

## DOES INFORMATION SUPPORT AND OTHER TYPES OF SUPPORT INCREASE WOMEN'S CONFIDENCE IN THEIR ROLES AS MOTHER?

Sansnee Jirojwong & Wei Wang  
University of Western Sydney & Central Queensland University

### ABSTRACT

Undertaking maternal roles is a learnt behaviour. This study explored whether types of support had any positive effects on women's confidence in undertaking their roles. Results showed that the support including information did not have any positive effects. Learning the roles may be influenced by various factors beyond giving information.

### KEY WORDS:

adult learning, maternal roles, psychological health

### INTRODUCTION

Undertaking maternal roles is a learnt behaviour. They are also expected to undertake roles as mothers to meet the needs of their baby. In general, a woman's ability to undertake her roles as a mother is a learned process. A woman can set her learning goals and needs (Mezirow, 1981). She also can develop strategies to acquire information. She uses feedback from her supporters to validate her competence performance and confidence to undertake difficult tasks in order to look after her newborn child (Hung & Chung, 2001; Tarkka, 2003). Information is also provided to assist women to develop these tasks.

Women who had good sources of information and other social support had positive physical and psychological health outcomes. It is expected that women will gain knowledge which later helps them develop positive behaviours. Generally, nurses and midwives provide information to women throughout their pregnancy and after delivery process. A home visit by a nurse or midwife after the birth of her child provides an opportunity to assess the woman's needs. Information and other types of support can be given and assist women to develop her mother roles. The woman also may attend formal health education sessions in order to gain information and develop skills to care for her newborn infants. We explore whether information received would translate to knowledge and help women developed maternal skills to care for the baby. However, other sources of support provided to women are their partner, mother, female relatives, friends and other health professionals. One or more types of support including material, information, appraisal or emotional support can be given by each of their supporters (Fram, 2003). The lifelong learning implications for women from these formal and informal supports on their ability to undertake their mother roles were not known.

### THEORETICAL FRAMEWORK

Learning opportunities to develop new tasks can occur at all ages and in a range of settings and contexts. They can happen at work and at home. In order to learn an individual develop their own interpretation and ways to determining which knowledge are valuable and credible. Many will develop their methods of inquiry and learning needs. They also explore and identify methods of gaining information including educational intervention suitable to them (Mezirow, 1981).

The learnt behaviours of mother roles can be measured by few tools. These include the Home Observation for Measurement of the Environment (HOME) Inventory (Kendrick et al., 2000) and reported confidence in caring for their child by postpartum women (Stanwick, Moffat, Robitaille, Edmond, & Dok, 1982). The major difficulty of using the HOME inventory was limited due to resources required to visit a woman's home. The tool by Stanwick and others (1982) allowed information to be collected by an interview with limited resources. This could be used as a proxy of the woman's ability to undertake her maternal roles and was applied in this study.

In order to learn and undertake new skills, women need to have relatively good psychological and physical health (Hung & Chung 2001; Tarkka, 2003). Information provided might not be translated to practices if women are depressed or anxious. This study took this psychological and physical health into account when assessing the effect of their social support, including information, on their confidence to undertake their roles as a mother. The major aim of this study was to explore the relationship between postpartum women's social support on their confidence to conduct their learned behaviours, mother roles.

### METHODOLOGY

This cross sectional study was conducted at two major referral Queensland regional hospitals. Postpartum women who gave birth at the study

hospitals between August and December 2001 were invited to participate. Two hundred and ten women were approached and 172 (81.9%) agreed to participate. Later they were telephone-interviewed within four weeks after the hospital discharge. More than 80% of the women (143 women of 172, 83.1%) were contacted after 4-10 telephone calls and took part in the study.

The age of study women ranged from 15 years old to 40 years old with the average age of 28 years. More than 50% of the women completed high school education, 40% lived in a family where the main income earners were manual workers and 40% lived in a family where the main income earners were professional workers. Eighty seven per cent of the women were married or in a de facto relationship, 13% had private health insurance and 28% were first time mothers. Details of the women's social and demographic characteristics are reported elsewhere (Jirojwong, Rossi, Walker, & Ritchie, 2005).

The independent variable was a woman's reported confidence to care for her baby as their learnt behaviours (see Table 1). This confidence of undertaking mother roles was measured by the woman's confidence to care for her baby relating to bathing, feeding, dealing with the baby's waking up at night; the baby's crying non-stop for more than one hour and having fever.

