# Childbirth policy in Thailand: is it a time to change?

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Abstract:

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In Thailand, women giving birth in most public hospitals have been separated from their family because the hospital policies do not allow any relatives to attend the women during labor and delivery. Thus, giving birth in a public hospital causes some emotional disturbance because laboring women have to face unfamiliar environments and unknown situations alone. The labor process involves many physical, psychological, and social changes, which may result in stress and anxiety. Empirical data show that labor support has beneficial effects on childbirth outcomes, labor pain, and women's satisfaction with the childbirth experience. Normally, social support during childbirth can be provided by health care providers or laboring women's partner/ husband, relatives, and friends. Currently, one crucial goal of maternity care is to emphasize a woman and family-centered

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approach. Family members, particularly the woman's partner/husband, should be allowed to attend in the labor and delivery rooms so that they can share the childbirth experience with the laboring woman. To improve childbirth outcome and women's satisfaction with the childbirth experience, labor support should be part of a comprehensive strategy to provide appropriate care to laboring women and their families.

Key words: health policy, childbirth, birth companion, social support, intrapartum

# บทคัดย่อ:

การเฝ้าคลอดของโรงพยาบาลรัฐบาลโดยส่วนใหญ่ในประเทศไทยไม่อนุญาตให้สามี ญาติ หรือเพื่อนเข้าไปอยู่ดูแลสตรี ระยะคลอดทั้งในห้องรอคลอดและห้องคลอด ดังนั้นการคลอดในโรงพยาบาลของรัฐบาลอาจทำให้สตรีระยะคลอดมีปัญหาด้านจิตใจ เพราะต้องเผชิญกับสิ่งแวดล้อมที่ไม่คุ้นเคยและต้องพบกับสถานการณ์ที่ไม่คาดคิดเพียงลำพัง แม้ว่าการคลอดไม่ใช่เป็นการเจ็บป่วย แต่เป็นการเปลี่ยนแปลงทางด้านร่างกาย จิตใจ และสังคม ซึ่งส่งผลต่อความเครียดและความวิตกกังวลของสตรี ผลการศึกษา ที่ผ่านมาพบว่าการให้แรงสนับสนุนส่งผลในทางบวกต่อการเจ็บครรภ์ และความพึงพอใจในประสบการณ์การคลอด โดยปกติผู้ที่ให้ แรงสนับสนุนแก่สตรีระยะคลอด ได้แก่ ทีมสุขภาพ คู่ครอง/สามี ญาติ และเพื่อน ในปัจจุบันเป้าหมายการดูแลผู้ใช้บริการทาง สูติศาสตร์เน้นการดูแลสตรีและครอบครัวเป็นศูนย์กลาง จึงควรอนุญาตให้สมาชิกในครอบครัวโดยเฉพาะสามีของสตรีระยะคลอด อยู่ดูแลซ่วยเหลือสตรีในระยะคลอดเพื่อจะได้รับรู้ประสบการณ์การคลอดร่วมกัน ที่สำคัญที่สุดกลยุทธ์ในการดูแลสตรีในระยะคลอด ควรเน้นใหม้ผู้เฝ้าคลอดได้มีส่วนร่วมในการให้แรงสนับสนุนแก่สตรีระยะคลอดเพื่อก่อให้เกิดผลลัพธ์ของการคลอดและความพึงพอใจ ในประสบการณ์การคลอดดีขึ้น

คำสำคัญ: นโยบายสุขภาพ, การคลอด, การมีคนเฝ้าคลอด, แรงสนับสนุน, ระยะคลอด

# Introduction

The purposes of this article are to explain the childbirth policy in Thai hospitals and to suggest policy changes to improve the quality of maternity care in Thai society. Giving birth is an important event for women and their families because it is a time when everyone is looking forward to meeting a new family member.

A few decades ago, the place for giving birth moved from the home to a hospital.<sup>1</sup> In Thailand, women who give birth in public hospitals are separated from their family members, for "isolated birth". "Isolated birth" is defined as giving birth without the woman's partner/husband or significant others attending in the labor and delivery rooms. The isolated birth policy has been discussed among nurses who work in maternity fields. However, no official effort is proposed to change this policy in the public hospital settings. Presently, many highly educated pregnant women and their spouses would like to share the childbirth experience together, especially in the intrapartum period, influencing them to seek childbirth care from private hospitals.

