



**UNIVERSITI PUTRA MALAYSIA**

**EFFECTS OF HEALTH EDUCATION ON CHOICE OF DELIVERY MODE  
AND FEAR RELATED TO CHILDBIRTH AMONG PRIMIGRAVIDAE IN  
HAMADAN, IRAN**

**NASRIN MATINNIA**

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**By**

**NASRIN MATINNIA**

**Thesis Submitted to the School of Graduate Studies, Universiti Putra Malaysia,  
in Fulfilment of the Requirements for the Degree of  
Doctor of Philosophy**

**April 2014**

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## DEDICATION

To my family and friends, without whose support and care I wouldn't have realized my dreams in life. Indeed, they make sure they are always there doing the needful!



Abstract of thesis presented to the Senate of Universiti Putra Malaysia in fulfilment of the requirement for the degree of Doctor of Philosophy

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**April 2014**

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**Faculty: Medicine and Health Sciences**

The choice of delivery method is a concern of the third trimester and a critically important decision during pregnancy. Naturally, this brings up a question regarding the safety of both mother and child. The rates of Caesarean Section in many countries have increased in spite of the known risks of this procedure. Caesarean Sections by maternal request also play a role in increasing the overall caesarean rate in the world.

The rate of caesarean sections was 47.5% and 79.1% in public and private hospitals respectively in Hamadan province in 2012, the West part of Iran. The present study aims to evaluate the effectiveness of health education on the choice of delivery method among primigravidae in Hamadan, Iran.

A randomized controlled trial design was conducted based on the Health Belief Model. This study investigates the effect of a health education programme on fear related to childbirth, beliefs and choice delivery method among Primigravidae. The sampling method was multi-stage random sampling in which 342 primigravidae was randomly selected based on inclusion and exclusion criteria. They were randomized to either the two intervention groups or the control group.

The reliable and valid tools in this study were included Rosenberg Self Esteem Scale, Perceived Stress scale, Revised Dyadic adjustment Scale, Multidimensional Scale of Perceived Social Support, Revised Fear related to Childbirth Scale and the Health Belief Model Scale. An educational module on prenatal health education was developed. The ultimate goals of the educational intervention were reducing fear related to childbirth, changing beliefs about natural childbirth and decreasing request a caesarean section.

The two educational methods tested in this study; the discussion group and the booklet. All materials of four sessions in the discussion group are similar to four sections of the booklet as well as their time.

The primigravidae received the four sections of the booklet or four two-hour sessions every 4 weeks after pretest, while the control group received the routine prenatal education. The duration of intervention was 16 weeks and post test was conducted after four weeks of the last education. Both programmes were delivered by trained peers.

Two-way repeated measure ANOVA was applied to assess the effectiveness of the intervention. The outcome measures were assessed at pretest and post test.

There were significant difference in the mean scores of self esteem ( $p=.005$ ) and perceived stress ( $p<.001$ ) in comparison with the control group. Conversely, there were no differences in the mean scores of quality of marital relationship and perceived social support between groups. These scales were considered as influencing factors in fear related to childbirth.

There were significant main effects for group [ $F = 14.6, p < 0.001, \eta^2=0.08$ ]; time [ $F = 40.7, p < 0.001, \eta^2= 0.11$ ] and group x time interaction [ $F =110.68, p < 0.001, \eta^2= 0.4$ ] for fear related to childbirth. Similarly, the main effects for group [ $F = 24.764, p < 0.001, \eta^2=0.13$ ], time [ $F = 362.57, p < 0.001, \eta^2=0.475$ ], and group x time interaction [ $F = 104.24, p < 0.001, \eta^2=0.611$ ] were significant regarding beliefs. The request of a caesarean section was significantly different ( $\chi^2 =10.94, p=0.004$ ) between intervention groups and control group.

The prenatal health intervention programme was effective in decreasing fear related to childbirth and changing the behaviour related to request a caesarean section. The rate of choice of caesarean section was reduced after intervention among primigravidae in Hamadan.

