

CHAPTER 4

FINDINGS AND DISCUSSION

The objectives of this study were to describe attitudes, subjective norms, and intentions to have cesarean section of Chinese nulliparous women, to compare attitudes and subjective norms between Chinese nulliparous women who intend to have cesarean section and those who do not intend, to examine the relationships between attitudes, subjective norms and intentions to have cesarean section of Chinese nulliparous women. To meet these objectives, a descriptive design was used. Two hundred and thirty-nine nulliparous women were selected by purposive sampling.

The results of data analysis are presented in this chapter. The presentation is divided into four parts. The first part presents demographic characteristics and obstetrical information of the subjects. The second part presents data on attitudes, subjective norms and intentions to have cesarean section. The third part presents the differences in attitudes and subjective norms between intenders and nonintenders to have cesarean section. The fourth part presents the relationships among attitudes, subjective norms and intentions to have cesarean section.

Findings

Part one: Demographic characteristics and obstetrical information of the subjects

Two hundred and thirty-nine nulliparous women who attended the Antenatal Clinic in Obstetrics and Gynecology Hospital of Shanghai Medical University participated in this study. The sample consisted of women whose ages ranged from 20 to 43 years old. The mean age was 27.4 years and the standard deviation was 3.9. More than half (56.5%) of the subjects were in the age group of 25 to 29 years. Ninety-five percent of the subjects were under 35 years. Majority of the sample (85.8%) had at least high school education, while 42.3% of them had college or university or above educational level. More than half (62.8%) of the subjects were from nuclear family. The average monthly family income was mostly (73.6%) at moderate level. With regard to medical payment status, almost half (48.1%) of the subjects reported that their medical payment was paid by government, whereas 23.8% had to pay 10-20% of medical payment themselves, 28.1% of the sample had to pay total themselves. More than half (62.8%) of the subjects were primigravidas, while 37.2% had spontaneous or artificial abortion. Only five (2.1%) of the subjects reported history of stillbirth. Almost half (48.5%) of the subjects had cesarean section to terminate this pregnancy, while 44.7% had normal delivery, 6.7% had forceps delivery (See Table 1).

Table 1
 Frequencies and Percentages of Demographic Characteristics and
 Obstetrical information of the Subjects (N=239)

Characteristics	Frequency	Percentage (%)
Age (years)		
20-24	48	20.1
25-29	135	56.5
30-34	44	18.4
35-39	7	2.9
>=40	5	2.1
Educational level		
Primary school	1	0.4
Middle school	33	13.8
High school	104	43.5
College or above	101	42.3
Type of family		
Nuclear family	150	62.8
Extended family	89	37.2
Monthly family income (Yuan)		
Low (<=1000)	11	4.6
Moderate (1001-4000)	176	73.6
High (>=4001)	52	21.8
Medical payment status		
By self	67	28.1
By government	115	48.1
Partly by self	57	23.8
Gravida		
1	150	62.8
2	66	27.6
3	19	7.9
4	4	1.7
Abortion		
Yes	89	37.2
No	150	62.8
Actual delivery mode		
Cesarean section	116	48.5
Normal vaginal delivery	107	44.7
Forceps delivery	16	6.7

Part two: Attitudes, subjective norms and intentions to have cesarean section

The findings on the attitudes toward having cesarean section are presented in Table 2-3. The findings on the subjective norms related to having cesarean section are presented in Table 4-5, and the findings on the intentions to have cesarean section are presented in Table 6.

Attitudes toward having cesarean section

The possible score of attitudes was -88 to +88. The study demonstrated that attitudes score of subjects ranged from -44 to 67 with mean score of 5.29 and the standard deviation of 17.58. Score of each item was also analyzed. The possible score of each item was -4 to +4. It is shown that the items of belief that cesarean section will lower self-esteem, interfere with maternal role attainment had the first highest rating mean score of 1.7 with standard deviation of 1.8, and second highest rating mean score of 1.43 with standard deviation of 1.95 respectively. Items of belief that cesarean section will result in higher risk of wound infection, need more time to recover had the first lowest rating mean score of -.99 with standard deviation of 1.87, and second lowest rating mean score of -.85 with standard deviation of 1.96 (see Table 2). The standard error and confident interval of attitudes

score and score of each item of attitudes were presented in Appendix E (See table 10).

