CHAPTER 2

LITERATURE REVIEW AND THEORETICAL FRAMEWORK

Literature review

This review of literature presented an overview of factors contributing to cesarean section occurrence, theory of reasoned action, attitude toward having cesarean section, attitude and intention to have cesarean section, subjective norm and intention to have cesarean section.

Overview of factors contributing to cesarean section occurrence

Cesarean section is defined as delivery of the fetus through incision in the abdominal wall and the uterine wall. Indications for cesarean birth can be divided into two categories. First, medical indications, conditions of the pregnancy, the mother, baby or both that may mean that an abdominal delivery is advisable. However, within this category there are absolute and non-absolute (or relative) indications. Absolute indications for cesarean section include cephalopelvic disproportion and placenta praevia and usually mean that the baby can not be born any other way. Relative indications for cesarean section include dystocia and fetal

distress and rely on the individual case and /or the experience of the attending physician to decide whether a cesarean is necessary(Churchill,1997). The four most frequent medical indications for cesarean section are repeat procedure, dystocia or failure to progress in labor, breech presentation and fetal distress (Cunningham, et al, 1993).

Second category is social or 'non-medical' indication for cesarean section. It is hard to believe that cesarean sections would be performed for a reason other than medical necessity, however, there is a growing body of evidence to demonstrate the existence of social or non-medical indications for cesarean birth (Churchill, 1997). As previously mentioned, the cesarean section rate has increased at an accelerated rate over the past two decades in USA and other developed countries (Notzon,1987), and some specific areas as Beijing and Shanghai in China (Zhen & Huang,1996; Zhou & Wang,1994). Also, the number of women request for cesarean section without medical indications has increased. In USA, it has been estimated that in each year 140 women died following cesarean section which were not medical indicated (Savage & Francome,1993). In addition, a study in England and Wales indicated that the mortality rate of the women delivered vaginally was 0.02/1000, compared with 0.09/1000 for elective cesarean section. The direct mortality associated with elective cesarean section was thus 4-5 times than that associated with vaginal delivery in

1982-1984 (Mascarenhas, Biervliet, Gee, & Whittle,1989). Concerning about unnecessary cesarean section and negative effects of cesarean section on mother, baby and the relationship between the two has promoted examination of nonclinical factors that might influence increasing cesarean section rate.

Socioeconomic factors: Several researchers have attempted to examine the independent effect of socioeconomic factors on cesarean section rate. Several reports suggested that there was a positive relationship between socioeconomic status and use of cesarean section (Gould, Davey, & Stafford,1989). Consistency was noted for some variables including age, educational level, family income and insurance status. Women who were older, had more higher education level, more family income and with private insurance were more likely to have cesarean section (Braveman, Egerter, Edmonston, & Verson,1995; Gould, et al,1989; Woolbright, 1996). Studies implied that women with high socioeconomic status and private insurance were more likely to request a cesarean section or were more influential in having their desires met (Hueston & Rudy,1994).

Client request: Client request for cesarean section and the right of women to be actively involved in their own treatment decisions play an important role in the increase of unnecessary cesarean section. Lewison(1993) conducted a survey

in United Kingdom which highlighted that more and more cesarean section were being performed unnecessary and they found that there was an increase in the number of women asking for cesarean section. In United Kingdom, the results of the study spanning five years highlighted that more women were requesting cesarean section, the number of women asking for a cesarean had increased from one in eight women (13.2%) in 1991/2 to one in five women (21.3%) in 1996 (Churchill, 1997). Also, result of Johnson and others' survey (1986) of 112 obstetricians in the United States indicated that some physicians considered the client request itself was enough reason for cesarean delivery, although this practice was controversial. A survey of consultants' opinions on why the cesarean rate is rising identified women requesting the operation as one of the main reasons for the increase (Francome, 1994).

Physician factor: Seventy percent of the obstetric consultants in a small-scale British study cited fear of litigation as a reason for the rising cesarean section rate (Francome, 1994). In some malpractice suit, obstetricians were often sued for rejecting the women and their family members' request for cesarean section (Wen, 1994). Concern over potential malpractice and under the pressure from women and their family members, obstetricians may be more willing to perform a fairly safe surgical procedure than to take a risk

for an unfavorable outcome and a malpractice suit (Applegate & Walhout,1992; Cunningham,et al,1993; Lewison, 1995). As more cesarean sections are done for complex birth, there will theoretically be fewer obstetricians trained and experienced in management of problem vaginal deliveries, which is likely to have a large impact on the future practice of obstetrics, and make the cesarean section occur more frequently (Sherwen,et al,1995).