Social support plays an important role in helping women in labor pain-coping behavior, and in reducing psychological problems such as fear, stress, and anxiety. Positive social support has played a significant role as a stress buffer.<sup>2</sup> Several researchers found that the buffering effects of social support are crucial in promoting people's health.<sup>2-4</sup> A few studies have shown that women who had their husband providing intrapartum support reported less pain than those without their husband.<sup>4, 5</sup> Ip<sup>6</sup> states that most health care organizations have recognized the importance of family-centered care by allowing and encouraging the partner/husband to attend childbirth education classes and to be present during labor and delivery.

The birth policy relating to the presence of the woman's partner/husband or significant others has been used in western countries for more than 50 years.<sup>5</sup> In Thailand, only some community hospitals allow a woman's relatives to be with her during the first stage of labor, but not in the second stage. Most private hospitals also encourage the woman's family members to provide intrapartum support. However, most regional, district, and teaching hospitals do not allow any family members to attend in the labor and delivery rooms. Therefore, laboring women have to deal with their labor pain, anxiety, and stress alone. Payne and Martin<sup>7</sup> state that intrapartum care is given to ensure a safe passage for both mother and baby, to minimize risks, and to promote a healthy outcome and positive experience. Thus, the policy of isolated birth should be revised, and some changes made in Thai society to improve childbirth outcomes and to increase the satisfaction of women and their families with childbirth care and the childbirth experience.

### Health care system and childbirth care in Thailand

In Thailand, the health care system consists of a mixture of government hospitals, health centers, private hospitals, clinics, and voluntary organizations. Most health care services are managed by government agencies, including the Ministry of Public Health, Ministry of Education, Ministry of Defense, and Ministry of the Interior, but 13.8% of the hospitals are owned by private organizations.<sup>8</sup> Health care systems are subsequently controlled via a system of provincial health officers, district health officers, and subdistrict health officers. It is very easy to access the health care services at the local level; however, a shortage of physicians and nurses and limited availability of health care equipment are still major problems.<sup>9</sup>

In the past, most Thai women had their delivery by a non-professional midwife (Mortumyae) in their home, therefore, it was common for a laboring woman to receive psychological support from her female relatives. In hospital, women delivered among strangers in an unfamiliar setting and were forced into a more and more passive role in the birth process.<sup>5</sup> Most Thai women now use a hospital service because they are concerned about the safety of both mother and baby. The hospitals are very safe places because there have both the latest technological equipment and well-trained professional health care providers. Midwives are the primary managers of births that do not require any obstetrical technology. Midwives work under the routine orders of an obstetrician and have responsibility to deliver in normal labor. In high-risk pregnant women, the obstetrician performs the delivery and takes close care of mother and child.

Women who choose to deliver in regional or provincial hospitals are admitted to the labor and delivery rooms. Usually a perineum shave and enema are prepared and normal laboring women are allowed out of bed in the first stage of labor. In most of the hospitals no family members are allowed to attend in the labor and delivery rooms throughout the intrapartum period. Laboring women are separated from their families; however, they can contact their families via the nurse or other health care providers, or have a short visit with them. Normal laboring women are allowed to eat a soft diet in the latent phase of the first stage of labor, but are restricted in eating during the active phase. For high-risk laboring women, food is not allowed orally even in the latent phase; intravenous fluids are administered to prevent dehydration and in the event that emergency surgery is needed. For normal laboring women, nurses record contractions and fetal heart rate manually and by stethoscope. In some regional hospitals, an electronic fetal monitor is used once a shift to evaluate the fetus's health status and mother's uterine contraction patterns.

