

**INFLUENCE OF PERSONAL FACTORS, LIFE EVENTS
AND SOCIAL SUPPORT ON DEPRESSION
OF POSTPARTUM MOTHERS**



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Thesis
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POSTPARTUM MOTHERS



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INFLUENCE OF PERSONAL FACTORS, LIFE EVENTS AND SOCIAL
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ABSTRACT

The aim of this study was to investigate the influence of personal factors, life events, and social support on depression in postpartum mothers. This research sample consisted of 120 postpartum mothers who attended two postpartum clinics in Bangkok from June to August 2003.

The results found that life events such as changes in sleep, relocation, and low childbirth can cause depression in postpartum mothers. Furthermore lack of social support or too much received social support in the form of love, care, and receiving information from spouse, relative, or nurse may be a cause of depression.

According to the result, I suggest that in puerperium care, the nurse should assess the adequate social support that the postpartum mother should receive, and then provide social support to her depending on the personal characteristics of the receiver and the situation that the receiver encounters.

KEY WORDS : DEPRESSION / SOCIAL SUPPORT / POSTPARTUM
DEPRESSION

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อิทธิพลของปัจจัยส่วนบุคคล เหตุการณ์ในชีวิต และแรงสนับสนุนทางสังคมต่อภาวะซึมเศร้าของมารดาหลังคลอด (INFLUENCE OF PERSONAL FACTORS, LIFE EVENTS AND SOCIAL SUPPORT ON DEPRESSION OF POSTPARTUM MOTHERS)

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บทคัดย่อ

การวิจัยเชิงบรรยายนี้มีวัตถุประสงค์เพื่อศึกษาอิทธิพลของปัจจัยส่วนบุคคล เหตุการณ์ในชีวิต และแรงสนับสนุนทางสังคม ต่อภาวะซึมเศร้าของมารดาหลังคลอด กลุ่มตัวอย่างที่ใช้ในการศึกษาเป็นมารดาหลังคลอดจำนวน 120 คน ที่มาตรวจสุขภาพที่คลินิกหลังคลอด 2 แห่งในกรุงเทพมหานครระหว่างเดือนมิถุนายนถึงเดือนสิงหาคม พ.ศ. 2546

ผลการศึกษาพบว่าเหตุการณ์ต่างๆในชีวิตเช่น การเปลี่ยนแปลงเกี่ยวกับการนอน, การย้ายที่อยู่อาศัย และการคลอดบุตร สามารถเป็นสาเหตุของการเกิดภาวะซึมเศร้าในมารดาหลังคลอดได้ นอกจากนี้การขาดแรงสนับสนุนทางสังคม หรือได้รับแรงสนับสนุนทางสังคมมากเกินไป เช่น ความรีบ, การดูแลเอาใจใส่ และการได้รับข้อมูล จากสามี, ญาติ หรือจากพยาบาล ก็อาจจะเป็นสาเหตุที่ทำให้เกิดภาวะซึมเศร้าได้เช่นกัน

จากผลการศึกษาผู้วิจัยขอเสนอแนะว่า ในการดูแลหลังคลอด พยาบาลควรประเมินความต้องการแรงสนับสนุนทางสังคมของมารดา และพิจารณาให้แรงสนับสนุนทางสังคมแก่มารดาอย่างเหมาะสม โดยพิจารณาถึงคุณสมบัติส่วนตัวของผู้รับแรงสนับสนุน และสถานการณ์ที่ผู้รับแรงสนับสนุนแต่ละคนกำลังเผชิญอยู่

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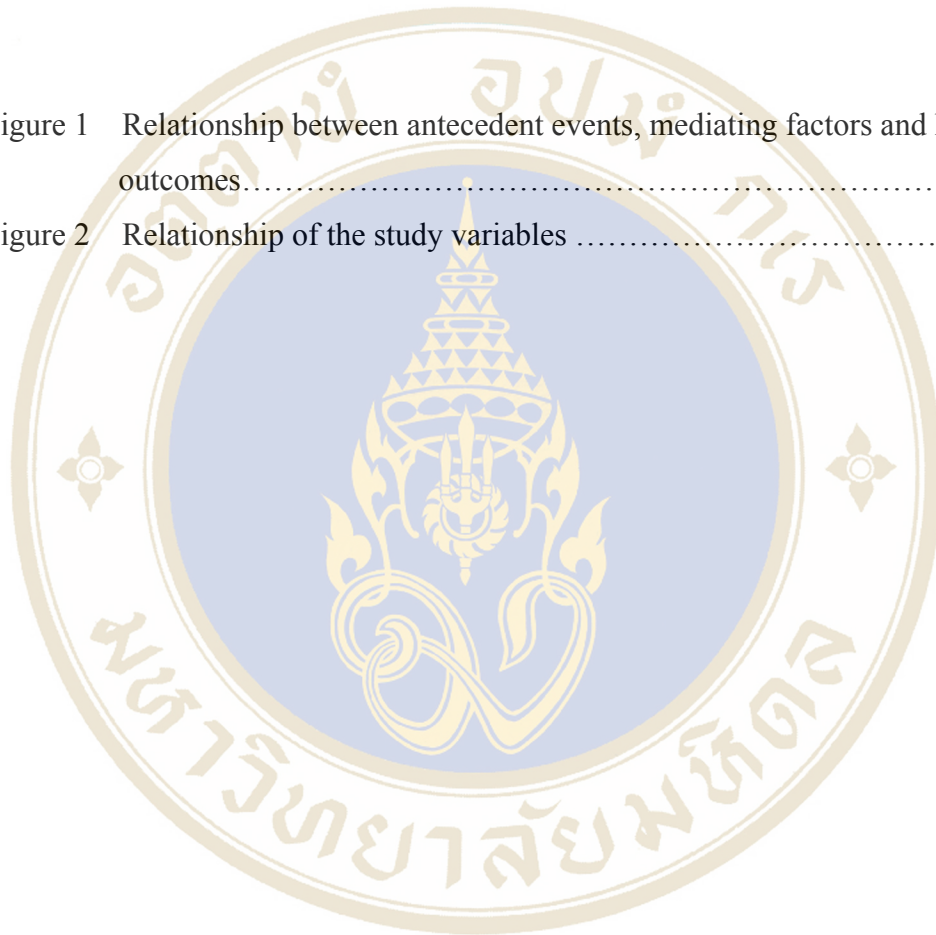
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CHAPTER I

INTRODUCTION

Background and Rationale

At present, an economic crisis is being faced all over the world. This crisis causes changes in societies and politics. Furthermore, these changes have effects on the ways people live, which can cause stress. If stress goes untreated, it can cause psychological problems. The most common psychological problem is depression (Mental Health Department, Ministry of Public Health, B.E.2544: 12).

A survey of depression in Thailand during the years 1997-2001 found that the percentage of patients increased from 50.97 to 68.93, and was 90.52 percent. And from top ten per year living with disability, in 2001, the highest rate of depression was found in women (Planning and Policy Department, Ministry of Public Health, B.E.2544). If women become pregnant, they will be at risk of suffering from depression, either while pregnant, or postpartum. Therefore, the future trend will be found increasing depression.

Studies in Thailand and elsewhere have found rates of depression of 6-50% (Naraporn Chanchai, B.E.2533: 78; Chokeamnuay, 2001: 59; Pornthip Wongvisetsirikul, B.E.2540: 89; Phadungyotee, 2002: 51; Sombat Suppaudom, et al., B.E.2542: 8; Sailom Gerdprasert, B.E.2542: 63; Beck & Gable, 2001: 242-250; Cambell & Cohn, 1991: 594-599; Glasser, et al., 1998: 155-164; Righetti-Veltema, et al., 2002: 291-306; Wolf, et al., 2000: 169-176; Yamashita, et al., 2000: 145-154). Depression may be found in the period 2 weeks to 9 months after childbirth (Ballard, et al., 1994: 782-788; Brown & Lumley, 2000: 1194-1201). Rates and onset of postpartum depression are varied, it depends on sample characteristics, measurement criteria, an assessment tool and onset of symptom (Beck & Gable, 2001: 155-164; Ugarriza, 2000: 44-51; Yamashita, et al., 2000: 145-154). Postpartum depression often apparent at home, due to change of physical and hormonal, fatigue, and discomfort (Nott, et al., 1976: 379-383; Waldenstrom, 1989: 189-196), which impact of early postpartum discharge. In addition, role transition of mother and changes in the family may cause of post-

partum depression (Groer et al., 2002: 411-417; Tong & Chamberlain, 1999-2000: 138-144), because of after giving birth, the mother must learn about maternal role, baby care, household activities, maintaining her relationship with her spouse, and responding to the members of the family. These are functional status that over load for postpartum mothers. Tulman and colleague (1990: 70-75) found that the increase functional status may cause her frustration and lack of success with her role, which agreed with the study by White colleague (1999: 171-176), which found that transition to motherhood will bring about some changes in family dynamics, with an increase in perceived role conflict and reciprocity.

For these reasons, depression may have high trend to be found in the postpartum mother, not only in the primiparous but also in the multiparous (Righetti-Veltma, et al., 2002: 291-306; Ventura, 1986: 77-81). Due to because there is stress in the primiparous, as the mother lacks of knowledge and baby care experience (Mayberry & Affonso, 1993: 201-211; O'Hara, 1968: 569-574; Tamaki, et al., 1997: 93-98). Many advices which the mother received from nurses and relatives may cause her confused and frustrated. While the multiparous mother to be tired that come from the problem of taking care the other children (Jarassri Trirakulchai, et al., B.E.2543: 78-89) and has problems with her routine of taking care of the other children. The strategies that worked with the first child may not be as effective with the second child. Problems experienced with the first child may not exist with the second child, but new problems may arise (Santrock, 1997: 196).

Researchers found that postpartum depression affects the mother, baby, and family (Beck, 1996: 98-104; Martell, 1990: 90-94; Smoyak, 2002: 6-7), and the nation. Stotland and Stotland (1999: 519-525) found that postpartum depression was important for morbidity and mortality. Case of U.S.A. lost for 100 million dollars per year. Due to depressed may have easily mood instability, insomnia and appetite disturbance, lack of concentration, isolation, and cannot make their living in the same as usual it can effect their health and social status. They may not do their job or cannot do well as the past, lack of income affect to their job. Addition, ill postpartum mother cause increased expense, their family may have distress, anxiety, frustration, instability, and face problems. This also causes the spouse to become depressed (Ballard et al., 1994: cited by Meighan, et al., 1999: 202-208).

Depression was negative impacts upon emotional, social and intelligence development of baby, it disturbed adjustment and had psychic problem especially with anxiety, short-term concentration or improper behavior (Pravate Tantipivat-tanasakul, B.E.2534: 23-25). The study of Pedros and colleague (2002: 292-300) found that 13.5% of mothers with depression will affect to development in the first year of the baby's life, which is similar to the study of Phillips and O'Hara (1991: 151-155), who found that the depressed mother will cause an increase the child's problem when the child has grown up. The problems may be absenteeism from classes, using drugs, committing crimes, and these social problems have an effect on the development of the nation.

Depression occurs with everyone, that not consider to racial/ethnic background or socioeconomic status (Dietch & Bunney, 2002: 140-145; Huang & Mathers, 2001: 279-287; Wolf, et al., 2000: 169-176). There is no clear evidence that indicate the actual sources of postpartum depression. However, there are risk factors include hormonal change, genetics, complications of pregnancy, poverty, history of depression, dissatisfied with their marital relationship, fatigue, insufficient social support, increased functional status, baby care stress, expectations of mother and social status (Pravate Tantipivat-tanasakul, B.E.2534: 23-25; Bernazzani, et al., 1997: 36-49; Brown & Moran, 1997: 21-33; Brown & Lumley, 2000: 1194-1201; Brugha, et al., 1998: 63-79; Dankner, et al., 2000: 97-104; Farmer, et al., 2000: 150-155; Merritt, et al., 2001: 57-63; O'Hara et al, 1991: 63-73). Further more, it found that mother who susceptible to depression or prior of depression if she has encountered negative life events which will trigger to depression.(Maciejewski, et al., 2000: 373-378; Tamaki et al., 1997: 93-98). It is agreed with other studies which have found that a stressful life events are important cause of postpartum depression (Glasser et al., 1998: 155-164; Hammen, 2003: 49-57).

The changes in postpartum period and along with negative live events will trigger to depression in postpartum mother, but receiving adequate social support in early after childbirth from family and nurse can decrease risk to postpartum depression. (Thompson, et al., 2000: 532-536). Logsdon, and colleague (2000: 262-266) found that social support is a significant factor in postpartum depression because it assists coping, adjustment and buffer or decrease stress (Brown, 1986: 72-76; Cohen

& Syme, 1985: 65; Gochman, 1988: 149-161). On the other hand, inappropriate social support will cause postpartum depression (Maloney, 1998: 18-23).

Other countries have many researches interested in depression, but in Thailand, there have a few studies. Researchers have found that social support is very important for protecting against or reducing the effects of depression. Social support is concerned with interpersonal relations and life with postpartum depression. It can help the mother and the family by protecting from and decreasing depression.

Theoretical Framework

This study uses the transition theory of Chick and Meleis (1986: 237-257) as a guideline for studying the relations between personal factors, life events, social support and depression of postpartum mothers. The transition theory is an open system that consists of input, process and output. For this theory, input is comprised of antecedent events of 4 types: 1) developmental transition, such as developmental transition of the family, the relationship of mother and daughter, pregnancy and childbirth or changing to become parents; 2) situational transition, such as educational development, promotion, widowhood, relocation to nursing, and immigration 3) health-illness transition, such as family transition when they get sick; 4) organizational transition, such as change in leadership, using a new policy, being new while taking care at the same time to make the transition correctly (Schumacher & Meleis 1994: 119-127).

Determination of which situation is an transition can be done by noting its characteristics: **1. Process.** Transition is a process, it is a sense of movement, a development that occurs over time; **2. Disconnectedness.** Disconnectedness is associated with disruption of the linkages on which the person's feelings of security depend. Characteristics allied to disconnectedness are loss of familiar reference points, incongruity between expectations based on the past and perceptions dictated by the present, and discrepancy between the needs and the availability of, as well as the access to, means for their satisfaction; **3. Perception.** Meanings attributed to transition events vary between persons, communities, and societies, and thus influence the outcome. This characteristic suggests that difference in perception of transition events might influence reactions and responses to such events, so making them less

predictable; 4. **Awareness.** In the event that the changes have not yet reached the level of awareness, or are being denied either totally or in terms of their implications (irrespective of whether the denial is conscious or unconscious), then that person is not yet in transition; 5. **Patterns of response.** Patterns of response arise out of the observable and non-observable behaviors during the process of transition that, however disturbed or dysfunctional they might appear, are not random occurrences. Examples of patterns of response to transition events are disorientation, distress, irritability, anxiety, depression, changes in self-concept, and changes in self-esteem; 6. **Dimension.** Some of the possible dimensions by which transition could be described are duration, scope, magnitude, reversibility, effect, and the extent to which the adjustment is anticipated and voluntary and has clear boundaries.

Transition has 3 phases:

Phase 1: The end phase is determining the life style.

Phase 2: The neutral phase is the normal transition of mind and body.

Phase 3: The new beginning phase is the acceptance of transition and new behavior.

