CHAPTER 1

INTRODUCTION

Background and significance of the research problem

Increase in cesarean section rates is an international phenomenon. Brazil had the highest rate of cesareans in the world where nearly one in three (32%) of births were abdominal. Puerto Rico had the next highest rate of cesareans where three in ten (29%) births were by cesarean. The United States had the third highest level with nearly one birth in four being an operative delivery (Taffel, Placek, & Kosary, 1992). Furthermore, it has been estimated that approximately half the cesarean section performed in the United States were unnecessary (Shearer,1993). 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).

Although statistics data regarding cesarean section rate in China are still scarce, area-specific studies suggested that this trend was more serious in metropolitan of Beijing and Shanghai (Zhen & Huang,1996; Zhou & Wang, 1994). In Obstetrics and Gynecology Hospital of Shanghai Medical

University, the rate of cesarean section increased from 2.23% during 1960-1964 to 34.67% during 1990-1993, and currently has increased to more than 40% (Zhou & Wang,1994). In Beijing Obstetrics and Gynecology Hospital, the cesarean section rate increased from 2.03% in 1960 to 49.99% in 1994 (Zhen & Huang, 1996).

Generally, cesarean section is performed whenever it is unlikely that a safe vaginal delivery can take place or whenever it is judged that a delayed delivery would jeopardize the well-being of mother, fetus, or both (Cunningham, MacDonald, Leveno, Gant, & Gilstrap,1993). Cesarean section may improve the outcome of various complication of pregnancy and the intrapartum period (NIH,1981), and with the increase of cesarean section rate, there has been a decrease in perinatal and maternal mortality (Cunningham, et al, 1993; Porreco,1985; Zhou & Wang,1994; Zhen & Huang,1996). However, the evidence suggested that maternal and neonatal outcomes were not improved by cesarean section rates above six percent (Churchill,1997), and this operation may benefit maternal and neonatal outcomes only in true obstetric emergency situation (NIH,1981).

As the likelihood of the maternal survival in cesarean clients increased and the professional attitude and consumer response toward abdominal birth changed, cesarean section are performed more frequently (Sherwen, Scoloveno,&

Weingarten,1995). More and more cesarean section are being performed on women without medical indication (Lewison,1993).

It has been found that there were many nonclinical factors contributing to the high rate of cesarean section. These factors included women's socioeconomic status, (Braveman, Egerter, Edmonston, & Verson, 1995; Gould, Davey, & Stafford,1989; Hueston & Rudy,1994); hospital ownership; hospital teaching level; and client's payment source (Stafford,1991); increased parental expectations on pregnancy outcome due to the declining birth rate (Churchill,1997); physician's anxiety and fear of litigation (Francome,1993) and women requesting cesarean section (Francome,1994). To some extent, women requesting cesarean section disturbed the physician's better judgement and lead to unnecessary cesarean section (Johnson, Elkins, Strong, & Phelan,1986).

Since the Chinese National Family Planning Policy "One family, One Child", the proportion of nulliparous women who delivered in Obstetrics and Gynecology Hospital of Shanghai Medical University increased from 20.43% in 1960 to 92.02% in 1990 (Zhou & Wang,1994). The expectant parents expected for the neonates not only alive, but also physical and mental healthy. The current malpractice climate may lead some obstetricians to do things against their better judgment, because the obstetricians were often sued as rejecting the women and their family members' request for cesarean section,

which lead to negative delivery outcome (Wen,1994). Therefore, an expectant mother's demand for a cesarean section is to be taken seriously not only from a humanitarian aspect but also from legal point of view. Chinese women have a greater influence over obstetric decision than in many other countries (Wen, 1994).

In one hospital in Beijing, the cesarean section rate has been demonstrated to depend to a certain extent on the psychosocial factors of the women. Psychosocial indication accounted for more than 10% of the total cesarean section (Zhen & Huang,1996). A survey in Shanghai (Yan & Xu,1994) reported that 20.3% of the 600 subjects intended to have cesarean section, and only 40.2 % of those who intended to have cesarean section had medical indication for cesarean section according to their obstetricians.

The high incidence of cesarean section and increasing number of women being performed cesarean section on their demand in the absence of medical indications has generated a great deal of concern within the professional, by the government and by the consumer, and it is recognized as a major public health problem in USA (Notzon, Placek, & Taffel, 1987), and China (Wen,1994).