In a university hospital, obstetricians and medical students provide care for both normal laboring women and high-risk laboring women. They usually make most of the decisions about labor and delivery procedures including helping to deliver the baby. In regional hospitals, nurses attend and provide care in both normal laboring women and high-risk laboring women, but obstetricians help to deliver the babies of high-risk laboring women. With a normal laboring woman, the obstetrician will check both the mother and her fetus only once or twice a day. Mothers with a normal post-partum remain in the labor and delivery unit with their baby

for at least two hours and then they are transferred to the postpartum unit. Babies with complications are transferred to the Neonatal Intensive Care Unit (NICU) and the mothers are allowed to visit and breast-feed. For those with a normal postpartum status, the woman and her baby remain in the hospital for 48 hours. High-risk postpartum mothers are discharged when their health status is stable, which may take three to five days or more depending on how severe the health problems of the postpartum mothers and their infants are.

#### Significance and background of the problem

Childbirth is considered a significant event that not only causes physical changes but also psychological changes in the mothers.<sup>10</sup> Moreover, laboring women cannot avoid labor pain, which is the result of a complex and subjective interaction of multiple physiological and psychological factors placed on a woman's individual perception of labor stimuli.<sup>11</sup> Labor pain is an acute pain<sup>12</sup> and the most intense pain when compared to menstruation, neuralgia, cancer, tooth problems, and arthritis.<sup>13</sup> Additionally, most laboring women think that the intrapartum period is a high risk time for them and their babies. Laboring women may experience anxiety and fear of the labor process. Hodnett<sup>14</sup> stated that before giving birth, women reported a range of emotions, from nervousness to dread and fear. A feeling of helplessness and a loss of control have been identified as contributing to a very distressing and unpleasant labor experience.<sup>15</sup> Many Thai postpartum women have complained about inadequate intrapartum nursing care.<sup>16</sup> This may be attributed to a lack of personnel and inconsistent quality of nursing care services. Moreover, laboring women have to be separated from their family members because of the isolated birth policy that does not allow family members to attend in the labor and delivery rooms.

There has been no official effort to deal with the isolated birth policy in Thai society. Presently, a body of research literature indicates that labor support can reduce women's stress and pain and improve childbirth outcomes. Several Thai nursing researchers have been concerned with the beneficial effects of social support on childbirth outcomes, labor pain, pain-coping behavior, women's satisfaction with childbirth, and maternal-newborn attachment.<sup>17-19</sup> Bhasaprates,<sup>17</sup> a nursing educator and researcher, stated that she hoped the findings of her study could be used for childbirth policy reform, especially changing the isolated birth.

Giving birth in the hospital, women will experience many changes including a variety of environments, different health care providers, and the process of hospital admission. Those changes may cause a physically powerful degree of stress in laboring women. If mothers cannot cope with or control their reactions, it can cause a series of changes that affect both mothers and their fetuses. Several studies have shown that stress is negatively associated with childbirth outcomes: type of delivery,<sup>20</sup> mothers and babies' complications during intrapartum,<sup>21</sup> preterm labor,<sup>22, 23</sup> low birth weight,<sup>24</sup> and gestational age.<sup>25</sup> Particularly, stress in the third stage of pregnancy and during intrapartum can affect the effectiveness of uterine contractions and cause prolonged labor.<sup>26</sup> Rajatavarn<sup>20</sup> found that pregnant women who reported high levels of stress had more difficult deliveries; they had a higher frequency of cesarean sections, vacuum deliveries, and forceps deliveries than those who had moderate or low levels of stress. Thus, the management of stress and pain during labor and delivery continues to be a major concern for women, their families, and health care providers.

Most Thai women have a low income and they must use public hospitals,<sup>1</sup> therefore, there might be an imbalance between the number of laboring women and health care providers. Moreover, in public hospitals, husbands or significant others are not allowed to attend in the labor and delivery rooms because of the limited working areas and the concern of possible infection to the mother. As we know, social support during labor is inversely associated with stress, the following paragraphs will present the conceptualization of social support and the beneficial effects of social support on childbirth outcomes to support our belief that we need to revise childbirth policy in Thailand.