Chick and Meleis explained that all transition have the same structure. It starts from phase 1 (entry), through phase 2 (passage), to level 3 (exit). It should be kept in mind that an individual can adjust him/herself over different times and it depends on the type of transition.

It may be considered in terms of transition, such as: 1) single or multiple, 2) clear entry and exit or ambiguous entry and exit, 3) impeded passage or unimpeded passage, 4) minor disruption or major disruption, 5) particular disruption or pervasive disruption, 6) brief duration or extended duration, 7) temporary or permanent, 8) positive value or negative value, 9) pleasant or unpleasant, 10) desired or undesired and 11) planned/predicted or unplanned/unpredicted. Transition depends on two mediating factors. The first is individual, such as basic information and the environment. The environment is social support that affects an individual's transition. That means individual concern about meaning, expectations, level of knowledge, environment, level of planning and emotional and physical wellbeing. It can help individual disconnectedness/instability, old living and connectedness/stability, and the health outcomes resulting from the transition, of which there are 4 types: restoration,

maintenance, protection and promotion. If these are not responded to, it will present as many health responses, such as disorientation, sorrow, upset, anxiety, and depression, decrease in self-pride or decrease in confidence. Transition theory is illustrated by Figure 1.

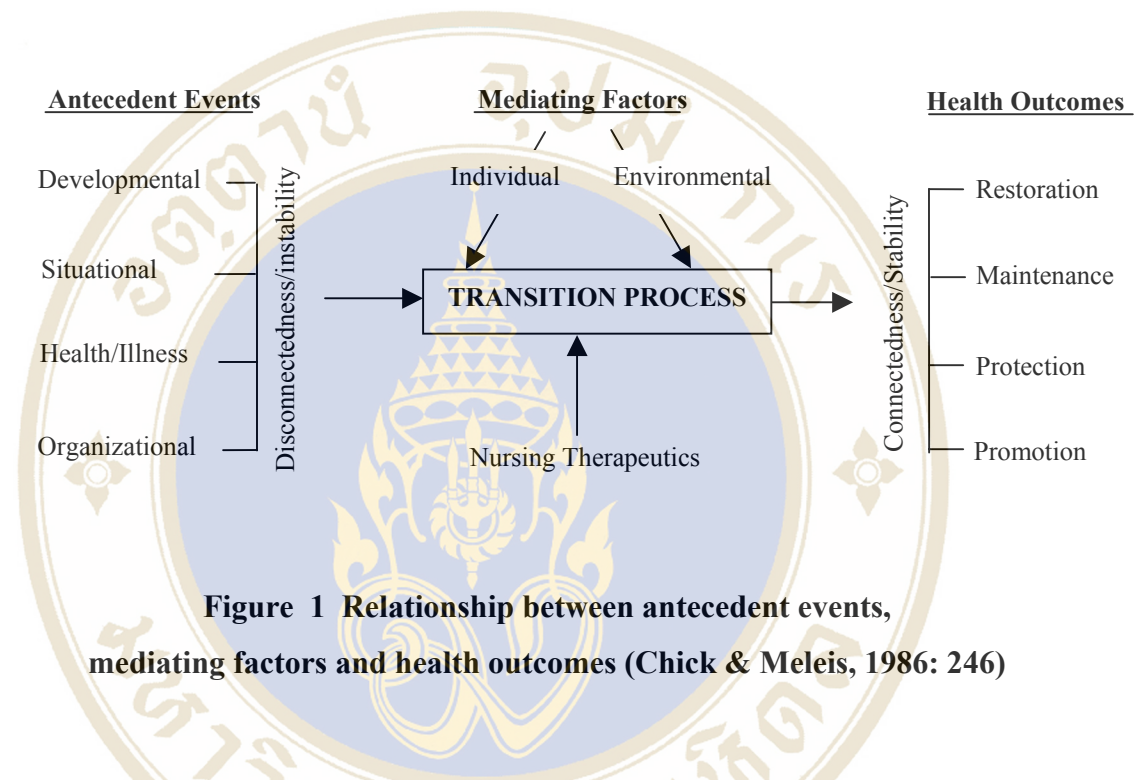


Figure 1 Relationship between antecedent events, mediating factors and health outcomes (Chick & Meleis, 1986: 246)

An individual who is faced with any situation that brings to transition; although these events are desirability or undesirability, response to an events will occurrence. (Home & Rahe, 1967: 213-218). The response to transition will present in form of health outcomes (Chick & Meleis, 1986: 246) that depend on many factors, such as the person, type of transition, level of violence, the immediacy of the situation, the environment (social support), and level of disturbance of the situation. Form this concept antecedent event is a childbirth which is a developmental transition. It has mediating factors, which are an individual, such as education level and family income and environmental factors, such as life events and social support, which the depression is response to transition process. From transition theory of Chick and Meleis, the relationship among the factors that are used in this research study are shown in Figure 2.

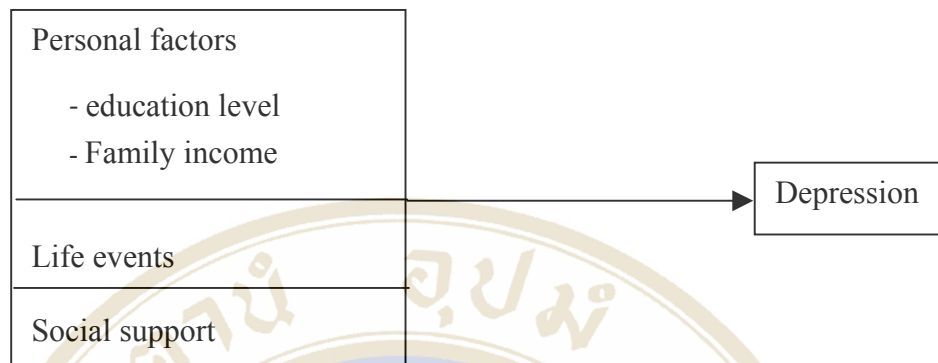


Figure 2 Relationship of the studied variable

Research Questions

1. What are the feature of personal factors, life events, social support, and depression of postpartum mothers, by total and subscale?
2. Can personal factors, life events and social support predict depression of postpartum mothers?

Objectives of the study

1. To study personal factors, life events, social support, and depression of postpartum mothers by total and subscale.
2. To study the predictive ability for depression of postpartum mothers by personal factors, life events and social support.

Research Hypothesis

Personal factors, life events and social support can predict depression of postpartum mothers.

Scope of the study

This is a descriptive research study of the relationship between personal factors, life events, social support and depression of postpartum mothers, which also investigates the predictive power for depression of postpartum mother from personal factors, life events and social support. The study was conducted with mothers within 4-6 weeks postpartum, who came to follow up at Ramathibodi Hospital and Rajavithi Hospital, during the period June to August 2003.

Expected benefit of the study

1. Management: this is basic information for the administrator to promote and teach personnel in the organization how to use this knowledge taking care of the postpartum mother.
2. Nursing: this is a guideline for professional nurses. The principal element is evaluation of the mother's needs and following up on the results. To provide basic information for health professions to realize the significance of mental and physical health. Therefore, to take care of postpartum mother, besides pain, physical changes, and baby care, the mental status of the mother should also be a matter of concern.
3. Education: this is information for student nurses to help them grasp the importance of social support and concern for physical, mental, emotional and social needs.
4. Research: this is a guideline for research about postpartum mothers, for helping the mother and the family.

Definitions

Personal factors are education level and family income.

Education level is the number of total years up to the last year of the mother's formal education.

Family income is the total money that the subject and spouse make per month.

Life events are situations that the mother faces in pregnancy, which make her stressed or which change her lifestyle. These are assessed using the life events questionnaire by Somchit Nakarapanich (B.E.2531: 112-114). Higher scores mean higher level of life events, while lower scores mean lower levels of life events.

Social support is all the support given to the postpartum mother during the 4-6 postnatal weeks, such as help from the spouse, relatives, nurse, doctor, as well as emotional, material, information, and appraisal support. It is assessed by using the postpartum support questionnaire by Logsdon and colleague (1994: 449-457) and translated by Pornthip Wongvisetsirikul (B.E.2540: 72-74). Higher scores mean higher level of social support, and lower scores indicate lower level of social support.

Depression is the postpartum mother's feeling that she is upset, depressed, nervous, isolated, hopeless, frightened, distrustful, suffers from insomnia, lack of concentration, unreasonable crying and unhappiness. It can be assessed using the Center for Epidemiologic Study-Depression Scale (CES-D) of the Psychology Association Center, U.S.A., translated by Tawatchai Vorapongsathorn and colleague (BE.2533: 25-45). Higher scores mean higher level of depression, while lower scores mean lower level of depression.

CHAPTER II

LITERATURE REVIEW

The aim of this study was to identify the relationships between personal factors, life events, social support, and depression of postpartum mothers. The literature review focused on the following topics: depression, life events, social support, the relationship between personal factors (education level and family income), life events, social support and depression of postpartum mother and the predictive ability of depression of postpartum mothers.

Depression

Depression is one of the affective disorders, which can be found among all age groups, especially postpartum women. This is because postpartum mothers undergo quite a lot of physical, mental and social changes, despite it being a period of happiness. Therefore, they get depressed easily.

Depression is a situation of happiness loss. Depressive person will experience five or more of the signs everyday for weeks, months or even years (Dietch & Bunney, 2002: 141) these symptoms rarely disappear without outside help, (Lowdermilk, et al., 2000: 952), in which the complaint's symptoms can be classified into three groups (Wijarn Wichaiya, B.E.2533: 38-390), as follows:

1. Psychic complaints are psychological discomfort, such as emotional instability in the morning and evening, poor concentration, reduced daily dietary ability, memory loss, tendency to commit suicide.
2. Emotional complaints such as feeling dispirited, bored, discouraged, guilty, sinful, hopeless, worthless, anxious and frustrated, crying, fearing becoming insane, fearing death, and obsessive-compulsive behaviors.
3. Physical complaints, such as sleep disturbance, shortness of breath, appetite disturbance, loss of libido, heart palpitation (physical symptoms are always found), and psychomotor disturbances, such as agitation or torpor.

Classification of postpartum depression

Postpartum depression has been used as a catch-all phrase for many postpartum emotional symptoms. It may be classified into three categories (Beck, 1998 cited by Jones & Venis, 2001: 24): postpartum blues, postpartum psychosis, and postpartum depression.

Postpartum blues

Postpartum blues are also known as “baby blues”, or “transient depression” (Sherwen, et al., 1991: 1186) or maternity blues (Jones & Venis, 2001:24). It is a temporary depression occurring during the 1 to 2 days, or at the latest, 7 to 10 days, after childbirth. It has been found about 50-80% of postpartum mothers (Miller, 2002; Pillitteri, 1992: 606; Priest, 1983: 91). The symptoms are mild depression, anxiety, crying easily, irritability, more changeable emotions than normal (Petrick, 1984: 37; Wolff, et al., 1990: 410), confusion and insomnia. The depression will be highest on day 3 to day 7 after childbirth (Jones & Venis, 2001:24) and remains for about 2-3 days and can clear up in a few hours or a day or two (Wolff, et al., 1990: 411). The blues can be cleared if the blues mothers received supportive care from doctors, nurses and appropriate support from their spouse and relatives (Maloney, 1998: 18-23). If symptoms occur after the first 7 to 10 days, the mother may be developing a major affective disorder, or postpartum depression. (Jones & Venis, 2001: 24)

O’Hara and Swain (1996: 37-54) reported that 25% of women who had maternity blues went on to experience postpartum depression. Beck and colleague (1992: 287-93) studied the relationship between maternity blues and postpartum depression in mothers discharged early, and found that primiparas experiencing more severe maternity blues are an increased risk of postpartum depression. To receive support in the early stage postpartum is important for preventing depression (Thompson, et al., 2000: 532-536; Mauthner, 1997: 163-171). The causes of the blues remain uncertain. There are many related factors, such as hormonal changes, particularly the decrease in estrogen and progesterone, which occurs with the delivery of the placenta (Burroughs, 1992: 242; Dalton, 1980: cited by Littlewood & McHugh, 1997: 19), fatigue, physical discomfort, tension engendered by assuming a new role, increasing responsibilities. These factors can influence blues (Pillitteri, 1992: 606).

The postpartum blues usually resolve naturally, especially if the woman receives understanding and support (Old, et al., 1996: 1049). Realizing the significance of the postpartum changes, especially the psychological ones, and explaining to the mother and her spouse to enable their understanding, will help transition and effective adaptation to the new role.

Postpartum psychosis

Postpartum psychosis is a severe depression with psychotic features. It appears to occur in 1 in 500, to 1 in 1,000, deliveries (American Psychiatric Association, 1994: 386), and the symptoms may occur immediately, or 1 to 2 days after childbirth, or occur gradually. The symptoms are unstable, but have typically characteristics by severe behavioral changes and psychotic episodes, such as severe withdrawal from everyday life into a world of her own, there may be hallucinations, delusions, feelings of persecution or seeing strange images (Littlewood & McHugh, 1997: 20). The mother may feel impelled to do bizarre or dangerous things to herself or others, including her baby (Kitzinger, 1992: 395). The postpartum mother may deny that she has had a child and insist that she was never pregnant (Trimnell, et al., 1989 cited by Pillitteri, 1992: 731).

Postpartum psychosis is the most severe postpartum psychiatric disorder because the mother has lost her ability to recognize reality; it represents a significant risk to both mother and baby (Jones & Venis, 2001: 28) and requires professional psychiatric care (Pillitteri, 1992: 731). Once a woman has had postpartum psychosis, the risk of recurrence with each subsequent childbirth is between 30% and 50% (American Psychiatric Association, 1994: 386-387; Marks, et al., 1992: 253-263). Many factors influence psychoses and supportive factors (Sompop Reongtragul, B.E. 2542: 431; Jensen & Bobak, 1985: 999; Wolff, et al., 1990: 415-416) such as:

1. Genetic factors. Family histories show an increased incidence of functional psychoses.
2. Biological factors. Hormonal abnormality of the neuroendocrine system was found after childbirth.

3. Psychodynamic factors, such as family problems, lack of love, care, and warmth from the spouse. Being left alone without the care of close persons, delivery phobia, difficult delivery, including child death during labor or after labor.

4. Social-environmental factors, such as events that occur, socio-economic changes, politics, etc.

Pregnancy is not a cause of psychiatric illness, but the psychological and physical stresses related to pregnancy or to the formidable new obligations of motherhood may precipitate an emotional crisis (Jensen & Bobak, 1985: 999).

Postpartum depression

Postpartum depression is a syndrome characterized as a non-psychotic depression which the mother's preoccupation with guilt and inadequacy feed her worries about being an incompetent and inadequate parent (Lowdermilk, et al., 2000: 952). Postpartum depression is an atypical depression, characterized by distinct signs and symptoms, different from those seen in postpartum blues or postpartum psychosis. It occurs later in the puerperium than puerperal psychosis and it is more severe than postpartum blues (Paykel, 1992: 571). Postpartum depression can occur at any time (Beck, 1996: 297-303); the symptoms may occur at once, due to hormonal changes (Kupper, 1997: 535-536). Postpartum depression usually starts gradually within a few weeks of delivery (Gillett, 1994: 58; Wolff, et al., 1990: 411). It most commonly happens after the birth of a first baby, but can occur after subsequent births (Priest, 1983: 95). The symptoms found include despondency, crying without reason, and mood instability (Berggren, 1998: 103-120). Many researchers (Beck, 1992: 166-170; Bozoky & Corwin, 2002: 436-443; Cahill, 1999: 81-86; Kitzinger, 1992: 391-392; Sherwen, et al., 1991: 1186; Ugarriza, 2002: 227-233) have studied postpartum depression issues. They found that most mothers who had postpartum depression had the following symptoms : sleep disturbance, appetite disturbance, fatigue, feeling of worthlessness, unbearable aloneness, a belief that no one else understands, negative emotions while with the infant, motor regulation, unfavorable future outlook, difficulties in relationship with spouse and other family members, recurrent thoughts of suicide, but never thinking about committing suicide, feeling of helplessness and hopelessness, boredom with taking responsibility, loss of libido, guilt, feeling of

inadequacy in coping with the infant or actually giving excessive physical care to the baby, but without offering love, poor concentration, memory lapse.

