Effects of Lamaze Method on State-Anxiety and Labor Pain

Park, Young Sook, RN, MSN* Han, Kyung Ja, RN, Ph.D.**

Abstract

This study compared anxiety and labor pain of ten primiparous women who had completed the Lamaze childbirth education classes with an equal number of matched controls who had not. The former had lower state anxiety on admission to the labor room than the control women. No differences were found between the prepared women and the control women on the pain experienced during three phases of the first stage of labor, and the Apgar scores of their infants. There was a significant difference between the prepared and the control group in the total length of labor. Maternal state anxiety was correlated with the length of labor.

Key words: Lamaze method, state anxiety, labor pain

Introduction

Prenatal health care is an important variable that affects infant survival at birth. Educational programs for the expectant parent have been introduced to insure physically healthier infants and mothers. One such program, based on Pavlovian principle, was developed in Russia in 1945 and introduced to France in 1951 by Dr. Fernand Lamaze (1967). The Lamaze Method or Psychoprophylactic Method (P.P.M.) is a method for preparing childbirth through psychological and physical conditioning, particularly the development of conditioned reflexes for response to uterine contractions (Moore, 1977).

A Lamaze childbirth preparatory course, usually being taught by registered nurses, consists of six to eight weekly classes totaling twelve hours of instruction. The classes usually begin during the seventh month of pregnancy when concern about the impending labor and delivery is high. Couples are encouraged to attend the class together, although mothers may attend alone or bring another supportive person to act as coach during labor and delivery (Huprich, 1977). The class content includes information about labor, delivery, PPM theory and a variety of information related to the entire childbirth process. Another major part of the classes is teaching the woman relaxation exercise particularly related to contractions. The coach, who may be the husband and/or another person, is taught how to recognize when she tenses and how to help her relax. The main focus of the class is teaching the method of breathing exercises to be utilized with contractions and instructions on how to change the breathing patterns effectively to make labor as comfortable as possible. In addition, the couple is taught many other techniques for the comfortable labor and delivery. Positions that are comfortable, back rubs, counter pressure, mouth care, focal points and effleurage are some examples of these techniques (Bing, 1967; Ewy, 1982).
Several books have been published on the Lamaze method in different languages so that it can be used in several countries throughout the world (Zax et al., 1975). Unfortunately, the Lamaze method has not been investigated or used in Korea. The Lamaze method has only recently begun to be taught to expectant mothers at a few of the hospitals and midwifery clinics in Korea.

The purpose of this study is to test the effectiveness of the Lamaze method in a Korean culture where the Lamaze method is completely unknown.

Hypotheses

The primary hypotheses in this study were;

1. There will be a significant difference in state-anxiety on admission to the labor room between primiparous women who attend Lamaze childbirth education classes and those who do not attend.

2. There will be significant differences in the level of pain expressed during labor between primiparous women with Lamaze childbirth education classes and those without.

Literature Review

The primary purpose of childbirth education classes is to teach methods which reduce the fear-tension-pain cycle and help to perceive the childbirth experience as a more positive one. On the bases of theory Lamaze childbirth education may reduce fear, fear may reduce muscle tension and pain may be alleviated as a result. If pain is reduced, the need for medication may diminish during labor (Croft, 1982; Mozingo, 1978).

Studies designed to assess the effectiveness of the psychoprophylactic or Lamaze method have been utilized since the late 1940s and have been continued until the present day. Some studies have reported that the training revealed such psychologic effects as the decreased perception of pain (Hommel, 1972), the alleviation of anxiety (Klusman, 1975), an increased cooperativeness on the part of the mother during labor, a decreased incidence of postpartum depression (Huttel et al., 1972), and a more positive attitude regarding future pregnancies (Enkin et al., 1972). Other studies have reported that training produced the reduced use of analgesics and anesthetic medication (Davenport-Slack and Bovlan, 1972), one-third the normal blood loss (Galezzi and Minella, 1972), a decrease in the incidence of significant obstetric interventions including forceps deliveries, episiotomies and cesarean sections (Flowers, 1967) and a significant decrease in the length of labor (Shapiro and Schmitt, 1973). Finally, some authors have reported that training showed positive effects to the child including increased oxygenation of fetal blood (Petrov-Maslikov, 1972), more rapid initiation of breathing following expulsion (Tupper, 1956), a decreased incidence of utilization of resuscitation and better adjustment to nursery (Tupper, 1956), and a decrease in the rate of neonatal mortality and morbidity (Stahler et al., 1972).

Anxiety during pregnancy has long been recognized as resulting from factors such as alterations in body image, anticipated changes in life style, concern over having a normal body, family and financial stresses, and fears related to the physical aspects of childbirth. Such emotional changes during pregnancy can result in physiological changes in the body such as motor tension, restlessness, tachycardia, sweating, and flushing (Ascher, 1978).

Standley (1979) identified three dimensions of prenatal anxiety; anxieties about pregnancy and childbirth, anxieties about parenting, and development of psychiatric symptoms. These dimensio-