are consciously or semi-consciously "manufactured" is a presumption on McKinlay's part and a debatable premise.

Despite this unconvincing argument regarding the

"manufacturing" of pregnancy symptoms by women to qualify for a sick role, McKinlay (1972) makes a relevant observation, pointing out that in certain advanced societies a portion of the pregnancy and the immediate post partum period is treated like an illness. This he attributes to the inclination to manage childbearing in a fashion similar to illness. Women are hospitalized for delivery, a variety of tests and medications are utilized during pregnancy and childbirth. McKinlay wonders "... if this inclination to treat women 'as if' they are ill actually encourages the adoption of certain roles, especially as women may remember receiving similar treatment for an illness" (p. 596).

Sociocultural guidelines for pregnant role behaviour are not clear nor has society clearly defined its expectations of the health behaviour of pregnant women, thus, producing a sense of role ambiguity or uncertainty for the pregnant woman. As a result although pregnant women may recognize relevant role behaviours they are unsure of their applicability. McKinlay (1972) questions whether or not there exists an unambiguous role for the pregnant woman. This role confusion contributes to the health behaviour of pregnant women, including their information seeking behaviour.

In summary, maternal role attainment is a clear process, but confusion surrounds the pregnant woman's role in relation to her symptoms and in relation to the behaviours employed to deal with the special needs associated with pregnancy and the

utilization of health services. The pregnant woman "labours" under two ideologies, one that pregnancy is a normal and natural process and two that it requires medical intervention in order to be successful or at least safe. The social context dictates that these two somewhat contradictory ideologies coexist and the pregnant woman must find a way to function within it.

Health and Illness Behaviour: Concepts and Models

This section of the literature review examines definitions of health and illness behaviour as well as examining four models of health and illness behaviour and selected research based on these models. Of the four models to be examined, two of these models, Mechanic (1968) and Fabrega (1974) are specifically concerned with the individual's response to the illness episode and to the role symptoms play in the illness behaviour exhibited by individuals. These models were selected based on the assumption that the symptomatology of pregnancy largely influences the health and information seeking behaviour of pregnant women. The remaining two models are the Health Belief Model (HBM) (Becker, Haefner, Kasl, Kirscht, Maiman & Rosenstock, 1977) and the theory of reasoned action (Fishbein & Ajzen, 1975). Both these models are concerned with the influence of beliefs on the eventual behaviour selected by an individual. These models contribute to our understanding of the individual's

decision to engage in preventive health behaviour. Much of the health and illness behaviour exhibited during pregnancy, including participation in prenatal education and seeking prenatal medical care is within the parameters of preventive health behaviour.

Definitions of health and illness behavior.

Changing definitions of health and illness may represent an ideological shift away from the traditional medical model to a more holistic (subjective) concept of health, along with a concurrent move from a paternalistic approach to delivery of health services to a more consumer oriented approach in which the individual wants and takes responsibility for his or her health care. Medical sociologists have restricted their definitions of health and illness and associated behaviours by adhering to the Parsonian model, which relies on the medical definition of the health or illness situation as a point of reference and analysis (Idler, 1979). As a result two areas of human experience: (a) the meaning or subjective social reality of the illness experience and, (b) the influence of lay health beliefs, knowledge and practices have not been explored.

Offering a similar critique on the meaning or subjective social reality of health behaviour, Harris and Guten (1979) maintain that "The dominant research strategy for studying health behavior has been to select medically approved preven-

tive health behaviors, and then explore the effects of a set of explanatory variables on the performance of these behaviors" (p. 17). The result of this has been the neglect of research on the health protective behaviours that individuals employ to promote, protect and maintain their health regardless of any 'objective' benefit to their health status. Their research on the health protective behaviors (HPB's) that individuals use "regardless of his or her perceived or actual health status, in order to protect, promote, or maintain his or her health, whether or not such behavior is objectively effective towards that end" (p. 18) indicates that most people engage in some activity that they perceive as protective of their health. These behaviors are categorized as personal health practices, safety practices, preventive health care, environmental hazard avoidance, and harmful substance avoidance.

The meaning of health or illness is situationally and culturally determined, based on individual's beliefs, knowledge and values. Calnan (1987) identified three major groups of elements that shape lay beliefs about health and its maintenance: (a) lay beliefs about health and health control are generated from experience and knowledge drawn from folk culture, (b) lay beliefs about health maintenance are influenced by sociopolitical values about health and the control of health, and (c) lay beliefs are in part shaped by the perspectives and values of powerful groups, such as the medical

profession, who are ordained by society as the experts or authorities on health and illness.

Research by Locker (1981) and Herzlich (1973) indicates that the lay perspective on illness can be defined in functional terms.

Someone may be defined as healthy even though they may from time to time suffer a variety of disorders. ... health is the absence of illness, which in turn is indicated by the absence of behaviour such as going to the doctor or taking time off work. (Locker, 1981, p. 98).

The lay perspective of illness is a behavioral one. Herzlich (1973) states "Around the notion of activity - inactivity, in fact, crystallizes the totality of meanings affecting the experience of illness, as these meanings are constituted in social life. Giving up activity becomes the sign of illness" (p. 137). Illness is seen as the departure from one's normal activities. Curtailing one's normal activities and seeking medical assistance are the subjective reality of illness. One may experience a variety of disorders but until they impair function or demand action they are not defined as illness.

The pregnant woman departs from her "normal activity" or normal functions as a result of the symptomatology of pregnancy. Her self concept changes by virtue of the functional changes necessitated by the pregnancy. Thus, she may perceive

herself as ill, as a result of her pregnancy, but without disease.

Three widely used definitions that classify health, illness and sick role behaviour were developed by Kasl and Cobb (1966). They define health behaviour as activity performed by the individual to prevent disease or detect it in an asymptomatic stage. Illness behaviour is performed by an individual who feels ill, for the purpose of discovering actual health status and discussing an appropriate treatment. Illness behaviour includes complaining, consulting with relatives and friends, and consulting with health professionals. Sick role behaviour is purposeful activity by individuals who consider themselves ill in order to get well. This includes procuring treatment from the appropriate health care professional, adopting certain dependent behaviours, and involves a neglect of one's duties.

Classification of activities is only one aspect of health and illness behaviour. Recognizing this, Kasl and Cobb (1966) developed a model of action that describes relevant variables that interact to produce health, illness and sick role behaviour. However, these authors do not address the determinants of the behaviours. They do, however, recognize the need for research that investigates the impact of attitudes and subjective perceptions on health and illness behaviour.

In short, it is apparent that conceptual developments in health and illness behaviour have broadened to include

recognition of the importance of the subjective reality of the health and illness experience on the actual behaviours of individuals.

Models of health and illness behaviour.

Mechanic (1968) help seeking behaviour. Under this model help seeking as a response to illness is viewed as determined by an individual's cultural background, personal characteristics, perception of the illness, as well as the accessibility of the physician and the cost of seeking care. The prerequisite to seeking help is determining that a deviation exists, based on personal experience, cultural conditioning and acquired knowledge. Culture is important in determining illness behaviour. The author also distinguishes between illness defined by self and illness defined by others. He recognises the different interpretations of symptoms from individual to individual and from physician to individual.

The discussion of illness behaviour is limited to how individuals deal with their symptoms. Symptoms are the cues that pregnant women use to determine their pregnancy status. Each pregnant woman deals with her pregnancy symptoms and discomforts in an individual way as determined by her culture, social context, knowledge and past experience.

Help seeking behaviour is described as a social process. It is assumed that help seeking approximates information seeking as a response to symptoms experienced by pregnant

women. Mechanic (1968) states "one of the major cues patients use to seek help is the disruption of their activities" (p. 131). This statement is supported by the research of Locker (1981), Herzlich (1973) and Calnan (1987) cited previously. Help seeking patterns may, in some instances, seek to normalize the individual's symptoms (example, lay consultation prior to consulting the physician). Much of the behaviour of ill individuals is a direct result of the specific symptoms they experience, that is the intensity, persistence and the quality of discomfort the symptoms cause. However, in addition to this, the social definition of the illness is important to whether or not help is sought. The pregnant woman's social role and the social definition of pregnancy influence the pregnant woman's perception of her symptoms and her reaction to them.

Mechanic (1968) made the following statements about symptoms and help seeking. Symptoms are recognised and defined on the basis of their visibility, recognizability and perceived seriousness and degree of incapacitation. Symptoms are acted on depending on the amount and persistence of symptoms. Symptoms are less likely to initiate help seeking if one can identify their cause and the degree of threat involved. There is a tolerance level for signs and symptoms and that is determined by the significance and meaning of the symptom. An individual's decision to seek help is also a function of knowledge and cultural assumptions. Other factors

affecting help seeking are the anxiety or fear generated by symptoms and their sequelae, as well as, the individual's other needs being placed before his illness response. "The meanings persons give to symptoms are the product, in some measure, of life situation" (p. 153). Certain symptoms may not fit an illness framework. The pregnant woman is experiencing a somewhat unique life situation. As a result her symptoms have meaning within the context of being pregnant. Finally the availability of treatment resources and financial, geographical, social and psychological factors influence one's help seeking behaviour. There is overlap among these factors with a variety of factors simultaneously interacting.

This model of help seeking is rudimentary. It does, however, address the meaning and significance of symptoms to the individuals experiencing them, in that, it deals with the perceived threat and concern about the sequelae of symptoms. It contributes to the understanding of lay interpretations of symptoms and the importance of health professionals gaining that perspective if they are to influence the help seeking process with the goal of improving health outcomes for those being served by the health care system.

Fabrega's (1974) illness episode decision making process.

The theoretical model proposed here is an effort to identify and link the social and cultural factors to the decision making processes that an individual uses during an illness episode. Fabrega's model is of particular relevance to this

study in that it describes the information that is evaluated and acted upon by an individual during an illness episode. Although it is well accepted that pregnancy is a normal, developmental process; there is, as previously noted, some discussion about the ambiguity of the role of the pregnant woman in relation to the sick role and how the pregnant woman 'uses' the symptomatology of pregnancy within the 'pregnant role'. Therefore, Fabrega's model is applicable to describe the use of information related to the symptoms of pregnancy.

In the model the person is viewed as a confluence of four distinct yet connected systems; biological, social, phenomenologic and memory. The biological system represents the physiological systems. The social system is the relation of the individual to other individuals and groups. The phenomenologic system is the encoding of information into small functional units or categories. The memory system is the categories that represent experiences of deviations in the other three systems.

During an illness episode the information accessible to the individual is processed in nine cognitive stages. Basically, the illness is recognized, assessed for its meaning or significance, a treatment plan is selected from the individual's repertoire of treatment plans based on the treatment plans benefits and costs, and finally the efficacy of the treatment is evaluated and this information is stored in the individual's memory to be used during a future illness

episode.

Fabrega's (1974) model is similar to Mechanic's (1968) in that symptoms initiate the process of seeking treatment or assistance. In both models the perceived cost or threat of the illness is assessed prior to formal help seeking. Fabrega's model is more explicit on the cognitive components of the help seeking process.

Health belief model (HBM). The HBM described by Becker, Haefner, Kasl, Kirscht, Maiman and Rosenstock (1977) contains three specific elements. First, the individual must be ready to initiate action in relation to his or her health (illness). This readiness results from the individual's perception of personal susceptibility to the disease or illness and the subsequent severity of the sequelae of the disease. Second, the individual evaluates the recommended health behaviour or intervention determining its feasibility and efficacy (benefits) in relation to the individual's perception of the barriers to adopting the proposed behaviour. The third element is a cue to action. The individual must receive some cue to action. This can be an internal cue such as a symptom in the case of a suspected illness or a media cue that triggers the appropriate health behaviour. The HBM recognises that various demographic, social, psychological and motivational factors also influence the individual's health behaviour. However, "... these variables are not considered as direct causes of health action" (Becker et al., 1977, p. 30).

Initially the HBM was developed to explain individual's decisions to use preventive health behaviours. Later it was applied to illness and sick role behaviours.

Testing of the HBM has produced a variety of results on its ability to predict health behaviour. Rosenstock (1974) reviewed four retrospective studies testing the model. Although these studies gave strong support to the model, the assumption that data on beliefs and behaviours could be collected simultaneously severely hampered the validation of the model. Also due to the retrospective designs causality cannot be established.

Janz and Becker (1984) in an overall review of HBM investigations conducted between 1974 and 1984 assessed 29 publications. They concluded from their review that the investigations assessed "provide very substantial empirical evidence supporting HBM dimensions as important contributors to the explanation and prediction of individuals' health-related behaviors" (p. 41). In particular the prospective designs produced as many significant findings as did the retrospective designs with the "perceived barriers" variable showing the most significance. They caution that the HBM is a psychosocial model and can only account for the variance in the health action of individuals that can be explained by their attitudes and beliefs.

Lindstrom (1986) developed a model to explain prenatal care utilization patterns. She tested three HBM variables in

her proposed model, perceived general risk of last pregnancy, perceived benefits of care, and perception of reference groups' perception of pregnancy risk. Using path analysis all three HBM variables were trimmed from the model. In other words, these variables did not contribute to the explanation of prenatal care utilization. As noted by Janz and Becker (1984) the operationalization of HBM variables is a problem due to lack of standard criteria. This may be the case in Lindstrom's study.

Overall the HBM is one of the most frequently used models attempting to explain health behaviour. There has been varying degrees of support for the model and it requires refinement and further testing with standardized operational definitions of its various elements. Davidhizar (1983) also suggests that the addition of modifying factors such as relationship with health professionals and social support systems and the "area of personally and socioculturally determined expectation and perception of symptoms and health and illness has not been addressed" (p. 471). One other major assumption of the HBM is that the individual is goal and future oriented. Health behaviour is adopted because it promises a 'pay off' in the future. Considering this assumption, the value of the model for explaining the health behaviour of individuals who are not future oriented is debatable.