Woolbright (1996) stated that the setting where a woman received her prenatal care was a determining factor for cesarean section. If she received care from a private physician, she was 38% more likely to have a cesarean than if she did at a health department or community health center where prenatal care was likely to be provided by a nurse-midwife. According to Churchill (1997) review, when controlling for risk factors known to increase the cesarean section rate, midwives attending births had lower rates of cesareans compared to births supervised by obstetricians.

Declining birth rate: The declining birth rate in the industrial world since the 1960s and in China since the 1980s has led to more emphasis on the outcome of pregnancy. It could be argued that the rise in cesarean section rates is a response to increased emphasis on the successful outcome of pregnancy. Consultants continued to cite improved fetal outcomes as a reason for performing more cesareans despite

evidence showed that there was no causal relationship between cesarean section rate above six percent and better perinatal and neonatal outcome (Francome et al, 1993). However, it appears that cesarean section has become an acceptable approach in the attempt to improve fetal outcomes.

In summary, the nonclinical factors contributing to the high cesarean section rate were mainly from the client. Therefore, to reduce unnecessary cesarean section required by the client, the key is enhancing client education and neutralization of convenience factor of cesarean section (Joseph, et, al, 1991). However, effective teaching must be based on understanding those factors which influence women's decision making for cesarean section.

Theory of reasoned action

Ajzen and Fishbein (1980) proposed the theory of reasoned action (TRA) to account for how individuals made decisions about carrying out certain behaviors. It offers one approach for explaining individuals' intention to engage in health behaviors. The TRA is based on the assumption that human being are usually quite rational and make systematic use of the information available to them. They use or process this information in a reasonable fashion in their attempts to cope with their environment. People always consider the implications of their actions before they decide to engage or

not engage in a given behavior.

According to the TRA, behavioral intentions (BI) are the best single predictor of a person's behavior (B). Behavioral intentions can be measured by one single item recommended by Ajzen and Fishbein (1980). Behavioral intentions are a function of two basic determinants, one personal and the other social influence. The personal factor is the individual's favorable or unfavorable evaluation of performing the behavior. This factor is termed "attitude toward behavior" (A). The second determinant of intention is the person's perception of the social pressure put on him to perform or not perform the behavior. This factor is termed "subjective norm" (SN). That is individuals will intend to perform a behavior when they evaluate it positively and when they believe that significant others think they should perform it.

The relationship between behavior, behavioral intention, attitude, and subjective norm can be represented algebraically as $B=BI=(A)w1+(SN)w2$ where w1 and w2 are empirically determined weights showing differences of the effect on intention from attitude and subjective norm depending on the behavior in question. For some behaviors, the attitude component may be more important in determining behavioral intentions, for other behaviors, the normative component may be more important. In general, behavioral

intentions remain stable over short time period. According to Ajzen and Fishbein, it is important to determine the relative importance of attitude (w1) and subjective norms (w2) in the prediction of behavioral intention in order to decide on the appropriate strategy for influencing behavioral change. They describe a series of steps for empirically linking the various components to provide an understanding of the determinants of the behavior under investigation. The overall model is represented in Figure 1.