Abstrak tesis yang dikemukakan kepada Senat Universiti Putra Malaysia  
Sebagai memenuhi keperluan untuk ijazah Doktor Falsafah

**KESAN PENDIDIKAN KESIHATAN KE UE ATAS PEMILIHAN KAEDAH  
BERSALIN DAN KETAKUTAN BERKAITAN DENGAN KELAHIRAN DI KA-  
LANGAN PRIMIGRAVIDA DI HAMADAN, IRAN**

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Pemilihan cara bersalin diambil berat ketika fasa ketiga dan merupakan satu keputusan penting semasa mengandung. Biasanya, melibatkan soalan keselamatan kedua-dua ibu dan anak. Kadar proses pembedahan di kebanyakan negara meningkat walaupun risiko prosidur ini telah diketahui. Permintaan ibu terhadap proses pembedahan juga memainkan peranan dalam peningkatan keseluruhan kadar pembedahan di dunia.

Di Wilayah Hamadan, iaitu bahagian barat Iran, kadar proses pembedahan adalah 47.5% di hospital kerajaan dan 79.1% di hospital swasta. Kajian ini bertujuan untuk menilai keberkesanan pendidikan kesihatan ke atas pilihan cara bersalin dalam kalangan ibu mengandung (kali pertama) di Hamadan, Iran. Satu reka bentuk rawak terkawal telah dijalankan berdasarkan Health Belief Model untuk mengkaji kesan pranatal pendidikan kesihatan program campur tangan tentang perasaan takut yang berkaitan dengan kehamilan, sebahagian daripada ciri-ciri psikologi, kepercayaan dan tingkahlaku terhadap pilihan cara bersalin dalam kalangan peserta.

Sampel rawak pelbagai peringkat digunakan dan kesemua ibu mengandung dipilih berdasarkan kepada kriteria pemasukan dan penyingkiran. Mereka dimasukkan secara rawak dalam dua kumpulan samada intervensi atau kumpulan kawalan. Pangkalan data dikumpulkan daripada 342 ibu mengandung.

Alat kesahihan dan kepercayaan terdiri daripada Rosenberg Self Esteem Scale, Perceived Stress scale, Revised Dyadic adjustment Scale, Multidimensional Scale of Perceived Social Support, Revised Fear related to childbirth and Health Belief Model Scale. Satu modul pembelajaran berkaitan pendidikan kesihatan prenatal telah

dibangunkan untuk mengurangkan ketakutan berkaitan kehamilan dan kelahiran dan mengubah kepercayaan serta tingkahlaku terhadap cara bersalin. Matlamat utama intervensi pendidikan adalah untuk membantu ibu mengandung memilih cara bersalin terbaik dan mempromosikan kesihatan dalam kalangan ibu dan bayi.

Dua kaedah pendidikan yang diuji dalam kajian ini adalah perbincangan berkumpulan dan buku kecil. Semua bahan daripada empat sesi perbincangan kumpulan adalah bersamaan dengan empat bahagian buku kecil, atau empat sesi dua jam untuk setiap empat minggu. Selepas ujian awal kumpulan kawalan menerima pendidikan kesihatan yang biasa. Intervensi dijalankan selama 16 minggu dan ujian pasca dijalankan selepas 4 minggu intervensi bermula. Kedua program tersebut disampaikan oleh mereka yang terlatih.

Pengukuran berulang dua hala ANOVA digunakan untuk menilai keberkesanan intervensi. Hasil pengukuran dinilai dengan ujian awal dan ujian pasca (empat minggu selepas sesi akhir pembelajaran). Responden dalam intervensi menunjukkan peningkatan harga diri yang signifikan ( $p=0.005$ ) dan penurunan dalam persepsi tekanan ( $p < 0.001$ ) berbanding kumpulan kawalan. Sebaliknya, tiada perbezaan kualiti hubungan perkahwinan dan persepsi sokongan sosial antara kumpulan. Pengukuran ini dianggap sebagai faktor yang mempengaruhi ketakutan terhadap proses kelahiran.