Theory of reasoned action. A theoretical behavioral

approach that explains individual's decision making on the basis of their beliefs was proposed by Fishbein and Azjen (1975). According to Fishbein (1980) this theory is based on the premise that individuals act in accordance with their intentions. Intent is determined by the individual's attitude toward the behaviour and the subjective norm of the behaviour. The subjective norm is the individual's perception of the social pressure to perform or not perform the behaviour.

Attitudes are a function of beliefs. Fishbein (1980) identifies two types of beliefs: (a) behavioral beliefs are defined as beliefs that underlie a person's attitude to a certain behaviour, and (b) normative beliefs are defined as the individual's beliefs about what others think he or she should do.

A person's behavior is explained by reference to his or her beliefs. Since a person's beliefs represents the information (be it correct or incorrect) one has about one's world, it follows that a person's behavior is ultimately determined by this information. (p. 69)

There are four elements that comprise behaviour: (a) the action itself, (b) the target toward which the action is directed, (c) the context in which the action occurs, and (d) the time at which the action occurs.

Three types of information that one may have about an

attitude object are described by Fishbein and Azjen (1975): (a) a descriptive belief is a belief about an attribute of an object gained from personal experience, (b) inferential beliefs are based on cognitive inferences formed as a result of direct observation and inference, and (c) informational beliefs are based on knowledge provided by the reports of others. An additive mathematical formula is used for relating behavioral intentions to attitudes and subjective norms. An individual's attitude about performing a behaviour is a function of their beliefs that the action will produce certain consequences and their assessment of the value of those consequences.

From the theory of reasoned action it is possible to postulate that the pregnant woman's experience of information seeking is a function of her belief that: (a) seeking information will have positive consequences for herself and her baby, and (b) significant others in her social network hold a similar view.

Research has helped examine the utility of this theory to explain variance of individuals' intentions to engage in exercise, in relation to their attitudes and subjective norms about regular exercise, maintenance or attainment of recommended weight and avoidance of stressful life situations (Pender & Pender, 1986); and in their eventual adoption of the exercise behaviour (Schmelling, 1985). The theory explained 59% of variance in the Schmelling study, however the theory

only accounted for a small amount of the variance between the variables tested in the Pender study.

In short, health and illness behaviour is determined and influenced by many social, psychological, economic and demographic factors. The models described above examine only some of those factors. As pointed out by Norman (1986) beliefs which are not directly health related must be accounted for as well as certain less rational non-belief factors such as personality traits. The models described here do not address personality traits.

Factors Influencing Utilization of Services and Thus Information Seeking

Barriers to prenatal care.

Three studies were located that examine barriers to prenatal care. In all three studies prenatal care was defined as medical care. A study conducted by Slatin (1971) on a small sample of women who did not receive prenatal care prior to delivery reported that problems with babysitting and transportation as well as financial barriers prevented the majority of women from receiving care. The majority of reasons for not receiving care cited by a latter sample, after assistance with babysitting and transportation was initiated, included "no reason" or being new to the neighbourhood. These findings appear to indicate that assistance with babysitting and transportation had an impact on utilization of prenatal

care services provided to these pregnant women. Slatin's study, whilst providing some descriptive data on why women do not receive prenatal care, is not clearly presented, provides only raw data and is based on two unmatched convenience samples.

A retrospective study was conducted by Joyce, Diefenbacher, Greene and Sorokin (1983) on 43 women who delivered with no prenatal care and whose medical records indicated the reasons for not obtaining prenatal care. Three categories of reasons were formulated from the data collected: (a) 47% experienced internal barriers, defined as "depression, denial of pregnancy, fear of doctors, and unplanned pregnancy" (p. 92); (b) 23% experienced external barriers which included "financial problems, no transportation, no child care, inability to obtain clinic appointment, and clinic wait too long" (p. 92); and (c) the remaining 30% included women who had no particular reason for not attending for prenatal care or who had no problems with the pregnancy and therefore did not seek care. The researchers' attempts to cross tabulate demographic characteristics of the sample and reasons for not attending for prenatal care did not yield any significant findings and generalizability was constrained by the sampling technique. However, their findings indicate a need for health care planners to be cognizant of not only external barriers to care seeking, but also internal barriers such as fear, denial and depression.

A retrospective correlational study was conducted by Poland, Ager and Olsen (1987) on a sample of 111 women who received varying amounts of care during their pregnancies. Their findings indicate that one half of the variance for amount of prenatal care obtained by the subjects was predicted by six sociocultural factors: "amount of insurance, attitude toward health professionals, delay in suspecting pregnancy, delay in telling others about the pregnancy, perception of the importance of prenatal care, and initial attitudes about the pregnancy" (p. 301). As these authors point out causality cannot be claimed when considering these predicting factors.

Overall the three studies reviewed describe some of the barriers that prevent women from obtaining adequate prenatal care. This author further assumes that such barriers are also indicated in the process of participating in formalized prenatal education programs.

Characteristics of those who receive prenatal care.

It is generally accepted that those who do not receive prenatal care are those who may benefit most from prenatal care as indicated by the sociodemographic variables associated with low birth weight, infant morbidity, mortality and participation in prenatal education programs and seeking prenatal medical care. Poland et al. (1987) state "studies of natality statistics indicate that mothers who are single, black, under 18 years of age, and poor are most likely to

receive little or no prenatal care" (p. 297). A survey conducted by The Royal College of Midwives, cited in Husband (1983), found that women less than 20 years of age were less likely to attend prenatal classes and gave as the reason a belief that they were unnecessary. The best predictor of who attends prenatal classes is the educational level of the pregnant woman (Husband, 1983; Nelson, 1982; Watson, 1977; & Vinal, 1982).

Knowledge of the characteristics of those who do or do not receive prenatal medical care or participate in prenatal education programs have value in that they describe who the "at risk" group are. The value of such knowledge in explaining why certain groups do or do not receive prenatal care is limited.

Health behaviour and pregnancy.

As previously indicated much of the research on health behaviour in pregnancy is utilization focused, concentrating on the characteristics and demographics of those who do and do not receive prenatal services, as well as the barriers to utilization of services. Additional factors influencing health behaviour in pregnancy that are selected for this review are the specific concerns of pregnant women, the relationship between locus of control and health behaviour during pregnancy, and the effect of social support on health behaviour. Also included are two studies that describe the

help seeking behaviour of pregnant women.

Glazer (1980) and Light and Fenster (1974) conducted surveys to determine the concerns experienced by women during pregnancy. In both studies the primary concern of pregnant women is the health and normalacy of the baby. Light and Fenster (1974) conducted a retrospective survey following the birth of the baby. Eighty seven per cent of the sample said the health of the baby was a concern. Dividing the sample into two groups, it was found that the less educated group were also concerned with finances, contraception, and their husbands reaction to the baby. The better educated group were concerned with factors that influence fetal development. The authors postulate this concern may be related to the increased amount of information held by the better educated group.

Glazer's (1980) questionnaire was administered during pregnancy to a cross section of low to middle income English speaking women. In all three trimesters women were most concerned with whether the baby would be healthy and normal (90% of subjects) and the baby's condition at birth. During the first and second trimesters additional concerns are self and medical care and subsequent pregnancies, respectively. It was also found that women who were younger, less educated, married or in the relationship for a shorter period of time and less wealthy tended to have higher levels of anxiety and tended to express more concerns.

Both these studies were conducted on utilizers of health

services. The concerns of pregnant women who do not utilize health services during pregnancy would provide an interesting contrast and may provide insight on the determinants of their health behaviour. Is concern for the health and well being of the baby a motivator to obtain health care and change health behaviours during pregnancy?

Aaronson (1989) examined the effect of social support on selected health behaviours during pregnancy. Social support was operationalized as general perceived support, specific perceived support and received support (actual health behaviour of the support person). The behaviours examined include, abstinence from alcohol, caffeine and cigarettes. She found that the effect of social support on health behaviour is complex. The family's behaviour, in relation to abstinence from alcohol and caffeine, as a measure of received support was not perceived as an indicator of support. However, use of cigarettes by the support person was found to be perceived as not supportive for the pregnant woman trying not to smoke. Although the differences between perceived support and the support person's behaviour were not found to be significant, the author reports the pregnant women in families who used alcohol and caffeine also used on average more alcohol and caffeine than the women whose support families did not use alcohol and caffeine. The study report was somewhat unclear and this may be related to the fact that it was based on data collected for another study.

Social support is important because the physician or health care system is not the sole or initial source of help in the help seeking process. In many instances help seeking is initiated within the individual's social network. This is also true for pregnant women. McKinlay (1973) studied the help seeking behaviour of women during their pregnancy and the year following delivery. He found help seeking may or may not be filtered through a lay referral system. Two study groups were used, utilizers of health services and underutilizers of health services. The utilizers made greater use of friends and family as lay consultants but maintained a narrow range of lay consultants. The underutilizers rely more on relatives living in the same household or who are readily available as well as family friends for lay consultation.

These findings suggest there are two types of lay referral systems operating within the groups he studied. Individual's with a subculture congruent with the subculture of the professional use a truncated referral structure or none at all. Individuals who are members of an indigenous subculture unlike that of the professional use an extensive and close-knit lay referral structure. These findings indicate a relationship between culture and social context, and help seeking behaviour.

The decision to seek care depends on the identification of certain cues or symptoms. Patterson, Freese and Goldenburg (1986) conducted a factor-searching study to determine how

women make the diagnosis that they are pregnant. Using the constant comparative method they found that self diagnosis of pregnancy occurs in phases. For some women the process is short and the diagnosis made soon after the salient indicator is realized. Other women make a more thorough search for indicators and seek professional confirmation to make the self diagnosis. Other women can tolerate the uncertainty of not knowing and they postpone the diagnosis. The process for all is aimed at reducing uncertainty. Self diagnosis of pregnancy is essential to the decision to seek care or engage in self care activities or health behaviours. The postponing of diagnosis has implications for pregnancy outcome.

The process of self diagnosis of pregnancy described by the women in Patterson et al. (1986) study closely approximates the processes described by Mechanic (1968) and Fabrega (1974). Women's urgency to initiate the self diagnosis process depended on the meaning and significance of the pregnancy to them. They search their past experiences to determine the saliency of self selected indicators. They gather evidence to support their diagnosis from their social networks. In the end most of the women sought professional confirmation of the pregnancy to make sure. Mechanic and Fabrega both describe the comparison of symptoms to past experiences of symptoms as a means to determine the saliency of the present symptom. There may also be a consultation with members of the social network for their determination of the

saliency of the symptom and a referral to seek professional care.

Some studies (Labs & Wurtele, 1986; Lewallen, 1989) have investigated the construct locus of control in relation to health behaviour of pregnant women. Both studies provide evidence that internal locus of control is positively correlated with the practice of health promoting behaviours. In a study conducted on college students Wallston, Maides and Wallston (1976) found that the hypothesis "health related information-seeking behaviour is a joint function of an internal health related locus of control belief and holding health in relatively high value" (p. 220) was supported. Thus these studies provide evidence that health behaviour is related to locus of control. However, as Schillinger (1983) concludes, locus of control is not a conclusive predictor of health behaviour. She states: "Locus of control simply refers to individuals' beliefs about whether or not a contingency relationship exists between their behavior (actions) and their reinforcements (outcomes)" (p. 58).

It appears that the research on health behaviour in pregnancy has taken many directions with no conclusive explanations regarding the factors that influence that behaviour. The only conclusion drawn from this review regarding health behaviour and pregnancy is the mother's primary concern is the health and well being of her baby. Perhaps research that looks at that concern and its rela-

tionship to locus of control and social support may provide some clues or explanations regarding the decisions pregnant women make about their health behaviour. In any case, the whole area of health behaviour and pregnancy requires further research if health professionals are to come to understand why some women receive prenatal care whilst others do not.

Summary

In summary information is a key element in the entire pregnancy process. It is critical to the pregnant woman's formulation and attainment of the maternal role. Information is also important in determining the health behaviour of pregnant women. The assimilation of information in the form of symptoms or cues to action is essential in initiating health and illness behaviour during pregnancy. The formulation of beliefs and attitudes that influence health behaviour is dependent on information. Information is the means whereby individuals formulate their impressions of and make sense of their world.

CHAPTER III

Methodology

In this descriptive study a grounded theory approach is used to explore and describe the information seeking processes of a group of pregnant women in a selected group of rural Newfoundland communities. The method employed in the study is selected to fulfil the objectives outlined in the introduction, ie., to identify and document, sources of information, the types of information sought, the significance of the information, the information seeking patterns and the types of relevant information perceived to be held by community health nurses and physicians from the perspectives of the pregnant women. A comparative analysis approach is used to identify (discover) and describe categories of information seeking and the patterns of information seeking behaviour of the participants, thus generating a substantive grounded theory. In particular, the substantive categories revealed in the data will be described and the theoretical links between the substantive categories will be described.

Grounded Theory

The comparative analysis approach advanced by Glaser and Strauss (1967) is a sociological method to generate grounded theory on social processes--their components, characteristics and the conditions under which they vary. The guidelines and

procedures for the generation of grounded theory described by Chenitz and Swanson (1986) and Glaser and Strauss (1967) are used in this study. Conceptual mapping is used to clarify and identify the core categories in the information seeking processes (See appendix A).

Grounded theory uses a symbolic interactionist perspective to study human behaviour and interaction (Chenitz & Swanson, 1986). These authors state "this approach is useful to health practitioners where the interaction with the health care system is only one factor in how a health care problem is managed by a client" (p. 7). This appears to be the case with the problem of concern in this study.