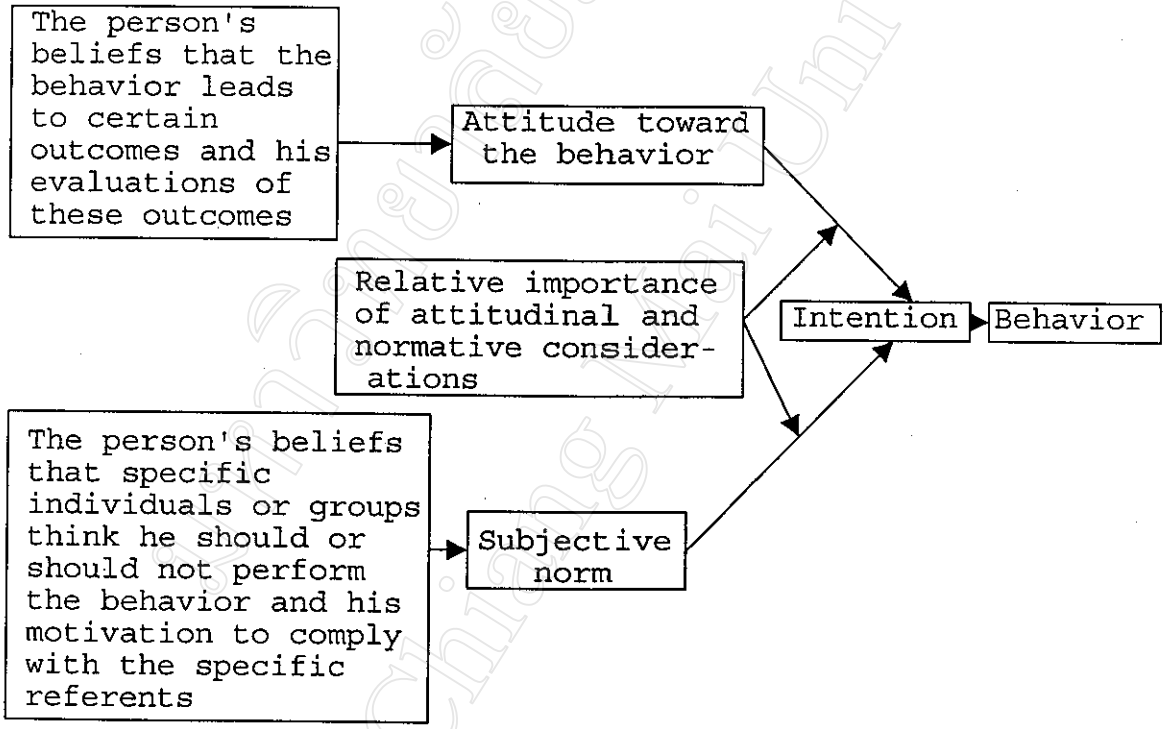

Figure 1. The Ajzen-Fishbein Theory of Reasoned Action

According to the theory, attitude toward behavior is a multiplicative function of its component parts which includes a person's beliefs about the outcome of performing the behavior (i.e. behavioral belief) weighted by the person's evaluation of the expected outcome of performing that behavior (i.e. outcome evaluation). A measure of attitude toward behavior is derived from summing the products of behavioral belief (BB) and outcome evaluation(OE). An algebraic representation of this relationship is $A= \Sigma(BB*OE)$ (Pender & Pender,1986,1996).

The subjective norm is also a multiplicative function of the expectation that one or more referents think one should or should not perform the behavior (i.e. normative belief) and the motivation to comply with referents (i.e. motivation to comply). A measure of subjective norm is derived by summing the products of normative beliefs (NB) and motivation to comply(MC). An algebraic representation of this relationship is $SN=\Sigma(NB*MC)$ (Pender & Pender, 1986, 1996).

According to the theory, there is no necessary relationship between any external variables, such as demographic variables and a given behavior, the external variables will be related to behavior only if they are related to one or more of the variables specified by the theory. Different types of external variables can influence intentions

and behaviors indirectly by their effects on behavioral beliefs, outcome evaluations, normative beliefs, motivations to comply, or on the relative weights of the attitudinal and normative components. Hecker and Ajzen (1983) proposed that all external variables that influence health behaviors are mediated through the attitudinal and normative components and even a relationship is discovered, it may change overtime.

The TRA is designed to explain virtually any human behavior, and has been used to predict behavioral intention and behavior in a variety of clinical settings. Research studies reviewed here are the applicability of the theory of reasoned action in explaining women's health promotive behaviors such as breast self-examination (Lierman, Young, Kasprzyd, & Benoliel,1990), weight control, regular exercise, manage stress (Pender & Pender,1986), infant-feeding (Proffitt & Smart,1983), and condom use (Jemmott & Jemmott, 1991).

Lierman,Young, Kasprzyk, and Benoliel(1990) used the TRA to predict breast self-examination behaviors of 93 older women(52-90 years). The validity of the theory was supported when attitudes and subjective norms were found to explain a significant amount of the variance in intentions (R^2=.32). Contrary to expectations, attitudes and subjective norms predicted actual behavior better than intentions to perform these behaviors.

Pender and Pender(1986) used the TRA as the conceptual

framework for analyzing the relationships among attitudes, subjective norms, and intentions to exercise regularly, maintain/attain recommended weight, and avoid highly stressful life situations. Attitudes were useful in explaining intentions to engage in all three health behaviors studied. Subjective norms contributed only to the explanation of intentions to engage in regular exercise. Three factors, attitudes, subjective norms and weight, affected intentions to engage in regular exercise. Attitude, weight, and perceived health status were the principle determinants of intention to eat a diet consistent with weight control. Only attitude was associated with intention to manage stress.