#### The conceptualization of social support

Social support is a concept that has been of great theoretical interest in the health professions, especially nursing.<sup>10</sup> Pender<sup>27</sup> states that social support is a reciprocal process; individuals and their groups both give and receive social support. Social support has long been investigated for its influence on individuals' health and well-being. Social support can help one to cope with stress in everyday life or the impact of negative life events.<sup>28, 29</sup>

The literature discusses several types of social support. Hodnett and Osborn<sup>30</sup> presented social support as emotional, informational, tangible or instrumental. Pender<sup>27</sup> stated that throughout the social support literature, the following types of social support are proposed: emotional support, instrumental aid, information support, and affirmation. Boonpongmanee<sup>31</sup> presented five types of social support, namely emotional support, appraisal support, informational support, social companion support, and tangible and instrumental support. Thus, social support comprises interpersonal transactions that include the following types: emotional, physical, informational, instructional, and social companion support. Emotional support (esteem support) is the provision of expressions of empathy, love, caring, and trust.<sup>27, 30, 32</sup> Physical support refers to comfort measures, such as holding the woman's hand, rubbing her back, and providing water to drink.<sup>33</sup> Informational support (or appraisal support) refers to providing information or advice that an individual can use to solve their problems.<sup>28, 30</sup> Instrumental support (or tangible support) refers to providing assistance with material supplies, time, resources, or services.<sup>28, 31</sup> Social companion support involves being a part of a network with mutual obligations.<sup>2, 31</sup>

#### Social support and childbirth outcomes

Labor support can be provided by health care providers (nurse, obstetrician, and midwife), women who were trained to be a birth companion (doula), or a woman's partner/husband, relatives, and friends. A number of studies have shown that nursing support affects labor pain, pain-coping behavior, psychological factors (anxiety, fear, and stress), and childbirth outcomes.<sup>34, 35</sup> In addition, the benefits of

father, women's relatives, friends, or doula support on childbirth outcomes have been reported in the health literature.<sup>35-39</sup> Too<sup>32</sup> stated that social support is one of the strategies employed to reduce stress during pregnancy and childbirth. The main objective of providing support during intrapartum is to help a woman achieve her wishes, through offering companionship, attention to her emotional needs, and active helping.<sup>14</sup>

Several researchers have found that social support during the intrapartum period exceeded their expectations of personal control during childbirth<sup>30, 36, 40</sup> and improved pain-coping behavior,<sup>18, 19</sup> satisfaction with the childbirth experience,<sup>17, 36</sup> and baby apgar score.<sup>41</sup> In addition, the findings of previous studies have shown that social support reduced anxiety during intrapartum,<sup>42</sup> length of labor,<sup>6, 40, 43, 44</sup> labor pain,<sup>17</sup> the likelihood of medication for labor pain relief,<sup>6, 32, 38, 43</sup> use of oxytocin,<sup>38, 43</sup> rate of forceps extraction,<sup>43</sup> rate of cesarean section,<sup>38,44</sup> neonatal complications,<sup>43</sup> and the probability of having episiotomies.<sup>30</sup> In addition, Sosa et al.<sup>44</sup> found that a supportive companion enhanced women's positive behaviors such as awaking after delivery, stroking, smiling, and talking to their babies. The results in one study showed that at 6 weeks after delivery doula-supported women more likely to be breastfeeding, and reported greater self-esteem, less depression, a higher regard for their babies and their ability to care for them compared to control mothers.<sup>45</sup> Moreover, women with labor support felt more satisfied and less fatigued during and after the intrapartum period. Negative views of labor as being difficult were associated with negative perceptions in coping with the delivery of the newborn baby.<sup>46</sup> Oakley<sup>47</sup> proposed that women might have difficulty in developing a relationship with their baby if they felt dissatisfied with their childbirth experience. A positive childbirth experience may influence the future childbearing of a woman and her concept of herself as a mother.<sup>48</sup>

Conclusively, the above results indicate that the use of a social companion, providing emotional, physical, and instructional support during labor can significantly reduce the length of labor, the use of analgesia and anesthesia, the incidence of cesarean section, and the occurrence of fetal complications. Social support can also enhance maternal perceptions of managing or coping with labor and subsequent feelings of competence in mothering ability and infant care. Health care providers need to provide effective care, including integrating labor support provided by women's relatives as part of a holistic care program. Therefore, we need to analyze the policies that advocate isolated births in order to help women and their families to have good childbirth experience and birth outcomes.