Symbolic interaction is the theoretical framework on which grounded theory is based. It is a theory about human behaviour and is an approach to the study of human behaviour. Human behaviour is defined as humans' interaction with objects in their world. Blumer (1972) states symbolic interaction rests on three premises:

The first premise is that human beings act towards things on the basis of the meanings that the things have for them. ... The second premise is that the meaning of such things is derived from or arises out of the social interaction that one has with one's fellows. The third premise is that these meanings are handled in, and modified through, an interpretive process used by the person in dealing

with the things he encounters. (p. 66-67)

Through the process of human interaction the meanings of objects are defined. Meaning is the value one places on objects and events in one's world. One's action toward the object or event is a measure of the purpose or value of that object or event to the individual. Studying one's experiences and behaviours in relation to an object or event reveals the significance and meaning of that event to the individual. These are the theoretical underpinnings of grounded theory.

Grounded theory involves the systematic and simultaneous collection and analyses of data to generate theory; that is grounded in the empirical experiences of the participants. It is an inductive reasoning process that produces either a substantive or formal theory. Glaser and Strauss (1967) describe two elements of a grounded theory (a) conceptual categories and their conceptual properties, and (b) hypothesis or generalized relations between the categories and their properties (p. 35). A substantive theory, that is, a theory that elucidates concepts and their relationships in some empirical area of inquiry, is the object of this research. In this study the substantive area of inquiry is the information seeking of pregnant women.

The collection and analysis of data occurs simultaneously and the generation of a grounded theory is an ongoing process. The boundary between data collection and data analysis is blurred. As a result this is a difficult process

to describe. The primary strategies involved in the generation of a grounded theory are theoretical sampling coupled with constant comparative analysis to produce categories and properties.

Categories and properties.

Glaser and Strauss (1967) state that a category is "a conceptual element of the theory. A property, in turn, is a conceptual aspect or element of a category" (p. 36). Similarities and differences within the data are the characteristics or properties of the category and define the boundaries of categories. Identification of categories and their properties is the initial analysis of qualitative data and is the link between the data and theory.

Theoretical sampling.

Data collection for a grounded theory is based on theoretical sampling technique. Theoretical sampling involves examining each category in light of incoming data, thus ensuring that the emerging categories are fully developed, exposing the full range of variations within the category. This strategy verifies that the emerging categories and their relationships are valid. Further sampling is employed generating hypothesis from the data. Sampling continues in order to verify the developing hypothesis or relationships between categories. Data collection is complete when there is

no new information coming, resulting in theoretical saturation.

Comparative analysis.

Glaser and Strauss (1967) list four steps in the constant comparative analysis of data. The first step involves developing categories by comparing incidents for applicability to a category. Chenitz and Swanson (1986) describe this as making "laundry lists" of substantive codes from the data. The lists of substantive codes are then clustered by similarities and differences to formulate the categories. The second step occurs as a natural consequence of the first, as coding continues and categories emerge the comparative units change to become comparison of the incident with the property of the category. Eventually the theory becomes integrated as the researcher is forced "to make some related theoretical sense of each comparison" (Glaser & Strauss, p. 109). The third step involves delimiting the theory. This involves reduction of the components of the theory into a manageable, uniform set of higher level categories. The fourth step is writing the theory.

Theoretical codes.

Theoretical codes provide the researcher with a way of organizing the categories so that relationships or links between categories can be identified. This application of

theoretical codes assists the researcher in making theoretical sense of the data. Glaser (1978) identified "six C's" that the beginning researcher can use to conceptualize how categories are related and integrated. The six theoretical codes used in this study are causes, contexts, contingencies, consequences, covariances and conditions.

Core category.

As categories are densified (Chenitz & Swanson, 1986; Glaser & Strauss, 1967), relationships between categories are identified, as described above. The resulting relationship or process constitutes the core category or central unifying process indicated by the data.

Conceptual map.

A conceptual map is a visual representation of the process as it is analyzed. It is a useful tool to track the theory as it unfolds. It is also useful in organizing and clarifying the emerging categories and as a means to examine and compare data with the categories and properties already developed. This technique is similar to that described by Corbin (1986) as diagramming.

Research Process

Selection of participants.

Participants for this study were recruited from the

pregnant population of seven adjacent rural Newfoundland communities. The only criteria for participation in the study was that the individual was pregnant and agreed to be a participant.

Access to participants was through one channel, the Community Health Nurse in the area. The original plan included accessing participants through the physicians practising in the study area. However, despite efforts to gain access to participants through this channel, no participants were recruited from this source. The three participants identified by the physician were outside the group of communities selected for the study. As well, when the researcher attempted to contact these women two had delivered and one could not be located.

The Public Health Nurse contacted the prospective participants by phone explaining briefly the purpose of the study and gaining their verbal consent to be approached by the researcher. All the pregnant women identified by the nurse had registered for prenatal classes.

Potential participants were contacted by the researcher via telephone for consent to be visited in their own home. The objectives of the initial visit was to inform them of the purpose of the study and the required time commitment, and to gain their consent to participate in the study and to be tape recorded during the interview. This was achieved using the informed consent form, Appendix B. The participants read the

consent form and, as well, the researcher explained the contents of the consent form. Participants were given the researcher's name and phone number, with instructions to call collect if they decided to withdraw from the study. In fact, one participant used this process to withdraw from the study prior to the second interview.

Data collection.

Data were collected using both a structured interview schedule and a semi-structured interview method. The interviews were tape recorded. The interview schedule (Appendix C) is designed to disclose the information seeking behaviours and the meaning of these behaviours to the participants. The structured aspect of the interview was designed to obtain a demographic profile of the informants, their prenatal care profile and their reproductive history (see Appendix C). The second part (see Appendix C) of the interview schedule included questions designed as a guide to stimulate the unstructured interview process, and was not adhered to strictly. These questions were designed to elicit the pregnant woman's perception of the sources of information, the causes of information seeking, the timing of information seeking, the consequences of information seeking and the types of information sought, thus producing emic data for analysis. The completed interviews were transcribed. These transcriptions provided the data for analysis. A second interview was

conducted, with all but two of the participants, to clarify categories indicated from data collected at the first interview and to verify the researcher's analysis. The interviews took place in the participants' homes and this proved to be a satisfactory arrangement. Interviews were conducted over an 8 month period.

Ethical considerations.

Ethical considerations in qualitative research include protecting the identity of the participants and recognizing and minimizing any possible negative effects on the participant created by the research methodology. The Human Subjects Review Committee of the Memorial University School of Nursing approved the study. As well the two cooperating agencies, the public health unit and the medical clinic, agreed to contact potential participants. Both agencies accepted the ethical review of the Human Subjects Review Committee of Memorial University of Newfoundland School of Nursing as sufficient. The participants' identity were protected, in that their full identities are known only to the researcher. Upon completion of the study the tape recorded interviews were erased. The transcriptions of the interviews are held in a secure place by the researcher. Further, the transcriptions are only identified by a code and the participant's christian name. Thus, the participant's identity is protected. This study was determined to have few if any negative consequences for the

participants.

Data analysis.

The initial interviews were analyzed examining the dialogue line by line and coding the data, producing substantive codes. These substantive codes were assembled into 'laundry lists' (Chenitz & Swanson, 1986). The lists were examined for similarities and differences using constant comparative analysis. From this process the initial categories, including the range and variation of their properties, were identified. As data analysis proceeded, some of the initial categories were subsumed as more data was gathered and incidents were compared to discern the similarities and differences occurring and recurring in the data.

The categories initially developed were verified and refined as data collection continued and a second interview was conducted with the participants. Further theoretical saturation was sought with the addition of each new participant. Some of the initial categories were abandoned and the data reworked into other categories. Eventually there were no new categories evident in the data. At this point it was evident that two core categories representing types of information sought were emerging, around which revolved many pieces of the data and their subsequent categories and properties.

This process was aided by examining the data using

conceptual maps (see Appendix A for an example of a conceptual map). The maps assisted the researcher to examine each incident of the emerging categories for each comparison unit (participant). The maps were also used to visually represent the process of information seeking as it was revealed in the data. The maps were constructed and accounted for all categories that were evidenced in the data. The maps served as memos in that they provided detail on each category by comparison unit and visually linked the categories. Eventually, through integration of the maps the information seeking processes became apparent.

The mapping was facilitated by the simultaneous application of the "six C's" family of theoretical codes, using Chenitz and Swanson's (1986) description. The theoretical codes were applied to the core categories and their related categories in an attempt to organize the categories and to make some theoretical sense of the data. Each category was examined to see what its relation was to other categories. The researcher asked: Is this category a cause of some other category? Is this category a condition of some other category? In what context does this category occur? Is this category a context? Is this category a contingency, that is, does it effect some other category? Does this category cover or change with some other category? Finally, is this category a consequence of some other category? Answers to these questions produced the relationship between the categories

indicated by the data and resulted in the identification of the basic processes of information seeking for pregnant women.

Although the data collection and data analysis procedures are presented here in a linear fashion it is noteworthy that these procedures do not occur in a clear-cut manner. As Glaser and Strauss (1966) state: "There tends to be a continual blurring and intertwining of all three operations (implicit coding, data collection and data analysis) from the beginning of the investigation until near its end" (p. 57). Examining the author's experience of this research process it is clear that as the analysis progressed and the systematic processes emerged the researcher believed that the theoretical framework developed truly represented the data. There was, as Glaser and Strauss describe it, "trust in one's own credible knowledge" (p. 58).

Throughout this process the researcher attended to the issues of credibility (validity) and fittingness (applicability or generalizability) (Sandelowski, 1986) by insuring the data, as it was reduced, was fully represented in the categories, including the typical and atypical aspects of the data, always questioning the conclusions drawn about the data, and validating the findings from the data with the participants themselves.

The theoretical links identified and the actual information seeking processes identified were presented to the final two participants who further verified and confirmed that this

represented their experiences of information seeking during pregnancy. In addition, several colleagues who were pregnant corroborated the theoretical findings of the study based on their own information seeking experiences during pregnancy. This verification served to confirm the credibility and fittingness of the findings (Sandelowski, 1986).

Limitations of The Study Design

This study design is limited by the purpose of the research. Theoretical sampling in this study is confined to one group, rural pregnant women. The basic comparison unit is one woman's experience of information seeking as compared to the other participant's experience. Thus, the substantive theory produced is applicable to this one group. The researcher recognizes that with additional comparison groups a greater diversity of conceptual categories may have been developed, thus increasing the applicability of the theoretical findings.

CHAPTER IV

Findings

The findings are presented in four parts. The first section is a brief description of the setting in which the study was conducted. The second section provides the demographic, reproductive and prenatal care profiles of participants. The third section is a description of the participant's use of prenatal services which includes a description of the process "making sure" and the category "initial physician visit" as well as a description of the participant's perceptions of prenatal classes. The fourth section outlines the two separate processes that constitute information seeking behaviour of the pregnant woman, the health and wellness information seeking process (HWISP) and the problem initiated information seeking process (PIISP).

By providing a description of the setting, including certain social and demographic information, the data can be examined within the social context in which it occurs. The demographic, reproductive history and prenatal care profiles are germane, providing a fuller description of the study participants. In particular their reproductive history and use of prenatal care services provides the reader with the background of the study findings.

Setting

A description of the setting provides the social context of the participants and their process of information seeking in pregnancy. The specific geographic area in which this study was conducted encompassed seven adjacent rural communities on the east coast of Newfoundland. These communities have a total population of 4,310 (Statistics Canada, 1986 census data). The largest community has a population of 1,151. This community is the focal point for the provision of services in the study area. It has a health care clinic with five physicians, a Royal Canadian Mounted Police Detachment, a Social Services District Office, and a Public Health District Office with one Public Health Nurse.

Statistics, including those for the study area, compiled by the Eastern Newfoundland Health Unit indicate that 35.2% of families earned less than \$15,000 in 1986 and 34.7% of the population 15 years of age and over had less than a grade nine education.

The major local, primary industry in the study area is the inshore fishery, including both harvesting and processing of fish. This is seasonal employment. There are three fish plants within the study area. Residents of the study area are also employed at fish processing plants outside the area as there is insufficient work available in the immediate area. Other residents are employed primarily in the service and supply industries, and other residents commute daily to their

employment in the capital city which is 70 kilometers away.

Residents use the health care facilities in the capital city. All participants intend to deliver their infants at one of the two city hospitals that provide maternity services.

The Participants

Demographic profile.

Table 4 provides details on the demographic profiles of the 11 participants. The participants range in age from 19 to 29 year. Eight of the 11 participants are high school graduates. Six of the 10 reported partners are high school graduates. Only one of the participants and only one of the partners have less than a grade nine education. Overall, the participants and their partners are better educated than the general population, as indicated by the education statistics cited above.

Two of the 11 participants are unmarried. Of these two, one has a stable relationship with the baby's father, the other unmarried participant does not have a relationship with the baby's father. Both the unmarried participants live with their parents.

Participants and partners are evenly split with regards to employment status. Many are seasonal workers and were both employed and unemployed during the course of the study. This is consistent with the availability and type of employment in the area. It is also consistent with their education status.

Table 4**Demographic Profile of Participants**

Age		Marital Status		Employment Status		Education Level	
19	1	Married	9	Employed	4	High School Graduate	6
20-22	5	Single	2	Unemployed	6	Post-Secondary	2
23-25	1			Seasonal	1	Less Than High School Graduate	3
26-28	3						
29	1						

Number of Participants = 11

Even though eight of the participants are high school graduates, only two of them have any post secondary education. One participant has a course from a community college and is employed in her trade. Another participant has 1.5 years general studies at a university and is employed in an unrelated area. Also several participants discontinued employment as a result of the pregnancy. The remainder of the participants, when employed, are employed in unskilled work.