Table 2.
Means, Standard Deviations, and Ranges of Attitudes Of the subjects (N=239)

Attitudes	Mean	SD	Range
Overall Attitudes	5.29	17.58	-44-67
Safe for baby	1.33	1.73	-2-4
Safe for self	.84	1.88	-4-4
Convenient for setting time for delivery	.44	1.72	-4-4
More intelligent baby	-.35	1.75	-4-4
Releasing from labor pain	.61	1.68	-4-4
Saving from fear of labor	.64	1.74	-4-4
Saving from vaginal laceration	1.22	1.77	-4-4
Delayed uterine involution	-.53	1.76	-4-4
More time to recover	-.85	1.96	-4-4
Loss more blood	-.59	1.5	-4-4
More painful afterbirth	-.64	1.68	-4-4
Higher risk of wound infection	-.99	1.87	-4-4
Interfere with breastfeeding	-.13	1.76	-4-4
Inability to bond with baby	.10	1.94	-4-4
Inability to take care of baby	-.10	1.72	-4-4
Lower self-esteem	1.70	1.8	-4-4
Inability to attain maternal role	1.43	1.95	-4-4
Pay high expense	-.74	1.67	-4-4
Make childbirth more controllable	.42	1.44	-4-4
Make childbirth more successful	.77	1.88	-4-4
Reduce prelabor anxiety	.64	1.96	-4-4
Make childbirth satisfactory	.38	1.69	-4-4

The total attitudes score was categorized into negative, neutral and positive. It was found that majority of the subjects (61.1%) reported positive attitudes, whereas 36% of the subjects reported negative attitudes and only 2.9% reported neutral attitudes (see Table 3)

Table 3

**Frequencies and Percentages of Attitude Level of the Subjects
(N=239)**

	Frequencies	Percentages (%)
Negative	86	36
Neutral	7	2.9
Positive	146	61.1

Subjective norms related to having cesarean section

The potential score of subjective norms was -70 to +70. The study demonstrated that subjective norms score of subjects ranged from -42 to 54 with mean score of -5.68 and the standard deviation of 14.4. Score of each item was also analyzed. The possible score of each item was -10 to +10. It is shown the item of normative belief of good friend had the highest rating mean score of .39 and standard deviation of 2.97, while item of normative belief of mother had the lowest rating mean score of -1.64 and standard deviation of 3.81 (see Table 4). The standard error and confident interval of subjective norms score and score of each item of subjective norms were presented in Appendix F (See table 11).

Table 4

Means, Standard Deviation, and Range of Subjective Norms of the Subjects (N=239)

Subjective Norms	Means	SD	Range
Overall Subjective Norms	-5.68	14.4	-42-54
Husband	- .46	3.57	-10-8
Mother	-1.64	3.81	-10-8
Mother-in-law	-1.02	2.50	-10-8
Good friend	.39	2.97	- 8-10
Obstetrician	-.97	3.56	-10-10
Prenatal educator	-1.36	3.45	-10-10
Mass Media	-.61	2.77	-10- 8

The total subjective norms score was categorized into unsupportive, neutral and supportive. It was found that majority of subjects (60.3%) reported unsupportive, where 31.0% of subjects reported supportive, only 8.8% of subjects reported neutral (see Table 5).

Table 5

Frequencies and Percentages of Subjective Norm Level of the Subjects (N=239)

	Frequency	Percentage (%)
Unsupportive	144	60.3
Neutral	21	8.8
Supportive	74	31

Intentions to have cesarean section

The potential score of intentions was -2 to +2, the study revealed that intentions score of subjects ranged from -2 to +2, with mean score of $-.04$ and standard deviation of 1.32 . Standard error of intentions was $.168$, confident interval of intentions ranged from $-.21$ to $+.13$. The intentions score was categorized into intention, undecided, nonintention. It was found that 41% of the subjects intended to have cesarean section, whereas 39.7% of the subjects intended to have vaginal delivery, and 19.2% of the subjects did not make their decision (See Table 6).

Table 6

Frequencies and Percentages of Intentions of the Subjects
(N=239)

	Frequency	Percentages (%)
Intention	98	41
Undecided	46	19.2
Nonintention	95	39.7

Part three: Difference in attitudes and subjective norms between intenders and nonintenders

The findings on the difference in attitudes and subjective norms related to having cesarean section between intenders and nonintenders are presented in Table 7-8.