Postpartum depression rarely disappears without outside help (Lowdermilk, et al., 2000: 952). The condition may persist for several months, up to a year, or until another childbirth (Beeghly, et al., 2002: 169-180). In about 50% of these mothers, emotional problems may persist for several years and lead to difficulties in relations with the spouse, the baby, and other children (Wolff, et al., 1990: 412). Moreover, it may be the cause of family problems, divorce, and finally social problems (Kupper, 1997: 83; Martell, 1990: 90-94). In the earlier stages, postpartum mothers with depression have not been diagnosed and helped. This might be they do not have knowledge of their depressive condition. Another reason may be that most people believe that fatigue and complaints are the symptoms, as normal sequelae, to having a baby (Jones & Venis, 2001: 25). Although the prevalence is low, one aspect may be postpartum care emphasizes physical health, and that is why mothers with postpartum depression are not diagnosed or treated, and there is consequently no report of the disease. However, the consequences of this condition result in serious damage, therefore, interest and help are essential to transition to postpartum mother and prevent depression.

Causes of Depression of Postpartum Mothers

From the literature review it was found there are many factors that cause depression, such as genetics, physical, psychological, and the changes of traditional society, which are bio-psychosocial factors. These influences depend on each person. (Duangjai Kasantigul, B.E.2542: 82) The causes of depression may be explained by the following theories.

Biologic theory

These theories believe that rapidly changing hormones can cause depression. Another supposition that might be accepted is the catecholamines hypothesis. It postulates that the person who gets depression will have a decline in norepinephrine at the central adrenergic receptor site (Schildkraut, 1965 cited by Beck, 1967: 244-245). In mother with depression, alterations in hypothalamic-pituitary-

adrenal axis function affect cortisol secretion. They are also an increased risk of dysfunction of the hypothalamic-pituitary-thyroidal(HPT), that may increase affective-disorder vulnerability. The development of increased sensitivity of hypothalamic dopamine D₂ receptor indicates the beginning of depression (Lowdermilk, et al., 2000: 953). While the mother gives breastfeeding, which had rapid change in estrogen, progesterone and high levels of prolactin, in the endocrine system. (Kitzinger, 1992: 391; D'Addato, et al., 1991: 83-87). Gillett (1994: 59) found that the rapid changes of hormones between pregnancy and postpartum will have effects on the mind, but the study did not clearly explain. Genetic studies have found that the family with a patient who has suffered depression also usually has a history of depression among other family members. Farmer and colleague (2000: 150-155) found that if there are relatives with depression, there is a predisposing factors likelihood of depression in other family members.

Psychoanalytic theory

Freud and Abraham said that the initiation of depression is object loss. The object means the ones or the things we love. It may be true loss or imaginary loss, but it is unacceptable loss (Suchart Paholpark, B.E.2542: 37). Depression occurs from introjection, a defense mechanism that attributes distress, combining the image of a beloved person (but causing frustration) with the ego when loss or regret occur. They become angry and aggressive, and the anger that arises from the feeling of ambivalence, will make them confused, lose pride in themselves, and feel depressed. Klein believed that the superego develops in the first year of life and problems in the relations between the mother and the baby make for depression. Distress at the beginning of life makes for depression later, and suicide is the punishment for, or destruction of, the bad at the subconscious level (Duangjai Kasartikul, B.E.2542: 84-85).

Psychological theory

These theories suggest that the risk factors for depression of postpartum mothers include poor marital relationship, stress in the family, insufficient social support, stressful life events, and scarcity of human resources. In a study of Portuguese

women, they not only had a history of depression, but they also had negative impact scores of life events that can predict depression. Postpartum depression in spouse was associated with postpartum depression in their wives. (Lowdermilk, et al., 2000: 953-954). Logsdon and Usui (2001: 563-574) found that social support and a good relationship with the spouse affected self-esteem and postpartum depression, because individuals who lack support from their spouses may feel lack of self-esteem, and will get postpartum depression (Brown & Moran, 1997: 21-33; Paykel, 1980: 339-346).

After childbirth, a mother has many simultaneous roles, she may become confused and fatigued and fail in her role. At this time, she needs some help and support from her spouse and her relatives (Gennaro, 1988: 82-85; McVeigh, 2000: 25-30). Appropriate received social support will give her confidence that she can perform a good mother role. On the other hand, if she does not succeed that may increase vulnerability to postpartum psychosis (Petrick, 1984: 38). When someone is faced with an unexpected situation, they experience stress, and increase stress can cause depression. The study of Arizmendi and Affonso (1987: 743-756) found that the continual stress during postpartum may be precipitating factor of depression. This study concurs with the study of Norbeck and Anderson (1989: 281-287), which found that the stress of a pregnancy that is lacking in social support will cause postpartum depression.

Sociocultural theory

The socio-culturalists attribute the causes of depression to be related to stress, level of satisfaction, low level of social support and parenthood role (Leathers, et al., 1997 cited by Lowdermilk, et al., 2000: 954). They believe that postpartum depression is a product of stress. Transition to motherhood bring to changes in daily routine, she should give baby care and take care of the other children. At the same time, she not only takes care of others and does household activity, but is also a good wife. These many responsibilities make her confused and fatigued, which causes arguments and affects family relationships. The study of Huang and Mathers (2001: 279-287) found that marital relationship and poor family relationship are factors that cause depression.

It is very difficult for the first-time mother in transition to motherhood(Tomlinson, 1987: 239-243). The spouse, parents, friends, and relations must provide the postpartum mother with appropriate support to help her to accomplished her transition.

The causes of postpartum depression in transition theory

The transition theory of Chick and Meleis suggests that childbirth is a developmental transition or maturational crisis for someone, which is a particularly vulnerable period for psychological and emotional change(Voranuch Saranrom, B.E. 2531: 377-381). Transition to motherhood is important psychological stress (Annop Visutthimuk & Chutit Panpreecha B.E.2519: 442-456), that cause an affective disorder particular depression. It brings change of life style. Mothers must learn how to cope with their new role and their normal role. Mother role is a permanent role and development. They must learn and improve all the time. Achievement of the transition will depend on themselves and the environment such as preparation, meaning of transition sympathy and support from spouse and members of the family will help them to make the transition. The mother who does not accomplish the transition may be depressed.

However, Chick and Meleis (1986: 237-257) said that in the same situations, it is possible that some mothers do not experience depression.

Life events

Dohrenwend and colleague (1978: 207) defined life events as objective occurrences of sufficient magnitude to bring about change in the normal activities of most individuals who experience them. Holme and Rahe (1967: 217) defined “stressful”, an event that usually evoked, or was associated with, some adaptive or coping behavior on the part of the individual involved. It is an event whose advent is either indicative of, or requires a significant change in, the ongoing life pattern of the individual. Stress can be considered by many characteristics. It may be a stimulant from a life event, or can be considered as physical feedback measured from the level of essential hormonal changes, or physical changes. Stressful events may be defined as including 1). disastrous events such as fire, earthquake; 2). important life events, such as loss of a loved one, or becoming jobless; 3). unsatisfactory environments, such as

crowded living conditions, or being disturbed by loud noises all the time (Suree Kanchanawong, B.E.2545: 5-11).

Meyer, a pioneer in psychobiology during the early 1900s, noted that people often became sick at around those times when their environments changed. Examples included changes in jobs, births and deaths in the family, entrance into school, and changes in the environment. From these observations, Meyer developed a life chart. This chart organized medical data into a biographical form and demonstrated the interrelationships of biological, psychological, and sociological processes in the health status of man. Many studies of various aspects of life events have been conducted, derived from Meyer's life chart. For example, the study of Wolff on the onset of illness used Meyer's concepts. This studies concluded that an individual's health is closely linked to the psycho-physiological demands placed on him by his environment, and that an individual's normal coping mechanisms may prove inadequate if the environmental burden becomes too great or the frustration too prolonged. More primitive behaviors are often called forth to supplement these initial coping skills. Behavior patterns involving cardiovascular, respiratory, alimentary, glandular, urinary, sexual, and vasomotor activity are common. However, these adaptive responses can not persist indefinitely. When prolonged, untoward effects on bodily tissues occur, an illness can be the unfortunate result (Longo & Williams, 1986: 98).

Rahe and Arthur (1978 cited by Somchit Hanuchareonkul, B.E.2534: 100-106) describing the relationship between changes in life and illness, suggested that any changes occurring in life, good or bad, such as loss of job, getting a new job, loss of a loved one, are events of different severity. The perception of the level of severity of events depends on three factors:

1. Past experiences in life. If the experience is that it will become good, it helps the individual to cope with that event, and not to perceive it as being very serious. In contrast, if a bad experience occurred, it may cause the event to be perceived as being worse than it should be.
2. Social support. When an event occurs in life, a person who has social support usually perceives that the event has less severity than the person who has no support.

3. Individual strength may be inherited.

Besides these three factors, Lazarus and Folkman (1984: 82-102) noted factors influencing the assessment of stress condition included novelty, predictability, event uncertainty, and temporal factors.

- Novelty means situations with which the person has not had previous experience. A novel situation is stressful only if there is a previous association with harm, danger, or mastery. In that case, novelty can itself become a source of threat. Furthermore, a novel situation is ambiguous to the extent that the person is not clear about the significance or meaning of the event.

- Predictability implies that there are predictable environmental characteristics that can be discerned, discovered, or learned.

- Event uncertainty is how the likelihood of an event's occurrence influences appraisal. Event uncertainty has a much greater potential for creating psychological stress.

- Temporal factors: time may be one of the most important parameters of stressful situations. Temporal factors consist of:

- 1. Imminence** refers to how much time there is before an event occurs. It is the interval during which an event is anticipated. Generally, the more imminent an event is, the more intense its appraisal becomes, especially if there are cues signaling harm, danger, or the opportunity for mastery or gain.

- 2. Duration** refers to how long a stressful event persists, differing in that imminence refers to the period before an event occurs, and duration to the period during which the event is occurring. The longer the duration persists, the greater the appraisal becomes.

- 3. Temporal uncertainty** refers to not knowing when an event is going to happen. Temporal uncertainty is stressful only when a threatening cue indicates that the event is going to happen.

Influence of life events on health

The way a person responds to illness or hospitalization depends on the following factors:

1. Disturbed affect, such as fear, anxiety, anger, depression, and guilt. These form the single largest category of stress responses. These emotions then trigger the unconscious defense mechanisms to assist in the coping process.
2. Physiological change, which may involve all of the body systems (neurological, endocrine, cardiovascular, respiratory, gastrointestinal, and so on).
3. Motor behavior, seen most commonly as increased muscle tension (body posture, certain facial expressions, or tremor).
4. Change in cognition, which can be positive or negative, depending on the person. It can increase or decrease perceptual ability, thought, judgment, problem solving, motor skills, or social adaptation.

A sequence is involved in Lazarus' theory about cognitive style, stress perception, and coping (Barry, 1989: 142): when a person experiences a greater severity or frequency of life events, the severity of these reactions will be increased and may become a disorder.

Life events can be positive or negative. When a life event occurs, it will effect a change from the normal conditions of the affected person's life, and that person needs to self-adjust to be able to live well. Holmes and Rahe (1967: 213-218) believed that any event that initiated life change was regarded as a stressful condition for self-adjustment, and the change needing adjustment was regarded as a stressor. Stressors, depending on their intensity, duration of exposure, and the resources of the person, could then lead to disorder (Cohen, 1988: 97). Selye (1976 cited by Barry, 1966:107) believed that stress is a biological symptom of response to a life threatening condition, and was a normal adjustment reaction of organism to stimuli. The responses are different for stimuli related to illness. Therefore, a person who has many changes in life events will have a higher risk of illness.

Whether the events will bring about stress or not depends on an individual's perception. The consequence of the perception will be through ego defense. Some ego defenses prevent the perception of an event impacting upon a particular person.

However, some events cause psycho-physiological responses, of which there are two types: perceived responses, such as, emotional change, headache, muscular stress; and non-perceived responses such as hyperlipidemia, high blood pressure, and hypoglycemia. If the person realizes the symptoms occur from the personal psychological and physiological response, the person will find ways to manage that response, such as trying to relax the muscles, and modification of the emotions and thoughts. In cases where management of the symptoms is unachievable, the person will exhibit illness behaviors. The study of Malee Chojirapan (B.E.2529: 54-59) found that during the year prior to the patients showing psychological symptoms, besides confrontation with severe life events, the number of occurrences of life events was also greater than for other people. This resulted in the patient's adjusting behavior at a high level, to familiarize with the changes in the ways of life. This brings about a stressful situation. When the stress is too high for adjustment, the psychological distress occurred.

However, Lazarus and Folkman (Lazarus & Folkman, 1986 cited by Somchit Hanuchareonkul, B.E.2534: 100-106) suggested that it was not always right to visualize a big life event change as a cause of stress, since lack of change in life was also able to cause stress. Moreover, events affecting human health are not large, but are annoying events that occur constantly in daily life, such as traffic jams, city crowds, and problems at work. Lazarus and Folkman proved that a person who had many daily life annoyances would suffer more from illness. This relationship was higher than the relationship with life changes during a period of 6 months to one year, and illness. The occurrence of a life event is not always the cause of an illness. Mitchell and colleague (2003: 245-252) found that acute and chronic stressful life events caused depression, and especially, more severe life events brought about greater depression (Brown et al., 1987: 30-42). Cohen and Hoberman (1983: 99-125) believed that good life events were not the cause of illness. Therefore, bad life events might have been the cause of illness. A person with depression may be a result of many bad life events, and have had only a few good life events, so that increasing desired life events may be capable of protecting person from negative life events.

Cohen (1988: 36-49) discovered that events that can be influenced by the individual may make up for stress than events that cannot be influenced by the

individual. This depends on individual perceptions. The degree of influence of the individual is based on the influence over the occurrence of the event and effective coping, including the consequences of previous events. Apart from this, socioeconomic factors, psychosocial and personality characteristics of the individual, can predict the severity of events.

Critical life events play a very important role in illness. Influencing factors include undesirable events not wanting to be threatened by the event in the long term, loss resulting from the event, perception of the stressfulness of the event, and especially the emotions stimulated by the event. Apart from this, age differences also affect the perceived significance of an event. The study by Mulvey (1979, cited by Dohrenwend & Dohrenwend, 1984: 10) found that increasing event significance was related to increasing age. Goldberg and Comstock (1980: 736-751) found that educational level was highly positive related to life events. They attributed this to the fact that a person with higher education has more opportunity to experience life events than a person with lower education, such as promotion, changing to a new job, or starting and stopping learning.