Terdapat pengurangan yang ketara dalam ketakutan berkaitan kehamilan dan kelahiran dalam kumpulan campur tangan berbanding kumpulan kawalan ( $p < 0.001$ ). Begitu juga dengan perbezaan dalam semua konstruk Health Belief Model Scale adalah ketara berbanding kumpulan kawalan ( $p < 0.001$ ).

Terdapat kesan yang ketara kepada kumpulan [ $F = 14.6, p < 0.001, \eta^2=0.08$ ]; masa [ $F = 40.7, p < 0.001, \eta^2= 0.11$ ] dan kumpulan x masa berinteraksi [ $F = 110.68, p < 0.001, \eta^2= 0.4$ ] untuk ketakutan menghadapi proses kelahiran. Begitu juga, dengan kesan utama untuk kumpulan [ $F = 24.764, p < 0.001, \eta^2=0.13$ ], masa [ $F = 362.57, p < 0.001, \eta^2=0.475$ ], and kumpulan x masa berinteraksi [ $F = 104.24, p < 0.001, \eta^2=0.611$ ] adalah ketara dalam kepercayaan terhadap proses kelahiran. Permintaan kepada proses pembedahan nyata berbeza ( $\chi^2 = 10.94, p=0.004$ ) diantara kumpulan kawalan dan kumpulan yang menjalani intervensi.

Program intervensi kesihatan prenatal berkesan untuk mengurangkan ketakutan berkaitan kehamilan dan kelahiran dan mengubah kepercayaan dan tingkahlaku terhadap permintaan proses pembedahan dalam kehamilan normal dikalangan ibu mengandung di Hamadan. Kadar pilihan proses pembedahan telah menurun selepas intervensi .



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This thesis was submitted to the Senate of Universiti Putra Malaysia and has been accepted as fulfillment of the requirement for the degree of Doctor of Philosophy. The members of Supervisory Committee were as follows:

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## DECLARATION

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## **LIST OF ABBREVIATIONS / NOTATIONS/ GLOSSARY OF TERMS**

SVD	Spontaneous Vaginal Delivery
CS	Caesarean Section
RSES	Rosenberg Self Esteem Scale
PSS	Perceived Social Support
RDAS	Revised Dyadic Adjustment
MSPSS	Multidimensional Scale of Perceived Social Support
FOC	Fear of Childbirth

## CHAPTER 1

### INTRODUCTION AND OBJECTIVE

#### 1.1 Background of study

Pregnancy and childbirth are normal physiological processes and significant social and emotional events in the life of any woman and her family (Fisher, Hauck, & Fenwick, 2006). Babies are born via two methods: caesarean section (CS) and Spontaneous vaginal delivery (SVD) which are likely to differ with respect to individual outcomes for mother, her infant, or both (Bewley & Cockburn, 2002b).

Choosing between a SVD and CS is a critical important matter for a pregnant woman. The last three months (third trimester) is the time for pregnant women to decide on the methods of delivery. Naturally, this involves a question of safety for both mother and child. The decision concerning delivery method is different than most other medical decisions. It is a decision that has implication to two individuals; the mother and the fetus (Khosravy, Shahoei, Hashemi Nasab, Ranaei, & Abdolahi, 2013).

Recently using of new technology and interventions in the process of childbirth such as CS has increased despite of unchanged basic physiology of birth (Kolip & Büchter, 2009). The majority of CS is done for medical reasons such as vaginal bleeding, cephalo-pelvic disproportion fetal distress, or malpresentation of the infant. However, the new trend among pregnant women is to choose to have a CS without any medical reason. These CS are called maternal request CS or elective CS without any medical reasons (Cunningham et al., 2009).