Proffitt and Smart (1983) examined the applicability of TRA to the prediction and understanding of how primiparous and multiparous mothers intended to feed their infants and how they actually fed these infants during six weeks following delivery. Measures of attitudes to behavior, subjective norms, and behavioral intentions were taken during the last trimester of pregnancy, behavior was assessed by self-report six weeks postpartum. They found that attitudes toward behavior made an independent and significant contribution to the prediction of infant-feeding behavior. They reported mothers who breast-fed during the 6-week postpartum period differed from those who bottle-fed exclusively on a number of behavior beliefs, outcome evaluations, and normative beliefs, and on one measure

of motivation to comply.

In a study applying TRA to AIDS prevention, Jemmott and Jemmott (1991) found that Black women's intentions to use condom were strongly influenced by their favorable attitude toward using condoms and by perceptions of support for condom use among their significant referents (subjective norms).

An overview of related research findings indicated that intentions were, for the most part, moderately to highly correlated with behavior, attitudes were moderately correlated with behavior, and subjective norms were not correlated or moderately correlated with behavior. Relationships varied by type of health behavior studied and study methods. Intervention studies in which variables in the TRA have been manipulated have had some reported success in bringing about behavior change (Pender & Pender,1996).

The TRA seems to be particularly appropriate for examining factors influencing women's intentions to have cesarean section. Thus, to predict the behavioral intentions to have cesarean section, the social normative and attitudinal components are important factors to examine.

Attitude toward having cesarean section

Attitudes are characteristics of individuals, but they are influenced and determined by many social and situational as well as personal factors (Downie & Tannahill,1996).

Attitudes are often viewed as being central to health promotion. They affect the ways in which individual, groups and communities response to health promotion initiatives. In addition, attitudes are linked to health-related belief and behaviors and directly and indirectly associated with health status (Downie & Tannahill,1996).

Although a number of definitions of attitude exist, there are two main viewpoints which are unidimensional and multidimensional. For the unidimensional, there are two different viewpoints. Thurstone(1931) defined attitude as the affect for or against a psychological object (Cited in Ajzen & Fishbein,1980). Whereas, Roediger (1984) defined an attitude as a relatively stable tendency to respond consistently to particular people, objects, or situation. The definition of attitude given by Roediger focuses on only one component of an attitude, namely "tendency to respond" , an attitude is seen to be related to behavior. However, this definition implied that a person's behavior does not necessarily represent those attitudes in a straightforward manner, because of (1) a strong desire, (2) people have many attitudes, (3) the attitude-related behavior may not ensue if it conflicts with social, cultural, or group norm (Cited in Downie & Tannahill,1996).

By the late 1950s, the multicomponent view of attitude was adopted almost universally, and attitudes were viewed as complex system, comprising the person's beliefs about the

object, and his feelings toward the object, and his action tendencies with respect to the object (Ajzen & Fishbein, 1980). Rosenberg and Hovland (1960) described the three-component view of attitude as following: all responses to a stimulus object are mediated by the person's attitude toward the object. The different responses, are classified into three categories: cognitive (perceptual, response and verbal statements of belief), affective (sympathetic nervous responses and verbal statements of affect), and behavior or conative (overt actions and verbal statements concerning behavior). Corresponding to each of these response classes is one component of attitude. A complete description of attitude requires that all three components be assessed by obtaining measures of all three response classes (Cited in Ajzen & Fishbein,1980).

Measurement of attitude is not a straightforward process, it relies on inference (Ajzen & Fishbein,1980). The most commonly used attitude rating scales are agreement scales, based on the approach developed by Likert (1932), named Likert scale. The other principal method used in attitude scale construction was developed by Osgood et al (1957). Osgood's semantic differential technique is based on a series of bipolar ratings which describe a person's attitude to the object in question (Cited in Downie & Tannahill,1996).

Most investigations concerned with attitude formation

and change make no distinction among beliefs, feelings and intention: Virtually all verbal responses--and sometime even overt actions --are considered to be indicant of person's "attitude" and measure of these variables are often used interchangablely (Ajzen & Fishbein,1980).

In the theory of reasoned action, the attitude is restricted to person's evaluation of any psychological object and draw a clear distinction between beliefs, attitude, intention, and behaviors. From this theory, an attitude toward any concept is simply a person's general feeling of favorableness or unfavorableness for that concept. That is the person's positive or negative evaluation of performing the behaviors, is a multiplicative function of its component parts: beliefs concerning the consequence of performing the behavior, and evaluation of these consequences.