Difference in attitudes toward having cesarean section between intenders and nonintenders

The sample was divided into two groups based on their reported intentions to have cesarean section: intender, score of intentions more than zero (n=98), nonintender, score of intentions less than zero (n=95). Subjects who stated they were neither likely nor unlikely to have cesarean section, whose score of intentions were equal to zero were excluded from these analyses. The mean attitudes score and mean score of each item were compared between intenders and nonintenders. Table 7 presents the mean score, standard deviation, and p value for attitudes and each item of intenders and nonintenders. There were significant difference in attitudes between intenders and nonintenders. The mean attitudes score of intenders (M=17.22, SD=15.09) were significantly greater than that of nonintenders (M=-6.47, SD=14.08) (p=.000). When each item of attitudes was analyzed separately, the mean score of each item of intenders was significantly greater than that of nonintenders (p<.05) except 5 items: cesarean section will

result in delayed uterine involution, loss more blood, lower self-esteem, inability to attain maternal role, and paying high expense.

Table 7

Descriptive Statistics of Attitudes Toward Having Cesarean Section Between Intenders and Nonintenders and p Values for t-test of the Mean Difference

Attitudes	Mean Value		p value
	Intender (n=98)	Nonintender (n=95)	
Overall Attitudes	17.22 (15.09)	-6.47 (14.08)	.000
safe for baby	2.4 (1.4)	.44 (1.63)	.000
Safe for self	2.02 (1.59)	-.22 (1.79)	.000
Convenient for setting time for delivery	1.12 (1.65)	.12 (1.69)	.000
More intelligent baby	.43 (1.60)	-1.14 (1.72)	.000
Releasing from labor pain	1.31 (1.67)	-.07 (1.61)	.000
Saving from fear of labor	1.5 (1.59)	-.27 (1.60)	.000
Saving from vaginal laceration	1.87 (1.67)	.64 (1.64)	.000
Delayed uterine involution	-.41 (1.71)	-.82 (1.90)	.114
More time to recover	-.41 (1.66)	-1.27 (2.17)	.002
Loss more blood	-.49 (1.33)	-.61 (1.68)	.58
More painful afterbirth	-.19 (1.47)	-1.23 (1.82)	.000
Higher risk of wound infection	-.74 (1.79)	-1.34 (1.93)	.028
Interfere with breastfeeding	.16 (1.56)	-.57 (1.97)	.005
Inability to bond with baby	.33 (1.71)	-.29 (2.18)	.029
Inability to take care of baby	-.08 (1.46)	-.89 (1.92)	.001
Lower self-esteem	2.00 (1.84)	1.52 (1.78)	.065
Inability to attain maternal role	1.57 (1.91)	1.40 (2.08)	.550
Pay high expense	-.58 (1.55)	-.94 (1.80)	.143
Make childbirth more controllable	.67 (1.50)	.14 (1.47)	.013
Make childbirth more successful	1.67 (1.70)	-.14 (1.85)	.000
Reduce prelabor anxiety	1.70 (1.77)	-.43 (1.73)	.000
Make childbirth satisfactory	1.38 (1.60)	-.48 (1.53)	.000

Difference in subjective norms related to having cesarean section between intenders and nonintenders

Intenders had significantly greater mean subjective norms score (M=3.21,SD=12.38) than nonintenders (M=-15.55, SD=11.82) (p=.000). In examining each item, the normative belief of husband, mother, mother-in-law, good friend, obstetrician, prenatal educator and mass media, the mean score of each item of intenders were significantly greater than that of nonintenders (p<.001) (see Table 8)

Table 8

Descriptive Statistics of Subjective Norms Related to Having Cesarean Section Between Intenders and Nonintenders and p Values for t-test of the Mean Difference

Subjective Norms	Mean value		p value
	Intender (n=98)	Nonintender (n=95)	
Overall Subjective Norms	3.21(12.38)	-15.55(11.82)	.000
Husband	1.59(3.2)	-2.83(3.01)	.000
Mother	.10(3.89)	-3.52(3.20)	.000
Mother-in-law	-.20(2.22)	-1.88(2.71)	.000
Good friend	1.89(2.56)	-1.08(2.88)	.000
Obstetrician	-.09(3.48)	-2.26(3.76)	.000
Prenatal educator	-.53(3.30)	-2.21(3.53)	.001
Mass Media	.46(2.4)	-1.76(2.97)	.000

Part four: Relationships among attitudes, subjective norms and intentions to have cesarean section

Relationship between attitudes and intentions to have cesarean section

Pearson product-moment correlations coefficients were computed for analyzing the relationship between attitudes and intentions to have cesarean section. The results demonstrated that attitudes were positively correlated with intentions at moderate level ($r=.65$, $p=.000$)