# Conceptual approach to analysis of the problem

Patton and Sawicki<sup>49</sup> state that we can approach a problem definition in a number of ways. We can accept the problem as given by our client, we can take a pragmatic approach and identify those aspects of the problem that might be affected, or we can attempt to define problems by their effects on individuals and society.<sup>49</sup> The pragmatic approach is consistent with the perspective that a policy analysis can be conducted only when there is disagreement about how an issue or problem is being handled, and when there are alternative ways to deal with the problem. In the social-criteria approach to problem definition, the analyst seeks out expressions of discontent and tries to define societal problems that should be solved.

In this article, the pragmatic approach and the socialcriteria approach were used to identify childbirth policy in Thailand. The pragmatic approach can be used to analyze the area of childbirth policy because this policy has been changed in western countries and in some private hospitals in Thailand. In western countries, it is common for the partner/husband, families, and/or friends to be present at a birth.<sup>4, 50</sup> Siblings are also encouraged to visit and meet their new family member and may even attend the birth.<sup>50</sup> In the United States, the baby's father is an active participant in the birth experience so he can share the pain and enjoyment with the baby's mother. In Thailand, only private hospitals allow family members to attend the birth. A previous study has shown that most pregnant women expected to have their husband or significant others, such as mother, sister, or close female friend with them during intrapartum.<sup>16</sup> Several studies have shown that psychological factors such as women's stress or anxiety can affect birth outcomes, including prolonged labor, uterine contractions, intensity of pain, type of delivery, analgesia or anesthesia used, and fetal complications.<sup>22-26</sup> Norbeck and Tilden<sup>51</sup> found that high stress during pregnancy and low social support were significantly associated with negative childbirth outcomes. The effect of stress on birth outcomes might have great medical, financial and socio-emotional impact. Thus, the isolated birth policy should be changed in Thai society so that women can receive effective support from their families since health providers cannot provide enough support to them during the intrapartum period.

## **Potential solutions**

Patton and Sawicki<sup>49</sup> suggested that there are many ways to encourage alternative policies including quick surveys, literature reviews, comparison of real-world experiences, development of typologies, analogy, metaphor, synectics, brainstorming, and comparison with an ideal. In this article, a review of literature, quick survey, and brainstorming were performed. Two labor and delivery head nurses from two health centers in southern Thailand were interviewed about their ideas of isolated birth in Thailand. A focus group discussion among 8 postpartum women who gave the birth in a regional hospital in southern Thailand was held in November, 2003. The following alternative policies are proposed to resolve the isolated birth problem in Thailand:

1. A birth companion, especially the woman's partner or female relatives, should be allowed to be present in the labor and delivery rooms. The birth period is both painful and joyous,<sup>5</sup> thus, fathers should participate in the birth of their children. Rojanasaksothorn<sup>52</sup> found that during intrapartum most women are afraid of labor pain, giving birth to a deformed baby, and dying during delivery. Rice and Naksook<sup>53</sup> found that women wanted their husband to be present during intrapartum because they felt confident and warm. In addition, laboring women believed that their husband would be there for them and also encourage and reassure them. BondasSalonen<sup>54</sup> found that laboring women wanted their partners to express their concern and to show them love and to share their worries and joy.

Results from the focus group discussion among postpartum women showed that some women wanted their relatives to be with them because they felt that they did not receive good and enough support from their health care providers. Many women said "it was good if one of my family members could be with me during the intrapartum period". Some women said "I wished to share pain and enjoyment with my husband". Some women would like to get social support from their close relatives because they feel more comfortable asking for help from the persons with whom they are familiar during the crisis or unknown situations. Nurses have only limited time to spend providing supportive care; thus, at least one of the woman's relatives or friends should be allowed to attend at the birth.

The presence of the partner during labor is impracticable or unworkable because only a few men seemed to be comfortable, confident, and competent to meet either the physical or psychological needs of the laboring women.<sup>55</sup> In addition, some studies have shown that father support was not associated with duration of labor<sup>37</sup> or use of analgesia.<sup>4, 37</sup> Ip<sup>6</sup> found that Chinese women who had husband support used pethidine more than those who did not. This may be because the husbands were not well prepared so they neither knew their roles nor provided effective labor support. Moreover, often the woman's partner or husband is also emotionally involved and also needs support himself. Thus, during the first attempts to deal with the isolated birth problem, only birth companions who are trained can attend in the limited space of area in the labor and delivery rooms.