According to this theory, attitude toward having cesarean section should be defined as the women's favorable or unfavorable evaluation of having a cesarean section which includes a woman's beliefs concerning the consequences of having cesarean section and a woman's evaluation of these consequences. Unfortunately, studies which researched attitude toward having cesarean section under the TRA definition are not available. In some studies, the investigators measured the responses and perception of cesarean section as the indicants of women's "attitude" toward cesarean section, and most of the

researchers measured attitude postoperationally. The disadvantage of postoperational measurement of the attitude is that it may reflect behavior experience (Proffitt & Smart, 1983). For the purpose of this study, the emphasis is placed on the preoperative attitude toward having cesarean section.

The women's perceptions and attitudes toward cesarean section are changing with different era, and different culture (Sherwen,et al,1995). Some women welcomed cesarean section as a means of escaping the rigors of labor, others felt disappointed that they have not had the experience of a normal delivery and have not enjoyed the accompanying sense of achievement (Myles,1993).

In the 1950s, cesarean and vaginal delivery clients were treated in a similar fashion. Childbirth was widely viewed as a pathologic event for which most people received general anesthesia and remained in hospital for periods extending to 2 weeks. By the mid-1970s, prepared childbirth and family-centered, father-attended birth became widely publicized and available for women who delivery vaginally. Cesarean clients were denial a similar birth experience. Such negative feelings as anger, disappointment, loss of self-esteem and grief were described particularly when the women lacked adequate information , received general anesthesia (Sherwen, Scolveno,& Wengarten,1995).

Affonso and Stichler (1978) researched women's

reactions to cesarean birth, 105 women who had cesarean delivery were interviewed. Feelings prior to surgery were fear (92%), dissatisfaction, anger, or depression (50%), or relief (30%).

Marut and Mercer (1979) compared perceptions of 20 cesarean birth mothers with those of 30 mothers who delivered vaginally. They found that cesarean mothers had less positive perceptions of their childbirth experience than vaginal birth mothers. Differences were found in control and fear during childbirth, worry about the infant, and time delays in mother-infant contact.

Research from the early 1980s indicated that psychologic wounding tended to be greater in women who had valued and sought natural childbirth as a goal in itself. These women tended to be from Caucasian middle-class background (Sherwen, et al, 1995).

In a retrospective survey of 24 couples who experienced cesarean birth, Fawcett (1981) examined the responses according to four adaptive modes (Roy,1976). She found that women experienced disappointment about being unable to deliver vaginally as well as feelings of loss of control related to birth related events. Both parents experienced fatigue and some role failure, they expressed the need for being together and contact for their infant.

Cultural background must also be considered in

assessing the emotional responses of clients and families to cesarean birth. Cummins (1988) studied 518 primiparous Mexican women, fifty-eight of whom delivery by cesarean. Cesarean birth was not found to be unsatisfying or psychologically negative for most of the women in the study, 11% even reported feeling "lucky" to have the cesarean. Twenty eight percent reported dissatisfaction with their cesarean experience, and expressed feelings of fear, guilt, and failure.

The great discrepancy between the cesarean section and vaginal birth experiences has narrowed in 1990s. Several factors have been linked to this changing trend. First, content about cesarean preparation is included in prepared childbirth classes, which decrease the perception of cesarean as a threatening event (Fawcett,1993). Second, health care providers attempt to "normalize" the cesarean experience, which have sought to provide opportunity for husband to participate in birth, and for sustained contact with the newborn. Third, birth is now considered as a "high-risk" event, thus cesarean birth is seen as a viable method of delivery. Fourth, widespread media attention has been paid to cesarean birth (Sherwen,et al,1995). Therefore, most research studies have confirmed that women who had cesarean in a family-centered atmosphere could adapt well and had satisfying birth experience (Sherwen, et al,1995).

In a small exploratory study done in United States of

fifteen Caucasians, fifteen Spanish-speaking Mexicans, and fifteen East-Asian women, Fawcett and Weiss (1993) found that the women having cesarean births evidenced a moderate level of global adaptation and lack of distress.

Reichert, Baron and Fawcett (1993) researched changes in attitudes toward cesarean section by comparing the findings of three studies of women's responses to planned and unplanned cesarean section: Study 1: twenty-four women who had cesarean delivery between 1973 and 1980, study 2: fifteen women who delivered in 1981-1982, and study 3: one hundred and seventy-three women who delivered in 1989-1990. The findings from the three studies indicated that predominant responses to cesarean birth were happiness, excitement about the newborn, accompanied by disappointment. Women in study 1 expressed highest proportion of ineffective responses and lowest proportion of adaptive response, whereas the women in studies 2 and 3 expressed approximately equal percentage of adaptive and ineffective responses.