Relationship between subjective norms and intentions to have cesarean section

Pearson product-moment correlations coefficients were computed for analyzing the relationship between subjective norms and intentions to have cesarean section. The results demonstrated that subjective norms were positively correlated with intentions at moderate level ($r=.61$, $p=.000$)

Relationships among attitudes, subjective norms and intentions to have cesarean section

A multiple regression analysis was conducted using attitudes and subjective norms as independent variables and intentions was considered as the dependent variable. Assumptions of the regression model were evaluated and found

not to be violated. In this analysis, attitudes and subjective norms were entered into the equation simultaneously (Multiple $R=.74$, $R^2=.55$, $F=146.29$, $df=2, 236$, $p=.000$) (see Table 9). Therefore, the equation used to predict intentions score was as follows :

$$\text{Intentions} = -.02 + .036 \text{ Attitudes} + .037 \text{ Subjective Norms}$$

This findings demonstrated that the attitudes and subjective norms simultaneously accounted for 55% of the variance in intentions.

Table 9

Multiple Regression Analysis of Intentions to Have Cesarean Section on Attitudes and Subjective Norms

Multiple regression equation Number 1		Dependent Variable		Intentions	
-----Variables in the equation-----					
Variable	B	SEB	Beta	T	SigT
Attitudes	.0356	.003595	.47558	9.898	.0000
Subjective Norms	.0369	.004389	.40473	8.423	.0000
(Constant)	-.0201	.068142		-.296	.7679
Multiple R		.74422			
R Square		.55386			
Adjusted R Square		.55008			
Standard Error		.88208			
Analysis of variance					
	DF	Sum of Squares		Mean Square	
Regression	2	227.96		113.98	
Residual	236	183.62		.778	
F=146.49		Signif F=.0000			

Discussion

In this part, the discussion of the results is presented in relation to the theoretical framework and previous researches. The discussion was arranged into four sections: The descriptive data related to sample characteristics; the descriptive data related to three major variables of attitudes, subjective norms and intentions; the difference in attitudes and subjective norms between intenders and nonintenders; the relationships among attitudes, subjective norms and intentions.

Sample characteristics

Two hundred and thirty-nine nulliparous women participated in this study. The mean age of the subjects was 27.4 years ranging from 20 to 43 years old. Ninety five percent of the subjects were in the age group of 20 to 35 years, which is considered as peak reproductive years (Hua,1991). In China, the legal marriage age for women is 20 years old, and extramarital child is forbidden, therefore the minimum age of the subjects was 20 years old, all of the subjects were married, which was different from that of other studies in western countries including a certain amount of teenage mothers or unmarried mothers (Braveman,1995; Gould,1989; Hueston & Rudy,1994; Kirk,et al,1990). Majority of the subjects (85.8%) had at least high school education and majority of the subjects (95.4%) family income was beyond the moderate level. These characteristics were similar to that of studies in developed countries, it might be that Shanghai is a relatively developed area in China both in civilization and economics. More than half (62.8%) of the subjects were from nuclear family. This finding demonstrated a great transformation in family type compared with traditional extended family in China. With initiation of health insurance policy in Shanghai, more and more persons have to pay a certain part of their medical fee. In this study, forty eight percent of the subjects had medical fee paid by the

government, 23.8% of the subjects had to pay 10-20% of medical fee, whereas 28.1% of the subjects had to pay all of the medical fee themselves. All of the subjects were nulliparous women, which was similar to that of study conducted in the same city by Yan and Xu (1994). The sample in this study were different from that of other studies which included both nulliparous and multiparous women (Fawcett,1994; Kirk,et al, 1990; Meier & Porreco,1982; McClain,1985; Ryding,1993).

Attitudes toward having cesarean section

The result of the study indicated that the subjects had positive attitudes toward having cesarean section with the mean score of +5.29, SD of 17.58, and confident interval ranged from +3.05 to +7.53 (See Appendix E table 10). As Table 3 presented, 61.1% of the subjects had positive attitudes toward having cesarean section and 36% of the subjects had negative attitudes toward having cesarean section, only 2.9 % had neutral attitudes toward having cesarean section. The results were similar to the findings of recent researches which suggested that negative attitude of cesarean section may no longer be so profound (Cummins, 1988; Fawcett & Weiss,1993; Reichert, et, al, 1993). However, the results contradicted with the findings of early studies which revealed that women experienced extremely emotional distress after cesarean section (Affonso, & Stichler, 1978; Fawcett,1983; Marut &

Mercer, 1979).