Besides this, Paykel and colleague (1969: 753-760) studied the relationship of life events and depression, and found that more various life events would occur in depressive persons than ordinary persons. Some events can be considered undesirable events, while some are desirable events. Desirable events include promotion, engagement, and marriage. Undesirable events include demotion, the death of a close family member, or major financial problems. The result of the study found that the depressive person experienced more undesirable events than desirable events, especially the following eight events: increased arguments with the spouse, marital separation, changing to a new type of work, death of an immediate family member, serious illness of a family member, departure of a family member from the home, serious personal physical illness, and substantial change in work conditions. It was clear that most of the variance in determining the development of depression was not due to the occurrence of the event itself, but to its interaction with predisposing vulnerability factors. It may be concluded that if the effect of the event was important, it increased the risk of depression.

The conclusion from the literature reviewed is that the occurrence of changes in life are related to the starting point of physical and mental illness. However, this is not all, since it is dependent upon the perception of the event (Dohrenwend & Dohrenwend, 1984: 15), and the way people cope with it. If they know that the event will affect their life in a negative way, this will bring about adjustment. The effect of adjustment may cause physical and mental illness.

Social support

Most studies of social support attitudes emphasize that social support is regarded as psychosocial variables that are related to health and healthy behavior. Nevertheless, it is related to sickness and death. Social support is the only factor that can forecast health condition. Cohen and Will (1985) explained with two reasons: the first reason is that social support can aid a person to have good experiences and a stable frame of mind. Social support will help the neuroendocrine and immune systems to function better, which directly promotes health; the second reason that social support helps to reduce critical situations. It helps to relieve stress, so that everyone can apply it for stable health, both in normal and illness situations (Jariyawat Kompayak, B.E.2531: 96-106). Many people have put forward definitions and concepts about social support as followed.

Cobb (1976: 300-314) referred to social support is an event in which the person receives information that causes them to think that they will be loved, valued, and being a part of society, and bonding with each other. Cohen and Syme (1985: 4) suggested that social support means a helping resource that can be obtained from others. It may be information or material things, and it have bad or good effects on health and life. Brown (1986: 4-9) believed that social support is an interaction relationship between persons that consists of a multidimensions. The important aspects are the supportive resources, the type of support, and the timing of support. Leatham and Duck (1990 cited by McVeigh, 2000: 26) suggested that social support means reaching for a human resource and using it when a person tries to reduce the daily stresses of life.

From these meanings, social support is fundamentally a factor for a person who requires love, care, and assistance from others. It causes the individual to self-adjust and be able to face any situation for a healthy life.

Sources of social support

Normally, society is divided into two major types: primary society and secondary society. Primary society is the family, relatives, and neighbors. The secondary society is comprised of colleagues, professional groups, and other social groupings. Regarding social support, Kaplan classified the persons who provide social support into three groups (Ubol Niwattichai, B.E.2527: 281-292), as follows:

1. The spontaneous or natural supportive system consists of two types of people, persons who are in the direct family line, such as the grandfather, grandmother, parents, son, nephews and persons close to the family, such as friends and neighbors, and familiar people in the same home town. Sociologists explain the natural relationship of people in the group or in the family that they possess the same characteristics, showing spontaneous community. If a stranger comes into the group, the difference will be apparent, to indicate that they are an outsider. Therefore, due to the power of being a family or society, each individual will be influenced by of each other, intentionally and unintentionally, so that they are similar, such as familiarity and having the specific characteristics of living their lives. The direct family line will be especially bound and love each other steadfastly and help and care about each other very much.

2. Organized support refers to the group of people who have come together to form a unit, association, club, organization, that are not groups organized by professional careers. These organizations include the association of the elderly, religious organizations and the traditional medicine association. Most of the relationships received from these organizations are in the form of psychological and emotional support, especially when anybody has a problem or trouble in their daily life.

3. Professional health care workers refers to the people who are in the profession of promotion, prevention and rehabilitation of people.

Evaluation and selection of the support system

Usually, before a person encounters a stressful situation or is troubled with a confused and uncertain situation, the support system will help them to be able to manage that situation at the appropriate time, for living happily. However, some situations cause a person to be unable to help themselves, such as the critical developmental period and some critical life points. Those events will pass comfortably when a person is aware of it, and prepares to cope with it in advance, in the same way as we develop self-immunity to cope with consequent problems. Development of this immunity will succeed by education, knowledge, and understanding. Therefore, selecting utilization of the support system can be done by supporting and stimulating the organization that has activities concerned with providing knowledge, or organize training courses on “baby care training”, “postpartum practice after discharge from hospital”, etc.

However, if the prepared immunity cannot counter dangers that may occur, people will be in a confused situation and unable to help themselves. The helper has to assess the normal health status first and then select and indicate which organization in the existing support system, such as asking the postpartum mother “who will help you taking care of the baby?” or “who would you like to ask for help first?”. This kind of question will help to visualize the imaginative support system that exists in the family and gets it involved in solving the problem, beginning interaction with the patient. Although sometimes the detail is difficult to obtain, the helper should realize that “the things that the patients have are the best at that time”.

If the patient’s support system is utilized to help the patient understand the situation clearly or make them think or consider it rationally, it will be of benefit to both current and future problem solving. However, if the patient has no personal source of support, she must think about the three groups of support systems that exist and select the naturally bonded group first, and then use the next closest group, outwards (Ubol Niwattichai, B.E.2527: 281-292).

The mechanism of the relationship between social support and human health status has not been completely explicated. Cohen and Wills (1985:310-357 cited by Supit Na Chiangmai, B.E.2533: 30-31) have sought to explain the mechanism of the

relationship between social support and the result of the physical and mental health of humans. The result of the study is explained by two reasons.

1. Social support will make people have a good experience and stable emotions, which will affect the neuroendocrine and immune systems, to cause them to function better or cause people to practice good health behaviors, that directly affect health. Furthermore, social support helps facilitate better problem-solving of each individual.

2. Social support can reduce the chance of illness-related critical life events, because social support helps to reduce stress that leads to the critical situation. Naturally, stress occurs when people feel that they cannot help themselves and feel inferiority and low self-esteem. This situation will upset the balance of the neuroendocrine and immune systems. At the same time, it will cause people to have health risk behavior and failure to take care of their own health.

Goldberger and Breznitz (1982: 776-778) mentioned that the influence of social support, as follows:

1. Social support can reduce the likelihood of stressful events.
2. If the event that has occurred has interaction with an important person, social support can modify the individual's perception of the person to that particular event, and at the same time mitigate the severity of that stressful event, as well.
3. The stress levels that occur are partially contingent on the degree to which a potentially stressful event alters role function. Social resources can alter the relationship between role strain and the stress-inducing event.
4. Social resources can influence coping strategies and in this way modify the linkage between the stressful event and its effects.
5. To the degree that stressful events erode self-esteem and feelings of personal mastery, social resources can modify such effects.
6. There may be a direct influence of social resources on adaptation level.

Social support is a psychosocial variable that is related to health in normal situations and situations of illness. It protects the person from stress effects or absorbs the stress effect (Cohen & Syme, 1985: 61-350; Cohen & Hoberman, 1983: 99-125)

and increases feelings of stability to the receiver, having the perception that they receive love and care, worth and praise from others, which will affect the health status of the individual. In contrast, too much or too little social support, that is inappropriate for the needs of the individual can cause them to become ill (O'Hara, 1986: 569-574).

The first stage postpartum is regarded as a critical situation for the mother, because of fatigue from her new duty responsibilities, and anxiety that arises from fear of being incapable of meeting the baby's needs, and various changes that take place with the mother may cause her to be confused, frustrated in her role, and fail in her maternal role. At this time, the mother needs social support to accomplish the transition to motherhood (Kjervik & Martinson, 1986: 76). The study of Ilfeld (1980 cited by Cohen, 1988: 185) found that social support is the best predictor of the situation of being a mother.

Social support of postpartum mothers

Social support is a basic a personal need, probably with formal and informal characteristics, sometimes called the duty of a social group. This study of social support for the postpartum mother is based on the social support concepts uses of House (1981 cited by Glanz, et al., 1997: 180), which classified social support into four types, as follows:

1. Emotional support. Postpartum mothers always encounter adjustment problems to the maternal role and other roles due to physical fatigue and tiredness from childbirth (Benjawan Khunratanaporn, B.E.2544: 29-40). The sensation of fatigue affects work and daily life (Jarassri Thirakulchai, et al., B.E.2543: 78-89). It can cause the mother to feel lacking in ability, low self-esteem, and unable to perform her duties housewife and a mother. Therefore, giving love, sympathy, praise, and care from close people will help the mother feel self-esteem, increased confidence, and help the mother's adjustment and performance of her role. Hong and colleague (2001: 37-47) found that the emotional support is the most important to the postpartum mother and was negatively related to the occurrence of postpartum depression in primiparas.

2. Appraisal support. Postpartum mothers must face physical, emotional, psychological and social changes. At this stage, the mother needs to learn

about her new role and perform her former role simultaneously. She may be confused, frustrated in her new role. To provide feedback in self-evaluation will help her to perceive her ability to improve the performance of her various duties, and success in being a mother.

3. Informational support. To provide suggestions, advice and guidelines of postpartum performance will assist the postpartum mother solve problems, and can reduce the occurrence of postpartum depression. However, the policy of postpartum care has changed, and the duration of admission to hospital has been reduced and mothers have reduced opportunity to get information about child rearing and taking care of their own health. When the mother has to take care of the baby in reality, she will lack confidence and experiences anxiety and stress that will affect the mental health of the mother, and the baby will not receive enough good care, which will bring about many consequences. In the early stage postpartum, the mother experiences fatigue from childbirth and baby care, especially the mother who breast-feeds, who will be extremely tired (Cahill, 1999: 81-86; Mayberry, et al., 1999: 175-181). The fatigue that takes place will cause the mother to lack readiness to perceive a variety of things (Rutledge & Pridham, 1987: 185-194) and no policy of letting the spouse and relative join and listen to the advice provided in the postpartum class. Therefore, the provision of information to postpartum mothers should consider selecting the necessary information and repeat it many times, progressively (Malee Lerdmaleewong, B.E.2531: 172-175). Beside this, the spouse or key person, who are close to the mother, should have the opportunity to receive that information as well for correct understanding of the mother and the family, and for reducing potential conflict later.

4. Instrumental support. After childbirth, the mother has to confront physical, psychological, emotional and social changes. The ability that she used to have may be reduced and she might not fully be able to play the former role. To provide direct assistance, in terms of money, manpower, including facilitation in other matters will help to lessen her burden and the stress and anxiety that lead to postpartum depression.

The studies of Martell (2001: 496-506) and Martell and Mitchell (1984: 145-149) found that postpartum psychosocial development is a continuing process that

cannot be divided into stages, as the theory of postpartum changes of Rubin. Therefore, the adjustment of the postpartum mother to the changes needs understanding and appropriate assistance in every stage. This is to make the mother successful in changing status and role of the postpartum mother, and the prevention of depression. This study had the same finding as that of many studies, which found that social support was positively related to maternal role (Hankla, 2002: 47; Sirikarna, 2000: 48; Buaphut, 2001: 52). The study of Maloney (1998: 18-23) found that postpartum social support was very important for postpartum depression. Therefore, to take care of the postpartum mother, the nurse should evaluate the needs of the postpartum mother, to provide the correct and appropriate support to them. Beside this, nurses should emphasize getting the family involved in taking care and being informed about any changes in the mother, for their understanding and for a good result for the transition in status that can prevent postpartum depression.

The literature review showed that social support consisted of the source of the support dimension, the type of support, and frequency of support. The social support system changes continuously, depending on two important factors, the personal characteristics of the receiver and the situation that the receiver encounters (Jariyawat Kompayak, B.E.2531: 104). Social support is very important to the transition of the postpartum mother. Provision of the appropriate support will facilitate the mother's successful transition, but the provision of inadequate social support in the early stage postpartum may cause depression in the mother (Brugha, et al., 1998: 63-79; Cahill, 1999: 81-86; Curry, 1983: 115-121; O'Hara, 1986: 569-574).

The relationship between personal factors (education level and family income), life events, social support and depression of postpartum mothers and the predictive ability for depression of postpartum mothers.

Education level

Education level is a risk factor for postpartum depression, because education develops intelligence, knowledge, ability, and logical thinking. Different levels of

education cause differences in economic status and social level. For this reason, the education level is one of the indices for measuring economic and social status (Kannigar Aksornsakul, B.E.2515 cited by Jintana Vatcharasin, B.E.2530: 16). The people who have low levels of education have difficulties in their occupations, are poor, and have difficulties in living life, and the people who have higher levels of education usually have the ability to think and use logic more successfully than the lower educated. This is because education facilitates the use of knowledge and the better selection of the sources of knowledge. Moreover, they have more opportunities to meet more people, so they have more opportunities to find sources of social support. The study of O'Hara (1986: 569-574) found that the mother with postpartum depression had lower levels of education than the mother without depression. This study agrees with other studies (Gurel & Gurel, 2000: 21-24; Tammentie et al., 2002: 240-246), who found that people who had low levels of education would suffer from postpartum depression, with statistical significance.

Family income

Income is an important factor for existence, especially in a family whose numbers are increasing, and where expenses also increase. People who have high incomes can better meet their basic life needs than people with lower incomes, including when life has changed, such as with pregnancy and childbirth. Beside this, family income has an effect on receiving different social support. It was found that people who have good economic and social status will have better opportunities to select the source of social support.

Séguin and colleague (1999: 57-71; 157-163) found that people who have low socioeconomic status will experience depression in the first two months after giving birth more than people with high economic status. The study found that socio-environmental factors affected the mental health of postpartum mothers. Mothers of low economic status have significantly fewer people in their social network, so their social support is also more limited. This concurs with the study by Supaporn Jeksakul (2001; 56), who found that family income was positively correlated to social support, with statistical significance ($r = 0.57$, $p < .01$).

Therefore, people with low incomes may have more problems adjusting to their new role and, hence, may be more vulnerable to depressive symptoms during this transition period. For women living in poverty, chronic stressors from their difficult life conditions and may be more powerful determinants of depression than acute life events. This finding is similar to other studies (Viinamaki, et al., 1997: 213-219; Righetti-Veltema, et al., 1998: 167-180), which found that people who have poor economic status have more chance of having postpartum depression than people with good economic status. The study by Brown and Moran (1997: 21-33) found that poor people had fewer sources of social support. Poverty and lack of social support are factors affecting the severity of postpartum depression (Bernazzani, et al., 1997: 36-49).

Life events

Childbirth is an event that brings about changes and more impacts (Dohrenwend & Dohrenwend, 1974: 42-68). The study by Righetti-Veltema and colleague (1998: 167-180), with 570 primiparous mothers, evaluated the predictors of depression during pregnancy and postpartum. They found that 10.2% of mothers suffered from postpartum depression and that a life event that was dangerous to health was one of the important factors causing postpartum depression, even though that life event would cause acute or chronic stressful, they can affect the depression. (Mitchell, et al., 2003: 245-252). This study agreed with the study of Tamaki and colleague (1997: 93-98), which found that the experience received from life events was related to the highest score for postpartum depression. Glasser and colleague (1998: 155-164) also found that life events play an important role in the occurrence of postpartum depression, which agreed with many studies with the same finding, that the postpartum mother who had depression would have stress or impact from negative life events (Harris, 1999: 699-703; Maciejewski, et al., 2000: 373-378; Marks, et al., 1992: 253-263; O'Hara, 1986: 569-574; Small, et al., 1997: 109-115). Apart from this, the study of Somchit Nakaraphanich (B.E.2531: 71-72) also found that the woman who had obstetric complications had negative life events and had more severe life events than the woman who did not have obstetric complications, with statistical significance ($p < .05$).