Studies by Cronenwett (1985) and Norbeck et al. (1981) were referred to when designing social support questions. Two categories of social support: objective indicators and subjective indicators were assessed. The objective indicators consisted of the number of supporters and the sources of supports (partner, parents or parents in law, relatives, friends, and health professional) and frequency of contact. The subjective indicator was the types of support: material, information, appraisal and emotional supports. Frequency of contact between the women and supporters was assessed as it could

reinforce the outcomes of such support. Maternal psychological health was assessed by using the standardized Edinburgh postpartum depression scale (Eberhard-Gran et al. 2001). The possible score ranged from zero (no depression) to 30 (high depression). Physical health was measured by selected four question items of the standard SF 36 which assessed an individual's ability to function, based on physical health (Medical Outcome Trust, 1992). The study was approved by the Central Queensland University Human Research Ethics Committee and the ethics committees of both hospitals.

Descriptive and analytical data analysis methods (Bollen, 1989) were used. A Structural Equation Model was used to assess a hypothesised effect of a woman's number of supporters who provide different types of support and the woman's confidence in undertaking her roles as a mother, taking physical health and psychological health into consideration.

## RESULTS

**Confidence in Mother Roles** The majority of women were very confident in bathing (n = 110, 76.9%), feeding (n = 99, 69.1%) and dealing with the infant waking up at night (n = 84, 58.7%). Only 27 women (18.9%) were very confident in taking care of their babies' non-stop crying for more than one hour and 39 women (27.3%) were very confident in taking care of their babies when they had fever. Easy tasks were easy to learn and supported by the data. Details of the confidence to do mother roles are shown in Table 1.

**Social Support** The number of supporters provided to 143 women ranged from 0 to 10, with the average of 3.8 supporters. Gender, age, frequency of contact, methods of contact and types of support provided by the supporters are shown in Table 2. It should be noted that the women had less contact with people who provided information compared to other types of support.

*Table 1. Women's Reported Levels of Confidence in Taking Care of the Baby's Needs*

Need (rank from the least difficult to the most difficult to care for using experts' opinion)	Number <sup>a</sup> (Percent)				
	Very confident (score = 4)	Confident (score = 3)	Not sure (score = 2)	Little confident (score = 1)	Not confident (score = 0)
Bathing	110 (76.9)	33 (23.1)	-	-	-
Feeding	99 (69.1)	43 (30.1)	-	1 (0.7)	-
Dealing with the baby waking up at night	84 (58.7)	55 (38.5)	-	4 (2.8)	-
Non-stop crying for more than one hr	27 (18.9)	72 (50.3)	23 (16.1)	16 (11.2)	5 (3.5)
Having fever	39 (27.3)	65 (45.5)	7 (4.9)	27 (18.9)	5 (3.5)

*a Total number may not be equal to 143 due to missing data.*

Table 2. Characteristics of the Women's Supporters

Relationship	Partners	Parents or parent in-law	Relative	Friend	Health professional
	Number (Percentage)				
Number of supporters (total = 576 persons) Mean = 3.8, Mode = 4	114	168	98	113	83
Gender of supporters					
Male	114 (100.0)	31 (18.5)	15 (15.3)	17 (13.8)	11 (13.3)
Female	0 (0.0)	137 (81.5)	83 (84.7)	106 (86.2)	72 (86.7)
Age (year)					
Mean (Standard Deviation)	30.6 (6.8)	50.9 (21.5)	30.0 (14.0)	30.0 (11.1)	36.4 (8.3)
Average frequency of contact					
Daily	111 (97.4)	67 (40.0)	21 (21.4)	8 (7.1)	1 (1.2)
2-4 time/week	3 (2.6)	61 (36.3)	36 (36.7)	50 (44.2)	21 (25.3)
Once a week	-	25 (14.9)	26 (26.5)	32 (28.3)	17 (20.5)
Once a month	-	3 (1.8)	11 (11.2)	12 (10.6)	2 (2.4)
Less than once a month	-	2 (1.2)	4 (4.1)	9 (8.0)	37 (44.6)
Methods of contact					
Face to face	113 (99.1)	124 (73.8)	69 (70.4)	85 (75.2)	68 (81.9)
Telephone	1 (0.9)	44 (26.2)	25 (25.5)	27 (23.9)	11 (13.2)
Type of support					
Instrument	43 (37.7)	108 (64.3)	41 (41.8)	37 (32.7)	-
Information	5 (4.4)	41 (24.4)	32 (32.7)	39 (34.5)	68 (81.9)
Appraisal	52 (45.6)	90 (53.6)	43 (43.9)	43 (38.0)	32 (38.6)
Emotional	42 (36.8)	41 (24.4)	21 (21.4)	27 (23.9)	13 (15.7)