Fawcett (1994) researched responses to vaginal birth after cesarean section to compare women's reactions to their experiences of vaginal birth after cesarean (VBAC) with their reactions to their previous cesarean birth experience. The women reported both positive and negative consequences of cesarean section and vaginal delivery. The three most positive consequences of previous cesarean birth were (1) delivery of a

healthy, pretty newborn, (2) a painless, quick delivery, (3) an uncomplicated recovery. The three most negative consequences of the cesarean were (1) more complicated recovery from surgery (2) difficulty caring for the neonate . (3) lack of natural childbirth experience.

Attitude and intention to have cesarean section

Some studies stated that women reinforce their decision for the preferred delivery mode by defining multiple benefits for the preferred alternative and multiple hazards for the rejected alternative.

From the TRA, it can be inferred that the expectant mothers who believed in advantages of having cesarean section and who believed in disadvantages of having vaginal delivery may have positive attitude toward cesarean section and stronger intention to have cesarean section.

Perceived advantages of cesarean section

Meier and Porreco (1982) studied the " Trial of labor following cesarean section: A two-year experience" and found that patients who selected to have a scheduled cesarean section usually did so because she associated the cesarean section with positive consequences. They perceived that cesarean section was convenient for them to set time for delivery, desire for own physician, revise scar, desire

sterilization, and keep one area of body unscarred. Also cesarean section made them feel easier, more controllable, and saved them from risk of uterine rupture.

Abitbol (1993) studied the patients' attitude toward vaginal birth after cesarean (VBAC), 40% had no desire to participate in VBAC, the main reasons were the convenience of an elective cesarean section and fear of another prolonged painful and dangerous labor. Also, studies of Kirk (1990) and Joseph (1991) found that the convenience of timing birth was the factor influencing decision for cesarean section.

Yan and Xu (1994) conducted a survey to identify the factors influencing selecting delivery mode among expectant women in three different level hospitals in Shanghai, six hundred pregnant women with gestational age more than 36 weeks were interviewed during their attendance of antenatal care or hospitalized in antenatal ward, 589 were nulliparas, and eleven were paras. They found that 122 (20.3%) of the women selected cesarean section, however according to their physicians only 40.2% of the women selected cesarean section had indication for cesarean section and 65.8% of those women had cesarean section to terminate their pregnancy. The reasons for their decision were that they perceived cesarean section was the safest way for mother, for baby, and the baby delivered by cesarean section was more clever than by vaginal delivery. However, the questionnaire developed by the

researcher was lack of testing of its validity and reliability, and the study was not based on any theoretical framework .

In the study by Ryding (1993), one reason for decision to have cesarean section was that the expectant mothers believed that the elective cesarean section was the safest way of being born.

Perceived disadvantage of vaginal delivery

Some studies stated that women rejected vaginal delivery by defining multiple hazards for it. Kirk et al (1990) conducted the study to investigate the women's decision making process to choose vaginal birth after cesarean section or repeat cesarean section at a private and public hospital. The questionnaires were distributed to 257 patients who were delivered of infants, and had a history of cesarean section of any of their previous pregnancies. The questionnaires were issued during the postpartum hospital stay, and 160 (62%) were returned . The questionnaires described the ethnic and education characteristics of population and different questionnaires were used for those who planned a vaginal birth after cesarean section and for those who chose repeat cesarean section. The questions were about timing, influence of others, reasons for their choice, and satisfaction with the decision. Results from 160 respondents showed that over half of the

women identified themselves as primary decision makers. Overall, social exigencies appeared to play a more important role than an assessment of the medical risks in making these decision. Reasons for choice of repeat cesarean section were that they believed that vaginal birth after cesarean section was dangerous for mother and infant, and that vaginal delivery was painful.

The study by Ryding (1993) also found that the most prevalent fear of the parous was mainly intractable labor pain, and they perceived that vaginal delivery may not be safe for the life and health of the child. The most prevalent fear of the five nulliparas was vaginal rupture resulting from vaginal delivery.

Labor pain, fear of childbirth and possible failure of trial of labor were the main negative consequences of vaginal delivery believed by the women, and the reasons for decision for cesarean section reported by Yan and Xu (1994), Joseph et al (1991), Meier, et al(1982).

Although Kline (1993) mentioned that main factors behind the decision to have repeat cesarean sections were medical or obstetric indication, however, avoidance of pain, and inconveniences of labor were strong motivations for patients who had the frustrating experience of an abnormal labor.