The rates of CS in many countries have increased. In spite of the known risks of this procedure, it still remains very much higher than World Health Organization (WHO) recommendations that emphasized “no region in the world is justified for having a C/S rate greater than 10 to 15 percent optimal CS rates- states the best outcomes for mothers and babies appear to occur with CS rates of 5% to 10%”.

The CS rate is almost doubled in the last decade, especially in developed countries such as Cyprus (50.9%) with highest level followed by Italy (38.9%), Mexico (36.9%), USA 31.8%, Australia (31.1%), Canada (26.3%), and Great Britain (UK) 22%; Similar trends have also been documented in developing countries such as Brazil (43.8%), Iraq (35%), Egypt (27.6%) and, China ( 27%) for births particularly in private hospitals (WHO, 2012).



In Iran, the rate of CS is about 30-40% in public (teaching) hospitals and 50-60% in private hospitals (Pour Reza M, 2007). Based on statistics in 2008, it is three to five folds more than other places in the world. The rate of CS has been 47.5% in public hospitals and 79.1% in private hospitals in Hamadan province, the west part of Iran. (Hamadan University of Medical Sciences Statistics 2011). A rate above 15% seems to do more harm than good (Althabe & Belizán, 2006).

The continuous rise of CS rate has become a major public health issue in worldwide. this is due in part to the increase in maternal request for this procedure (Declercq et al., 2007; Lee & Kirkham, 2008; NIH, 2006). Maternal request is one of the main reasons for elective CS without any medical maternal or fetal indication (Nerum, Halvorsen, Sørli, & Oian, 2006; Weaver, Statham, & Richards, 2007; Young, 2006; Zwelling, 2008).

The most common reasons of choosing CS include having had a previous CS, a previous negative birth experience, complicated pregnancy, and/or fear of giving birth. Very often, fear of childbirth leads to request for elective CS, regardless of the risks of this procedure. These women also have the belief that CS is the safest childbirth mode for the baby (Faisal, Matinnia, Hejar, & Khodakarami, 2013; McCourt et al., 2007; Pakenham, , Chamberlain & Smith, 2006; Waldenström, Hildingsson, Ryding, 2006).

It is now recognized that carrying out CS without medical indication not only offers no health advantages to the mother and her baby, but it rather confers increased health risks, from both physical and emotional perspective, compared with vaginal delivery (Armson, 2007; McFarlin, 2004). Generally, CS deliveries are associated with higher maternal and child mortality and morbidity (Jonge et al., 2009) A primary CS virtually increases the rate of CS in future births; furthermore health outcomes and the economic effect of elective C/S should be considered (Lumbiganon et al., 2010).

For the majority of women childbirth is a normal, natural, and healthy process, however the numbers of pregnant women who experience fear of childbirth for their babies or themselves are rising. Fear of childbirth is a main factor in reasons for choosing elective CS by pregnant women. Most of pregnant women with fear of childbirth were afraid of intolerable pain. Fear of pain is the main reason for requesting CS (Eriksson, Westman, & Hamberg, 2006; Geissbuehler & Eberhard, 2002) However, discussion on the reasons for women to request CS, or on the possibilities to help them overcome the fear of vaginal childbirth is scanty in developing countries (Fenwick et al., 2013).

Predisposing factors of fear in pregnancy include : young maternal age, low education or socioeconomic level, low self-esteem, lack of social support, great number of daily stressors (Saisto, et al., 2006). All of these factors are considered in this study.

A variety of coping techniques designed to decrease fear and anxiety during labour are promoted in the United States. These include antenatal education, cognitive therapy , counseling, breathing techniques, hydrotherapy, hypnosis, epidural and narcotic pain relief, the use of a doula and mantram intervention ( Hunter, et al., 2009).

Pregnant women have more acceptances to comprehend comments or advices besides having more contact time and interaction with health care providers during pregnancy (prenatal period) which has been considered an appropriate time to intervene (Lara, Navarro, & Navarrete, 2010).