The evidence suggested that women who had cesarean section suffered more negative effects both physiologically and psychologically (Churchill,1997). Cesarean section is more

likely to result in morbidity and mortality of women. In China, Gao, Jin and Hou (1989) reported that morbidity rate of cesarean women was 2-5 times higher than that of vaginal delivery women (cited in Wen,1994). Cesarean section is estimated to carry between two and eleven times the risk of maternal mortality compared to a vaginal delivery (Shearer,1993). In United States, it has been estimated that 140 women died each year following cesarean section which were not medically indicated (Savage and Francome,1993). In China, one study in Shen Yan indicated that mortality rate of cesarean women was 0.48/1000 maternalities, which was 2-3 times higher than that of vaginal delivery women from 1978-1988 (Xu, Dong, & Lu,1989, cited in Wen,1994).

Negative effects of cesarean birth on women are also related to having a longer recovery time, having difficulty in parenting the newborn, less positive perception of childbirth including feelings of depression, disappointment, guilt, lower self-esteem, and possibly have long term effects on the mother-child relationship (Affonso & Stichler,1980; Fewcett, 1992; Francome,1993).

For the babies of cesarean section, the evidence suggested that cesarean section actually increased iatrogenic risks including prematurity, accidental injury and fetal trauma (Cunningham, et al, 1993). Neonatal respiratory disorders in connection with cesarean section were 2-14 times

higher compared with normal vaginal delivery (Yao & Huang, 1990, cited in Wen,1994).

Since the issue of psychosocial indications for cesarean section is controversial in China, the actual extent to which women's demands influence the rate of cesarean section was rarely documented, and the studies comparing maternal and neonatal outcome between the cesarean section with and without medical indication are thus not available. However, an increase in cesarean section rate inevitably leads to the negative sequelae of cesarean section for women, child and relationship between the two, it is clearly unacceptable to perform cesarean section for any other reasons than medical need. The necessity of reducing the unnecessary cesarean section required by the client without medical indication has promoted examination of factors that might influence women's decision making for cesarean section (Kirk, Doyle, Leigh, & Garrard, 1990; Meier & Porreco, 1982; Ryding, 1993; Yan & Xu,1994;).

There were three common reasons found to explain decision making for cesarean section by the women. The first one was the perception of benefits of the cesarean section such as convenience, known delivery date, desire for own physician, revise scar, desire sterilization, being easier, more controllable, and avoidance of risk of uterine rupture (Joseph, Stedman, & Robichaux,1991; Kirk,et al,1990; Meier &

Porreco, 1982), and safety for baby and mother (Ryding, 1993; Yan & Xu, 1994). The second reason was related to perceived hazards of vaginal delivery such as fear of labor, fear of labor pain and danger of vaginal rupture (Ryding,1993; Yan & Xu,1994). The third reason was the influence from other people including husband (McClain, 1985), mother (Ryding, 1993), obstetrician (Fawcett, Tulmen, & Spedden, 1994; Kirk, et al, 1990;), and mass media (Fawcett, et al, 1994; Yan & Xu, 1994;).

Evidence also suggested that women chose a cesarean section on preconceived ideas and misconceptions about this mode of delivery, they might be lack of understanding generally about cesarean section, especially for the women who have not experience it (Churchill,1997).

Midwifery care, childbirth preparation and labor support are all key preventive measures for safe reduction of unnecessary cesarean (Flamm & Quilligan,1996). Additionally, women need unbiased information about the risks as well as benefits of cesarean section compared to vaginal delivery. Thus, to reduce the unnecessary cesarean section required by the client, the key is better understanding factors determining decision to have cesarean section, according to which, nurses can develop the education intervention. Effective teaching must be based on understanding those factors which influence their requiring cesarean section.

According to the Theory of Reasoned Action (TRA) (Ajzen & Fishbein,1980), the best determinant of behavior is behavioral intention, which is determined by attitude and subjective norm.

The TRA is a decision model which incorporates the effects of both personal and social factors on behavior. This theory has been used as a framework for studying many health behaviors. The applicability of this theory has been demonstrated in explaining health promoting behavioral intentions such as breast self examination (Lierman, Young, Kasprzyd & Benoliel, 1990), infant feeding (Proffitt & Smart, 1983), as well as risky sexual behavior, and condom use (Jemmott & Jemmott,1991).