Physical health and psychological health Only 35 women (24.5%) said that their general health was excellent. The percentages of women who reported that their health was very good or good were 32.9 and 33.6, respectively. The results of psychological health using the Edinburgh postpartum depression scale indicated that 12 (8.4%) women had a score of 13 or higher (Cox, Holden, & Sagovsky, 1987) which suggested that they probably had a postpartum depression.

Relationship between social support and confidence in mother roles The steps described by Bollen (1989) were used in the Structural Equation Model (SEM) analysis. The number of people who provided each type of support was computed. An indicator was formulated by combining both the subjective and objective information of social support. Each variable was later entered in the model as an observed variable measuring social support.

The score of each question which explored the woman's reported confidence in caring for her infant's needs was entered in the SEM. A similar step was also applied for the score of each question item of the standardized Edinburgh Postpartum depression scale, the measurement of psychological health. Figure 1 shows the results

of an initial path parallel model. A hypothesised relationship was tested based on a path model using the AMOS 4.0 program. The unidirectional arrows in the diagrams represent the direction of the structural relations hypothesized to exist between the social support, physical health, psychological health and the confidence in mother roles. The two headed arrow signifies unanalyzed association between social support, physical health and psychological health. For the constructed measurement model, all factor loadings were freed, question items were allowed to load on only one construct, and variables derived from the observed variables were allowed to correlate. The parsimonious normed fit index (PNFI) and the Akaike information criterion (AIC) were used as a guide to decide whether the model fitted well.

Steps suggested by Bollen (1989) were used to further develop the second model shown in Figure 2. In summary, the parallel nested model was used to test the hypothesized relationship. The observed variables which were excluded from the second model were the number of supporters who provide information to the women and the two question items of the women's reported confidence in caring for a baby with high fever and the women's reported

confidence in caring for a baby who cried non-stop for more than one hour. The sources of information were largely health professionals (see Table 2) and caring for both baby's conditions were perceived as relatively difficult for the mothers to respond. The Edinburgh Postpartum depression scale was modified using the correlational parceling method. The ten questions were grouped into three groups. The average score of the questions of each group was

entered in the second model (see Figure 2). The overall chi-square value of the revised model, the parallel nested model was not significantly different to the "perfect model",  $\chi^2 = 71.82$ ,  $df = 62$ ,  $p = .18$ . The minimum statistical significance level of .05 ( $\alpha = .05$ ) was used as a criterion for rejecting a null hypothesis.

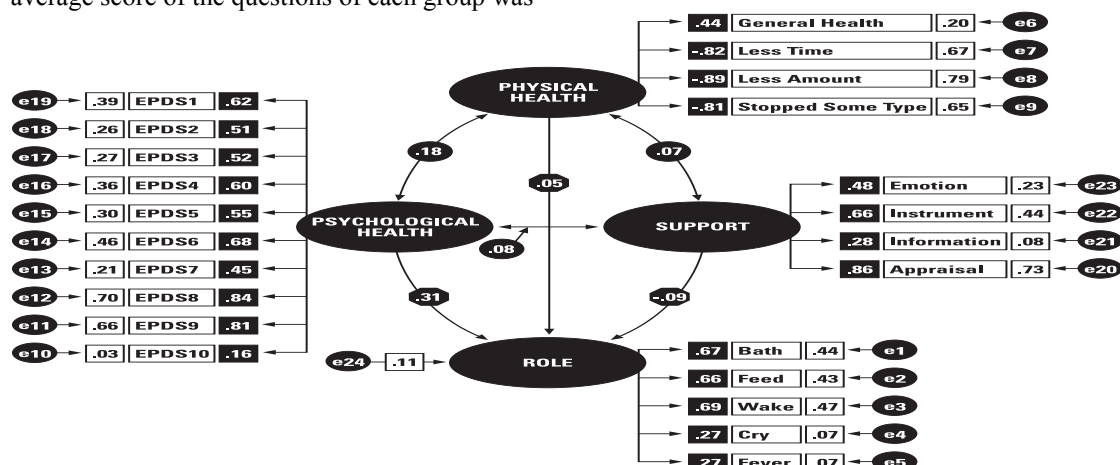


Figure 1. An initial path parallel model to explore relationships between the woman's confidence to undertake her roles as a mother, social support, psychological health and physical health (EPDS = Edinburgh Postpartum Depression Scale, item number, e= error. The presentation is modified from Bollen (1989) for the ease of reading).