Health Belief Model (HBM) is applied to explain people's responses to symptoms and diagnosed illnesses. The HBM hypothesizes that “individuals' perceptions about their Susceptibility to a condition and the perceived Seriousness of the effects of the condition along with the Perceived Benefits and Barriers associated with the action or treatment available will influence whether they will participate in preventative health care activities” (Janz & Becker, 1984).

In application of HBM to the maternal request for SVD, the Perceived Susceptibility is identified in regarding the risk of having a SVD. Perceived Seriousness is conceptualized as the pregnant women's perception of risks or severity associated with SVD. Perceived Self-Efficacy associated to the maternal belief that she has ability to complete a SVD.

The issue of request elective CS by pregnant women is complex. There are many interrelated factors that affect fear and it is not easily explained. The studies are limited about how the decision for elective CS comes in developing countries such as Iran. Considering the lack of information about the factors affect choice of childbirth methods in the primigravidae and assess the effect of health education on this decision, an experimental study was undertaken with the purpose of finding out their believes during pregnancy and whether the health education can affect choosing natural delivery or CS.

Interventions provided to cases with fear in pregnancy, especially for those who request for a CS may have a positive effect, and reduce the number of elective CS (Nerum et al., 2006). Psychosomatic support in severe fear related to childbirth resulted in a 50 percent reduction in CS (Sjögren & Thomassen, 1997).

## **1.2 Problem Statement**

Recently the rate of CS which is considered as a safe method delivery for mother and babies has increased rapidly especially in urban areas of the developing countries

(Stanton & Holtz, 2006; Villar et al., 2006), while most developed countries have experienced a gradual rise. Iran is one of the developing countries which have the most increasing CS rates. In university hospitals, about 30-40 percent of births are by caesarean, as it is 50-60% in private hospitals in Iran (Pour Reza, 2007).

This problem is clinically important because of the increasing numbers of low-risk healthy women preferring CS and the health risks to the mother and infant undergoing CS and also the increased cost associated with CS. The “increase in rates of CS is not associated with any clear overall benefit for the baby or mother but is linked with increased medical risks for both” (Spaeth, 2010; Villar et al., 2006).

Several studies show fear related to childbirth is a main factor to request CS which is increasing (Fenwick et al., 2013; Melender, 2002; Nerum et al., 2006; Saisto & Halmesmäki, 2003; Waldenström et al., 2006).

The belief and perception that CS is the safest delivery method for the baby and mother are common among primigravidae (Zwelling, 2008).

Compared to developed countries, the developing countries are deficient in studies and research aimed at evaluating the characteristics and risk factors for fear of childbirth. The developing country such as Iran also lacks research discussing methods or practices that could be applied for identifying and managing women with fear related to pregnancy.

Less attention to maternal mental health education in developing country is very remarkable in spite of the recognition that maternal mental health is a main public health principle and an essential component of maternal health progress (United Nations, 2013; Sawyer, Ayers, & Smith, 2010) Prenatal health education in both dimensions (physical and psychological) is needed to recognize and prevent psychological disorders related to pregnancy such as childbirth fear that might be associated with physical and psychological disorders (Bakshi, Mehta, 2008; Betrán et al., 2009).

The research problem needs investigation about pregnant women’s fear related to childbirth and their beliefs about delivery method. The ultimate goal is to determine educational interventions to reduce the rate of maternal request CS, thus reducing mortality and morbidity associated with CS and decreasing health care costs associated with maternal request CS.

### 1.3 Significance of study

This survey will be useful in the field of maternal health in Iran as it targets a group of Iranian primigravidae to study about their fear related to childbirth and choice of delivery mode, this would help health care providers to understand pregnant women's emotion (fear related to pregnancy) and perceived beliefs can affect their choice of delivery method in Iranian primigravidae.

Understanding beliefs of Iranian primigravidae about Benefits and Barriers of SVD will contribute to the body of knowledge needed to design and improve a better prenatal health education and intervention strategies programme to reduce fear related to childbirth changing beliefs and rate of request CS which are associated with decrease in maternal and infant mortality and morbidity.