Few studies in China have been done and conducted without theoretical basis to examine the factors influencing the nulliparous women's intentions to have cesarean section. The survey in Shanghai (Yan & Xu, 1994) only reported that safe for baby, safe for self, fear of labor and influenced by mass media were the reasons explained by the women for their intentions to have cesarean section. That study was not only lack of conceptual framework, but also lack of testing the validity and reliability of the instrument. Therefore, TRA will be used as the theoretical framework in this study for describing the Chinese nulliparous women's intentions, attitudes and subjective norms related to having cesarean

section and for examining the relationships between attitudes, subjective norms and intentions to have cesarean section. The results of this study could provide some degree of understanding the personal and social factors affecting women's intentions. The knowledge gained can be used in developing health education program to assist the expectant mother in making appropriate decision for delivery mode, which lead to safe and healthy delivery outcome for both mother and child, to decrease the unnecessary cesarean section.

Objectives of the study

The purposes of this study were:

1. To describe attitudes toward having cesarean section of Chinese nulliparous women.

2. To describe subjective norms related to having cesarean section of Chinese nulliparous women.

3. To describe intentions to have cesarean section of Chinese nulliparous women.

4. To compare the attitudes toward having cesarean section between Chinese nulliparous women who intend to have cesarean section and those who do not intend.

5. To compare the subjective norms related to having cesarean section between Chinese nulliparous women who intend to have cesarean section and those who do not intend.

6. To examine the relationship between attitudes and intentions to have cesarean section of Chinese nulliparous women.

7. To examine the relationship between subjective norms and intentions to have cesarean section of Chinese nulliparous women.

8. To determine predictive abilities of attitudes and subjective norms on intentions to have cesarean section of Chinese nulliparous women.

Research questions

1. What are attitudes toward having cesarean section of Chinese nulliparous women?

2. What are subjective norms related to having cesarean section of Chinese nulliparous women?

3. What are the intentions to have cesarean section of Chinese nulliparous women.

4. Is there any difference in attitudes toward having cesarean section between Chinese nulliparous women who intend to have cesarean section and those who do not intend?

5. Is there any difference in subjective norms related to having cesarean section between Chinese nulliparous women who intend to have cesarean section and those who do not intend?

6. Is there any relationship between attitudes and

intentions to have cesarean section of Chinese nulliparous women?

7. Is there any relationship between subjective norms and intentions to have cesarean section of Chinese nulliparous women?

8. How much of the variability in intentions to have cesarean section can be explained by attitudes and subjective norms of Chinese nulliparous women?

Scope of the study

The study was conducted only in the Chinese nulliparous women with gestational age of 36-42 weeks who were attending the Antenatal Clinic in Obstetrics and Gynecology Hospital of Shanghai Medical University from November,24,1997 to January,4,1998.

Assumptions

1. Women's attitudes, subjective norms and intentions to have cesarean section can be determined through self-report.

2. Human being are usually quite rational and make systematic use of the information available to them.

3. Human being use or process the information in a reasonable fashion in their attempts to cope with their environment.

4. Beliefs are viewed as underlying a person's attitudes and subjective norms and they ultimately determine intentions and behavior.

5. People consider the implication of their action before they decide to engage or not engage in a given behavior.

Definition of terms

Attitude toward having cesarean section: the nulliparous woman's favorable or unfavorable evaluation of having cesarean section, which is a multiplicative function of the woman's beliefs concerning the outcomes of having cesarean section and her evaluation of these outcomes. It was measured by the questionnaire developed by the researcher.

Subjective norm related to having cesarean section : the nulliparous woman's perception of the social pressure put on her to have or not have cesarean section, which is a multiplicative function of the woman's belief that significant others expect her to have or not have cesarean section and her motivation to comply with their expectation. It was measured by the questionnaire developed by the researcher.

Intention to have cesarean section: a measure of the likelihood that nulliparous woman's expectation to have cesarean section to terminate this pregnancy. It was measured by questionnaire developed by the researcher.

Nulliparous woman: a pregnant woman who had never delivered a viable baby, and who was attending the Antenatal Clinic during her 36-42 weeks of gestational age in Obstetrics & Gynecology Hospital of Shanghai Medical University.

มหาวิทยาลัยเชียงใหม่ Chiang Mai University