In contrast, the expectant mothers who believed in

disadvantages of cesarean section and believed in advantages of vaginal delivery may have negative attitude toward cesarean section and stronger intention to have vaginal delivery.

Perceived disadvantages of cesarean section

The study of response to vaginal birth after cesarean section by Fawcett (1994) revealed that most of women (65%) decided to attempt VBAC due to their belief in the risk of surgery to themselves and neonates. They wished to have a shorter recovery time, and experience vaginal birth. Consistent with Fawcett, Abitbol (1993) reported the patients who attempted VBAC was due to fear of surgery. They concerned that cesarean section might harm themselves or their babies, and they desired to delivery "naturally".

Perceived advantages of vaginal delivery

Murphy and Harvey (1989) found that the women regarded themselves as the primary decision maker for VBAC and that the decision was influenced by a desire to experience a vaginal birth, a desire to control childbirth experience. Also, the study by Fawcett (1994) stated that the women regardless of delivery mode reported advantages of vaginal delivery which were active participation in a " natural" childbirth, shorter recovery time and the presence of the women's husband or partner for the entire birth experience.

Subjective norm and intention to cesarean section

Norm is viewed as a principle of right action binding upon the members of a group and serving to guide, control or regulate proper and acceptable behavior. Norm is a pattern or trait taken to be typical in the behavior of a social group (Mish,et al,1995). Sociologists have used "norm" to refer to a rather broad range of permission, but not necessarily required behavior (Ajzen & Fishbein,1980). The term "subjective norm" in the theory of reasoned action refers to the person's perception that most people who are important to him think he should or should not perform the behavior. It deals with the influence of the social environment on intentions and behavior. This theory implies in forming a subjective norm, and individual takes into account the normative expectations of various others in his environment. A person's subjective norm is determined by his belief that specific salient referents think he should (or should not) perform a given behavior and by his motivations to comply with those referents. According to this theory, the more a person perceived that others who are important to him think he should perform a behavior, the more he will intend to do so.

However, the person's intention will depend on the relative importance of the two components, which are attitude and subjective norm. There is some evidences that attitudinal

considerations are more important for competitive behaviors than for cooperative behaviors while normative considerations are more important for cooperative than for competitive action (Ajzen & Fishbein,1980).

According to the theory, subjective norm related to having cesarean section should be defined as the woman's perception of the social pressure put on her to have or not have cesarean section, which includes the significant others expect the woman to have cesarean section and the woman's motivation to comply with their expectation.

The study by Fawcett (1994) reported the factors influencing the women's decision to attempt VBAC. It was found that information from obstetricians, nurses, family members and print media had effect on women's decisions to attempt the vaginal birth.

Moreover, McClain (1985,1987) found that decision for delivery mode was influenced primarily by women's husband, the marital relationship, child care responsibilities, plans regarding employment after delivery of the child, and future childbearing plans, information from or suggestions by physicians played a secondary role in the decision making process.

Ryding(1993) conducted the study to obtain a better understanding of women who demanded a cesarean section while obstetricians did not think it was necessary, thirty-three

pregnant women were interviewed about their reasons for the demand, five of them were nulliparous, twenty-eight of them were parous. One third of the women stated that their mothers had conveyed a very negative view of childbirth. A transmission of reproductive maladaptation from mothers to daughters had been suggested by Uddenberg (Cited in Ryding,1993). According to their wishes and prerequisites the women received counseling or short-term psychotherapy by a psychotherapeutically trained obstetrician. At the term, 14 women chose vaginal delivery and 19 had elective cesarean, three on obstetric indications, and 16 at their own choice.

Kirk (1990) stated that physician exerted more influence on the decisions of the patients on cesarean section at public hospital than on the patients at the private hospital. The study of Yan and Xu (1994) stated that 50% of the women who selected cesarean section reported that they were influenced by information came from mass media.

Nowadays, with widespread media attention to cesarean section, and with inclusion of content about cesarean preparation in prepared childbirth classes, knowledge about cesarean is greatly popular. Cesarean section is no longer perceived as a threatening event but seen as a viable method of delivery by the public. And with the high incidence of cesarean section, and with attempt of health care providers to "normalize" the cesarean section experience, women do not feel

different or abnormal.