Overall, participants are somewhat better educated than the general population in which they live. However, their occupations and employment status is consistent with the type of employment available in the area and the nonspecific nature

of their education.

Reproductive profile.

Table 5 provides the reproductive profile of participants. Eight of the 11 study participants are experiencing their first pregnancy. Of the three who had a previous pregnancy one is experiencing her third pregnancy which was unplanned. Her other children are both toddlers. The two remaining multiparous women are experiencing their second pregnancy. Both these pregnancies were planned. The two unmarried participants had not planned their pregnancy. The remaining participants had planned their pregnancies.

Table 5

Reproductive History

P ₀ G ₁	P ₁ G ₂	P ₂ G ₃	Planned Pregnancy	Unplanned Pregnancy
n = 8	n = 2	n = 1	n = 8	n = 3

Number of Participants = 11

P = Parity

G = Gravida

Prenatal care profile.

Table 6 provides details on the participant's attendance for their initial physician visit and their attendance or

intent to attend prenatal classes. The range in gestational age at the time of the initial physician visit was from 4 weeks to 12 weeks. All participants had their initial physician visit in the first trimester of pregnancy. Analysis of the category "initial physician visit" will be presented in the next section.

Table 6

Prenatal Care Profile

Initial Physician Visit During First Trimester	11
Intends to Attend Prenatal Class	6
Attends Prenatal Class	4
Does Not Intend to Attend Prenatal Class	1
Acquainted With Public Health Nurse	10

n = 11

The prenatal care profile outlined in Table 6 indicates that only one of the eleven participants had not attended or had no intention of attending prenatal classes at the time of the first interview. Only one of the participants did not know the Public Health Nurse by name. All participants were acquainted with the idea of attending prenatal classes. One would expect this as the Public Health Nurse was the sole source of recruiting participants for this study. Prenatal

classes were recommended to participants in several ways. Five cited the doctor, one a social worker, five cited lay persons while one had attended with a previous pregnancy. There were two participants who cited both a lay and professional referral source. Attendance at prenatal classes was initially considered by all participants. Only one eventually decided not to attend.

In the initial design of the study, based on statistics cited in the Newfoundland Health Review (1986), the researcher planned to include as participants women who had not attended or did not plan to attend prenatal classes. The results obtained and listed in Table 6, Prenatal Care Profile, are not congruent with what was expected, especially regarding attendance at prenatal classes. There are a number of possible explanations for the incongruencies. First, because of ethical requirements and for practical reasons the researcher was required to go through an agency such as public health or the medical clinic which would define the participants as health care users. Second, as stated, the Public Health Nurse was the sole source of participants. Lastly, when the participants were asked if they intended to attend prenatal classes they may have given a socially desirable response rather than one based on their true intentions.

During the course of this study there was a change in Public Health Nursing personnel. Prenatal classes were delayed, and consequently many of the participants did not

have the opportunity to attend prenatal classes even though they had stated that they intended to attend. However, analysis of the data pertaining to attendance at prenatal classes reveal many properties regarding information seeking and these findings will be presented in the next section.

Use of Prenatal Services

Initial physician visit.

The category "initial physician visit" is central to the process "making sure", outlined in Figure 3. For all participants the main property (see Table 7) of the category "initial physician visit" was the confirmation of the pregnancy by the physician, using a laboratory test. A number (three) of the participants had, in fact, performed a home pregnancy test in order to confirm the pregnancy. However, for these participants the home test was not conclusive and "making sure" involved confirmation by the physician which in turn necessitated the initial physician visit.

The reason for the initial physician visit was stated as "I wanted to find out for sure." For some participants there was an element of not wanting to be disappointed; for others there was an element of double checking or confirming what they knew to be true "I knew really that I was, so I had the test done to find out for sure." For others it seemed the pregnancy was not confirmed until the physician had confirmed by means of the positive pregnancy test that she was pregnant.

Table 7

Initial Physician Visit

-
- ♦ suspicion of pregnancy due to missed period, fainting
 - ♦ might be something wrong
 - ♦ had a positive home test
 - ♦ to find out for sure
 - ♦ to be sure everything was okay
 - ♦ went for a checkup
 - ♦ make sure the test was positive
 - ♦ confirm the test
 - ♦ to double check
 - ♦ waited before going didn't want to be disappointed
 - ♦ waited before going didn't want to be a pest
 - ♦ waited before going was afraid I wasn't
 - ♦ waited before going wanted some more indication
-

Note: Some participants gave more than one reason.

"I went out to the doctor to confirm it. You'd be telling everybody 'I'm pregnant' and (they'd say) 'Were you to the doctor, yet?' and you'd say 'no.' You don't know yet, then."

Also, participants wanted to ensure that they were healthy. "I went (to the doctor) to make sure everything was okay"; "I just went for a check up"; "I figured it probably might be something wrong."

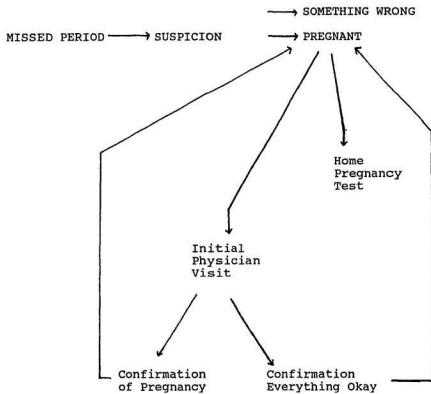


Figure 3. Making Sure (Confirming the Pregnancy)

The overall properties of "making sure" include confirmation of the pregnancy and confirmation that the participant is healthy. These prompt the initial physician visit. They indicate that the initial physician visit has meaning for the participants of this study in that the pregnancy is not really confirmed until the physician confirms it, regardless of the presence or absence of symptoms.

Prenatal classes and the public health nurse.

Although not many of the participants attended prenatal classes, analysis of the data on prenatal classes revealed several properties. Prenatal classes were generally described as helpful and interesting, providing information on a variety of topics. More specifically knowledge was the overriding property of prenatal classes. (See Table 8). At one extreme was the property "provides knowledge" as evidenced by the data "gives detail" and "learned things you didn't know before." At the other extreme was the property "Does not provide new knowledge" as evidenced by the data "knew a lot of it from school and pamphlets" and "You mostly know everything about it from your first one. So it's not really much they can tell me." However, several participants cited both these extremes. It appears from the data that many of the lifestyle concerns of some of the participants had been answered prior to attending classes. One participant stated:

I didn't start those [prenatal classes] until about

when I was 6 or 7 months [pregnant]. I learned things there I didn't know. But still most of the things that you would do, you done [sic] before that, your eating habits and all that.

Table 8

Prenatal Classes

-
- ♦ helpful
 - ♦ interesting
 - ♦ provides knowledge
 - ♦ does not provide new knowledge
 - ♦ knowing what to expect
 - ♦ knowing what to do
 - ♦ dynamic of class
-

The property of "knowing what to expect" related specifically to knowing what to expect during labour and delivery. This property was invariably cited by primiparous participants. One participant assessed the benefit of prenatal classes stating "I found it [prenatal classes] helpful. At least now ... I got a bit of experience and know what's going to happen. Whereas if I didn't [attend prenatal classes] I wouldn't know what to expect." Labour and delivery is largely an unknown for primiparous participants. It was important to them to know what to expect during labour and delivery. Knowing what to expect had meaning for the primiparous

participants in the study. In the words of one participant, "It [knowing what to expect] is [reassuring] in a way. Hopefully, I won't have too many surprises, in the delivery room. I'll sort of know what's going to come."

Concurrent with knowing what to expect is the property "knowing what to do." This property has an element of knowing how to react in labour and knowing how to cope in labour. It is through this knowledge the participants hope to have some control of the labour and delivery process.

I'll be more prepared in the delivery room. So will my husband and hopefully it will go easier if I have more information and I know the right way to breath. I think if you know what you are suppose [sic] to do and how to react to things, well it should go a bit easier for you. The pains might not be any easier, but you should be able to handle it a bit easier.

For some multiparous participants there was a need to review breathing exercises and the notion "you can't know too much." Obviously prenatal classes were valued by participants as they provide information on the labour and delivery process and information on how the participant might act during labour and delivery.

The context of the class or group situation provided a dynamic that participants found most beneficial. The free flow of questions and concerns provided participants with informa-

tion that they did not think to ask but that might be helpful to them.

I think it was just getting together with a bunch of other women with the same thing as you have, the same questions and some people have different questions, that I didn't even think of asking. They would ask them and, of course, that was information for me. I probably wouldn't ask them. You just learn a lot.

Participants found it helpful to be able to ask questions. Reading information was deemed okay, but being in a situation where one could have questions answered immediately and actually practice "what to do" was considered superior to reading. "It's alright to read in books, [but] it's not the same as when you go in and learn how to do it." Another participant stated: "As they're saying stuff you can ask them questions." She also described the information at prenatal class as "more or less the same material" she had read, however the prenatal class material was more detailed.

Apart from "knowing what to do" during labour and delivery there was the aspect of "knowing what to do" about exercise, diet, use of drugs and alcohol, and the common discomforts associated with pregnancy. It appeared, however, that many of the lifestyle concerns had been partially addressed by pamphlets received early in the pregnancy.

Information Seeking Processes

Data analysis reveals that information seeking behaviour of pregnant women occurs as two different processes. One process is initiated by some internal indicator or symptom observed by the woman. The other process occurs as a result of some stimulus external to the woman. The former process is contingent on problems or "something wrong" being observed by the pregnant woman. The latter is contingent on the pregnant woman receiving information related to health and wellness issues. Both these processes are similar in that they both involve comparison and confirmation as properties. The problem oriented information seeking process is dependent primarily on external comparison and confirmation. Whereas the health and wellness oriented information seeking process is dependent on internal comparison and confirmation. The consequences of the two processes was dependent on the values, beliefs, attitudes and prior knowledge of the respondents.

Both processes occur within the context of being pregnant and insuring a healthy outcome for baby. The phrase "information seeking" refers to information actively sought and obtained, and information passively obtained. Although information passively obtained does not connote any seeking or activity on the part of the participant and may seem somewhat contradictory when referred to as information seeking, there is an element of activity related to the internalizing and using of information. Therefore information received in either

an active or passive fashion is considered information seeking.

Within both processes participants used many and varied sources of information. There was a dual use of some sources of information. They were used for both the health and wellness information seeking process and the problem oriented information seeking process. The substantive category "sources of information" is presented here with explanations of the properties. The substantive category "sources of information" yielded many properties listed in Table 9.

Several of these information sources require explanation. The "professional via lay sources" are characterised by second hand professional information, ie., the source is lay, however the information was obtained by the lay source from a physician. A participant indicated she had taken Atasol® on the advice of her sister who had taken it on the advice of her physician when she was pregnant. The participant automatically thought it was safe for her and she took it. Consequently, she checked with her physician and he stated it was alright to take the Atasol®. However, her initial self medication with Atasol® was not contingent on the physician's advice.

"Intuitive knowledge" as a source of information is characterised by the property of not being able to identify the source of information and thus one's knowledge of a particular item is based on common sense or common knowledge and in some cases physical feelings. A participant stated "I

Table 9

Sources of Information

Lay Sources:

- confidante
- sister
- sister in law
- friend
- mother
- wise older woman
- friend (registered nurse)
- sister in law (registered nurse)
- everybody (general free floating)

Professional Sources:

- physician
- public health nurse
- Registered nurse
- social worker
- teacher (high school course)

Professional via Lay Sources

Media Sources:

- pamphlets
- books (gifts)
- library books
- television programs (documentary)
- magazines

Intuitive Knowledge:

- own feelings
- common sense
- common knowledge

Old Wives Tales

always knew breakfast was the most important meal in the day ... Just from hearing it. I suppose on TV or reading it ... [I've known] ever since I was old enough to know that kind of stuff." Another stated: "It's just things you hear as you grow up. ... As you go along, you hear your mother talking about your sister, your friend ... like television." Another participant states in reference to a change in her eating habits during pregnancy: "I just knew. Where I was pregnant before, I suppose, and I knew all these things. I remembered them." "Own feelings" were used most often as a source of information on activity level and work. One participant states "... first I was tired a lot like, so I used to either sit down or lie down, take it easy for awhile. Then I felt energized again. I got up and done [sic] whatever I had to do." With regard to housework "I couldn't reach like ... I found that a bit hard. ... I give it up then." Depending on her physical feelings the participant made decisions about the type and quantity of activities she performed.

Old wives tales were cited by several participants as unsolicited sources of information. Both sources of old wives tales were grandparents. A participant mentioned her grandfather's advice which was an old wives tale about sitting cross legged during pregnancy. "Well I don't mind him anyway. He's always going on with stuff like that ... I just laughed it off." Likewise another participant demonstrated tolerance of her grandmother's advice about sitting on her legs but did

not use the advice. Old wives tales were not taken seriously by participants and did not influence the behaviour or health practices of participants.

Most participants described a relationship with one individual or a group of individuals who was a "confidante." Primarily the confidante was a friend, relative or acquaintance who had experience with childbearing. However for one unmarried participant the confidante provided support as opposed to pregnancy related information. "She talked to me and listened to my problems ... Any feelings I had ... We've been friends all our lives ... I just feel comfortable with her." This same participant also shared a relationship with several pregnant women where they discussed pregnancy related concerns, comparing their experiences. Another element of the confidante as a source of information involved confirmation of pregnancy experiences and symptoms. There was also an element of the confidante telling the participant what to expect regarding labour and delivery and giving reassurance that the participant could handle labour and delivery. One participant had a group of coworkers who were her confidantes. She described their help in this way:

They've had one or two babies ... They made me feel confident, you know, in myself. Like at first, you know, I didn't know what to expect. What I read in books kind of made me nervous and when I talked to them, they kind of made me feel, it wasn't that bad

... I just keep saying to myself, they did it [labour], I can do it.