2. Public hospitals should offer a private room to laboring women who can pay the extra cost. However, public hospitals need some budget to renovate the labor and delivery rooms and to buy some obstetrical equipment. Moreover, more nurses may be needed to provide care in the private rooms. Normally, most public hospitals have one first-stage room and one labor room with multiple beds separated by curtains, so laboring women will be in the same room. Therefore, the hospital environment is not appropriate for having a birth companion in the labor and delivery rooms. Two of eight women in the focus group discussion stated that they did not want any relatives to be with them during labor and delivery because it is a private time for women, and giving birth is the woman's business. Some women became embarrassed when someone saw them in pain. Chunuan<sup>56</sup> found that more than a half of postpartum women (57.8%, N = 525) preferred giving birth without relatives attending in the labor and delivery rooms, and only 40% would like to have their relatives with them during intrapartum. The reason why they did not want any relatives to attend in the labor and delivery rooms was because the hospital had only one labor room; it was not appropriate to allow a woman's relatives to be with other laboring women. Some women suggested that the hospital should offer private labor and delivery rooms so each woman can have her birth companion to be with her.

3. Midwifery education demands changes and modification. In Thailand, all nurse midwives have only a bachelor's degree. Parisunyakul, Yimyam, Srisupan, and Sintanayotin<sup>57</sup> found that the majority of heads of department and nursing instructors suggested that midwifery education needed changes and modification. They recommended that midwifery should be separated from nursing and could be arranged as a postgraduate program. Nurse-midwives who can deliver babies should have higher education or advanced practice skills. In the United States, nurse-midwives have to get a master's degree before they can deliver the babies of normal pregnant women at the women's homes or a birthing center. In Thailand, many pregnant women desire to receive childbirth care from private obstetricians, particularly during the intrapartum period, because they want to make sure that their babies and themselves will be safe during the intrapartum period. This means that women would like to receive childbirth care from an expert. Thus, knowledgeable, clinically competent, caring, and skillful nurse midwives are needed in the labor and delivery rooms. Chunuan<sup>56</sup> found that one-third of postpartum women were private patients in one regional hospital in the southern part of Thailand. Thus, a nurse who wants to be a nurse-midwife should have more training after graduation. They

should have short-course training of at least 6 months or have a master's degree so they will have high confidence in providing care in the woman's house or a nursing home, which is another birth option that pregnant women can choose for giving birth.

# Conclusion

Childbirth is considered an important event for all families. Labor support has positive effects on the childbirth experience, childbirth outcomes, and pain-coping behavior. Labour support can be provided by health care providers, relatives, friends, or doulas. Labor support is an important function of the labor nurse, however, nurses have limited time to provide supportive care to laboring women so laboring women are left alone sometimes. This may cause women's dissatisfaction with childbirth care and the childbirth experience. Thus, health care providers should use various strategies to promote the wishes and welfare of the laboring women and their families. One strategy is to allow the woman's partner/husband, relatives, or friends, who are trained, to enter the labor and delivery rooms with the laboring woman to provide labor support.

#### References

- Charoensug T. A comparative study of expected and actual nursing activities during intrapartum of mothers and nurses. Bangkok: Mahidol University; 1989.
- Cohen S, Wills TA. Stress, social support, and the buffering hypothesis. Psychol Bull 1985;98:310-57.
- Koeske GF, Koeske RD. The buffering effect of social support on parental stress. Am J Orthopsychiatry 1990; 60:440-51.
- Niven C. How helpful is the presence of the husband at childbirth? J Reprod Infant Psychol 1982;3:45–53.
- Norr KL, Block CR, Charles A, Meyering S, Meyers E. Explaining pain and enjoyment in childbirth. J Health Soc Behav 1977;18:260-75.