In addition, decline rate of CS by maternal request also play a role in the alarming increase in the overall CS rate and also decreased health care costs which is so important for health policy makers in Iran and other countries. As prenatal health education is a considerable concern in public health, new prenatal educational module may have effect on improving maternal and neonatal health which are targeted in the Millennium Development Goals 4, 5 and 6" (WHO, 2010) . It is hoped that new module provide information on birthing options to expectant parents and also on supporting pregnant women during labour and delivery by midwives and other health "care providers.

This research study involved inquiring primigravidae about their fear related to childbirth and beliefs toward choice of delivery mode. This prospective study as a randomized control trial acquired data before delivery to reduce the risk of the bias, because events of delivery might influence on mothers' answers.

The potential usefulness of this study may encourage health policy maker to increase knowledge and information in health care provider, extend prenatal education which focus more on psychological aspect, and improve maternal health care. Health care provider, midwives, and obstetricians have an important role to play in providing information to assist pregnant women in choosing their birth mode.

## **1.4 Research Questions**

- 1.4.1 What is the rate of request CS among primigravidae?
- 1.4.2 Why primigravidae request CS in normal pregnancy?
- 1.4.3 What is the rate and content of fear related to childbirth among primigravidae?
- 1.4.4 Which strategy (booklet or discussion groups) has greater effect on reduce fear related to childbirth and request CS?

## **1.5 Objective**

### **1.5.1 General objective**

To develop, implement and evaluate the effect of health education on the choice of delivery method among primigravidae with fear related to childbirth in Hamadan, Iran.

### **1.5.2 Specific Objectives**

- 1.5.2.1 To determine socio-demographic characteristics in primigravidae with fear related to pregnancy.
- 1.5.2.2 To develop the module of health education based on the Health Belief Model in primigravidae.
- 1.5.2.3 To determine the choice of delivery method in primigravidae at baseline and after 16 weeks follow up.
- 1.5.2.4 To determine the belief on choice of delivery method in primigravidae at baseline and after 16 weeks follow up.
- 1.5.2.5 To determine the relationship between fears related to childbirth and choice of delivery method in primigravidae at baseline.
- 1.5.2.6 To determine psychosocial status in primigravidae at baseline and after 16 weeks follow up.
- 1.5.2.7 To determine the relationship between psychosocial status and fear related to childbirth with choice of delivery method in primigravidae.

1.5.2.8 To compare effect of the two methods (booklet and discussion group) of health education on choice of delivery method.

## **1.6 Research Hypothesis**

This health education intervention study tested the following null hypotheses:

- 1.6.1 No significant differences in fear related to childbirth between intervention groups and control group after 16 weeks follow up.
- 1.6.2 No significant differences in psychosocial status between intervention groups and control group after 16 weeks follow up.
- 1.6.3 No significant differences in choice of delivery method between intervention groups and control group after 16 weeks follow up.
- 1.6.4 No significant differences in belief between intervention groups and control group after 16 weeks follow up.
- 1.6.5 No significant relationship between fear related to childbirth and choice of delivery method.
- 1.6.6 No significant relationship between psychosocial status and fear related to childbirth with choice of delivery method.
- 1.6.7 No significant differences in fear related to childbirth and choice of delivery method between the two methods (booklet and discussion group) of health education.

## **1.7 Conceptual Framework**

The modification of the Health Belief Model was chosen as a conceptual framework to study the choice of delivery method.

The HBM as a conceptual framework or theoretical basis was assumed to identify demographic, psychosocial, fear related to childbirth and individual's perception might influence belief and indirectly affect health behaviour (N K Janz & Becker, 1984). Based on the literature review in this study, choice of delivery method was conceptualized as a dependent variable.