This participant felt her coworkers provided reassurance and helped reduce her anxiety related to labour and delivery. Describing her confidante one participant said, "She's the only one [friend] that's pregnant ... The majority of my friends are not pregnant or they haven't got babies." For all participants a confidante was a person(s) who had experience childbearing by either being pregnant at present or sometime in the past. The confidante and the participant had a "comfortable" and "close" relationship. The outcome of the confidante relationship was comparing, sharing, and confirmation of pregnancy experiences; and confirmation and affirmation of the participant's experiences and ability to childbear.

The "wise older woman" was described as a source of information for one participant. The wise older woman had a collection of experiences related to childbearing and child-rearing that gave her a prominent profile for the participant and her family.

There's a woman up the road. She's a close friend of --[husband's] mother and if there's anything--[wise older woman] knows, she's sure to tell me, we'd always go to her ... She has two grown [children] and her daughter got [sic] too and she pretty well

reared them up too, right. Anything that goes wrong with them she's always over there. And anything that was [wrong] with her two [children] she was always there looking after them ... She's pretty well up on what's going on.

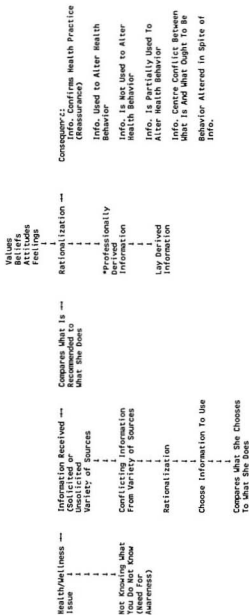
This woman was used as a source of information regarding the participant's long and particularly persistent bout of "morning sickness."

Participants described a type of general information source characterised by advice given by "everybody." One participant stated: "Just about everybody I knew" advised her to quit smoking. With everybody repeating advice it sometimes became an irritant for the participant. "You hear so much of it (advice), it gets on your nerves after awhile." This advice appears well meaning and may just represent a general concern that is held for the well being of pregnant women. "Most people told me that when you are pregnant you'll have to take it easy" and "Everybody tells me all the time to take it easy and don't overdo things." The advice from a general information source is not taken without first being checked against a more reliable source. "I don't just go along with everything everybody says. I'll check first to make sure." The general information source is low in the hierarchy of sources of information. Information thus received is confirmed with other sources eg. confidantes, printed material and physician.

Health and wellness information seeking process (not knowing what you do not know).

One participant described this category of information as "not knowing what you do not know." In other words relevant preventive health information may not be known by pregnant women and they may not receive this information due to lack of opportunity to obtain it.

The HWISP process depicted in Figure 4 involves the pregnant woman receiving information on some aspect of lifestyle or health behaviour that may have an impact on the course of the pregnancy and the pregnancy outcome. In many cases the pregnant woman receives conflicting information and must choose the information she will use for comparison. The pregnant woman compares the recommendations in the information received to her actual health practices. Then depending on her own attitudes, beliefs and values about the source of the information and the actual content of the information certain results ensue. The information confirms the woman's health practice. The information is used to alter health behaviour in accordance with the recommendations received. The information is not used to alter health behaviour. The information is partially used to alter health behaviour. The information creates conflict between the woman's health practices and those recommended. Finally behaviour is altered in spite of the information received which recommends not altering her behaviour.



*Hierarchy of sources

Figure 4. Health/Wellness Information Seeking Process

The substantive category health and wellness issues includes health behaviours that are generally recognised as concerns for pregnant women and have an impact on pregnancy outcomes (Table 10). The information on these topics was either solicited or unsolicited by the participant. In the event that it was unsolicited it was volunteered by the source.

Table 10

Health and Wellness Issues

- ♦ nutritional modifications
 - ♦ exercise levels and types
 - ♦ use of drugs
 - ♦ smoking
 - ♦ alcohol consumption
 - ♦ activity levels
 - ♦ working
 - ♦ preparation for labour and delivery
-

Due to the many and varied sources of information, participants received a variety of information on any one health and wellness issue. This was particularly pronounced for the issue of alcohol use during pregnancy. The sources of information on this topic included the physician, the Public

Health Nurse and pamphlets provided by both these sources. These sources provided conflicting information.

One participant used information from the pamphlets given by the physician and the prenatal classes provided by the Public Health Nurse.

She [the physician] asked me, when I went up there first, if I drank or smoked or anything like that and if I did I shouldn't do it. That's about all. She said everything was in the pamphlets, books and stuff, anyway right. Anything that I really didn't understand, or whatever, to ask her.

After the initial physician visit she read the pamphlets. These indicated an ounce of alcohol occasionally was acceptable. The participant did in fact use alcohol occasionally.

It wasn't until I went up to [prenatal] class that I really realized ... how the alcohol goes right into the placenta ... and right to the baby ... alcohol affects the fast growing cells, the brain cells ... I said that's it. I'm not having none at all now ... she [the public health nurse] explained more ... what happens.

As a consequence of this the participant said "I felt bad first ... I figured it might harm the baby." Eventually she had an ultrasound that showed the baby had developed normally

"They said everything was all okay. I was alright then."

Conflicting information is treated in a special way but without adequate knowledge the pregnant woman cannot fully rationalize what she needs to do. In this example lack of detail on how alcohol affects the baby did not result in a behaviour change. Upon receipt of a more in-depth explanation the decision was made to eliminate the use of alcohol. Also as a consequence of the variety of recommendations on this one health issue, the participant suffered mental anguish that she may have harmed her baby. The participant must choose which of the conflicting information she will use to make a comparison with her own behaviour.

When information is received from a single source or is consistent between sources the pregnant woman compares her practice with the recommended practice. Participants read the nutrition pamphlets and used the information as a basis for increasing the quantity of food they ate. "According to the pamphlets I wasn't eating enough," "I ate pretty good, more along the health line of foods, so that my diet didn't change a whole lot. I might eat a little bit more." Participants changed their diet after comparing what they ate to what the books recommended. "Dr. [---] gave me some books. The foods like what I should and shouldn't be eating. A lot of it [listed] there didn't sound good. I didn't like the food [listed] there but I ate it anyway ... I know its good for us [herself and the baby]." Participants used their attitudes,

beliefs and values about the baby and the source of information to make decisions about behaviour changes (see Appendix D). One participant compared her smoking habit to what was recommended in a pamphlet on smoking:

I was smoking at the time I was reading it [the pamphlet on smoking and pregnancy] and I put it [the cigarette] out ... It's hard for a smoker to quit.

The participant concurred that she felt guilty about this. "I am trying to cut down on smoking ... not to smoke too much. ... I only smoke about half a pack a day anyway. It's not heavy, but it's not helping."

The information received is filtered through a combination of beliefs, values, and attitudes. These are derived from the participant's past experiences and feelings about the topic, as well as their past feelings and experiences about the information source. Through this rationalization process the participant makes a response to the information obtained. These responses are the consequences of the information obtained by the participant and the rationalization process that the participants used. The data indicates six consequences of this process of obtaining and using information during pregnancy.

The first consequence is the confirmation of health care practices. This confirmation serves to reassure the pregnant woman that her present health behaviour is the right one to

insure a healthy outcome for herself and the baby. Checking her diet with the pamphlet's recommendations a participant stated, "I eat the same." She concurred that the pamphlets confirmed for her that she was eating the recommended foods. She further confirmed that she was eating properly when she attended the prenatal class on nutrition. These two sources confirmed for her that she was eating the proper foods. She also stated she was concerned about eating properly "for better development in the baby. Helps have a healthier baby." Confirming their health practices with the recommended health practices was reassurance for the participants that they were doing everything within their power to insure a healthy outcome for the infant.

A second consequence is that the received information is used to alter health behaviour (practice). The example cited above describing the use of alcohol demonstrates this property of "consequences of obtaining information." Diet was also altered by many participants in response to receiving nutrition information. Even if the recommended foods were not appealing to the participant they were consumed anyway. "A lot of it there [the pamphlet on nutrition] didn't sound good. I didn't like the food there, but I ate it anyway ... Because I know it's good for us [herself and the baby]." The health information received was used by some participants to alter their behaviour. The behaviours were altered to include more healthy or positive practices. The motivation for changing

behaviour was the belief that healthy practices during pregnancy would insure a healthy infant. In the words of one participant "Just hoping by doing all this, it's going to insure it [baby] is healthy ..."

The third consequence identified is that information received is partially used to change behaviour. In some instances, after comparing the recommended health practices with their behaviour participants altered their behaviour to partially reflect the recommendations. This was most apparent for participants who continued to smoke during pregnancy. Many participants reduced the amount of cigarettes smoked per day. Others quit smoking but resumed smoking during the pregnancy. Those who reduced the amount smoked as opposed to quitting rationalised their decision to continue smoking stating "that's not very much," "I'm not a heavy smoker." The factors contributing to this decision was that smoking was not good for the mother or fetus but the need to smoke was greater than the threat to mother and fetus. One participant stated, "I know it's not doing any good for me. It's not doing any good for the baby ... It relaxes me at times when I'm nervous, now that it's close to the time ... It's hard to quit."

A fourth consequence of obtaining information is the conflict created when the participant compared what she ought to be doing with what she was actually doing. Partially altering the smoking behaviour did not alleviate the conflict produced by the behaviour. Participants reported feeling

guilty, shocking and bad about their smoking behaviour. This was invariably tied to their belief that smoking was not beneficial to themselves or their fetus. Their knowledge and beliefs about smoking conflicted with their smoking practices as evidenced by this participant's appraisal of her smoking behaviour.

I feel shocking, because I can't quit, even though I'm pregnant. I never quit on my first one [baby] either ... It [the guilt] is not going to stop me, that's the worse thing, I wish it could ... It's not that I'm guilty enough. But I don't know. I just can't quit. I get right crooked [irritable] ... I just get all out of sorts when I tries [sic] because it don't [sic] work when I try [to quit] ... I am trying to cut down on smoking ... I know not to smoke too much ... I only smoke about half a pack a day anyway. It's not heavy but it's not helping.

Information on other topics, including exercise and diet was partially used. However, partial adherence to the recommendations on diet and exercise did not evoke the feelings of conflict that continuation of smoking created.

A fifth consequence is that in some instances obtaining information on a particular health practice did not alter the behaviour of the participant. One participant continued to smoke without feelings of conflict, rationalizing her behav-

iour by stating "half of them [the doctors] smoke themselves ... I believe that second hand smoke is more harmful." She further stated that the doctor "said it would be a good idea to give it up or cut down." She believed because of the low amount smoked (eight to ten cigarettes a day) she was not harming her baby. This consequence of receiving information was observed in few instances. For the most part obtaining information resulted in varying amounts of behaviour change, if the current health practice was assessed to differ from the recommended health practice.

Changing behaviour in spite of the obtained information, a sixth consequence of obtaining and using information during pregnancy, occurred in just one instance. The participant was advised by the physician to continue with her work activities. The participant decided, based on her assessment of the work environment, that it was risky to continue work because she may fall on the slippery wet floor. This decision was made based on the fact that she was pregnant. The participant stated "I was afraid. Where it was wet and everything over there [at the workplace] I would probably slip. That would do more harm than good." The participant made this decision based on her knowledge of the work environment and her intrinsic need to protect herself and the fetus, thus insuring a positive pregnancy outcome. Obviously the maintenance of herself and the fetus intact was more highly valued than her job and the consequences of that ie. money.

Problem initiated information seeking process.

The problem initiated information seeking process, depicted in Figure 5, is initiated by the presence of some physical sign or sensation noted by the pregnant woman. The pregnant woman compares the sign or sensation to those experienced in a previous pregnancy, to feelings experienced earlier in the pregnancy, to others' pregnancy experiences, and to prepregnancy feelings. Through the comparison process it is determined if the sign or sensation is an indication of an abnormal or normal problem. An abnormal problem is one that is not expected to occur during pregnancy such as a urinary tract infection, although pregnancy sometimes places a woman at increased risk to developing these problems. A normal problem is one that might be expected, such as nausea and vomiting of pregnancy or fatigue, because they are commonly occurring symptoms of pregnancy. Normal problems may seem like a somewhat contradictory term but it was how the women dichotomized their problems and the researcher wished to capture this to be true to the women's experiences.

Confirmation of an abnormal problem by the participant, sometimes in consultation with her lay sources of information or in consultation with another health professional, indicated the need for a visit to the physician. The consequences of the physician visit were treatment of the abnormal problem, worry and concern about the effect of the problem on the baby and, in some cases, information from the physician on the abnormal

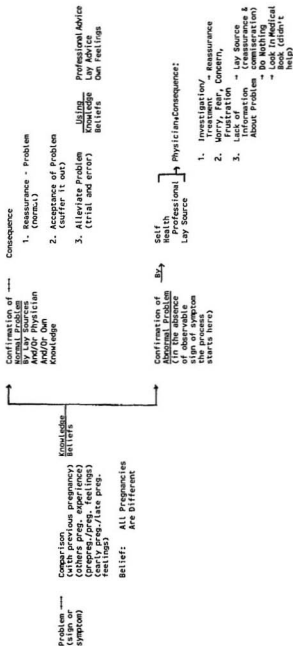


Figure 5. Problem-Initiated Information Seeking Process

problem was insufficient or not understood. Some participants, at this point, took their questions and concerns regarding the abnormal problem back to a lay source of information for reassurance and commiseration, others did nothing about their lack of information and some looked in medical books for information, all experienced feelings of frustration and concern.