- Ip WY. Relationships between partner's support during labour and maternal outcomes. J Clin Nurs 2000;9:265– 72.
- Payne PA, Martin EJ. Caring for the laboring women. In: Martin EJ, editor. Intrapartum management modules: a perinatal education program. 3rd ed. Philadelphia: Lippincott; 2002:128-83.
- Khumyu PA. Study of service quality provided by nurses as expected by patients and head nurses perceptions toward service quality provided by nurses in a private hospital, Bangkok metropolis. Bangkok: University of Chulalongkorn; 1995.
- York R, Bhuttarowas P, Brown LP. The development of nursing in Thailand and its relationship to childbirth practices. MCN: Am J Matern Child Nurs 1999;24:145– 50.
- Walker OL. Parent-infant nursing science: paradigms, phenomena methods. Philadelphia: F. A. Davis; 1992.
- Lowe NK. The pain and discomfort of labor and birth. J Obstet Gynecol Neonatal Nurs 1996;25:82–92.
- Melzack R. Labor pain as a model of acute pain. Pain 1993;53:117-20.
- 13. Melzack R. The myth of painless childbirth. Pain 1984;2:61-78.
- Hodnett E. Nursing support of the laboring women. J Obstet Gynecol Neonatal Nurs 1996;25:257-64.
- 15. Butani P, Hodnett E. Mothers' perceptions of their labor experience. Matern Child Nurs J 1980;9:73-82.
- Kunsrikoaw S. Thai women's expectations of nursing care during labor, delivery, and birth. Songkhla: Prince of Songkla University; 1997.
- Bhasaprates V. Effect of husband's support on pain coping behavior and pain threshold during active phase in labor of primigravidas. Songkhla: Prince of Songkla University; 1998.
- 18. Dusiyamee C. The effect of progressive relaxation awareness on pain coping behavior and delivery outcome in primigravidas with having supportor during labor. Khon Kaen: Khon Kaen University; 2000.

- 19. Peinjing P, Veerakul L, Yarungsee B, Suckchareng P, Promjan S. Effects of the preparation for childbirth program on maternal knowledge of labour and paincoping behavior during labour in primiparas. Thai J Nurs Council 2001;16:25-36.
- Rajatavarn N. Incidence of psychological stress and anxiety in pregnant women at Bhumibol Adulyadej Hospital. R Thai Air Force Med Gaz 1998;44:24-30.
- 21. Da Costa D, Brender W, Larouche J. A prospective study of the impact of psychosocial and lifestyle variables on pregnancy complications. J Psychosom Obstet Gynaecol 1998;19:28-37.
- 22. Edwards CH, Cole JO, Oyemade UJ, Knight EM, Johnson AA, Westney OE, et al. Maternal stress and pregnancy outcomes in a prenatal clinic population. J Nutr 1994; 124(6 Suppl):1006S-21S.
- Hedegaard M, Henriksen TB, Secher NJ, Hatch MC, Sabroe S. Do stress life events affect duration of gestation and risk of pre-term delivery. Epidemiology 1996; 7:339-45.
- Berkowitz GS, Kasl SV. The role of psychological factors in spontaneous pre-term delivery. J Psychosom Res 1983;27:283-90.
- 25. Gunter LM. Psychopathology and stress in the life experience of mothers of premature infants: a comparative study. Am J Obstet Gynecol 1963;86:333-40.
- Levinson G, Shnider SM. Catecholamines: the effects of maternal fear and its treatment on uterine function and circulation. Birth Fam J 1979;6:167-78.
- 27. Pender NJ. Health promotion in nursing practice. 3rd ed. Stamford, Connecticut: Appleton & Lange; 1996: 255-75.
- Cronewett LR. Network structure, social support, and psychological outcomes of pregnancy. Nurs Res 1985; 34:93-9.
- 29. Cobb S. Social support as moderator of life stress. Psychosom Med 1976;38:300-14.
- Hodnett ED, Osborn W. Effects of continuous intrapartum professional support on childbirth outcomes. Res Nurs Health 1989;12:289-97.