The findings reflected that women's responses and attitudes toward cesarean section are changing with different era and different culture (Sherwen, et al, 1995). This change has been attributed to the "normalizing" effect of the high rate of cesarean section and the efforts of childbirth educators to "normalize" cesarean section (Reichert, 1993). The increasing cesarean section rate throughout the 1970s and 1980s has been accompanied by an apparent decrease in negative responses to this method of childbirth (Reichert, 1993). The subjects of this study were different from traditional Chinese women who were dependent on their husband. Most of them (85.8%) had at least high school education, and 71.9% of them had own job. Majority of them (62.8%) were from nuclear family, all of them attended the prenatal education. All of these reflected that the subjects were rather well-educated, and more economic and social independent. When they got pregnancy, they tended to seek and easily to receive information not only from their family members but also from health personnel, good friends and mass media. Therefore, it is impossible for them to be immune to the environment: high cesarean section rate, and cesarean section is seen as a viable method of delivery (Sherwen, et al, 1995). Therefore the subjects in this study had positive attitudes toward having cesarean section.

Another reason for the positive attitudes toward having cesarean section of the subjects in this study might be that in almost all of the previous studies, attitudes toward having cesarean section were measured postoperationally, which may reflect behavior experience. However, attitudes in this study were measured preoperationally, the women may not attempt to assess the probability of particular outcome of cesarean section, but instead constructed mental images of anticipated events and expected consequence of cesarean section (McClain,1985).

After ascertaining the standard error and confident interval of score of each item of attitudes, the study revealed that items of belief that cesarean section will lower self-esteem, interfere with maternal role attainment had the first and second highest rating mean score. It means that subjects believed that cesarean section would not lower their self-esteem, would not interfere with their maternal role attainment. It is quite different from that of the studies in 1970s in western countries, particularly in women who had valued and sought nature childbirth as a goal in itself, these women tended to be from Caucasian middle-class background (Fawcett,1981; Sherwen,et al,1995). During the procedure of data collection, the researcher was often asked by the subjects how cesarean section could lower self-esteem and interfere with maternal role attainment. After given more

information and clarification, most of the subjects who asked for explanation expressed that infertility would lower their self-esteem while cesarean section would not. They also stated that the baby was born by themselves, not by adopted, how could it interfere with their maternal role attainment. It might be that women from different culture had different value system, and belief.

Analysis of each item also revealed that items of belief that cesarean section will make higher risk of wound infection and need more time to recover had the first and second lowest rating mean score. It revealed that subjects believed that cesarean section would make them higher risk of wound infection, and need more time to recover. It might be that these two disadvantages of cesarean section were widely reported by the research studies (Cunningham, et al, 1993) and mass media (Sherwen, et al, 1995), and they are very common and easily to be understood by the women.

Subjective norms related to having cesarean section

The result of this study indicated that the subjects perceived their referents unsupportive of their having cesarean section with the mean score of -5.68, SD of 14.4, and confident interval ranged from -4.74 to -6.61 (See Appendix F table 11). As Table 5 presented, 60.3% of subjects perceived their referents unsupportive of their having cesarean section,

and 31% of subjects perceived their referents supportive of their having cesarean section. In examining the normative belief, the questionnaire included mother, mother-in-law, husband, prenatal educator, obstetrician, mass media and good friend as the referents. After ascertaining the standard error and confident interval of score of each item of subjective norms (See Appendix F Table 11), the results revealed that the women perceived all referents but good friend unsupportive of their having cesarean section. It might be that all of the subjects were normal pregnancy without medical and obstetrical complications, therefore most of their obstetrician, prelabor educator, mother, mother-in-law, and husband might think the expectant mothers should not have cesarean section. Therefore, most of the subjects perceived that their referents unsupportive of their having cesarean section. The present study revealed that women perceived that their good friends were most supportive of their having cesarean section, whereas they perceived that their mothers were the most unsupportive of their having cesarean section. As previously mentioned, women's perception of cesarean section are changing with different era, and different culture (Sherwen, et al,1995). It is obvious that the mother of the subjects had given birth themselves 20 to 30 years ago, which was 1965-1975. During that time, the cesarean section rate was 2.23 to 5.48% in Shanghai (Zhou & Huang,1994). Studies demonstrated that