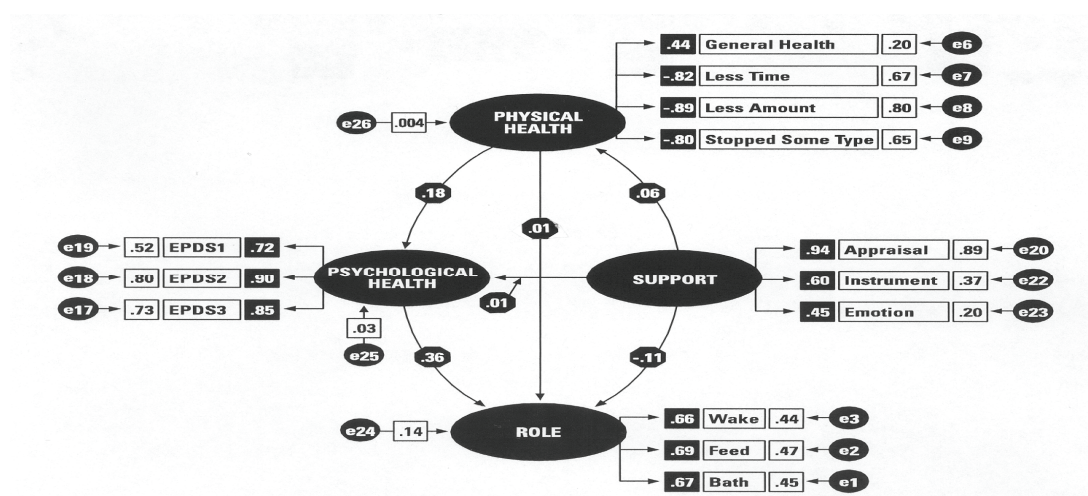


Figure 2. A parallel nested model to explore relationships between the woman's confidence to undertake her roles as a mother, social support, psychological health and physical health (EPDS = Parcelling of the Edinburgh Postpartum Depression Scale, e = error. The presentation is modified from Bollen (1989) for the ease of reading)

Results in Figure 2 showed that the women's psychological health was significantly related to their confidence in their roles as mothers. No relationship was found between the women's

confidence in their roles as mother and the other two variables: the women's physical health and the women's perceived numbers of supporters who provided material, appraisal and emotional supports.

## DISCUSSION

Learning new skills and gaining confidence the developed skills may required not only information but also observation and reinforcement for a period. Women perceived that health professionals were the main source of information. However, they had less contact

compared to other supporters. They might not be able to validate what you learnt or developed to care for the baby. Other sources of information such as books, video and internet were not explored in this study. Fram (2003) also suggested that information support should be considered as a separate category from other types of support when investigating the relationship between social supports to parenting skills.

There are few reasons that can explain the lack of positive effects of social support on the women's confidence in undertaking their roles as mothers. Firstly, a supporter may provide support that a recipient did not need and therefore, the support is not valued. Secondly, a recipient might be selective in her perception of different types of support from each supporter. For example, a health care professional was not expected to provide emotional support. Although the health care professional did provide emotional support, it might not be reported by the women. Thirdly, this study did not explore whether there was any conflict between supports from one group to another. Fourthly, the study women were from a range of social and demographic backgrounds and this might be related to the non-positive outcomes of the social support on their confidence to undertake their paternal roles. Results from the study conducted by Fram (2003) suggested that supporters of women living in a cohesive community might have different expectations to the women's roles in caring for their infants compared to the supporters of women living in a non-cohesive community. However, these characteristics were not explored in this study.

Poor psychological health can range from anxiety, stress to postpartum depression. Psychological health is an important determinant of the women's confidence in their roles as mother. Women with depression may not be ready to learn and develop new skills (Fram, 2003). The study by Tarkka (2003) finds that women are less likely to successfully breast feed their babies and are unmotivated to establish good interaction with their infants. These factors may in part explain this study's results that showed a significant relationship between psychological health and the women's confidence in undertaking their roles as mother.