- Boonpongmanee C. Conceptual and operation of social support within the framework of the stress paradigm. Songkla J Nurs 2003;23:123-35.
- 32. Too S. Stress, social support and reproductive health. Mod Midwife 1997;7:15-9.
- 33. Simkin P. The labor support person: latest addition to the maternity care team. Int J Childbirth Educ 1992;7: 19-24.
- 34. Gagnon AJ, Waghorn K, Covell C. A randomized trial of one-to-one nurse support of women in labor. Birth 1997;24:71-80.
- 35. Klein RP, Gist NF, Nicholson J, Standley K. A study of father and nurse support during labour: a randomized controlled trial. Birth 1999;26:4–10.
- Madi BC, Sandall J, Bennett R, Macleod C. Effects of female relative support in labor: a randomized controlled trial. Birth 1999;26:4–10.
- Yim IW. The effect of the husband's presence during labour in Hong Kong. J Clin Nurs 1997;6:169-70.
- Cecillia B, Sandall J, Bennett R, MacLeod C. Effects of female relative support in labor: a randomized controlled trial. Birth 1999;26:4–8.
- 39. Ip WY. Chinese husbands' presence during labour: a preliminary study in Hong Kong. Int J Nurs Pract 2000; 6:89-96.
- 40. Langer A, Campero L, Garcia C, Reynoso S. Effects of psychosocial support during labour and childbirth on breastfeeding, medical interventions, and mothers' wellbeing in a Mexican public hospital: a randomized clinical trial. Br J Obstet Gynaecol 1998;105:1056-63.
- Collins NL, Dunkel-Schetter C, Lobel M, Scrimshaw S. Social support in pregnancy: psychological correlates of birth outcomes and postpartum depression. J Per Soc Psychol 1993;65:1243-58.
- Tarasak S. The relationship between coping-support nursing care and anxiety of parturients. Bangkok: Mahidol University; 1997.
- 43. Kennell J, Klaus M, McGrath S, Robertson S, Hinkley C. Continuous emotional support during labor in a US hospital: a randomized controlled trial. JAMA 1991; 265:2197-201.

- 44. Sosa R, Kennell J, Klaus M, Robertson S, Urrutia J. The effect of a supportive companion on perinatal problems, length of labor, and mother-infant interaction. N Engl J Med 1980;303:597-600.
- 45. Hofmeyr GJ, Nikdem VC, Wolman WL, Chalmess BE, Kramer T. Companionship to modify the clinical birth environment: effects on progress and perceptions of labour, and breastfeeding. Br J Obstet Gynaecol 1991;98:756– 64.
- 46. Priel B, Gonik N, Rabinowitz S. Appraisals of childbirth experience and newborn characteristics: the role of hardiness and affect. J Pers 1993;6:299–315.
- 47. Oakley A. Social consequences of obstetric technology: the importance of measuring "soft" outcomes. Birth 1983;10:99-108.
- Fowles ER. Labor concern of women two months after delivery. Birth 1998;25:235-40.
- Patton VC, Sawicki SD. Basic methods of policy analysis and planning. Englewood Cliff, NJ: Prentice Hall; 1993.
- 50. Olds SB, London ML, Ladewig PW. Maternal-new born nursing: a family-centered approach. Carlifornia: Adison-Wesley; 1996.

- 51. Norbeck JS, Tilden VP. Life stress, social support, and emotional disequilibrium in complications of pregnancy: a prospective multivariate study. J Health Soc Behav 1983;24:30-46.
- Rojanasaksothorn S. A study of stress in pregnancy. Bangkok: Mahidol University; 1986.
- Si. Rice PL, Naksook C. The experience of pregnancy, labour and birth of Thai women in Australia. Midwifery 1998:14:74-84.
- 54. Bondas-Salonen T. How women experience the presence of their partners at the births of their babies. Qual Health Res 1998;8:784–801.
- 55. Leventhal EA, Leventhal H, Shacham S, Easterling DV. Active coping reduces reports of pain from childbirth. J Consult Clin Psychol 1989;57:365-71.
- 56. Chunuan KS. Patient satisfaction with health care services received during intrapartum in one regional hospital in the southern part of Thailand. Kentucky: University of Kentucky; 2002.
- 57. Parisunyakul S, Yimyam S, Srisupan W, Sintanayotin P. Management of nurse midwifery education in Thailand. Chaing Mai: Chaing Mai University; 2001.