This revealed that life events play an important role in mental and physical illness. Beside this, it also affected the role of that person, as well, such as the study by Supit Na Chiangmai (B.E.2533: 156), which found that life events was negatively correlated to perceptions of labor experience with statistical significance ($r = -0.23$, $p < .05$). Darawan Kamsiengsai (B.E.2539: 57) found that stress level was correlated to adjustment to the maternal role in the postpartum period with statistical significance ($r = -.464$, $p < .01$).

Social support

Before discharge from hospital most mothers will receive advice about baby care and postpartum practice from a nurse, but the duration of hospital stay is shorter, so postpartum mothers may not evaluate about perceive of the advice gained from professional personnel. So, they learn to take care of the baby by themselves at home. At this time, the mother may have depression (Chen, et al., 2000: 156-161), because they cannot fully perform their duties (Tulman, et al., 1990: 70-75). Apart from this, they have many worries, especially the crying behavior of the baby (Lugina, et al., 2001: 248-257). Since the mother does not understand the baby's behavior and cannot respond to the baby's needs, it will cause stress and anxiety that lead to postpartum depression. Many studies have found that the mother who received enough and appropriate social support in the postpartum period could reduce the risk of postpartum depression (Brugha, et al., 1998: 63-79; Cahill, 1999: 81-86; Curry, 1983: 115-121; Thompson et al., 2000: 532-536), especially emotional and informational support (Long, et al., 2001: 611-620).

The mother in this postpartum period has many changes, and the result of the changes causes her to be vulnerable and unstable. The provision of emotional support will enhance mental fortitude for the mother and produce immunity to prevent depression in the postpartum mother. The provision of necessary information will help the mother learn about her new roles. In contrast, the mother who receives insufficient or overmuch social support may get depressed (Wolman, et al., 1993: 1388-1393). Scott (1999: 1257-1264) found that provision of continuous social support from pregnancy to postpartum would help the mother to adjust herself to perform a mother role and reduce the occurrence of depression. This concurs with the study of

Mathiesen and colleague (1999: 61-72), which found that social support could prevent the consequences of postpartum depression, and Tongsawan (2000: 71) also found that social support could predict postpartum depression (12.9%).

A mother must encounter complex situations of increased responsibility and roles, and changes in the family. Receiving inappropriate social support can cause frustration and lack of success in the maternal role for the mother. This can bring about postpartum depression (Groer, 2002: 411-417; Tong & Chamberlain, 1999-2000: 138-144; White, et al., 1999: 171-176). From the review of the literature, we can conclude that personal factors such as educational level, family income, life events, and social support might be correlated to postpartum depression. At present, it has been found that postpartum depression can occur anywhere in the world without discrimination. There is a continual increase in people suffering from depression, every day. The researcher believes that the results of this study will be of benefit to improving the plan for decreasing and preventing postpartum depression.

CHAPTER III

MATERIALS AND METHODS

This descriptive research was designed to study the influences of personal factors, life events and social support, on depression of postpartum mothers and to determine which variables could predict depression of postpartum mothers, following the transition theory of Chick and Meleis (1986: 237-257).

Population and Sample

The population of this study was postpartum mothers who came for following up at the Family Planning Clinic, Department of Obstetrics-Gynecology, Ramathibodi Hospital and Rajavithi Hospital within 4-6 weeks after childbirth during June to August 2003. The sample subjects were selected according to the following inclusion criteria:

1. Postpartum mothers with no complications during postpartum period.
2. The baby had no abnormality at birth.
3. The mother and the baby were together.
4. The mother was able to read, write, and understand the Thai language.
5. Willing to participate in the study.

The sample group was selected by purposive sampling and the sample size was computed by using the formula of Kerlinger and Pedhazur (1973, cited by Tawat-chai Worapongsathorn, B.E.2532: 60). The formula was

$$\begin{aligned} n/k &= 30 \\ n &= \text{sample size} \\ k &= \text{the independent variables} = 4 \end{aligned}$$

Then, the minimum total number of samples should be 120 cases.

Setting

The sample from each hospital was 60 cases equally.

Ramathibodi Hospital is a university hospital in Bangkok. The health care services both in and out patient Department of Obstetrics & Gynecology Faculty of Medicine Ramathibodi Hospital Mahidol University. At the antenatal clinic, the services are available on Monday, Wednesday and Friday from 8.00 to 12.00 a.m. All pregnant woman also receive advice for breast feeding and breast care by nurse in class. They also receive health education for taking care of themselves and preparation for childbirth.

In puerperium ward, all postpartum mother will receive advice, demonstration and return demonstration for breast feeding and baby bath in class. Before discharge, they also receive information for self care, baby care, child behavior such as baby cry, hiccups and the following up the well baby clinic.

The family planning clinic, the services are available on Tuesday and Thursday at 8.00 to 12.00 a.m. Before postpartum mothers receiving their investigation and treatment, they received advice and information about family planning from nurse at mother class. The clinic operates services for screening cervical cancer and contraceptions.

Rajavithi Hospital is a hospital run by the Ministry of Public Health. The health care services both in and out patient Department of Obstetrics & Gynecology Rajavithi Hospital. At the Antenatal Clinic, the services are available every day from 8.00 to 12.00 a.m. and non-office hour clinic is also available on Tuesday from 4.30 to 8.30 p.m. and Saturday from 8.30 to 12.00 a.m. All pregnant woman receive advice for breast feeding and breast care by nurse in class. For the third trimester of pregnancy, they also receive advice for observe sign of labor and preparation for childbirth by individual.

The services in puerperium ward and family planning clinic are similar to Ramathibodi Hospital, but Ramathibodi Hospital provides advice in group while Rajavithi Hospital provides advice for individual.

Instrumentation

The instrumentation used in this study was composed of four instruments, as follows (see **Appendix**):

1. Personal Data

This record form was designed by the researcher for collecting personal information, including maternal age, education level, occupation, family income and number of children.

2. Life Events Questionnaire

Holmes and Rahe (1967: 213-218) developed the Life Events Questionnaire, which was called the “The Social Readjustment Rating Questionnaire”(SRRQ). Social readjustment includes the amount and duration of change in one’s accustomed pattern of life, resulting from various life events, namely, familial, marital, occupational, economic, education events, and events involving friends. The items comprised of 43 life events. A convenient sample was composed of 394 subjects who completed the paper-and-pencil test. Each event was scored for level of adaptation by considering severity and duration, then compared with a predetermined standard. Each event score was averaged and arranged in chronological order. Averaged scores gained from each event will be a predictor for adjustment level that could be expected to happen with a person who encounters that event. Kendall’s coefficient of concordance = .47, and the Pearson correlation coefficient was between .82 and .97.

Somchit Nakhalapanich (B.E.2531: 32-34) modified the SRRQ of Holmes and Rahe(1967: 213-218) and used it in the Thai social context. It was defined into a 5 subscale with 43 items,such as health 7 items, family 12 items, economic 6 items, occupational 10 items, and social 8 items. There were two periods, such as 1 year before pregnancy, and during pregnancy. The questions should be answered as having had or not having had these events in the two periods. According to the method of Thurstone, the scores for life events were 1 to 11, which were arranged in serially increasing severity. Mean scores and quartiles were calculated for each item. Each mean score expressed the severity of a life event in a period of time. Total scores could range from 0 to 402.81, for life events health subscale were 0 to 61.18, family subscale were 0 to 115.52, economic subscale were 0 to 91.16, work subscale were 0

to 56.55 and social subscale were 0 to 78.00 which were arranged in serially increasing severity. A higher score indicated a higher level of life events, and lower score meant a lower life events.

Quality of the instruments

Somjit Nakhalapanich (1985: 32-34) examined the content validity by testing with 20 experts in maternal and baby care, psychological nursing, psychiatrists, and gynecologists. One week after the experts had scored the questionnaire, the same questionnaire was brought for retesting by the same group of experts. Then, the median and new quartile were calculated. The medians of each item for each duration of both times were then calculated for score reliability. The reliability of the life event score for the 1 year before pregnancy was .97, and during pregnancy was .94. Calculation of questionnaire reliability was tested with 10 samples having the same characteristics as the study population, at the Obstetric Department, Chulalongkorn Hospital, using the test-retest method. It was found that the reliability of life events score for 1 year before pregnancy, and during pregnancy were .99, and .98, respectively.

In this study, the researcher has used the life events scale of Somjit Nakharapanich (B.E.2531:112-114) by selecting the score of pregnancy duration to test with 30 postpartum mothers. The Cronbach's coefficient alpha was .72, when tested with 120 samples, the reliability was .70

3. Postpartum Support Questionnaire

Logsdon and colleague (1994: 449-457) developed the Postpartum Support Questionnaire (PSQ), which had 4 subscales and 34 items, based on House (1981) and Cronenwett (1985), and it was used to measure how important support was expected or perceived to be, scoring 0-7, from not important (0) to very important (7) and from no support (0) to a lot of support (7). Total scores could range from 0 to 238 for both importance and support scales. The PSQ was modified into the Thai version by Pornthip Wongvisetsirikul (B.E.2540) and only the social support obtained postpartum that had 4 subscales and 34 items, consisting of (1) emotional support 10 items: number 2, 10, 12, 13, 15, 20, 25, 27, 33, 34, (2) material support 9 items: number 1, 5,

8, 9, 11, 19, 22, 23, 30, (3) information support 10 items: number 3, 6, 7, 14, 17, 21, 24, 26, 28, 31, and (4) appraisal support 5 items: number 4, 16, 18, 29, 32. The questionnaire was scored on a Likert rating scale from “not at all” (1) to “greatest” (5). Total possible scores ranged from 34-170. A higher score indicated a higher level of received support and a lower score indicated a lower level of received support.

Criteria for interpretation, calculated from percentage of mean, are presented as follows:

<u>Percentage of mean</u>	<u>Interpretation</u>
80.00-100.00	Most received support
60.00-79.99	More received support
40.00-59.99	Moderate received support
20.00-39.99	Less received support

Quality of the instruments

Instrument items were recommended by eight experts, two maternity nursing qualifiers and six new mothers (Logsdon et al., 1994: 449-457). Pornthip Wongvisetsirikul (B.E.2540: 73-74) was verified by seven family nursing experts and two linguistic experts for content validity.

Reliability of the PSQ. Logsdon and colleague (1994: 449-457) tested this questionnaire with 30 primiparas, and the Cronbach's alpha coefficients were .79 for importance of support and .92 for support expected/received, respectively and when tested with 105 primiparas, the reliabilities were .90 for importance of support and .92 for support expected/received, respectively. After Pornthip Wongvisetsirikul (B.E.2540) modified it into a Thai version and tested it with 30 samples who were the primiparous mothers. The Cronbach's alpha coefficient for the overall questionnaire was .94. When used with 200 samples, the Cronbach's alpha for these samples was .91. This questionnaire has been used in many studies, such as by Tongsawan (2000: 51), Sirikarna (2000: 39), Choketaweeapanich (2000: 39), Buaput (2002: 41). The reliability values were .91, .92, .95 and .96, respectively. For this study, testing with 30 postpartum mothers within 4-6 weeks, the Cronbach alpha coefficients was .93, and .94 when tested with the 120 samples.

4. The Center for Epidemiologic Depression Studies Scale

The Center for Epidemiologic Depression Studies Scale (CES-D) originally was designed by the Department of Mental Health USA, and developed by Radloff (1977: 385-401) for the general population. The CES-D scale was composed of 20 items. Respondents rate the items on a 4-point scale according to how frequently they have experienced the emotion or behavior during the past week. For the positive items, (items numbered 4, 8, 12, 16), the scores of the scale ranged from rarely or never (3) to most of the time or always (0). The negative items were reversed and added to the positive items; the range of possible scores was from 0-60.

The questionnaire was characterized as a 4-level Likert scale:

- | | |
|---|---|
| 3 = Rarely or never | The content of the sentence does not correspond with your feeling or reality the most, or it occurred less than 1 day a week. |
| 2 = Sometimes or a little of the time | The content of the sentence does not correspond with your feeling or reality, or it occurred 1-2 days a week. |
| 1 = Occasionally or a moderate amount of the time | The content in the sentence occasionally corresponds with your feeling or reality, or occurred 3-4 days a week. |
| 0 = Most of the time or always | The content in the sentence mostly corresponds with your feeling or reality, or it occurred 5-7 days a week. |

In the original CES-D version, a score greater than 16 indicated a high level of depressive symptoms. The highest score meant severe depression. Lower scores meant less depression.

Quality of the instruments

Radloff (1977: 392 – 396) analyzed criterion related validity and construct validity. The study was found that the relations of the CES-D of the Hamilton Clinician's Rating scale and Raskin Rating scale by the coefficient correlation were .69 to .75. The study of construct validity was found that 20-items questionnaire of the scale was measured the characteristics of depression according to

component factor analysis and tested the reliability by using 3 groups of general and 1 group of psychiatric patients in American population, the Cronbach alpha coefficient was .85 and .90, respectively.

Tawatchai Vorapongsathorn and colleague (B.E.2533: 25 – 45) translated it into Thai and studied the characteristic of CES-D. There were 2 experts, including psychiatrist and psychologist, verified content validity and analyzed construct validity of CES-D, using component factor analysis as original. Reliability was tested with 721 samples, and Cronbach's alpha reliability coefficient was .86. Wilai Kubniratisaiyakul and Panom Ketman (B.E.2540: 442-448) used CES-D to measure average score for normal, sensitivity and specificity in Thai population. It was performed among 69 medical personnels of Siriraj Hospital and 30 psychiatric patients from the department of psychiatry. Everyone was evaluated by a psychiatrist using the criteria of the Diagnostic and Statistical Manual of Mental disorder (DSM-IV). The study was found that the score of normal and psychiatric groups were different with statistical significance ($p < .001$). Score of 19 was indicative of depression with 93.33% sensitivity, 94.2% specificity and the Cronbach alpha reliability coefficient was .91.

In this study, the researcher used score equal to or higher than 19 was indicative of depression and testing with the 30 postpartum mothers within 4-6 weeks, the Cronbach alpha reliability coefficient was .79, and it was .80 when tested with the 120 samples.

Protection of Human Subjects

This study was conducted based on the protection of human rights. The data were collected after the approval was obtained from the Faculty of Medicine, Ramathibodi Hospital, Mahidol University and Rajavithi Hospital, the Committee on Human Right Related to Research Involving Human Subjects. Potential subjects would explain about the purpose of the study and their rights' to decline or to withdraw from the study at any time. Their names were not attached to the data and the data would be kept strictly confidential and reported only as group data.