If the problem was determined to be a normal problem the participant was reassured that the experience was normal and to be expected. In many cases the participant took a stoic stance and "suffered it out." Some participants sought to relieve the sign or sensation by seeking advice. Depending on their attitudes and beliefs (see Appendix D) about sources of information they chose either a lay or professional source of information for normal problems of pregnancy. Determining the problem to be normal did not allay all worries and concerns.

Permeating this study and all the findings was the verbalized belief that "all pregnancies are different." Despite this belief participants persisted in seeking confidantes with experience and used comparison of experiences as a source of information about what is normal during pregnancy and what to expect during pregnancy, labour and delivery. This appears to be somewhat contradictory. However other's experiences were used to provide a general idea of what to expect and what is normal.

The comparison process confirmed an abnormal or normal

problem. The study participants experienced a variety of abnormal problems including actual diseases, ie., influenza, urinary tract infection, and gestational diabetes. Several participants were also concerned about their rate of weight gain. All participants stated that in the event of an abnormal problem they would consult a physician. The following description provides two examples of abnormal problems experienced by participants and how information was obtained during these episodes.

One participant experienced a urinary tract infection in her fifth month of pregnancy.

The time I had the bladder infection, that was a bit of a worry because one day ... I was using the bathroom and when I wiped myself there was a bit of blood. I didn't know if it was where I had a bowel movement. Sometimes your skin will crack and stuff like that. But so anyway that was fine, but I got worried because I didn't know if it was that or not. But anyway, the next day I got up that morning and the same thing happened. But I had to go to town anyway, so I said that was it. I was calling the doctor. So she checked me and everything. Like she said it was a bit of blood in my water. So she figured that was what it was. I had to stay in [hospital] overnight and get an ultrasound done the next morning, just to make sure, but everything was

fine.

In the meantime the participant on the first day of experiencing bleeding "thought it was nothing serious ... it went away and I was perfect all that day." Her sister-in-law had bleeding related to haemorrhoids during her pregnancy and the participant comparing her symptom to her sister-in-law's thought that may explain her bleeding. Her sister-in-law's experience was somewhat reassuring to her. However because the symptom persisted she decided to contact the physician. "But then the next morning I got up and the same thing happened again ... you're not suppose to bleed during your pregnancy ... I got such a fright ... I knew that it had to be something."

In this instance the persistence of the symptom along with the knowledge that bleeding during pregnancy was not normal prompted the participant to determine this was not a normal problem and to seek the advice of the physician. If the symptom had not persisted she would not have consulted her physician. The physician confirmed that every thing was fine and the worry dissipated.

Within the pregnancy context abnormal problems are seen as problems which may threaten or interfere with the baby. The participants who experienced abnormal problems described a fear that something may be wrong with the baby. The participant who had gestational diabetes stated "I was afraid something was wrong with the baby." She adhered strictly to

her diabetic regimen, "I don't want anything to happen to the baby." Participants sought the physician's advice to insure they did no harm to the baby and they required reassurance that the baby was alright.

In several instances participants noted that if the physician was not concerned they felt reassured and were not concerned themselves. One participant experienced abdominal pains. She discussed this symptom with her sister-in-law who was her confidante: "I was telling her about how I felt. She'd tell me what she went through, stuff like that, just comparing." She also sought the physician's advice on this symptom:

I mentioned it to the doctor, but I wasn't concerned about it when I mentioned it because actually my sister-in-law was the one that suggested that it could be, you know, my womb stretching and that. I, actually then remembered from my first pregnancy. I did have the sort of same kind of things ... I just thought I'd mention it because I figured if she [the doctor] thought anything was wrong, she'd say ... she wasn't concerned about it ... I knew she wasn't concerned. I shouldn't be.

Most abnormal problems were resolved either by the physician or through the passage of time, eg., the participant who experienced influenza never succeeded in contacting the

physician and the problem eventually resolved on its own although not before she had experienced concern and fear over the effect of her inability to eat and sleep on the health of her fetus. The participant who had gestational diabetes was unsure of her due date and confused about what course her pregnancy would take. She felt she never received any straight answers from the obstetrician. She had an acquaintance who also was a gestational diabetic and saw the same obstetrician. She explains her relationship with her this way: "I was just kind of curious to see how her pregnancy compares to mine ... It kind of makes me feel better knowing there's someone else that had the same fear or same problems as me. Helps me kind of cope with it."

She describes how this helps her when she has not received enough information from the physician.

When I don't understand the doctors. Sometimes they don't [sic] explain nothing [sic] to you. Just a quick talk to you and rush you out of the office, type of thing. So when I talk to somebody else, and who is going to the same doctor with the same problems, you know he tell [sic] them the exact same thing, then I feel better and I know there's nothing wrong with the baby, even though the doctor confirmed it, it makes me feel more at ease.

In effect this process results in reassurance. However, it

does not allay the frustration of not knowing "what's what."

Participants invariably cited the physician as the person they would go to if they had a pregnancy related problem. The data indicated a hierarchy of sources of information with the physician as the most trusted source of information. Some participants stated they would talk to their lay sources of information but they would rely on the physician. "Oh, I'd talk to her [confidante], but I mean, I wouldn't be satisfied unless I went to a doctor, if I thought there was something wrong." The doctor was seen as the person who held the most information.

She [the doctor] should be more knowledgeable, well than what the nurses are, and I don't have a lot of faith in the nurses up there [at the clinic] ... Well I think they [the doctors] should know more than what I know and they should have more, a better idea of what I should do and what I shouldn't do.

Also there was a perceived hierarchy within the medical profession. The specialist was relied on above interns, eg., "He's suppose to be a specialist. He's suppose to know, to be able to tell you everything. It [information] is better coming from the doctor than it is the interns." The belief that the doctor was the person who held the knowledge was evident in the participants use of the physician. All abnormal problems and many normal problems were referred to the physician. The

physician's lack of concern about problems was reassuring to participants. The attitudes about the use of physicians varied among participants but even the participant who stated: "You got to be awful bad [sic] to go see a doctor" said she would ask the doctor first if she had any worries, concerns or health problems.

The process for dealing with normal problems was similar to the process for abnormal problems. However, it was not marked by the same degree of fear, worry and concern. The determination of a problem as normal was based on comparison with other pregnant women and with previous pregnancy experiences. Sometimes normal problems were brought to the physician for advice, confirmation and reassurance after a lay source had been consulted. In other instances 'treatment' of normal problems was based on information gathered from pamphlets, books and prenatal classes.

One participant experiencing heartburn for the first time attributed it to spicy foods. She asked her coworkers for advice on what to do about heartburn and followed that up by consulting her physician who advised her this was a normal problem. She took Roloids® and the problem was alleviated. In this instance the physician confirmed the problem was normal and on his advice the problem was resolved.

Several participants experienced morning sickness. Some sought advise from friends, others sought advise from the physician. Morning sickness was not easily alleviated and

there was a general acceptance that you are going to be sick and there's not much you can do about it. However, that belief did not stop the participant from trying a variety of measures to relieve her nausea finally finding something that helped.

I had myself told anyway that, you know, I was going to be sick and that was going to be it. But I must say a couple of mornings I got ready and went on outdoors, up to the neighbours or something, without even looking at food or anything. I found that was pretty good. The cold air blowing on you.

Another participant compared her morning sickness with that of a pregnant friend:

[We] just compare what was going on between the two of us ... to see if it's normal ... I was really sick for three months and she was telling me she was only sick for eight weeks. She wasn't really sick.

This particular participant consulted the physician who advised dry crackers. This did not work. The participant relied on her own feelings realizing "the more I was on the go the worst I felt. So I just rested myself." In both these instances self care by trial and error resulted in at least partial resolution of the problem.

Both normal and abnormal problems are the domain of the physician from the client's perspective. However, advice was

sought from lay sources who were deemed to have knowledge by virtue of their experience. But in most cases the normal problem was eventually referred to the physician for advice.

Conclusion

In conclusion the participants, through a process of comparison, had their need for reassurance met by confirming that what they experienced was normal or to be expected. The need for reassurance related to ensuring that the fetus was maintained in an optimum state.

Generally for normal problems advice was sought in many places, however the physician figured prominently as a consultant on normal as well as abnormal problems. This may relate to the belief that the physician holds the knowledge.

Also through a process of comparison of recommended behaviours with actual behaviours a woman changed her behaviour if she could rationalize what she was doing was good for her baby or at least was not harming the baby. Instances when women could not rationalize their potentially 'harmful' behaviour resulted in severe emotional conflict. The overwhelming force behind information seeking in pregnancy is the participant's need to ensure a healthy outcome for her baby.

CHAPTER V

Discussion

This study identified the information seeking processes used by the participants and discerned the meaning (value) of prenatal education programs and prenatal medical care as sources of information for these pregnant women. In particular, this study described the participants' information sources, their perception of the information held by Public Health Nurses and physicians, the types of information they sought, the processes of information seeking they used, and defined the significance and importance of the information sought to these pregnant women. The discussion examines the study findings in relation to the literature and the study's objectives.

Prenatal Information Sources and Participant's Perception of Information Held by Professional Sources

The participants used a variety of information sources, that ranged from lay to professional sources and included a variety of media and the participant's intuitive knowledge. This finding is supported by Rubin's (1975) observation that the pregnant woman discovers and uses every available source of information. Although participants in this study used lay sources of information, participants perceived the physician as the primary source of knowledge with the ability to

reassure them about symptoms they experienced during pregnancy. In some instances participants sought and used advice from lay consultants. However, in other instances when the participants sought advice from lay consultants it was not used and the physician was consulted. This finding is corroborated by Rubin's (1975) description of the doctor as the major source of help, insuring a healthy pregnancy outcome and reassuring the woman that the symptoms of pregnancy are normal.

A lay consultant system was evident in the participants' social network. Although some participants made extensive use of several lay consultants, others preferred to consult the physician directly. They merely mentioned their concern to a lay consultant. This variable use of lay consultants is consistent with the findings of McKinlay (1973) who identified two types of referral systems, an extensive lay referral system and a truncated or nonexistent lay referral structure. McKinlay tied the differences in use of lay consultants to sociocultural differences, this was not evident in this study. Physician referrals in this study were self referrals. Although participants consulted lay individuals as sources of information for normal and abnormal pregnancy problems, the participant made the final decision to consult the physician. It is difficult to determine from the findings of this study if, in fact, the lay consultant influenced the decision of the participants to consult the physician.

Lay consultation for the pregnant women in this study was, in part, a sharing of experiences. This fits within the framework described by Rubin (1984) as the process of replication. "Replication is self-initiated, an active searching out of new, desirable elements to be replicated, to be taken on by self" (p. 39). Therefore, by seeking information the participants acquired the appropriate maternal identity. The sharing of information for the purpose of developing a maternal identity is supported by the characteristic that the confidante is a person close to the participant's age who had previously and successfully given birth. The participants were not interested in sharing their pregnancy experiences with those who had not borne children.

Participants perceived nurses as lower on the hierarchy of information sources than physicians, especially in relation to "problem" information. Participants perceived that Public Health Nurses have knowledge relevant to the pregnant woman's needs for health and wellness information. Public Health Nurses were not used as sources of "problem" information or advice on an individual, consultative basis. However, participants perceived prenatal classes as a source of general information on "what to do" about the common discomforts of pregnancy. This appears consistent with the preventive health care role that Public Health Nurses fulfil in communities. Prenatal education programs delivered by Public Health Nurses were valued because they provided detailed information and an

opportunity to share experiences with other pregnant women. In particular, participants learn from the experiences and questions of others. In addition, prenatal education classes provided the pregnant woman with information about what to expect and what to do during labour and delivery. This was a highly valued aspect of prenatal education related to the participants' anxiety of labour and delivery.

Types of Information Sought

Study participants sought two general types of information: (a) health and wellness information, related to lifestyle issues and preparation for childbirth, and (b) problem initiated information, related to signs, symptoms and illnesses experienced during pregnancy. Information related to confirmation of the pregnancy is a special information and will be discussed as part of the process "making sure." The former two classifications will also be discussed in the context of their respective processes.

The two general types of information participants identified, health and wellness information and problem initiated information is consistent with the classifications of health and illness behaviour described by Kasl and Cobb (1966) and the development of specific models of health and illness behaviour (Becker et al., 1977; Fabrega, 1974; Mechanic, 1968). It is recognized that information needs are related to the promotion and maintenance of health and the

treatment of health problems or illnesses. The subsequent behaviours associated with these two types of information are two distinct entities. Pregnant women have two distinct information needs. However, both these needs relate to the common goal of a healthy pregnancy outcome.

Processes of Information Seeking

As a result of the findings from the study two processes of information seeking behaviour were identified, the Health/Wellness Information Seeking Process (HWISP) and the Problem Initiated Information Seeking Process (PIISP). These processes are, respectively, examples of health behaviour and illness behaviour defined by Kasl and Cobb (1966). The health and wellness information sought was information about activities the participant used to secure a healthy pregnancy. The problem information sought comprised information about the status of the participants' signs and symptoms and suitable remedies. A third process "making sure" describes the specific process used to confirm the pregnancy.

The HWISP contains similar elements to those described in the HBM. The HWISP is characterised by, in the words of one participant, "not knowing what you do not know." This indicates the need for a cue to action (HBM) or a piece of information to trigger the HWISP. Most of the participants in this study were aware of a need as a result of their pregnancy to change some aspects of their behaviour and they used the

HWISP to determine their health behaviour. The participants' goal in determining necessary changes in health behaviour was to insure optimum conditions for the fetus and an eventual healthy pregnancy outcome. All participants verbalized this goal. This indicates readiness on the part of the participants to initiate action related to their health (HBM). By comparing the recommended health behaviour to their current health practice the participants evaluated the feasibility and benefit of changing their behaviour in relation to the perceived barriers to changing their behaviour (HBM). This was portrayed by the participant who attempted, without success, to quit smoking. On the one hand, she knew it would benefit the baby and herself if she quit, but the barriers were too great, as she described "she got crooked [irritable]" and "out of sorts" when she tried to quit smoking.

