CHAPTER 5
CONCLUSION AND RECOMMENDATION

This chapter presents conclusion, contributions to nursing science, strengths of the study, limitations of the study, recommendations for this study including suggestions for nursing practice, nursing administration, and nursing education, and future research.

Conclusion

The purpose of this study was to examine the causal relationships among transition conditions including social support, maternal perception of infant behavior, maternal perception of parenting, maternal competence, and depression, and the transition outcome of maternal role performance in transition to being the first time mother at one month postpartum. The Transition Theory (Chick & Meleis, 1986; Schumacher & Meleis, 1994) providing an approach for explaining the transitional period of change and instability, and predicting transition outcome has been selected as the theoretical framework of this study.

The subjects were first time mothers who were one month postpartum and took their infants for first follow-up at well baby clinic of Hat Yai hospital, Songkhla province, and met the inclusion criteria: age at least 18 years old, normal delivery, no complications after delivery, no history of prenatal depression, and giving birth to a healthy normal full-term infant with weight over 2,500 grams. A total of 200 subjects participated in this study and they were requested to complete the Demographic Data Questionnaire and one set of six questionnaires related to study variables.
were the Social Support Scale (Sumranjit, 1997), the Center for Epidemiologic Studies Depression Scale (CES-D) (Tangkasombat, 2002), and the Maternal Role Performance Scale (Sookkavanawat, 1998). The Cronbach’s alpha coefficients of these three Thai instruments were 0.92, 0.82, and 0.90, respectively. The three translated Thai version instruments were the Neonatal Perception Inventory (Broussard, 1979), the What Being the Parent of a New Baby Is Like Scale (Pridham & Chang, 1989), and the Parenting Sense of Competence Scale (Gibaud-Wallston & Wandersman, 1978). The Cronbach’s alpha coefficients of the three translated Thai version instruments were 0.82, 0.80, and 0.74, respectively.

Data were analyzed by SPSS version 11 software for descriptive statistics, testing assumption and regression analysis, and by Mplus version 3 software for path analysis. The findings revealed that the hypothesized model was an acceptable fit to the data ($\chi^2 = 5.75$, df = 2, $p = 0.05$, Relative Chi-square = 2.87, CFI = 0.97, NTLI = 0.81, RMSEA = 0.09). Modification to the hypothesized model was made by sequentially dropping the least significant paths until the model had a good model fit. The result revealed that the modified model was a good fit to the data ($\chi^2 = 7.34$, df = 3, $p = 0.06$, Relative Chi-square = 2.44, CFI = 0.97, NTLI = 0.90, RMSEA = 0.08). In the modified model, social support had a direct effect on maternal role performance and indirect effects on maternal role performance through maternal perception of parenting, maternal competence, and depression. Social support, maternal perception of parenting, maternal competence, and depression significantly accounted for 35% of the variance in maternal role performance ($R^2 = 0.35$, $p < .001$).

For path standardized coefficients in the modified model, social support had significant positive direct effects on maternal perception of parenting ($\beta = 0.42$, p
< .001) and on maternal competence (β = 0.31, p < .001), and a significant negative direct effect on depression (β = -0.15, p < .05). Social support (β = 0.26, p < .001), maternal perception of parenting (β = 0.24, p < .001), and maternal competence (β = 0.18, p < .01) had significant positive direct effects on maternal role performance. Depression (β = -0.20, p < .01) had a significant negative direct effect on maternal role performance. For effects in the modified model, social support had a significant total effect of 0.45 on maternal role performance by having a significant direct effect of 0.26 on maternal role performance and significant indirect effects of 0.19 on maternal role performance through maternal perception of parenting, maternal competence, and depression.

**Contribution to nursing science**

The Transition Theory (Chick & Meleis, 1986; Schumacher & Meleis, 1994) was selected as the theoretical framework of the hypothesized model in this study. This theory provides an approach for explaining the transitional periods of instability precipitated by developmental, situational, health-illness, and organizational changes and predicting transition outcome. The hypothesized model was examined for the model fit to the data and was modified to achieve a better model fit to the data. The result of this study revealed that the modified model of maternal role performance based on Transition Theory had a good model fit. Therefore, the Transition theory (Schumacher & Meleis, 1994) can be an effective theoretical framework for explaining and predicting maternal role performance in transition to being the first time mother. The findings of the causal model of maternal role performance in transition to being the first time mother can be a useful guideline for
nursing practice and an empirical knowledge for developing nursing science related to
this important phenomenon.

The findings in this study revealed that social support, maternal
perception of parenting, maternal competence, and depression had significant direct
effects on maternal role performance. Social support, maternal perception of
parenting, maternal competence, and depression were proposed as the environment,
meaning, level of knowledge and skill, and emotional state in transition conditions
respectively. Maternal role performance was proposed as transition outcome.
Therefore, this result supported the theoretical propositions described in Transition
Theory (Schumacher & Meleis, 1994) that transition conditions including
environment, meaning, level of knowledge and skill, and emotional state, had direct
effects on transition outcome.

The findings in this study revealed that social support had significant
direct effects on maternal perception of parenting, maternal competence, and
depression. Therefore, this result supported the theoretical propositions described in
Transition Theory (Schumacher & Meleis, 1994) that one transition condition could
affect other transition conditions during the transition process. Social support was an
environmental factor, and the maternal perception of parenting, maternal competence,
and depression were personal factors. Therefore, in transition to being the first time
mother the environmental factor influences personal factors.

In addition, the findings revealed that social support had significant
indirect effects on maternal role performance through maternal perception of
parenting, maternal competence, and depression. Therefore, these results supported
that an environmental factor had indirect effects on transition outcome through personal factors in transition to being the first time mother.