cesarean women in 1970s has less positive perception of childbirth experience than vaginal birth mother (Affonso & Stichler, 1987; Fawcett, 1981; Marut & Meicer, 1979). Therefore, the subjects' mother who might had negative attitudes toward having cesarean section themselves did not think their daughter without any medical and obstetrical complication should have cesarean section. Additionally, the traditional Chinese women perceived childbirth as their nature phenomena. However, the great discrepancy between the cesarean section and vaginal birth experiences has narrowed in 1990s. Birth is now considered as a "high-risk" event, thus cesarean birth is no longer perceived as a threatening event but seen as a viable method of delivery by the public (Sherwen, et al, 1995). Additionally, with the high cesarean rate, 34.67 to 49.99% in metropolitan of China in 1990s (Wang, 1995; Zhou & Huang, 1994), women do not feel different or abnormal for cesarean section. That might be the reason why good friends of the subjects whose age might be similar to the subjects, who might had the same positive attitudes toward cesarean section as the subjects' were the referents most supportive of the subjects' having cesarean section.

Intentions to have cesarean section

As Table 6 presented, 41% of the subjects intended to have cesarean section, 39.7% of subjects intended to have

vaginal delivery and 19.2% of the subjects did not make a decision and would follow the opinion of their obstetrician. It revealed that the number of the subjects who intended to have cesarean section was almost equal to that of those who intended to have vaginal delivery. Compared with the previous study in the same setting with the similar characteristics of the sample by Yan and Xu in 1993, more women intended to have cesarean section than before (20.3%), and less women followed the opinion of the obstetrician than before (37.3%). It demonstrated that the number of women asking for cesarean section in the absence of medical indication has increased. It also revealed that more and more women actively and assertively involved in their own treatment decision. The findings corresponded with those found in previous studies in developed countries (Churchill, 1997, Lewison, 1993). It also validated the necessity and significance of this study which examined the factors affecting women's intentions to have cesarean section. In this study, the actual delivery mode was also investigated. The cesarean section rate of the subjects is 48.5%, which is higher than that of four years ago (36.7%) in the same hospital (Zhou & Huang, 1994). According to the World Health Organization (WHO) statement in 1985: "Countries with some of the lowest perinatal mortality rates in the world have cesarean section rates of less than 10 percent. There is no justification for any region to have a rate higher than

10-15 percent" (Cited in Churchill,1997). Furthermore, the subjects in this study were all normal pregnancy without any medical and obstetrical complication before labor. It demonstrated that the health problem of unnecessary cesarean section required by the clients might become more serious than before, though each cesarean section case had an accepted indication on the medical documentation. It can only imply that obstetricians are not searching for ways to avoid a cesarean section, rather they are looking for reasons for doing a cesarean section (Kirk, et al,1990).

Difference in attitudes toward having cesarean section between intenders and nonintenders.

In this study, attitudes toward having cesarean section were found to discriminate between intenders and nonintenders. The finding from this study showed the mean score of attitudes of intenders was significantly greater than that of nonintenders. It indicated that women who intended to have cesarean section had more positive attitudes toward having cesarean section than those who did not intend. This finding was corresponding with the theoretical framework of this study. According to the TRA, the first determinant of a behavioral intention is attitude toward the specific behavior. That is the more favorable a person's attitude toward a behavior, the more she should intend to perform that behavior,

the more unfavorable her attitude is, the more she should not intend to perform the behavior (Ajzen & Fishbein, 1980).

When each component of attitudes was analyzed separately, intenders were more likely than nonintenders to believe the advantages of having cesarean section, and less likely than nonintenders to believe the disadvantages of having cesarean section, except beliefs that cesarean section will result in delayed uterine involution, loss more blood, lower self-esteem, inability to attain maternal role, and paying high expense. It demonstrated that these five beliefs were not salient belief, and therefore not associated with difference in intentions.

As previously mentioned, due to different culture and value system, the subjects, both intenders and nonintenders did not believe that cesarean section will lower self-esteem, and interfere with their maternal role attainment. They stated that only infertility will result in lower self-esteem, while cesarean section will not. And also, the baby born by themselves, not by adopted will not interfere with their maternal role attainment. Both intenders and nonintenders believed that cesarean section will result in loss more blood and delayed uterine involution. It might be all the subjects were nulliparous women, they were lack of prior experience with cesarean section or vaginal delivery. They might not have a well-defined belief structure concerning having cesarean

section, and loss more blood and delayed uterine involution might be too terminological for them to understand. Though both groups believed that cesarean section will result in paying high expense, it was not associated with their intentions. It might be that most of the subjects' medical fee were paid or mostly paid by the government, therefore high expense for cesarean section would have little effect on their economic status. Another reason might be that though most of the subjects recognized that cesarean section would make them pay high expense, they evaluated it neither good nor bad, they stated that there was the only one time of childbirth in their life, they did not mind how much they paid.