Data Collection

All data were collected by the researcher using a letter requesting permission and cooperation in collecting data, obtained from the Faculty of Graduate Studies, Mahidol University, addressed to the Dean of the Faculty of Medicine Ramathibodi Hospital and the Director of Rajavithi Hospital. The proposal had been sent to the Ethics Committee for approval; upon approval, data collection was conducted. The process was as follows:

1. The researcher contacted the Head Nurse of the Family Planning Unit of the Faculty of Medicine Ramathibodi Hospital and Rajavithi Hospital to introduce and explain the objectives and procedures, and to get cooperation for data collection.
2. The data were collected every Tuesday and Thursday between 7.30 - 11.00 a.m. at Ramathibodi Hospital, and every Monday, Wednesday, and Friday between 8.00 a.m. - 3.30 p.m., and every Tuesday and Thursday between 1.00 - 3.30 p.m. at Rajavithi Hospital.
3. The researcher selected the sample from the patient profiles of the postpartum mothers.
4. The researcher introduced herself to the sample for their cooperation and explained the purpose of the study, which was based on patient rights, and avoid disturbing or delaying the queue. (Appendix)
5. If they agreed to participate in the study, the researcher explained the questionnaire and how to check it. It was composed of four documents. The first was personal data, the second was life events, the third was postpartum social support and the fourth was the CES-D scales. While answering, the researcher stayed around to answer any questions.
6. When the subject finished the questionnaire, the researcher checked for completion of the answers.

Data Analysis

The assessed data were analyzed by the computer program SPSS for Windows version 10.0, and the level of significance was set at .05. The steps of analysis were as follows:

1. Personal data were analyzed in terms of frequency, percentage, range, mean, and standard deviation.
2. The scores for life events, social support, and depression, were analyzed in terms of range, mean, standard deviation, and percentage of mean.
3. The correlations among educational level, family income, life events, social support, and depression scores, were analyzed by Pearson product moment correlation coefficient.
4. Stepwise multiple regression was used to analyze the predictability of those independent variables for depression. Before the analysis of stepwise regression was done, the correlation matrix was analyzed to determine whether there was multicollinearity.

CHAPTER IV

RESULTS

In this chapter the results of the data analysis are presented, as follows:

Characteristics of the samples

The total one hundred and twenty subjects were postpartum mothers within 4-6 weeks. Most of the sample were primipara (71.7%). The ages of the samples ranged from 15 to 39 years (mean = 26.79, S.D. = 5.55). The majority of them (83.4%) were in the age group 20-35 years. Regarding their educational background, the sample had 1 to 16 years' schooling (mean = 10.55, S.D. = 3.69). The group with secondary school (7-12 years) education was the largest (54.2%). The largest occupation group was employee (44.1%), followed by housewife (41.7%). The family income of the participants ranged from no income to 50,000 Baht/month (mean = 14,571.33, S.D. = 9,505.46). The largest family income group (32.5%) was in the range 5,001-10,000 Baht/month, while the smallest family income group (10.8%) was lesser and equal 5,000 Baht/month. The general characteristics of the samples were summarized in Table 1.

Table 1 Characteristics of the samples, number, percent, range, mean and standard deviation (n = 120)

Characteristics of the sample	Number	Percent
Para		
Primi para	86	71.7
Multi para	34	28.3

Table 1 Characteristics of the samples, number, percent, range, mean and standard deviation (n = 120) (continued)

Characteristics	Number	Percent
Maternal age (years)		
≤ 19	13	10.8
20-35	100	83.4
> 35	7	5.8
Range = 15 – 39, Mean = 26.79, S.D. = 5.55		
Education level		
Primary school (≤ 6 years)	27	22.5
Secondary school (7-12 years)	65	54.2
Bachelor degree and more (> 12 years)	28	23.3
Range = 1-16, Mean = 10.55, S.D. = 3.69		
Occupation		
Housewife	50	41.7
Trader	12	10.0
Government official	5	4.2
Employee	53	44.1
Family income (Baht/month)		
≤ 5,000	13	10.8
5,001-10,000	39	32.5
10,001-15,000	26	21.7
15,001-20,000	19	15.8
>20,000	23	19.2
Range = 0-50,000, Mean = 14,571.33, S.D. = 9,505.46		
Median = 12,750.00, Mode = 15,000		

Depression

It was found that 23.33% of the samples had depression scores of 19 and over, whereas 76.67% of the samples had depression scores lower than 19. The depression scores of postpartum mothers ranged from 3 to 47, within a possible range from 0 to 60. The mean of depression score was 14.32, and the standard deviation was 7.31. The three highest mean items for postpartum depression were “I felt that I was just as good as other people”(M = 1.89) followed by “I was bothered by things that usually don’t bother me”(M = 1.22), and “I enjoyed life”(M = 1.20), respectively. The three lowest mean items for postpartum depression were “people were unfriendly”(M = .37) followed by “I felt that people disliked me”(M = .36) and “I thought my life had been a failure”(M = .32), respectively. The details of these data were depicted in Table 2 and 3.

Table 2 Number and percent of depression scores (n =120)

Depression	Number	Percent
< 19	92	76.67
≥ 19	28	23.33

Table 3 Range, mean and standard deviation of depression by total and three highest and lowest mean items (n = 120)

Item	Possible range	Actual range	$\bar{X}$	S.D.
Total	0-60	3-47	14.32	7.31
Highest items				
1. I felt that I was just as good as other people.	0-3	0-3	1.89	1.12
2. I was bothered by things that usually don’t bother me.	0-3	0-3	1.22	.71
3. I enjoyed life.	0-3	0-3	1.20	.99

Table 3 Range, mean and standard deviation of depression by total and three highest and lowest mean items (n = 120) (continued)

Item	Possible range	Actual range	$\bar{X}$	S.D.
Total	0-60	3-47	14.32	7.31
Lowest items				
1. People were unfriendly.	0-3	0-3	.37	.67
2. I felt that people disliked me.	0-3	0-3	.36	.62
3. I thought my life had been a failure.	0-3	0-3	.32	.59

Life events

The actual range of scores for life events of the sample group was 0.00-223.63 (possible range 0.00-402.81), and the mean was 34.23. Considering each subscale, it was found that the health subscale had the highest mean (12.30). While second was the work subscale (7.40), and the social subscale had lowest mean (1.38), as shown in Table 4.

Table 4 Range, mean and standard deviation of life events scores by total and subscale (n = 120).

Life events	Possible range	Actual range	$\bar{X}$	S.D.
Total	0.00 - 402.81	0.00 - 223.63	34.23	43.01
1. Health	0.00 - 61.58	0.00 - 53.08	12.30	10.13
2. Family	0.00 - 115.52	0.00 - 66.04	7.36	10.45
3. Economic	0.00 - 91.16	0.00 - 29.40	5.79	7.54
4. Work	0.00 - 56.55	0.00 - 54.89	7.40	10.94
5. Social	0.00 - 78.00	0.00 - 20.22	1.38	3.95

When considering the highest and lowest scores for the items in each subscale of life events, it was found that the item “changing of sleep” in the health subscale had

the highest mean (5.47), while the item “contacting and getting involved with patients with severe communicable diseases” had the lowest mean (.42).

Family subscale. The item “relocation” had the highest mean (1.73), and the items “spouse seriously ill” and “divorce, separation” item, had the equal lowest means (.36).

Economic subscale. The item “poor family expense” had the highest mean (2.80), and the item “your family was held back or forced to move” had the lowest mean (.08).

Work subscale. The item “you have to take more responsibility in work so your rest time has decreased” had the highest mean (2.08). The item “you had an altercation with your boss” had the lowest mean (.28).

Social subscale. The item “your residence is in an unsafe place” had the highest mean (0.68). The items “you were physically hurt” and “your family met with an asset disaster” had the equivalent lowest means of (.08) as shown in Table 5.

Table 5 Mean and standard deviation of life events subscale by the highest and lowest mean items (n=120).

Life events	$\bar{X}$	S.D.
1. Health subscale		
Have changes in sleep	5.47	4.25
You contact and get involved with patients with severe communicable diseases	0.42	2.01
2. Family subscale		
Relocation	1.73	2.89
Spouse seriously ill	0.36	1.93
Divorced, separated	0.36	1.92
3. Economics subscale		
Poor family expenses	2.80	4.29
Your family was held back or forced to move	0.08	0.90

Table 5 Mean and standard deviation of life events subscale by the highest and lowest mean items (n=120) (continued)

Life events	$\bar{X}$	S.D.
4.Work subscale		
You have to take more responsibility in work so your rest time has decreased	2.08	3.78
You had an altercation with your boss	0.28	1.48
5.Social subscale		
Your residence is in an unsafe place	0.68	2.40
You were physically hurt	0.08	0.94
Your family met with an asset disaster	0.08	0.96

Social support

The social support scores of the samples ranged from 35-147 (possible range 34-170). The mean and percentage of mean were 100.18 and 58.93, respectively, which meant that the samples received moderate social support. The highest to lowest on the social support subscale were informational support (61.18%), appraisal support (58.56%), material support (58.04%), and emotional support (57.66%). The three highest mean items for social support were “I received affection from my spouse” followed by “I received information on breast feeding” and “I received information on how to care for my baby’s umbilicus”. The percentages of mean were 78.4%, 78.2%, and 75.6%, respectively. The three lowest items for social support were “I received information on my baby’s hiccups” followed by “everybody indicates that it is okay for me to need help” and “I received help in watching my baby so that I could have time alone together with my spouse”. The percentages of mean were 49.4%, 47.4%, and 44.8%, respectively. These data and the three highest and lowest item scores were shown in Table 6.

Table 6 Range, mean, standard deviation and percentage of mean for social support by total and by subscale (n = 120)

Social support	Possible range	Actual range	$\bar{X}$	S.D.	% of mean
Total	34-170	35-147	100.18	23.57	58.93
Informational support	10-50	11-45	30.59	7.28	61.18
Appraisal support	5-25	5-25	14.64	4.49	58.56
Material support	9-45	9-45	26.12	8.13	58.04
Emotional support	10-50	10-47	28.83	7.16	57.66
Highest items					
1. I received affection from my spouse. (E)	1-5	1-5	3.92	0.98	78.4
2. I received information on breast feeding (I)	1-5	1-5	3.91	0.92	78.2
3. I received information on how to care for my baby's umbilicus (I)	1-5	1-5	3.78	1.01	75.6
Lowest items					
1. I received information on my baby's hiccups (I)	1-5	1-5	2.47	1.18	49.4
2. Everybody indicates that it is okay for me to need help (E)	1-5	1-5	2.37	1.28	47.4
3. I received help in watching my baby so that I could have time alone together with my spouse (M)	1-5	1-5	2.24	1.13	44.8

I = Informational support, M = Material support, E = Emotional support

Hypothesis Testing

Stepwise multiple regression analysis was used to test the hypothesis, which stated that “Personal factors, life events and social support can predict depression of postpartum mothers.” Prior to analysis, the principal assumptions were tested. The Kolmogorov-Smirnov test revealed that life events, social support, and depression scores had a normal distribution. However, maternal age and educational level did not have normal distribution. As shown in Table 7, the correlation coefficients among all of the variables ranged from $-.374$ to $.372$, which was not more than $.65$, indicating no evidence of multicollinearity (Gordon, 1968 cited by Braden, 1990: 44). The scatter diagrams between independent and dependent variables showed a linear correlation. Furthermore, the Durbin-Watson test yielded a statistical value of 1.713 , which indicated no autocorrelation of the residual.

Pearson product moment analysis found that family income was negatively correlated with depression at a low level ($r = -.188$, $p < .05$), statistically significant. This revealed that the mother with a low family income had more postpartum depression. Life events were positively correlated with depression at a low level ($r = .240$, $p < .01$), statistically significant, which showed that the mother who experienced more life events had more postpartum depression. Social support was negatively correlated with depression at a middle level ($r = -.374$, $p < .01$), statistically significant, revealing that the postpartum mother who received a low level of social support had high postpartum depression. Education level was not statistical significantly correlated with depression ($r = .074$, $p > .05$), but education level was positively correlated with family income, statistical significantly ($r = .372$, $p < .01$), and negatively correlated with life events of postpartum mother, with statistical significance ($r = -.195$, $p < .05$). Family income was positively correlated with social support, with statistical significance ($r = .180$, $p < .05$), as shown in Table 7.

Table 7 Pearson product moment correlation coefficients among the studied variables in the form of a correlation matrix (n = 120)

Variables	1	2	3	4	5
1. Education level	1.000				
2. Family income	.372**	1.000			
3. Life events	-.195*	-.066	1.000		
4. Social support	.127	.180*	-.169	1.000	
5. Depression	.074	-.188*	.240**	-.374**	1.000

* p < .05

** p < .01

The result of stepwise multiple regression testing revealed that, there were only two independent variables selected into the equation, the combination of life events, and social support, could explain 17.2% of variance ($F_{2,117} = 9.065$, $p < .001$) in depression. The first variable was social support, which could explain 14% ($\beta = -.343$, $t = -4.021$, $p < .000$) of the variance in depression scores, statistically significant. The second variable was life events, which could explain 3.2% ($\beta = .182$, $t = 2.136$, $p < .035$) of the variance in depression scores, with statistical significance. Thus, the hypothesis could be partially accepted. Details of these data were shown in Table 8.

Table 8 Predictiveness of the independent variables for depression, using stepwise multiple regression (n= 120)

Variables	R ²	R ² change	B	SEB	Beta	t	p
Social support	.140	.140	-.106	.026	-.343	- 4.021	.000
Life events	.172	.032	.004	.023	.182	2.136	.035

Overall $F_{(2, 117)} = 9.065$, $p < .001$

CHAPTER V

DISCUSSION

The discussion of the findings relevant to the research questions and the hypotheses was presented in this chapter, in terms of the characteristics of the sample, life events, social support, depression, and their predictive ability for postpartum depression and limitations of the study, as follows:

Characteristics of the sample

In this study, the sample group was postpartum mothers most of them were primiparous with an average age of 26.79 years and most (83.3%) were in the age range 20 to 35 years, which was considered prime psychophysiological reproductive age. These findings were consistent with the concept of Mercer (1981: 75), who found that mothers over 20 years of age have a greater psychosocial readiness for mothering and achievement of more roles, apart from mothering, than younger mothers. The level of education for most of the samples was secondary school, and the mean education level was 10.55 years, which higher than the compulsory education term in Thailand. This finding differed from that of Phadungyotee (2002: 50), who study at Ramathibodi Hospital and Leardsin Hospital which found, in the sample group, that the education level was lower than the compulsory education term in Thailand. The largest occupation group was Employee. The mean family income was 14,571.33 Baht per month, which was higher than the average national income for Thailand, which was 12,167.00 Bath per month (National Statistical Office, Office of the Prime Miinister, B.E.2543: 19)

Depression

This study found that the incidence of depression was 23.33%, because most of the postpartum mother were first time mothers who lack of knowledge and baby care experience. Transition to postpartum mother, it made her to taking several roles simultaneously. Increase in functional status after childbirth entails fatigue, confuse,

despair, feeling of worthlessness and fail to transition. This agree with the highest items which were “I felt that I was just as good as other people” ($M = 1.89$), followed by “I was bothered by things that usually don’t bother me” ($M = 1.22$) and “I enjoyed life” ($M = 1.20$). Transition to motherhood regards pleasant event but being crisis for someone based on meaning and mediating factors to situation of transition. Stress will occur if childbirth meant crisis and mediating factor not mediate to transition such as lack of social support and stressful life events may adverse effect to transition that cause depression. This agreed with the lowest items which were “People were unfriendly” ($M = .37$) followed by “I felt that people dislike me” ($M = .36$) and “I thought my life had been a failure” ($M = .32$)

The result of this study was similar with the study of Phadungyotee (2002: 52), who used the same instrument studying 200 postpartum mothers at the family planning clinics of Ramathibodi Hospital and Lerdsin Hospital. That study found that the incidence of depression was 25%, which was different from Pornthip Wongviset-sirikul (B.E.2540: 89) studied 200 primiparas at Ramathibodi Hospital using the Hospital Anxiety Depression Scale (HADS), and found that the incidence of depression was 6%. This is because the instrument and the characteristics of the sample were different.