The HBM corroborates certain aspects of the HWISP, however it is evident that there are other mediating factors that influence the HWISP. These include the participant's values, beliefs and attitudes about the source of information, the pregnancy, the baby or themselves (see Appendix D).

The theory of reasoned action (Ajzen & Fishbein, 1977; Fishbein & Ajzen, 1975; Fishbein, 1980) explains that an individual's attitude about performing a behaviour is a function of their beliefs that the behaviour will produce certain consequences and their assessment of the value of the consequences. Their basic premise is that individuals act in

accordance with their intentions. The theory of reasoned action is only partly supported by the findings of this study. The participant in the example cited above clearly articulated she knew smoking would have negative consequences for herself and the baby, she wanted and valued a healthy baby, she wanted to quit smoking, her intention was to quit smoking. However, she could not translate these into the desired behaviour change (action). Other examples from the findings are supported by the theory of reasoned action, in that the behaviour (action) of some participants was compatible with their intention and attitudes. A participant quit work on the basis of her belief that the work environment was unsafe due to slippery, wet floors. The consequences of working in this environment were assessed and found to be harmful to the participant and the baby. Therefore her intention was to quit work based on her belief that work was harmful to the baby. Her action, quitting work, was in accordance with her reasoning. The theory of reasoned action explains the role of attitudes and beliefs for some of the behavioral consequences identified in the HWISP.

The PIISP contains the three elements of the HBM (Becker et al., 1977), and is similar to Mechanic's (1966) help seeking framework and Fabrega's (1974) illness decision making framework. The PIISP was undertaken by the participants when they become aware of a sign, symptom or sensation, this is the cue to action described in the HBM. This cue triggers in the

participant a cognitive process of comparison of the observed sign, symptom or sensation to her remembered past pregnancy, pre-pregnancy and early pregnancy experiences, as well as the pregnancy experiences of others in her social environment. This comparison process is similar to the cognitive process described by Fabrega (1974) as the pregnant woman searches her biological, social, and phenomenologic system through her memory system of illness categories. Through comparison of her symptoms with other women, the pregnant woman takes into account the social and cultural definition of the symptom and her response is, in part, shaped by the other women. "The cultural context may affect not only the interpretation of the symptom, but also it conditions the alternative responses that are identified to deal with the problem, and the remedies which are defined as most appropriate" (Mechanic, 1968, p. 22). Basing her assessment of the situation on personal experience, cultural conditioning and acquired knowledge the participant determined what was unusual about her present state.

As a result of the comparison process the pregnant woman assesses the sign, symptom or sensation and within the pregnancy context classifies it as either an abnormal or normal problem. She seeks to normalize her symptom (Mechanic, 1968) by seeking information and comparing pieces of information. Abnormal problems are those that are determined to pose a threat to the pregnant woman's goal of a healthy pregnancy

outcome. The pregnant woman perceives herself as susceptible to a poor pregnancy outcome as a result of the abnormal symptom and is immediately ready to undertake any activity to alleviate the situation (HBM). This implies the evaluation of the action or intervention, as described in the HBM, is swiftly made as the pregnancy goal is a healthy baby, regardless of cost. In short the initial phase of the PIISP contains the three elements of the HBM and is similar to the framework's described by Mechanic (1968) and Fabrega (1974).

In the PIISP the severity of the problem was judged by its impact on the eventual pregnancy outcome. Normal problems did not engender the worry, fear, concern or frustration created by abnormal problems. Abnormal symptoms were primarily distinguished from normal symptoms by the threat they presented to safe passage for the mother and baby. They were accompanied by a heightened degree of concern, worry and anxiety. Participants sought reassurance from physicians regarding abnormal symptoms. In the absence of physician reassurance, the participants looked to other pregnant women with similar symptoms or conditions for reassurance. This was evident in the behaviour of the participant who suffered gestational diabetes. In this instance the final reassurance was sought from the pregnant woman who had the same complaint and the same physician. This participant's needs were not being met by the physicians involved with her case.

The participant's normal symptoms are accepted as part of

the pregnancy process and are used to define what it is to be pregnant. For example the absence of menses for those who planned their pregnancy was a happy sign and one to be confirmed as soon as possible by laboratory confirmation. All participants attempted to relieve their normal symptoms using lay and professional sources of information.

In all instances the problems identified by the study participants as abnormal were brought to the physician for confirmation of the participant's initial assessment of the problem. The physician was seen and believed to be the person who had the expertise to deal with abnormal problems. The goal of insuring a healthy pregnancy was seen by the participant as being achieved in as much as the doctor was consulted regarding the abnormal problem and the doctor's advice and prescribed treatment was followed. In the model tested by Lindstrom (1986) the HBM variable, perceived benefit of care did not contribute to the explanation of prenatal care utilization patterns. The participants in this study strongly indicate that the benefit of care ie., achieving a healthy pregnancy outcome is the primary explanation for why they seek care and thus information.

Other sources of information on abnormal problems were not believed to be credible. For example the participant who experienced influenza did not have "much faith" in the clinic nurses and did not use the advice the clinic nurse gave to deal with her influenza problem. The participant's belief

about the source of information influenced her use of the information received. One of the six sociocultural predicting factors identified by Poland, Ager and Olsen (1987) in their investigation of barriers to prenatal care is attitude toward health professional. Attitudes are as Fishbein (1980) states a function of behavioral and normative beliefs. Attitudes formed as a result of beliefs about the sources of information in this example are reflected in the participant's intent to use information. Overall the PIISP was a process characterised by comparison and confirmation, with the goal of securing reassurance that all was well with the pregnancy.

The process "making sure" is initiated by the missed menstrual period which is the salient indicator and cue to initiate the process. Central to the process "making sure" is the category "initial physician visit," the essential characteristic of "making sure" is the professional confirmation of the pregnancy. All participants sought professional confirmation of their pregnancy. Similar to the finding's of Patterson et al. (1986), who described a process of self diagnosis of pregnancy with the aim of reducing uncertainty, some participants waited longer to "make sure" than others. Interestingly participants in Patterson et al.'s study also stated they had sought professional confirmation "to make sure." However, unlike the participant's in Patterson et al.'s study, all participants in this study had sought professional confirmation during the first trimester. It

appears that within the sociocultural context of the study participants the sociocultural norm is professional confirmation of the pregnancy. This is evident from the participant's statement: "You'd be telling everybody 'I'm pregnant' and (they'd say) 'Were you to the doctor, yet?' and you'd say 'no'. You don't know yet, then." This situation may be attributed to the medicalization of pregnancy referred to by McKinlay (1972) and advanced by the influence of powerful groups, such as the medical profession, who are ordained by society as the experts or authorities on health and illness (Calnan, 1987).

The "making sure" process and the self diagnosis process (Patterson et al., 1986) are important in that they initiate the pregnant woman's relationship with the health professional and initiate changes in health behaviour. The findings of this study indicate this initial contact is an ideal time to impart health information and the earlier it occurs the more beneficial it may be to the pregnancy outcome. The participants of this study read the material supplied by the physician and other health professionals and seemed eager to gather whatever information they could regarding pregnancy and health behaviour.

The ambiguity of the pregnancy role described by McKinlay (1972) was not evident in the findings of this study. Individual participants adopted various health, illness and sick role behaviours (Kasl & Cobb, 1966) as they attempted to

deal with the symptomatology of pregnancy and achieve their goal of a healthy pregnancy outcome. It appears that participants had no problems incorporating the need for professional care into the normal pregnancy process. This may relate to the sociocultural norm that physician care is an accepted and integral aspect of being pregnant and the maternal identity.

The Meaning of Information Seeking

The significance and importance of information seeking to the pregnant women who participated in this study is: (a) information is key to insuring the overall goal of a healthy pregnancy outcome, and (b) information is key to the process of maternal role acquisition. The study findings clearly describe the value orientation and the context wherein the study participants seek pregnancy-related information.

The primary concern of these pregnant women is the health and well being of the fetus, to which they attach a high value. The goal of information seeking is primarily to secure the eventual healthy outcome of the pregnancy. This is consistent with the findings of Glazer (1980) and Light and Fenster (1974). Health services in general and pregnancy-related information in particular are sought in relation to the perceived value attached to them to insure the woman's goal of a healthy pregnancy outcome. Help seeking and information seeking in pregnancy is described by these

participants as seeking "safe passage" (Rubin, 1984) for their baby.

The meaning of information seeking in so far as it is a sharing of experiences of pregnancy and childbirth is related to the developing maternal identity and maternal role acquisition (Meleis, 1975; Thornton & Nardi, 1975; Rubin, 1984). In the words of one participant "knowing what to expect." With reference to the role confusion cited by McKinlay (1972) it is evident that the participant's in this study recognize that pregnancy is a normal and natural process with an associated, recognized normal symptomatology. On the other hand, it is also evident that an amount of medical intervention is sought in order to attain a successful pregnancy outcome. This indicates a certain confusion or dichotomy. The dichotomy is apparent when the women seek medical assistance to resolve these normal symptoms. Many participants chose to "suffer it out" and did not refer their normal symptoms to the physician. Others chose to use information from lay sources and their own knowledge to deal with the normal symptoms. In the end participants developed their own strategies for dealing with the normal symptoms of pregnancy. The subjective need to have the pregnancy medically confirmed further indicates this dichotomy and confusion.

Physicians were highly valued as sources of help when the help sought was information regarding the security and health of the fetus or related to maintaining the health and security

of the fetus during an episode of abnormal symptoms. The information needs related to normal symptoms were not deemed as urgent and information from a variety of sources was used to treat and assign significance to normal symptoms.

It appears that attendance at prenatal classes is the sociocultural norm among this group of participants. There also appears to be strong support for prenatal classes from the physicians at the clinic that all participants attend. Taken together these two factors explain the high number of participants intent on attending prenatal classes. The findings from this study including the processes of information seeking identified are confirmed, for the most part, by findings in the literature.

CHAPTER VI

Implications, Recommendations and Conclusions

Overall this study has attempted to address a key question facing health care planners: "How to improve health services, in order to improve health outcomes"? In an attempt to answer this question it has been necessary to discover some of the factors that influence health practices and behaviours and the processes of information seeking pregnant women use. It is clear, information is an integral component of the factors influencing health practices and behaviour. Some of these factors include sociocultural beliefs and values and the advice of health care professionals. In this chapter recommendations are made that nurses can use to enhance health outcomes for pregnant women and describes implications of the study findings for nursing practice and research. In addition, some study limitations are outlined.

Limitations of The Study

This is a qualitative descriptive study with eleven participants. All eleven participants are users of the health care system having sought physician services and ten of them expressed an intent to attend or have attended prenatal classes. Therefore the perspective of those who do not participate in prenatal education programs or prenatal medical care has not been obtained.

The study participants are an homogeneous group of pregnant women, living in a small rural setting. The comparison units for the data analysis are one pregnant woman's experience of information seeking compared to others in the group. Therefore the formulation of a formal theory described by Glaser and Strauss (1967) is not possible in that a single substantive area is being assessed. However the development of a formal theory was not the purpose of this study.

Implications for Nursing Practice

The clinical and administrative implications of these findings for nursing practice primarily focus on the provision of information and education to pregnant women.

1. **Timely information.** The findings indicate that pregnant women are eager for information about pregnancy. Initially the concern is to adopt health practices that will insure a healthy pregnancy and to deal with the symptomatology of pregnancy. Later in the pregnancy concern and anxiety about labour and delivery appear to be the primary need. Prenatal education programs will be most effective when they address the concern of the pregnant woman at the appropriate time. The additional need for pregnant women to share information and compare pregnancy experiences is important to consider when allotting time for prenatal education programs. This sharing of information and experiences among participants in the class is an important adult learning principle, but for

pregnant women it is also necessary to their developing maternal identities.

2. **Consistent information.** Inconsistent information from a number of sources creates confusion for pregnant women. Nurses must be vigilant and insure that consistent information is provided, regardless of the source, or discuss why the information in a certain area varies. Certain health issues and practices will always be debatable, the nurse must insure that detailed information is provided, allowing the pregnant woman to make an informed decision regarding her health behaviour.

3. **Cues to action.** Mass media communication and campaigns may be one way to inform pregnant women of what they need to know. This may be particularly important for the population of pregnant women who do not seek prenatal education programs or prenatal medical care early in the pregnancy. As evident from this study even women who sought care early were unsure of recommended health practices during pregnancy; "Not knowing what you do not know." This recommendation has financial implications for policy makers, nurses can lobby to have such interventions implemented.

4. **Supportive counselling.** A major concern of pregnant women is the health and well being of their in utero baby. This was particularly evident for sick pregnant women who in addition to the normal concern for baby, also had to manage the concerns generated by the pathology they experienced.

Pregnant women who are not hospitalized must do without the supportive care and counselling of nurses. A community based support group for such pregnant women could operate under the direction, guidance and counsel of a Public Health Nurse.

5. **Marketing strategies.** Participation in prenatal education programs could be improved by employing appropriate marketing strategies. Prenatal education programs in Newfoundland have never been marketed except by word of mouth and posters. There has been no marketing research to explore how these programs could be best approached. The concerns that produce such a high participation in prenatal medical care may also serve to produce a high participation in prenatal education programs. The physician is perceived to be the expert on pregnancy concerns and can reassure the pregnant woman, in most cases. Prenatal education programs on the other hand are not perceived in the same context nor are Public Health Nurses as sources of pregnancy problem advice. Yet, it is apparent that good health practices, information on the discomforts of pregnancy and information on labour and delivery, that allay the discomforts, fears and concerns of pregnancy, labour and delivery and such as are advanced in prenatal education programs, are as important to a healthy pregnancy outcome as monitoring the pregnant woman for health problems during pregnancy. This information could provide the basis of a marketing strategy for prenatal education programs.