Summary of literature review

The review of literature revealed that the rate of cesarean section has increased worldwide, many of them were performed unnecessary. There are many nonclinical factors contributing to the unnecessary cesarean section, one of which is women's request for cesarean section without medical indication. The available studies demonstrated that factors influencing their decision making for cesarean section are women's perceived advantages of cesarean section, perceived disadvantages of vaginal delivery, and influences of their husband, mother, friend, childbirth nursing educator, and obstetrician. Review of the TRA has also described the effects of both personal factor (attitude) and social factor (subjective norm) on behavioral intention. The TRA is designed to explain human behavior, and it has been validated in predicating behavior in a variety of clinical setting. There is a lack of research related to effects of women's attitudes, subjective norms on intentions to have cesarean section particularly in Chinese nulliparous women. Research in this area is needed to examine the underlying determinants of women's intentions to have cesarean section, according to which nurses can provide knowledge concerning assisting the women in behavior changing and appropriate decision making for

delivery mode.

Theoretical framework

The theoretical framework for this study was based upon the theory of reasoned action as described by Ajzen and Fishbein (1980).

According to the TRA, as previously mentioned, behavioral intention is determined by attitude toward the behavior and subjective norm regarding the behavior. When a nulliparous woman has favorable attitude toward having cesarean section, and her perception of social pressure put on her to have cesarean section, she will have stronger intention to have cesarean section.

According to Ajzen and Fishbein (1980), attitude toward a behavior is a function of a person's beliefs concerning the outcome of performing the behavior and his evaluation of these outcomes. When a nulliparous woman believes that having cesarean section will benefit herself, her baby and family, and these outcomes are important to her, her attitudes toward having cesarean section should be more positive and she will have stronger intention to have cesarean section.

According to the theory, subjective norms regarding a behavior is a function of a person's belief that the significant others expect him to perform or not perform the

behavior, and his motivation to comply with their expectation. When a nulliparous woman believes that most of her significant others expect her to have cesarean section and their opinions are important to her, she wants to comply, she will perceive subjective norms more supportive of her having cesarean section, and she will have stronger intention to have cesarean section. The diagram of theoretical framework for this study is presented in Figure 2.

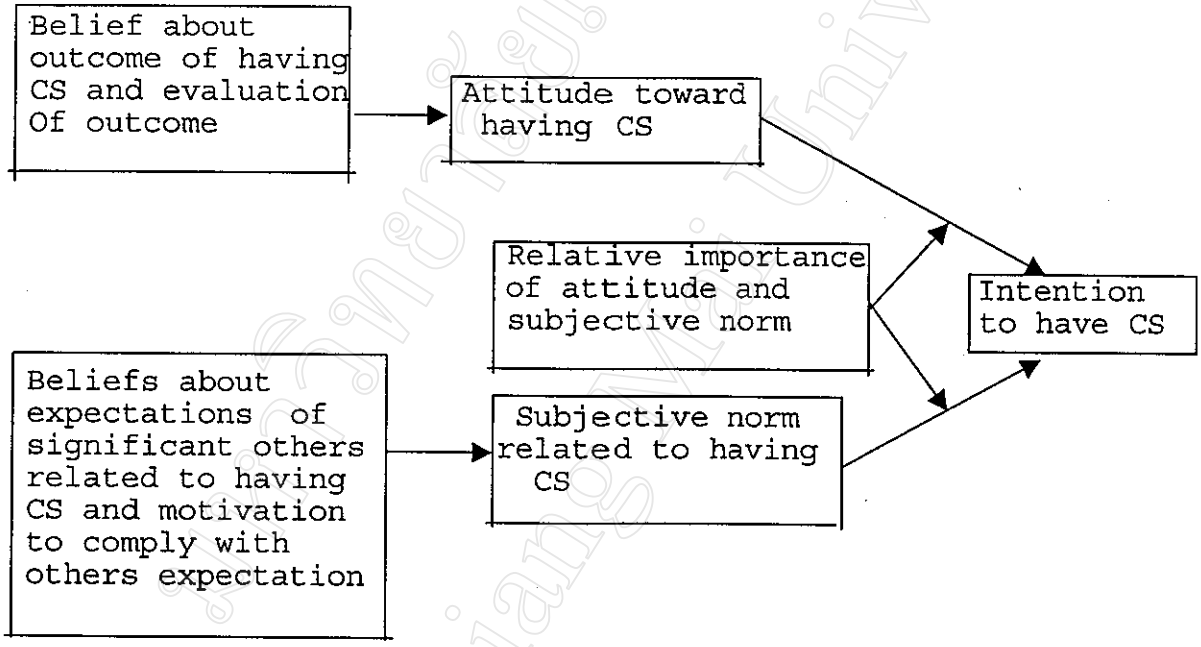

Figure 2. Factors determining a women's intentions to have cesarean section