Life events

The result of this study found that the mean score for life events was 34.23. The result showed the low level of life events, when considering each subscale of life events, it was found that the highest score was for life event health subscale (12.30), followed by work (7.40), family (7.36), economic (5.79) and the lowest mean score was social (1.38), respectively. When considering each item of life events, it was found that the means as much less and there was only one item had the highest score “Have changes in sleep” ($M = 5.47$). This revealed that the occurrence of life events was not great and some events did not happen. This might be the sample group was postpartum mother with the ages ranged from 15 to 39 years, almost half of the sample were housewives(41.7 %) and secondary school education was the largest (54.2%) then they would have less opportunity to face with life events. This study agreed with Goldberg and Comstock (1980: 736-751), who found that higher education has more

opportunity to experience life events than a person with lower education. The result of this study also agreed with Somchit Nakrapanich (B.E.2531: 47-50) and Supit Na Chiangmai (B.E.2533: 124-128), but it was differed from the study by Malee Chojirapan (B.E.2529: 41), because the sample group in that study was psychiatric patients, so that the occurrence of life events was comparatively less and more severe.

Social support

The result of this study found that the sample had moderate level of received support in the postpartum period, with the total of mean scores were 100.18 and percentage of mean were 58.93. This might be half of the samples in the this study, obtained from Rajvithi Hospital, had various characteristics, and almost half of them were housewives. Living in the city, one needs to rely on oneself, which implies the utilization of fewer social resources. In addition, Thai society regards the spouse as being responsible for working and for feeding the family, but child-rearing and housework are women's duties. Therefore, postpartum mothers have to depend on themselves, and the chances of receiving help from the spouse were less.

Considering each items of social support, it was found that the highest mean item was "I received affection from my spouse"(% of mean = 78.4), which was more received from emotional support. To receive love, sympathy, praise, and care from close and significant people will help the mother feel self-esteem, increased confidence, and help the mother's adjustment and can face to any event. The item follow by "I received information on breast feeding" (% of mean = 78.2), and "I received information on how to care for my baby's umbilicus" "(% of mean = 75.6), which were more received support from informational support. These revealed that informational support was the most important support, considering each subscale of social support, it was found that informational support from the social network was the highest score (% of mean = 61.18). In addition, received advice would guide to solve problem and had good effect to situation of transition, but it was found that some item had low level score was "I received information on my baby's hiccups" (% of mean = 49.4). Which revealed that not enough information was gained, the method of providing information was not good enough, or too much information was received in a short time, so that the samples could not remember it all, or the sample did not have

such problems, so they were not interested in the advice. Furthermore, the duration of admission to hospital was short period, so that the nurse did not have any chance to evaluate the result after they had provided information to the sample group. As well as there was no policy of letting the spouse join and listen to the information provided in the postpartum mothers.

The lower score mean item was “everybody indicates that it is okay for me to need help” (% of mean = 47.4), because of living in the city, one needs to rely on oneself, which implies the utilization of fewer social resources which less received support from other, which agreed with the lowest score in the item “I received help in watching my baby so that I could have time alone together with my spouse” (% of mean = 44.8).

These results were similar to those of Hankla (2002: 45) but differed from other findings (Sirikarna, 2000: 47-48; Choketaweepanich, 2000: 45; Buaphut, 2002: 45-46), which found that the sample had rather more received support.

Hypothesis Testing

The result of this study of the ability to predict depression of postpartum mothers from personal factors, life events and social support, showed that the combination of two variable could explain 17.2 % of variance of depression, with statistical significance ($F_{2, 117} = 9.065, p < .001$). It was found that social support was the first variable that could explain 14% of the variance in depression. When considering Pearson correlation coefficient, it was found that social support was negatively correlated to depression, with statistical significance ($r = -.374, p < .01$). The result of the study showed that the samples who had high scores for social support would have low depression. Because of social support is a psychosocial variable related to health status, and is regarded as a protector against the consequences of stress (Cohen & Syme, 1985: 61-70; Cohen & Hoberman, 1983: 99-125). The influence of social support will change one's event perception, while at the same time, it can reduce the severity of stress (Goldberger & Breznitz, 1982: 776-778). The study of Thompson and colleague (2000: 532-536) found that receiving sufficient social support during the postpartum period from family and nurses would reduce the risk of depression. This study agreed with the study of Logsdon and colleague (2000: 212-

266), who found that social support received during the postpartum period is significant for the occurrence of postpartum depression and Thongsawan (2000: 71) found that social support was the only variable that could predict 12.9% of variance of postpartum depression.

The second variable that was selected into the regression equation was life events. Which could explain 3.2% of the variance in depression with statistical significance and it also found that life event was positively correlation to depression with statistical significance ($r = .24, p < .01$). This can be explained by the observation that the samples who had more life events would have more depression. This result correlated with the study of Paykel and colleague (1969: 753-760), who studied the relationship of life events and depression. They found that the depressive person will have more life events than other people. Brown and colleague (1987: 30-42) found that the occurrence of life events, especially severe events, would increase the risk of depression. This result was the same as that of Malee Chojirapan (B.E.2529: 41), who found that confronting severe life events brought about depression; when depression was too high for adjustment, mental illness would occur.

Other variables were not selected into the regression equation were education level and family income, which it could explain as the following.

Education level

It was found that education level was not correlated to depression, with statistical significance ($r = .074, p > .05$), and could not explain the variance in depression. This revealed that education level was not association to depression. According to information received from nurse about self care and baby care after discharge. No matter the difference of education level all of the samples might use received information to take care of their babies as well as they could. Beside this, the readiness for mothering and baby care experience, this factor would help mother into transition. The result of this study agreed with Sailom Gerdprasert(B.E.2542: 65), who found that education level was not correlated to depression, with statistical significance ($r = -.04, p > .05$).

Family income

It was found that family income was not correlated to depression with statistical significance ($r = -.188$, $p < .05$) and could not explain the variance in depression. It could explain that the postpartum mothers who had low family income would have more depression. This might be the sample who had high family incomes were better able to meet their basic needs, including changes of life such as pregnancy, childbirth, than people with lower family incomes. The result of this study did not agree with Padungyothi (2002: 63), who found that family income was negatively correlated to postpartum depression, with statistical significance ($r = -.269$, $p < .01$), and could explain 1.7% of the variance in depression. The people with lower incomes had chronic stressful life condition and had adverse effect to situation of transition, they had high trend to be depressed in the transition to postpartum mother.

From the results of this study, it can be concluded that life events and social support are predictive variable of depression of postpartum mothers. Therefore, the result of the study was partial acceptance of the hypothesis.

Limitations of the study

The instrument used for the life event questionnaire found that most of the samples had little occurrence of those life events. This might be the sample group used in this study was uncomplicated postpartum mothers, aged between 15-39 years old, so that they had a lesser occurrence of life events. If this instrument is utilized with older samples or people with physical or mental health problems, or complicated postpartum mothers who need long-term admission to hospital, it is anticipated that these groups should have a greater occurrence of life events. In addition, life event questionnaire to measure was not appropriate in general population.

CHAPTER VI

CONCLUSION

In this chapter, the conclusion and recommendations were presented in terms of research conclusion, implications for nursing, and recommendations for further study, as follows:

Research Conclusion

This descriptive research aimed to study the influence of personal factors, life events and social support on depression of postpartum mothers. The transition theory of Chick and Meleis (1986: 237-257) was used as the theoretical framework for the study. A sample of 120 postpartum mothers, who visited the Family Planning units at Ramathibodi Hospital and Rajvithi Hospital for a routine postpartum check-up during the period June to August 2003, was selected, using a purposive sampling technique. The inclusion criteria were no complication during postpartum period, a baby with no abnormality, the mother and the baby were together, the mother was able to read, write and understand Thai and agreed to participate in the study.

The researcher collected data by using a four-part questionnaire. This instrument consisted of the Personal Data Form, the Life Events Questionnaire of Somchit Nakarapanich (B.E.2531), the Postpartum Support Questionnaire (PSQ) of Logsdon and colleague, modified by Pornthip Wongvisetsirikul (B.E.2540), and the Center for Epidemiologic Studies-Depression Scale (CES-D), modified by Thavatchai Vorapongsathorn and colleague (B.E.2533).

The reliability of the Life Events scale, the PSSQ and the CES-D using Cronbach's alpha coefficient were .70, .94 and .80, respectively. All data were analyzed by stepwise multiple regression. The research findings might be summarized as follows:

1. Most of the subjects were in the age group 20-35 years, with 7-12 years of education level and were employees, with an average of family incomes 14,571.33 Baht per month.
2. The mean scores for depression of the postpartum mother were 14.32 and 23.33% of subjects had depression. Their scores were 19 and over.
3. The mean score for life events was 34.23. Life events health subscale had the highest mean, 12.30 (SD. = 10.13).
4. The subjects received a moderate level of postpartum support. The highest social support received by the subjects was informational support (% of mean = 61.18) and the lowest was emotional support (% of mean = 57.66).
5. There were only two predictors combining they could explain 17.2% of the variance in depression of postpartum mothers, with significance ($F_{2, 117} = 9.065, p < .001$).

Recommendations

The research findings can be used as baseline information for nursing practice, education and research. It will be able to be implicated as follows:

Nursing practice

1. The study found that many factors affected postpartum depression, but the most important factor was social support, since it is a risk factor for depression and can be a protector from depression, as well. Therefore, professionals should realize the significance of social support, and utilize the appropriate types of social support for mothers at the appropriate time.
2. Stress results from the occurrence of changes in life. The period of pregnancy until postpartum may cause stress for postpartum mothers. Therefore, puerperal care and nursing interventions probably cause stress in postpartum mothers stress. Nurses should always evaluate the mother's mental state and readiness for motherhood.

Nursing education

1. Emphasis should be placed on students' comprehending the significance of transition to motherhood, and the impact of social support for the transition to being a postpartum mother. This may also be utilized as a guideline for planning postpartum care.

2. Emphasis should be placed on students' comprehending the significance of social support and the social network of the postpartum mother. Having students practice discharge planning together with the mother and the family, to learn precisely the problems of the mother, can benefit appropriate nursing planning.

Nursing research

1. Study of life events among mothers with complications requiring long-term admission to hospital during pregnancy and the postpartum period should be further studied.

2. The knowledge of depression and how to cope with it should be conducted throughout the maternity cycle.

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คำชี้แจงและการพิทักษ์สิทธิ์ผู้เข้าร่วมงานวิจัย

เรื่อง ขอความร่วมมือในการตอบแบบสอบถาม

เรียน มารดาหลังคลอดปกติทุกท่าน

ดิฉันนางสาวศรัญญา วิทยประไพพันธ์ นักศึกษาพยาบาลปริญญาโท ภาควิชาพยาบาล
ศาสตร์ คณะแพทยศาสตร์โรงพยาบาลรามาธิบดี มหาวิทยาลัยมหิดล กำลังศึกษาวิจัยเรื่องอิทธิพล
ของปัจจัยส่วนบุคคล เหตุการณ์ในชีวิต และแรงสนับสนุนทางสังคม ต่อภาวะซึมเศร้าของมารดา
หลังคลอด ผลการวิจัยครั้งนี้จะเป็นแนวทางในการให้การดูแลมารดาหลังคลอดอย่างมีคุณภาพ

ดิฉันขอความกรุณาทุกท่าน ช่วยตอบแบบสอบถามที่ดิฉันแจกให้นี้ โดยจะใช้เวลา
ประมาณ 15 นาที หากท่านไม่สะดวก ท่านมีสิทธิ์ที่จะปฏิเสธการตอบแบบสอบถามในครั้งนี้ได้
โดยไม่มีผลต่อการรักษา หรือบริการที่ท่านจะได้รับ หากมีข้อสงสัยสามารถสอบถามจากผู้วิจัยได้
โดยตรง ข้อมูลทั้งหมดจะได้รับการปกปิดเป็นความลับ และนำมาใช้เฉพาะการศึกษาครั้งนี้เท่านั้น

ขอขอบพระคุณที่ให้ความร่วมมือ
นางสาวศรัญญา วิทยประไพพันธ์
นักศึกษาปริญญาโท

ยินดีเข้าร่วมวิจัย

ลายมือชื่อ.....

(.....)

ถ้าท่านมีข้อข้องใจหรือมีความกังวลใจเกี่ยวกับวิธีดำเนินการวิจัยของโครงการวิจัยนี้ ท่านสามารถติดต่อได้ที่ ประธานกรรมการจริยธรรมการวิจัยในคน คณะแพทยศาสตร์โรงพยาบาลรามาธิบดี งาน
บริการวิชาการและวิจัย ชั้น 5(ห้อง505) ศูนย์การแพทย์สิริกิติ์ โทรศัพท์ 02-2011541 ในเวลาราชการ

แบบสอบถาม

ตอนที่ 1 แบบสอบถามข้อมูลส่วนบุคคลของมารดาหลังคลอด

1. ปัจจุบันท่านอายุ.....ปี
2. จบการศึกษาระดับ
3. รายได้ของท่าน และสามีรวมกันประมาณ บาท/เดือน
4. ปัจจุบันท่านมีบุตร.....คน



ตอนที่ 2 แบบสอบถามภาวะซึมเศร้าภายหลังคลอด

คำชี้แจง แบบสอบถามชุดนี้ต้องการทราบถึงการกระทำ หรือความรู้สึกของท่านในระยะ
หลังคลอด ขอให้ท่านอ่านข้อความต่อไปนี้แต่ละข้ออย่างรอบคอบ และกรุณาทำเครื่องหมาย ✓ ลง
ในช่องที่ตรงกับกรกระทำหรือความรู้สึกของท่านมากที่สุด ในแต่ละข้อของแบบสอบถามขอให้
ท่านตอบเพียงคำตอบเดียว และกรุณาตอบทุกข้อ การเลือกตอบจะถือเกณฑ์ดังนี้

ไม่มีความรู้สึก	หมายถึง ข้อความในประโยคนั้นไม่ตรงกับความรู้สึก หรือไม่ตรงกับ
นาน ๆ ครั้ง	ความเป็นจริงต่อท่านมากที่สุด หรือเกิดขึ้นน้อยกว่า 1 วันใน 1 สัปดาห์
ค่อนข้างบ่อย	หมายถึง ข้อความในประโยคนั้นไม่ตรงกับความรู้สึก หรือเป็นความ
บ่อยครั้ง	จริงที่เกิดขึ้นนาน ๆ ครั้ง หรือเกิดขึ้น 1-2 วันใน 1 สัปดาห์
	หมายถึง ข้อความในประโยคนั้นตรงกับความรู้สึก หรือเป็นความจริง
	ที่เกิดขึ้นกับท่านค่อนข้างบ่อย หรือเกิดขึ้น 3-4 วันใน 1 สัปดาห์
	หมายถึง ข้อความในประโยคนั้นตรงกับความรู้สึก หรือเป็นความจริง
	ที่เกิดขึ้นกับท่านค่อนข้างบ่อย หรือเกิดขึ้น 5-7 วันใน 1 สัปดาห์