Seventeen beliefs that underlying women's attitudes toward having cesarean section were found to discriminate between intenders and nonintenders. According to the theory, attitudes are based on the total set of a person's salient beliefs, and behavioral change is ultimately the result of changes in beliefs. This implies that in order to influence behavior, we have to expose people to information which will produce changes in their beliefs. Since there was no similar study concerning beliefs related to having cesarean section, it is difficult to compare the result with the other studies.

Difference in subjective norms between intenders and nonintenders

In this study, subjective norms and normative beliefs were found to discriminate between intenders and nonintenders. The finding from this study showed the mean score of subjective norms of intenders was significantly greater than that of nonintenders. It indicated that women who intended to have cesarean section believed more strongly that their significant others thought they should have cesarean section than nonintenders. This finding was corresponding with the theoretical framework of this study. According to the TRA, the second determinant of a behavior intention is subjective norms. That is people are viewed as intending to perform those behaviors when they believe significant others think they should perform. Conversely, if they believe significant others think they should not perform a behavior, they will usually not intend to do so.

When each normative belief was analyzed separately, intenders had stronger beliefs that their husband, mother, mother-in-law, good friend, obstetrician, prenatal educator and mass media thought they should have cesarean section than nonintenders.

The fact that the TRA components are sensitive to differences between intenders and nonintenders increases the clinical applicability, raises suggestions for strategies for

changing beliefs about having cesarean section.

Relationship between attitudes and intentions to have cesarean section

The finding from this study showed that there was a moderately positive relationship between attitudes and intentions of the sample ($r=.65$, $p=.000$). It indicated that women who had more positive attitudes toward having cesarean section would have stronger intentions to have cesarean section. It was corresponding with the proposition of the TRA (Ajzen & Fishbein, 1980), behavioral intention is determined by two components, one of which is attitudes. That is individuals will intend to perform a behavior when they evaluate it positively.

Moreover, in examining the relationships between intentions and each item of attitudes (See Appendix G Table 12), the study showed that intentions were moderate positively associated with beliefs that cesarean section will be safe for baby, safe for herself, saving from fear of labor, reducing prelabor anxiety and making childbirth satisfactory. Intentions were low positively associated with beliefs that cesarean section will be convenient for setting time of delivery, having more intelligent baby, relieving from labor pain, saving her from vaginal laceration, making childbirth more successful and less pain afterbirth. Additionally,

intentions were little positively associated with beliefs that cesarean section will not need more time to recover, higher risk of wound infection, interfere with breastfeeding, inability to bond with baby, inability to take care of baby afterbirth, pay high expense, and belief that cesarean section will make childbirth more controllable.

It indicated that women who had stronger intentions to have cesarean section, believed more strongly that having cesarean section would be safe for baby, safe for herself, saving from fear of labor, reducing prelabor anxiety, making childbirth satisfactory, convenient for setting time of delivery, having more intelligent baby, relieving from labor pain, saving from vaginal laceration, making childbirth more successful, and make childbirth more controllable. It also revealed that women who had stronger intentions to have cesarean section, believed less strongly that cesarean section would result in more painful afterbirth, need more time to recover, higher risk of wound infection, interfere with breastfeeding, inability to bond with baby, inability to take care of baby after birth, and pay high expense. The finding of this study was consistent with the result of the study by McClain(1985). As McClain stated, women reinforced their decisions by defining multiple benefits for the preferred alternative and multiple hazards for the rejected alternative, women did not attempt to assess the probabilities of

particular outcome, but instead constructed mental images of anticipated events based upon past childbirth experience and expected consequence of the preferred course of action.

In this study, beliefs that cesarean section will be safe for baby, safe for self, saving from fear of childbirth, reducing prelabor anxiety, making childbirth satisfactory seemed to be more correlated with intentions than that of other beliefs. These findings were consistent with that of the study conducted by Yan and Xu (1994) which identified that safe for baby and for mother herself, fear of childbirth were the reasons for intentions to have cesarean section. It might be that the subjects of the two studies were all the nulliparous women in Shanghai, China. Due to national policy, the expectant mothers could have only one child, they wish the baby not only alive, but also healthy and intelligent. Therefore, safety of the baby is what the expectant mother most worry about. Due to the homogeneous nature of nulliparous women and lack of childbirth preparation, worry about the safety of themselves, fear of childbirth, and prelabor anxiety are the common emotional response experienced by Chinese nulliparous women (Xu, Lui, Ding & Quan, 1994; Zhao, 1990). It reflects that nulliparous women need professional support to cope with fear of childbirth, to reduce the prelabor anxiety, they expected for a satisfactory childbirth. Neither fear nor anxiety constitutes justification for cesarean section.