Strengths of the study

1. The theoretical framework used in this study was a middle range theory. Middle range theories are narrower in scope than grand theories. Middle range theories present concepts and propositions at a lower level of abstract and hold promise for increasing theory-based research and nursing practice strategies. Therefore, the findings in this study were acceptable and could contribute to theory-based research and nursing practice.

2. Both multiple regression analysis and path analysis were used in data analysis. The multiple regression analysis tests whether each independent variable has an impact on the outcome variable. It can identify only the direct impacts of the independent variables on outcome variable. The path analysis is a statistics analysis testing the causal model which is derived from the theoretical framework. The results of the analysis will confirm the relationships among the variables indicated in the model which variables are the cause and have the direct or indirect impacts on the other variables or the outcome variable. Therefore, the causal relationship, the mediating effects, the number of impacts and the significance of impacts among variables can be compared when both of these statistics analysis are used in data analysis.

Limitations of study

1. The descriptive cross-sectional study was the design of this study. Data collection was obtained from the subjects at one month postpartum. The results of the
study could not explain the process of transition to being the first time mother and indicate which variables were the cause and had an impact on other study variables. In this study, the causal relationships among variables in the model and the explanation were based on the theory. Therefore, this design was limited to investigating the process of development of maternal role performance in transition to being the first time mother since childbirth to more than one month postpartum.

2. The subjects recruited in this study were only from one setting and they had to meet the inclusion criteria of having a normal childbirth and a healthy infant. The findings in this study should be limited and were therefore not generalized to most of first time mothers with different characteristics and various groups of first time mothers.

3. The construct validity of the instruments used in this study were not analyzed and accounted in the data analysis. However, all instruments were acceptable in the other types of validity. The Social Support Scale and the Maternal Role Performance Scale were originally developed in Thai and examined for content validity by Thai experts. The Thai version of the Center for Epidemiologic Studies Depression Scale was examined for the criterion related validity with the Thai sample. The Neonatal Perception Inventory, the What Being the Parent of a New Baby Is Like Scale, and the Parenting Sense of Competence Scale were examined for predictive validity, construct validity, and convergent validity, respectively. To strengthen the future research and findings, testing of the construct validity of the instruments used in this study should be computed before doing the data analysis.

4. The Neonatal Perception Inventory was the instrument used to measure maternal perception of infant behavior. The statements of the items in the second part
of the Neonatal Perception Inventory were not amended in the Thai version to indicate that the subjects should reply according to their perception of their infants’ past behaviors during the period one month postpartum. Thus, the subjects could have given answers about their perception of their infants’ future behaviors. Since the data obtained from the subjects would pertain to the future, it would not be congruent with the designing measure of the maternal perception of infant behavior. Therefore, the statements of the items in the second part of the Thai version of the Neonatal Perception Inventory would be revised for collecting the data related to maternal perception of infant behavior during one month postpartum and be tested for reliability and validity again.

Recommendations

1. Suggestions for nursing practice

The findings of the modified model of maternal role performance in this study will be useful for nurses as a guideline for assessment, planning, and providing the appropriate nursing therapeutics to women in transition to being the first time mother. These women will deal with a period of change and instability during the transition process. Some women may encounter difficulties of being the first time mother and be unable to pass through the transition process. In this study, social support was found to have the highest impact on the maternal role performance. Social support had both a significant direct effect on maternal role performance and significant indirect effects on maternal role performance through maternal perception of parenting, maternal competence, and depression. Therefore, nurses must emphasize primarily on social support both in assessment and provision of social support in order
to enhance the maternal role performance of these mothers in transition to being the first time mother. Intervention for promoting social support should be designed and focused on first time mothers who are in nuclear families because the findings in this study revealed that social support sources came from extended families, grandmothers, and relatives.

2. Suggestions for nursing administration

The findings in this study revealed that social support was the most important factor in enhancing maternal role performance in transition to being the first time mother. However, health care providers were reported to be a resource of infant care knowledge by 48.5% of the subjects. Nursing administrators should promote nurses especially community nurses to have more nursing activities promoting maternal role performance of women in transition to being the first time mother. Nursing therapeutics related to promoting social support of these women should be emphasized. These nursing activities will enable the first time mothers to experience a healthy transition outcome. Effective maternal role performance will foster infants to have normal development and a healthy physical, psychological and social state.

3. Suggestions for nursing education

The topic of nursing of women in transition to being the first time mother should be concerned and included in women nursing courses, or maternal and child nursing courses for undergraduate students. Future research related to maternal role performance in transition to being the first time mother should be promoted in graduate students to expanding this nursing phenomenon.

Future research
The findings, discussion, and recommendations of this study provide the necessary for future research as follows.

1. Other settings such as hospitals in rural areas, community hospitals or hospitals in other regions of the country, should be included in future studies. First time mothers from various areas or from other regions in the country should be involved in the study. The results from the study will be able to more broadly generalize to all Thai women in transition to being the first time mother.

2. The causal model of maternal role performance in transition to being the first time mother of other groups of the subjects such as young adolescent mothers, mothers with cesarean section delivery, mothers who have premature or low birth weight infants, should be repetitively studied. A comparative study should be conducted to investigating maternal role performance in transition to being the first time mother and factors affecting it among first time mothers in diverse groups.

3. Future research involving a longitudinal study should be conducted. Data should be collected from the first time mothers at different postpartum periods. The results from the study will better explain the transition process of women in transition to being the first time mother and clearly demonstrate the caused relationship among variables.

4. An experimental study to promote maternal role performance in transition to being the first time mother should be conducted. Interventions involve promoting social support of the first time mothers primarily, especially social support from families: grandmothers and relatives. New mothers in nuclear families should be focused on receiving the intervention. These findings will enhance maternal role