6. Individualised nursing program for prenatal clients.

Several participants in this study did not obtain the assistance they needed and wanted to quit smoking or allay the concerns generated by illness. At present, individual pregnant women do not benefit from the nurse's expertise in patient education and developing strategies to assist individual's change their health behaviour unless they are admitted to hospital or actively seek it from their Public Health Nurse. There is no formalised nursing program that provides these interventions and few physicians have the time or expertise to perform this service. New resources are required to develop a program of prenatal counselling and education to individual prenatal clients who require it. To further this recommendation it is obvious the pregnant woman who smokes has a different informational need than the one who does not smoke. How can the same educational intervention meet the differing need? Yet this is what has been attempted through the standardized prenatal education program currently in place.

Recommendations for Future Nursing Research

Further research in the area of information seeking behaviour is indicated. Similar studies to this one that focus on pregnant women with less than a grade 8 education or pregnant women with no intention to participate in prenatal education programs would provide comparison groups. The

findings from such studies may provide insight on the information seeking processes of these pregnant women and their goals for information seeking, as well as, the values, beliefs and attitudes they use to make decisions about their health and illness behaviour. In particular it would be useful to know how they use their lay consultants and the value they place on prenatal medical care and the barriers they perceive to prenatal education programs.

The research process used here could be adapted to examine the information seeking processes employed by other users or nonusers of the health care system. This would assist in the development of a formal theory of health information seeking. Such a formal theory would assist health professionals to plan educational interventions for individual's with a variety of conditions, eg., diabetes mellitus. Other women's health issues that could be researched include menopause.

An empirical study of pregnant women's intentions to attend prenatal education programs, using the conceptual framework of Fishbein and Ajzen (1975) would provide further information on the relationship between intentions, attitudes and beliefs. Also, in light of findings from this study, compared to those of Lindstrom (1986) on prenatal care utilization patterns, further testing of the health belief model variable, the perceived benefit of seeking care, is indicated.

Several propositions formulated on the basis of these research findings that can be empirically tested include:

(a) pregnant women who do not seek prenatal care do not value a healthy pregnancy outcome, (b) perceived benefit of care is greater in pregnant women who participate in prenatal education programs than in those who do not, (c) perceived benefit of care is greater in those who seek prenatal medical care than in those who do not, and (d) the pregnant woman's perceived value of the information source influences her use of information derived from that source.

Conclusion

Pregnancy is a unique life experience that is lived and learned through the incorporation of information. The determinants of information seeking behaviour of pregnant women include their attitudes toward information sources, their valuing of a healthy pregnancy outcome, recognition of salient indicators and receiving cues to action. Nurses providing prenatal education programs must ensure the program is based on the information needs of pregnant women, further it is vital that pregnant women be aware of the value of prenatal education programs to their goal of a healthy pregnancy outcome. The adoption of these recommendations will assist to facilitate the attitude changes that must occur before pregnant women can effectively use prenatal education programs.

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Appendix A

Conceptual Map (An Example)

<u>What</u>	<u>Source</u>	<u>Why</u>	<u>Contingency (belief)</u>
Information on --- labour and delivery (Health and Wellness Information)	Friend ---	Friend recently had a baby (sharing experience)	----- - everyone's different - won't know what its like until she experiences it (dichotomy with consequences)
 <u>Consequences</u>			
Knows what to expect (advice useful) (reassurance)			
Felt good after receiving advice on breathing during labour (reassurance) (coping)			

Appendix B**Consent Form**

I am Betty Lundrigan, a community health nurse. Currently I am completing a Masters of Nursing program at Memorial University of Newfoundland. I am researching the type of pregnancy-related information sought by pregnant women, from whom they seek information and when they seek information. This data will be collected by tape recorded interviews and a questionnaire administered by me.

I am requesting your written consent to participate in this research. Agreement to participate will involve approximately two hours of your time and a minimum of two home visits from me over a two month period. You are free to withdraw at any time during the study and your signature does not obligate you in any way. If you wish to withdraw you may contact me by telephoning (collect) 786-7527.

Your full identity will be known only by me. During the taped interviews you will be referred to by your first name. The typist will know you only by your first name and an identifying code number assigned to each participant. The geographical area in which I am completing this research will not be specified in the written report of the research.

This study will be useful to Department of Health officials, physicians, nurses, hospitals and medical clinics in planning services for pregnant women. Therefore you will

not benefit directly from this research during this pregnancy, however during future pregnancies and for other pregnant women this research will hopefully provide more relevant and effective information services to benefit pregnant women and their babies. Thank you for considering participating in this study.

I consent to participate in this research project:

Signature: _____

Date: _____

I consent to my daughter's participation in this research project.

Signature: _____

Date: _____

I consent to be tape recorded.

Signature: _____

Date: _____

Appendix C**Part A: Structured Interview Schedule**

1. Informant's christian name: _____.
2. Birthdate: day____month____year____.
3. Number of previous pregnancies: _____.
4. Number of living children: _____.
5. Highest level of education attained: _____.
6. Highest level of education attained by husband:
_____.
7. Marital status: _____.
8. With this pregnancy, when did you first visit the
doctor? _____
9. What date is your baby due to be born? _____
10. With this pregnancy, do you attend prenatal classes?

11. Did you attend prenatal classes with a previous preg-
nancy? _____
12. Do you know your Public Health Nurse? _____

Part B: Semi-Structured Interview Schedule

- 1(a) When did you first suspect you were pregnant?

- (b) What was your initial reaction?

(c) Who was the first person you told about your pregnancy?

(d) How did this person react?

(e) What were your concerns at that time?

(f) Did you have any health-related concerns at that time?

If so, what were they? _____

(g) When did you go to the doctor?

(h) What prompted this visit?

2(a) Tell me about your pregnancy. _____

(b) How have you been feeling during this pregnancy?

(c) Do you feel any different since conception?

(d) Who do you talk to about your pregnancy problems (apart from your doctor)? _____

- (e) Why did you choose that person? _____

- 3(a) Who would you go to for help if you had a problem?

- (b) Has anyone helped you during your pregnancy?

- (c) What kind of help did they provide, if any?

- 4(a) Who do you rely on for information about pregnancy
(apart from your doctor)? _____

- (b) Why did you choose that person? _____

- 5(a) Did you think you should do anything different during
your pregnancy? (eg. eat differently)

- (b) How did you know that? _____
- (c) Who told you to do that? _____
- (d) Did you follow their advice? _____
- (e) Did you have any concerns about that advice?

- (f) Who did you confirm your concerns with?

6(a) Have you made any changes to your lifestyle since becoming pregnant? _____

(b) How did you know to do that? _____

7(a) What discomforts have you experienced during this pregnancy? _____

(b) What do you attribute them to? _____

(c) What do you do about them? _____

(d) How did you know to do that? _____

8(a) How are members of your family feeling about your pregnancy? _____

(b) What advice does your mother, father, husband, sister, brother, mother-in-law, father-in-law, sister-in-law, brother-in-law, friends, neighbours, grandmother give you? _____

(c) Did you solicit their advice? _____

(d) Did you follow any of the advice given? _____

9(a) Did you consider attending prenatal classes? _____

(b) Why did you attend/or not attend? _____

(c) If you attended, did you find them helpful? If so, why?

If not, why not? _____

10. Describe your overall experience with the pregnancy to date: _____

Appendix D

ATTITUDE OBJECT: BABY

Attitudes	Beliefs/KD.	Values	Feelings
I'm not worrying so much over myself ... I worry more about the youngster.	Smoking they say can affect the baby.	Don't [sic] want no [sic] harm to come to the baby.	Scare from bladder infection.
Feels good about the baby.	Smoking can do more harm than good.	I got to eat. I mean, a little youngster.	Afraid I might harm the baby.
Went everything to go right with the baby. I want him to be healthy.	[Continuing work might hurt baby].	Change behaviours for the baby.	I am worried.
When I think about having the baby I get happy.	I don't smoke that much anyway.	Stopped drinking because of baby.	I feel a little guilty (re: smoking).
I'm just going to do the best I can do (for baby).	Not doing baby any harm by smoking.	Just hoping by doing all this, it's going to ensure it is healthy.	Anxious to see the baby.
I'm looking forward to it.	I believe second hand smoke more harmful.	Did't want no [sic] harm to come to the baby.	Afraid it (taking medications) would hurt baby.
	This is pills you're [sic] taking. It's going in your stomach, where the youngster is too, and I got a bit wary of it.		Happy and relieved that the baby and everything was okay (as confirmed by the doctor).
	I only smoke 1/2 a pack a day. It's not heavy but it's not helping.		
	Knew it (smoking) wasn't doing any good for self or baby.		
	Eating well helps have a healthier baby - for better development in the baby.		
	Whatever's going through my system is going through the baby's system.		
	All drugs I know have some affect.		

Note: "his data is the participants' words. Each data strip is categorized as either attitude, belief/knowledge, value or feeling about attitude object.

ATTITUDE OBJECT: CONFIDANTES

Attitudes	Beliefs/KD.	Values	Feelings
Easier to talk to than someone I don't know.	They knew more about it.	Close to them.	Makes me feel better knowing someone else had the same fear or problems as me. Helps me cope with it.
Comfortable asking someone you are close to questions like that.	If there's anything [wise older woman] knows.	Because we are close.	
		I only ask people that basically I know.	
		We've been friends all our life.	
Just feel comfortable with her.		Known her for awhile.	
		We've just gotten along.	
		Closest ones to me.	
		To share with somebody.	

ATTITUDE OBJECT: EVERYBODY

Attitudes	Beliefs/KD.	Values	Feelings
I just don't go along with everything everybody says.	Everybody goes through it (morning sickness).	Makes me feel good.	Gets on your nerves - everyone giving advice.
I don't mind people giving me advice.			
I don't believe nothing anybody tells me.			

ATTITUDE OBJECT: GRANDPARENTS

Attitudes

Beliefs/KD.

Values

Feelings

I don't mind him anyway,
laughed it off.

ATTITUDE OBJECT: MOTHER

Attitudes	Beliefs/KD.	Values	Feelings
Most advice I'll take basically from my mother. She reared all of us up.	Know they (family) care.	Closest ones to me (mother and boyfriend).	Feel that they care when giving advice.
She's pretty helpful (she had 6 youngsters) having her to talk to is helpful.		Helped me most during pregnancy. (social, tangible support).	Good when mom gives advice.
Don't want mother to attend labour/delivery. I wouldn't feel comfortable with her.		Advice - it's good because I know if I'm tired. It's okay to lie down (permission).	

ATTITUDE OBJECT: MOTHER-IN-LAW

Attitudes	Beliefs/KD.	Values	Feelings
			Feels good when mother-in-law giving advice.

ATTITUDE OBJECT: PUBLIC HEALTH NURSE

Attitudes	Beliefs/KD.	Values	Feelings
Would not seek her out for information, only if I saw her around.		She helped me a lot.	

ATTITUDE OBJECT: PREGNANCY

Attitudes	Beliefs/KD.	Values	Feelings
It's only foolishness to dwell on something you got no control over anyway.	Every pregnancy is different anyway. All pregnancies are different.		Confused. Stunned.
It's wonderful.			Afraid.
Bit more worried this time.	I think pregnancies are different altogether.		Excited. Glad.
It's been all new to me.	Anything that made me feel sick I shouldn't be at.		Disappointed.
Everybody goes through it.	You're not supposed to bleed during your pregnancy. Everybody is different. Everyone's different. You can't know too much. I know a bit more about it this time. I just probably think I'm not lucky enough for it to happen like that (easy pregnancy) twice. All pregnancies are different.		Happy. Happy. Fear of not knowing what to expect. Glad to get it over with. Happy.

ATTITUDE OBJECT: PRENATAL CLASSES

Attitudes	Beliefs/KD.	Values	Feelings
Wished I'd went to them all.	(Friends) they found it a lot easier with prenatal classes.	I found it a great help.	
I find it uncomfortable sitting.		Found it interesting.	
	Would have been more helpful if attended earlier in pregnancy.	They are interesting.	
Would go anyway regardless of whether it was recommended by doctor.		Found them good.	
		Knowing what to expect - (reassurance).	

ATTITUDE OBJECT: PRINTED MATTER

Attitudes	Beliefs/KD.	Values	Feelings
They were pretty good. Very useful. Mostly it's good.		Had no problems with it [pamphlets on exercise]. Felt it was sound advice.	What I read in books make me nervous.

ATTITUDE OBJECT: REGISTERED NURSES

Attitudes

Beliefs/KD.

Values

Feelings

Not much faith in
Registered Nurses
at clinic.

ATTITUDE OBJECT: SELF

Attitudes	Beliefs/KD.	Values	Feelings
<p>If it's bearable at all, I'm going to put up with it rather than take anything.</p> <p>If I can stick it out anyway at all. I won't take it (medications).</p>	<p>Won't be a good mother due to lack of experience.</p> <p>I don't believe in taking anything, unless I got to.</p> <p>Might go to baby's system.</p>		<p>Afraid I won't be a good enough mother.</p> <p>Concern about vaginal infection.</p> <p>Gave up baseball. Afraid I'd get hurt.</p> <p>Guilty if didn't change behaviours.</p> <p>Don't really bother me. I can't relieve back pain.</p> <p>Depressed.</p> <p>Don't feel good about smoking (guilty).</p>