หัวข้อ	ไม่มีความรู้สึก	นาน ๆ ครั้ง	ค่อนข้าง บ่อย	บ่อยครั้ง
1. ฉันรู้สึกหงุดหงิดง่าย				✓

หมายความว่า ใน 1 สัปดาห์ท่านรู้สึกหงุดหงิดประมาณ 5 – 7 วัน

แบบสอบถามภาวะซึมเศร้าภายหลังคลอด

หัวข้อ	ไม่มีความรู้สึก	นานๆ ครั้ง	ค่อนข้าง บ่อย	บ่อยครั้ง
1. ฉันรู้สึกหงุดหงิดง่าย				
2. ฉันรู้สึกเบื่ออาหาร				
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20. ฉันรู้สึกท้อถอยในชีวิต				

ตอนที่ 3 แบบสอบถามเหตุการณ์ในชีวิต

คำชี้แจง แบบสอบถามนี้ประกอบด้วยข้อคำถามซึ่งถามเกี่ยวกับการเกิดเหตุการณ์ในชีวิต ขอให้ท่านอ่านข้อความต่อไปนี้แต่ละข้ออย่างรอบคอบ และกรุณาทำเครื่องหมาย ✓ ลงในช่องที่เหตุการณ์นั้นเกิดขึ้นจริง แต่ถ้าไม่มีเหตุการณ์นั้นเกิดขึ้นก็ไม่ต้องทำเครื่องหมาย

ตัวอย่าง

เหตุการณ์ในชีวิต	ขณะตั้งครรภ์
สุขภาพ 1.ท่านเจ็บป่วยมากถึงกับต้องเข้ารักษาพยาบาลในโรงพยาบาล	 ✓

หมายความว่า ในขณะที่ตั้งครรภ์ท่านเคยเจ็บป่วยมากถึงกับต้องเข้ารักษาพยาบาลในโรงพยาบาล

แบบสอบถามเหตุการณ์ในชีวิต

คำชี้แจง โปรดอ่านข้อความแต่ละข้อแล้วทำเครื่องหมาย (✓) ลงในช่องที่กำหนดให้ ถ้าผู้ตอบ
มีเหตุการณ์ในชีวิตที่เป็นจริงเกิดขึ้นในขณะตั้งครรภ์

เหตุการณ์ในชีวิต	ขณะตั้งครรภ์
สุขภาพ	
1. ท่านเจ็บป่วยมากถึงกับต้องเข้ารักษาพยาบาลในโรงพยาบาล	
7. ท่านเกี่ยวข้องกับคลุกคลีกับผู้เป็นโรคติดต่อร้ายแรง (เช่น วัณโรค โรคตับ กามโรค).....	
ครอบครัว	
1. สามีเสียชีวิต.....	
12. ท่านและสามีต้องจากกันนาน ๆ (6 เดือนขึ้นไป).....	
เศรษฐกิจ	
1. การใช้จ่ายเพื่อปัจจัยสี่ในครอบครัวขาดสน ฝืดเคือง.....	
6. ท่านต้องหาเลี้ยงครอบครัวแต่เพียงผู้เดียว.....	
การงาน	
1. ท่านเริ่มทำงานนอกบ้านเป็นครั้งแรก.....	
10. ท่านทะเลาะกับนายจ้างหรือผู้บังคับบัญชา.....	
สังคม	
1. ครอบครัวของท่านประสบอุบัติเหตุจนทรัพย์สินเสียหาย (เช่น ไฟไหม้บ้าน น้ำท่วม ขโมยเงินบ้าน...).....	
8. สถานที่อยู่อาศัยของท่านหรือครอบครัวไม่มีความปลอดภัยในชีวิตหรือทรัพย์สิน (เช่น มีการลักขโมยบ่อย ๆ มีเสียงดังรบกวนตลอดเวลา มีการถ่ายเทอากาศไม่ดี).....	

ตอนที่ 4 แบบวัดการสนับสนุนทางสังคม

คำชี้แจง แบบวัดชุดนี้ประกอบด้วยข้อคำถามซึ่งถามเกี่ยวกับการได้รับความช่วยเหลือ และสนับสนุนในระยะหลังคลอด ขอให้ท่านอ่านข้อความต่อไปนี้แต่ละข้ออย่างรอบคอบ แล้วทำเครื่องหมาย (✓) ลงในช่องที่กำหนดให้ ที่ท่านพิจารณาแล้วเห็นว่าเป็นจริงกับท่านมากที่สุด คำตอบที่ได้ จะไม่มีผิดหรือถูก ในแต่ละข้อของแบบสอบถาม ขอให้ท่านตอบเพียงคำตอบเดียว และกรุณาตอบทุกข้อ การเลือกตอบจะถือเกณฑ์ดังนี้

ไม่เป็นความจริงเลย	หมายถึง ข้อความในประโยคไม่ตรงกับการกระทำหรือความรู้สึกของผู้ตอบเลย
เป็นความจริงบ้างเล็กน้อย	หมายถึง ข้อความในประโยคตรงกับการกระทำหรือความรู้สึกของผู้ตอบเล็กน้อย
เป็นความจริงปานกลาง	หมายถึง ข้อความในประโยคตรงกับการกระทำหรือความรู้สึกของผู้ตอบเพียงบางส่วน หรือเพียง 50%
เป็นความจริงมาก	หมายถึง ข้อความในประโยคตรงกับการกระทำหรือความรู้สึกของผู้ตอบค่อนข้างมาก แต่ไม่ทั้งหมด
เป็นความจริงมากที่สุด	หมายถึง ข้อความในประโยคตรงกับการกระทำหรือความรู้สึกของผู้ตอบเกือบทั้งหมดหรือทั้งหมด

ตัวอย่าง

ข้อความ	ไม่เลย	เล็กน้อย	ปานกลาง	มาก	มากที่สุด
1. ฉันได้รับความช่วยเหลือเรื่องการจัดหาอาหารสำหรับครอบครัวในระหว่างที่ฉันต้องเลี้ยงลูก	✓				

หมายความว่า ท่านไม่เคยได้รับความช่วยเหลือในเรื่องการจัดหาอาหารสำหรับสมาชิกในครอบครัวระหว่างที่ท่านต้องเลี้ยงลูก

แบบวัดการสนับสนุนทางสังคม

คำชี้แจง: ในระยะหลังคลอด 4-6 สัปดาห์ที่ผ่านมา ท่านได้รับการสนับสนุนและช่วยเหลือในเรื่องต่อไปนี้หรือไม่ โปรดอ่านข้อความต่อไปนี้แล้วทำเครื่องหมาย (✓) ลงในช่องที่กำหนดให้ที่ท่านพิจารณาแล้วเห็นว่าเป็นจริงกับท่านมากที่สุด คำตอบที่ได้จะไม่มีผิดหรือถูก

ข้อความ	ไม่เคย	เล็กน้อย	ปานกลาง	มาก	มากที่สุด
1. ฉันได้รับความช่วยเหลือเรื่องการจัดหาอาหารสำหรับครอบครัวในระหว่างที่ฉันต้องเลี้ยงลูก					
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34. ฉันได้รับคำชมจากคนอื่น ๆ ว่าฉันเป็นแม่ที่มีความรับผิดชอบและมีความสามารถในการเลี้ยงลูก					

One-Sample Kolmogorov-Smirnov Test

		EDUCA	INCOME	LIFE	SUPPORT	DEPRESS
N		120	120	120	120	120
Normal Parameters	Mean	10.55	14571.33	34.2321	100.18	14.32
	Std. Deviation	3.69	9505.46	27.4075	23.57	7.31
Most Extreme Differences	Absolute	.163	.132	.110	.050	.121
	Positive	.163	.132	.110	.050	.121
	Negative	-.163	-.075	-.106	-.044	-.061
Kolmogorov-Smirnov Z		1.790	1.446	1.208	.552	1.331
Asymp. Sig. (2-tailed)		.003	.031	.108	.921	.058

a Test distribution is Normal.

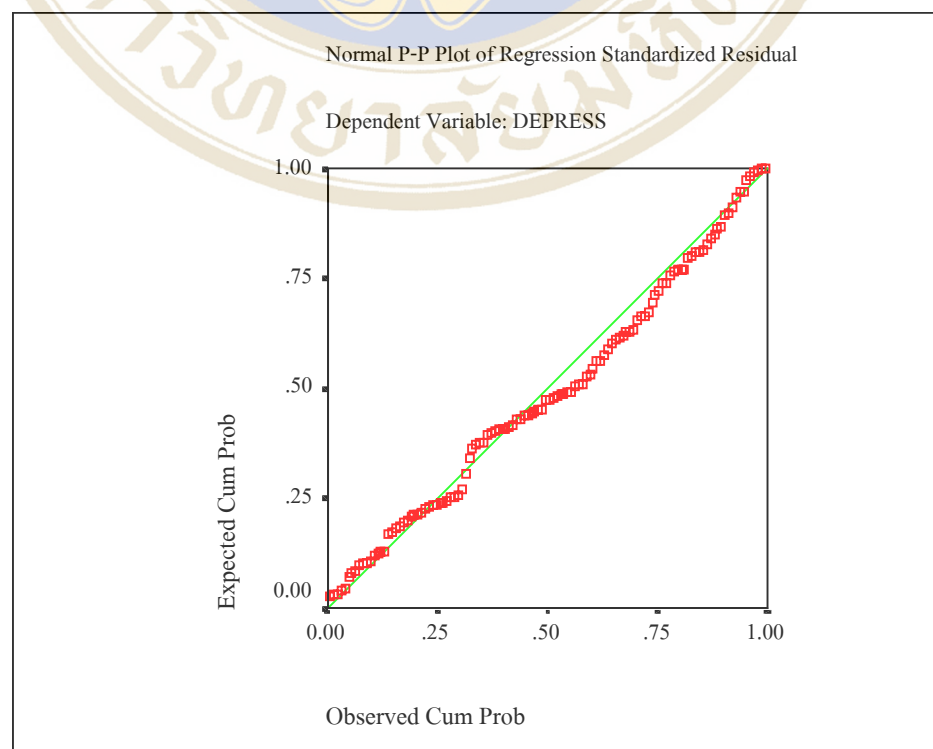
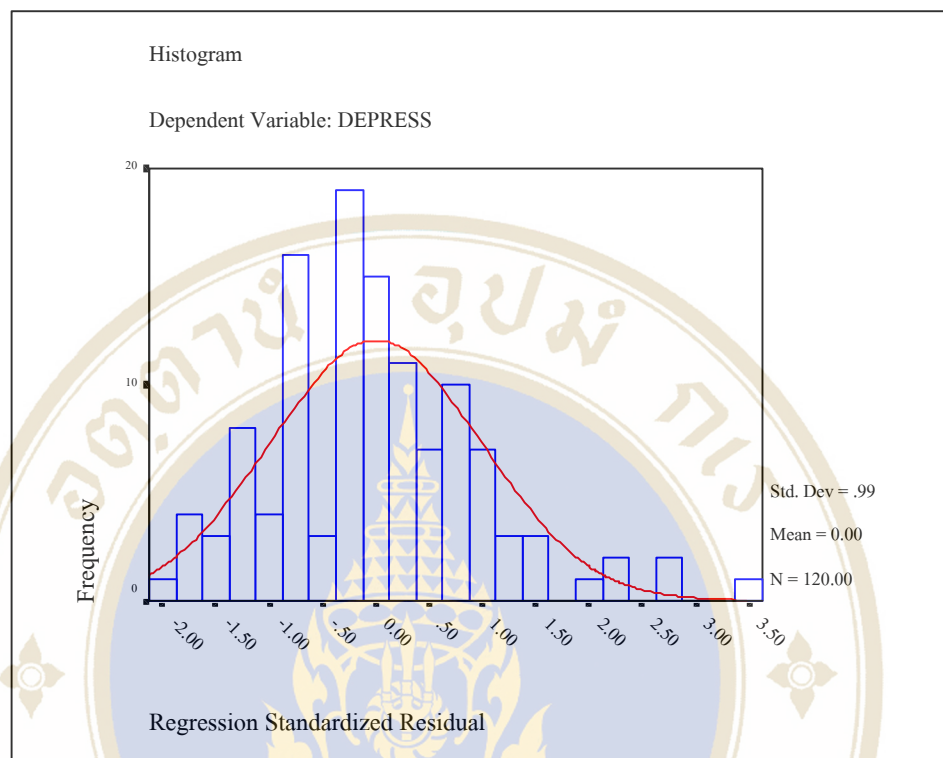
b Calculated from data.

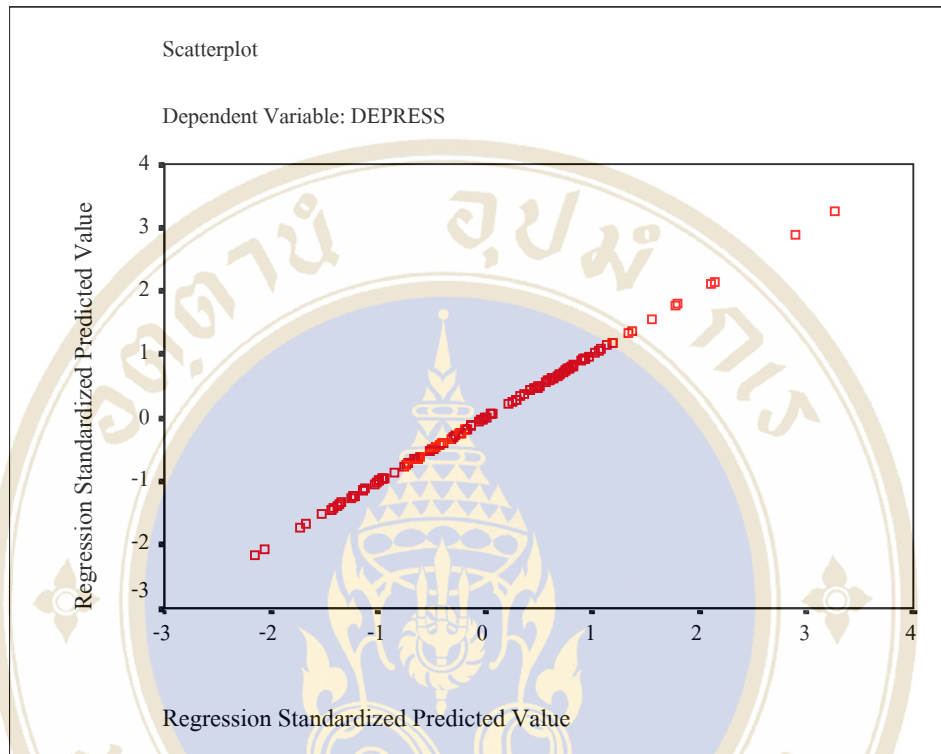
One-Sample Kolmogorov-Smirnov Test

		Unstandardized Residual	Standardized Residual
N		120	120
Normal Parameters	Mean	-1.6406799E-08	6.853952E-10
	Std. Deviation	6.3723922	.9830496
Most Extreme Differences	Absolute	.054	.054
	Positive	.054	.054
	Negative	-.034	-.034
Kolmogorov-Smirnov Z		.588	.588
Asymp. Sig. (2-tailed)		.880	.880

a Test distribution is Normal.

b Calculated from data.





BIOGRAPHY

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