## **1.7.1 Dependent Variable**

### **1.7.1.1 Choice of delivery method**

A birthing plan describes the manner in which a woman wishes to deliver her child. There are two methods of delivery: Vaginal Delivery (Natural Childbirth): Vaginal Delivery refers to the entire process as a fetus makes its way from the uterus down the vagina or birth canal to the outside world. Caesarean Section: A caesarean section is a form of childbirth in which a surgical incision is made through a mother's abdomen and uterus to deliver baby (Cunningham et al., 2009).

### **1.7.1.2 Fear related to pregnancy**

Fear during pregnancy based on its intensity was defined when pregnant women express anxiety and fear during pregnancy and asks for help. In general, fear of childbirth can be seen as an anxiety disorder or as a phobic fear manifesting also as nightmares, physical complaints and difficulties in concentrating on work or on family activities, and very often as a request for a CS as the delivery method (Terhi . Saisto & Halmesmäki, 2003).

## **1.7.2 Independent Variable**

### **1.7.2.1 Intervention strategies**

Intervention strategies are a prenatal health education that focused more on normal psychosocial changes during pregnancy, fear related to childbirth, SVD, and CS with its advantages and disadvantages and misconceptions about both methods of delivery.

### **1.7.2.2 Socio-demographic characteristics**

The relation of socio-demographic variables a choice of delivery method and beliefs of pregnant women was shown in some studies. To assess this relation, socio demographic characteristics (age, education, occupation and, family income) among primigravidae were examined in this study.

### **1.7.2.3 Psychosocial characteristic**

In this study Psychosocial characteristic was defined as self esteem, perceived stress, social support and the quality of marital relationship of primigravidae who were participants of this research.

### **1.7.2.4 Health belief model (HBM)**

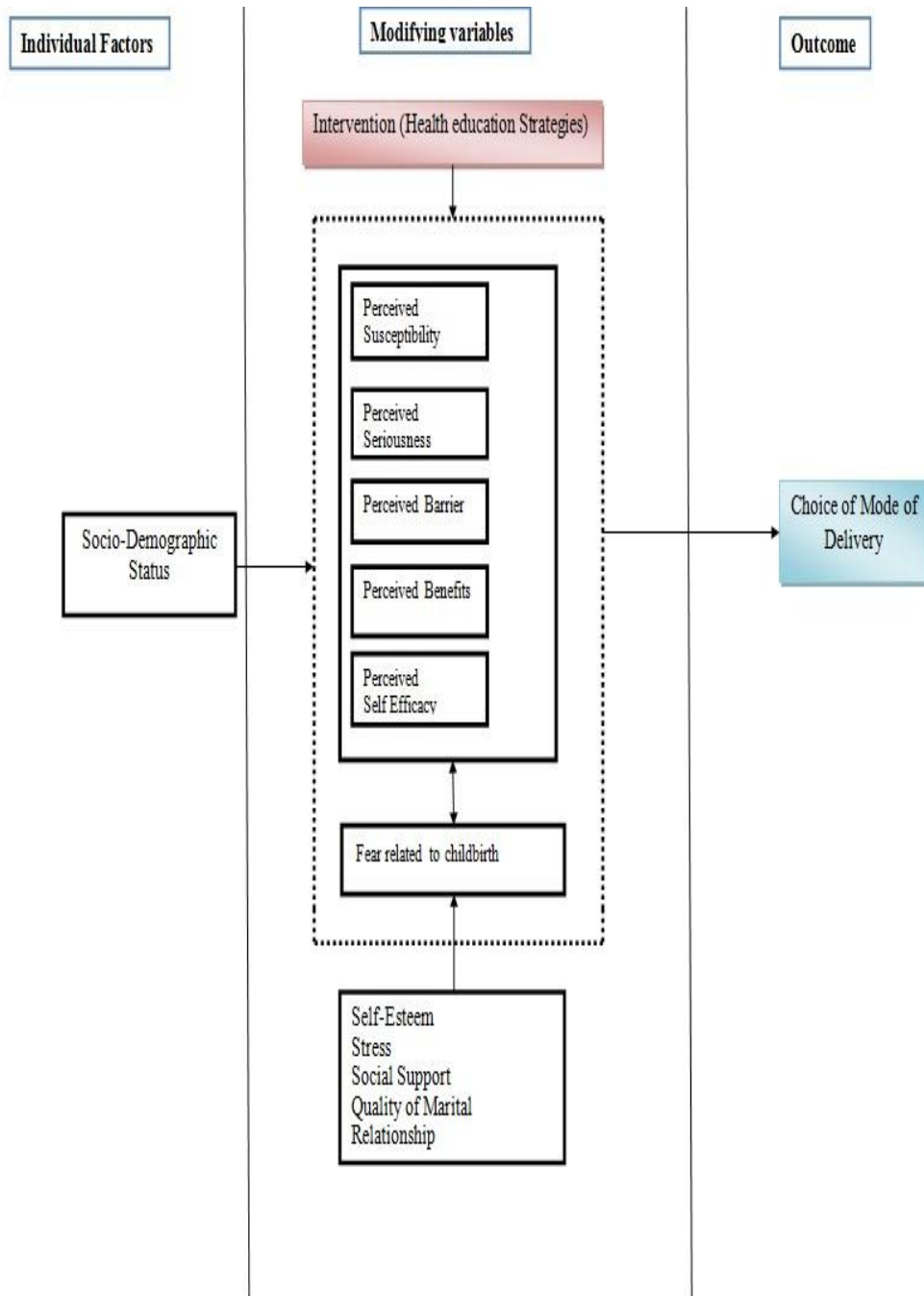
Understanding women's choice of delivery method is very important. Maiman & Becker, (1974) stated in the 1950's the Health Belief Model (HBM) was developed is an example of a logical choice to model the making of a decision based on value expectancy theory ( Janz, Champion, & Strecher, 2002).