As mentioned earlier, developing tasks and confidence as a mother is one of adult learning. A major aim of the lifelong learning, particularly among adults, is to assist the learners to adapt in changing social conditions. Learning facts or gaining knowledge from text may be less important than acquiring learning skills that can be applied in different contexts (Herd, 1993).

Postpartum women need to be aware about how to develop and modify their skills so that they can respond to the needs of their baby. Some babies' needs are more difficult to respond compared to other needs. Women need to have self-direction and critical thinking to appropriately undertake steps including making enquiries, gaining information or trialing their tasks as a mother. Anxiety, stress or poor psychological health may not facilitate women to have this effective lifelong learning process.

Early and regular engagement in the learning of maternal tasks since pregnancy (or younger) may later help increase women's confidence in caring for their baby or responding to the baby's needs. This adult lifelong learning requires time and probably reinforcement from others including health professionals to ensure that they are able to develop their skills and perform their tasks as a mother. Their learning styles, specific learning needs, sources of information and critical thinking have to be considered for future lifelong learning of postpartum women.

The study results also indicated that learning new skills and gaining confidence to undertake a task probably was not related to women's physical fitness or their physical health. Information alone does not help women to develop skills. Women are more likely to undertake their maternal roles, regardless of how well or unwell their physical health is.

## CONCLUSION

Psychological health may be related to readiness to learn. The results of this study indicate that nurses and midwives who are the major source of information do not have any positive effect on the women's learnt behaviours of their roles as mothers. The frequency of contact between the source of information and the recipient may limit the impact on skill development. The women perceived health professionals as the major providers of information to them while their partners or parents, parents in law, relatives and friends provided material, appraisal and emotional support. The women reported their confidence in caring for their newborn babies' needs if the needs were relatively easy to respond to. Women's needs and their readiness to learn have to be explored prior to providing information.

## REFERENCES

- Bollen, K. A. (1989). *Structural equations with latent variables*. New York: Wiley.
- Cox, J. L., Holden, J. M., & Sagovsky, R. (1987). Development of the 10-item Edinburgh

Postnatal Depression Scale. *The British Journal of Psychiatry*, 150, 782-786.

Cronenwett, L. R. (1985). Network structure, social support, and psychological outcomes of pregnancy. *Nursing Research*, 34, 93-99.

Eberhard-Gran, M., Eskild, A., Tamb, K., Opjordsmoen, S., & Samuelsen, S. (2001). Review of validation studies of the Edinburgh Postnatal Depression Scale. *Acta Psychiatrica Scandinavica*, 104, 243-249.

Fram, M. S. (2003). *Managing to parent: social support, social capital, and parenting practices among welfare-participating mothers with young children*, Institute for Research on Poverty, Discussion paper no. 1263-03 (manuscript). Retrieved December 20, 2005, from <http://www.ssc.wisc.edu/irp/>

Herd, P. B. (1993). *Adult students' perceptions of their own learning processes*. M.A. Dissertation., Simon Fraser University. Retrieved April 29, 2008, from Proquest database.

Hung, C., & Chung, H. (2001). The effects of postpartum stress and social supports on postpartum women's health status. *Journal of Advanced Nursing*, 36, 676-684.

Jirojwong, S., Rossi, D., Walker, S., & Ritchie, B. (2005). What were the outcomes of home follow up visits after postpartum hospital discharge? *The Australian Journal of Advanced Nursing*, 23, 22-30.

Kendrick, D., Elkan, R., Hewitt, M., Dewey, M., Blair, M., Robinson, J., et al. (2000). Does home visiting improve parenting and the quality of the home environment? A systematic review and meta analysis. *Archives of Disease in Childhood*, 82, 443-451.

Medical Outcome Trust. (1992). *How to score the SF-36 Health Survey*. Boston: Medical Outcome Trust.

Mezirow, J. (1981). A critical theory of adult learning and education. *Adult Education Quarterly*, 32, 3-24.

Norbeck, J. S., Lindsey, A. M., & Carrieri, V. L. (1981). The development of an instrument to measure social support. *Nursing Research*, 30, 264-269.

Stanwick, R. S., Moffat, M. E., Robitaille, Y., Edmond, A., & Dok, C. (1982). An evaluation of the routine postnatal public health nurse home

visit. *Canadian Journal of Public Health*, 73, 200-205.

Tarkka, M. T. (2003). Predictors of maternal competence by first-time mothers when the child is 8 months old. *Journal of Advanced Nursing*, 41, 23-240.