Rather, these factors identified areas which require further prelabor education and nursing support. Compared with that of other studies conducted in the western countries, convenient for setting time for delivery, being easier, more controllable, avoidance of risk of uterine rupture were the main reasons for cesarean section (Joseph, et, al, 1991; Kirk, et al, 1990; Merro & Porreco, 1982). It might be that most of the subjects in these studies were multiparous women who had previous cesarean section.

Relationship between subjective norms and intentions to have cesarean section

The finding from this study showed that there was a moderately positive relationship between subjective norms and intentions of the sample ($r=.61, p=.000$). It indicated that women who perceived their significant others more supportive for their having cesarean section would have stronger intentions to have cesarean section. It is corresponding with the proposition of the TRA, behavior intention is determined by two components, one of which is subjective norms. That is individual will intend to perform a behavior when they believe that important others think they should perform it.

Moreover, in examining the relationship between intentions and each item of subjective norms (See Appendix H Table 13), it showed that intentions were moderate positively

associated with normative belief of husband, low positively associated normative belief of mother, mother-in-law, good friend, and mass media, little positively associated with normative belief of obstetrician, and prenatal educator. It indicated that women who had stronger intentions to have cesarean section, believed that their husband, mother, mother-in-law, good friend, mass media, obstetrician and prenatal educator more supportive of their having cesarean section.

It also indicated that intentions were more correlated with normative belief of husband than that of obstetrician and prenatal educator. It might be that most of the subjects (62.8%) came from nuclear family, and their husband's opinion might have more effect on their decision making than that of other referents, particularly for delivery mode, the outcomes of which would influence the new family member, the mother and the family. The finding of this study was similar to that of previous study (McClain, 1985). McClain stated that decision for delivery mode was influenced primarily by women's husband, the marital relationship, while information from or suggestion by physician played a secondary role in the decision making process. Compared with that of other studies, different studies reported that women perceived that their decision making were influenced by different referents, such as obstetricians, nurses, family member, print media (Fawcett, 1994), husband (McClain, 1985), mother (Ryding, 1993), physician

(Kirk,1990), mass media (Yan & Xu,1994). It might be that the subjects from different population, different culture, perceived different salient referents. For example, in this study, mother-in-law was identified as a referent according to Chinese culture. Since only one child is valued by both original families of the expectant parents, particularly by paternal original family, child is viewed as carrying on the paternal family's name, therefore mother-in-law actively participates in activity related to childbirth, including decision making for delivery mode. It might explain that women's intentions were significant correlated with normative belief of mother-in-law which was quite different from that of other studies in the literature.

Relationship among attitudes, subjective norms and intentions to have cesarean section

Ajzen and Fishbein(1980) proposed the theory of reasoned action (TRA) to account for how individuals made decisions about carrying out certain behaviors. According to the TRA, behavioral intention is determined by attitude toward the behavior and subjective norm regarding the behavior. That is individual will intend to perform a behavior when they evaluate it positively and when they believe that important others think they should perform it.

Findings from the multiple regression analyses

provided strong support for the theory of reasoned action. The result demonstrated that combination of attitudes and subjective norms could explain a significant amount of the variance in intentions to have cesarean section ($R^2=55\%$, $p=.000$). The women's intentions to have cesarean section were based on their attitudes toward having cesarean section and their perception of whether significant others think they should or should not have cesarean section. Women who expressed more favorable attitudes toward having cesarean section and those who perceived subjective norms more supportive of having cesarean section reported stronger intentions to have cesarean section to terminate this pregnancy.

The relationship among attitudes, subjective norms and intentions seems to support the proposition of Ajzen and Fishbein (1980) that behavioral intentions are a function of attitudes toward behavior and subjective norms. The result of this study was consistent with the theoretical framework and demonstrated that TRA can be an effective theoretical framework for nurses to understand women's intentions to have cesarean section and to intervene to change inappropriate decision making and therefore decrease unnecessary cesarean section.