In preventative health care the HBM was developed to make clear choices about individuals' participation and then it was used to explain individual's responses to diagnosis and symptoms of illnesses. This model hypothesizes that people's perceptions about their susceptibility to a health condition or disease and the perceived seriousness of the consequences of the health condition or disease together with the perceived benefits and barriers related with the treatment or action will influence whether they will contribute in preventative health care actions (Maiman & Becker, 1974) as cited in (Sharma & Romas, 2011).

The perceived susceptibility and seriousness make together perceived threat that makes the force or energy to take action and the perception of benefits (fewer barriers) provides a suitable way of action. The stimulus is required to prompt the process of decision making or Cue to Action that may be internal or external (e.g. interpersonal communications, mass media, and interaction with health care providers) (K Glanz, Rimer, & Viswanath, 2008).

HBM was applied to the process of choosing CS as a maternal request for elective CS decision making, the Perceived Susceptibility to the condition corresponds to the risk of having a CS. The perceived threat is conceptualized as the maternal perception of seriousness or risks associated with planning a CS. Perceived self efficacy corresponds to the maternal belief that she will be able to accomplish a SVD. The maternal Health Belief Model is shown on the following page in Figure 1.





**Figure 1.1 Conceptual Frsamework Based On HealthBeliefe Model**



## 1.8 Operational Definition of Terms

There are some terms in this study, which need clarification for better understanding of what they mean within the context of the study.

**Primigravida:** a woman who becomes pregnant for the first time.

**Trimester of pregnancy:** Pregnancy is typically broken into three periods of trimester each of about three months; first, second and third trimester.

**Elective CS:** Request CS by pregnant women without any medical reasons.

**Fear Related to Pregnancy:** Any fear and worry about pregnancy and childbirth, which measured by a 30 item questionnaire in this study.

**Psychosocial Characteristics:** In this study psychosocial characteristics includes self-esteem, stress, quality of marital relationship and social support.

**Health education:** prenatal education consists of normal psychosocial changes during pregnancy, vaginal delivery, caesarean section and misconception about them by booklet or discussion group in four sessions.

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