

## Parenting Confidence and Needs for Parents of Newborns in Taiwan

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### Abstract

**Objective:** Parenting confidence with regards to caring for their infants is crucial for the healthy adaptation to parenthood and the development of positive parent-infant relationships. The postpartum period is a tremendous transitional time for parents, so their unique needs should be considered. This study explored parenting confidence and needs in parents when their newborns are discharged from hospital, and explored the best predictors of parenting confidence and needs.

**Methods:** A cross-sectional design with a questionnaire survey was used in this study. The questionnaire included three parts: Demographic, Parenting Needs and Parenting Confidence Questionnaire. We survey a convenience sample of 96 parents from a postnatal ward and a neonatal intermediate care unit of the medical central hospital in Taichung, Taiwan.

**Findings:** The mean age of the subjects was 32 years and 67.7% of the subjects' education level was college or above. Approximately one half of the subjects was multiparous, vaginal delivery and had planned pregnancy. The mean gestational age and birth weight of the newborns was 37.7 weeks and 2902 g, respectively. Parents who had a planned pregnancy ( $t=2.1$ ,  $P=0.04$ ) or preterm infants ( $t=2.0$ ,  $P=0.046$ ) and those whose infants were delivered by cesarean section ( $t=2.2$ ,  $P=0.03$ ) had higher parenting needs. In addition, parents of low birth weight infants had higher parenting needs ( $r=-0.23$ ,  $P=0.02$ ). Regarding parenting confidence, multipara parents perceived higher confidence than primipara parents ( $t=2.9$ ,  $P=0.005$ ). Needs in psychosocial support were significantly correlated with parenting confidence ( $r=0.21$ ,  $P<0.05$ ). The stepwise multiple regression analysis showed that parity and needs in psychosocial support predict parenting confidence of 13.8% variance.

**Conclusion:** The findings of this study help care providers to identify parents with low parenting confidence at an early postpartum stage. Health care teams should provide appropriate psychosocial support and health education based on parents needs.

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**Key Words:** Parenting confidence; Parenting needs; Postpartum; Newborns

### Introduction

The postpartum period is a tremendous transitional time for parents, infants, and family,

and a time when adjustments need to be made on physiological, psychological, and social levels<sup>[1-2]</sup>. Thus, postpartum care should be specifically

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tailored and prioritized to respond to the special needs of the parents and infants in the community.

Since the late 1980s, the average length of stay after a vaginal delivery in most developed countries has been greatly reduced, ranging from 1.9 to 9.2 days [3]. Similarly, in Taiwan the average postpartum hospital stay is three days for a vaginal birth and five days for a cesarean section [4]. The steady decline in length of postnatal hospital stay has been accompanied by recognition of the need for improved discharge planning and stronger links between hospitals and primary care services. Despite recommendations for this type of supportive care, to our knowledge no comprehensive program has been implemented in Taiwan. The short duration of hospital staying has made it more difficult to provide the necessary information and support. This condition may also make it harder for caregivers to be sensitive to the needs of each parent, and to respect each parent's individuality, personal knowledge, and experience [5-7]. As a result, raising a child is probably the most challenging task faced by parents. Mothers report being concerned about medical safety in the first few days after giving birth, and many lack confidence in their ability to care for the baby [8]. Just like women, fathers experience extensive strain, conflict, and dissatisfaction in their life [9,10]. Therefore, to alleviate anxiety continuous access to professional support is seen as essential to building parental confidence [11,13].

Despite such suggestions, postpartum care is often given a low priority in research and clinical practice [1,11,12]. The aim of postpartum care is not only to ensure the physical health of parents and babies, but also to help parents cope with the new situation, to provide support during these difficult adjustment periods, and to ensure that parents feel confident in caring for their baby [13].

Jones and Prinz [14] have reported that parents' confidence in their parenting ability is a key factor in predicting parent and child outcomes. A clinical healthcare provider may also need to assess parental confidence for a variety of reasons, including screening for parent-perceived difficulties, and selection and evaluation of appropriate interventions to address their needs [15]. Therefore, it is essential to identify and

understand associations between parental confidence and other parental characteristics. There is limited research specifically examining parental confidence in infant care practices, and perceptions of parental needs in the postnatal period. Moreover, all of these issues have been seldom investigated in oriental societies. The purposes of this study were to describe the distribution of parenting confidence and care needs, and to explore different predictors of parenting confidence and care needs for Taiwanese parents of newborns in postnatal period.

## ***Subjects and Methods***

**Study Design and Subjects:** A cross-sectional design with a questionnaire survey was used in this study. Purposive sampling was used to recruit parents from the postnatal ward and neonatal intermediate care unit of a medical center in central Taiwan. The inclusion criteria for parents were 1) no mental disorders or critical physical diseases, and 2) able to communicate in Chinese. A final sample of 96 subjects was included in the present study.

**Instruments:** The questionnaire used in this study included three areas.

**Demographic Questionnaire:** The Demographic Questionnaire included parental data regarding age, gender, educational level, gestation condition (planned pregnancy, parity, and delivery), classes for infant care (i.e., antenatal classes for parenting preparation), and infant data including gender, gestational age, and birth weight.

**Parenting Needs Questionnaire:** The Parenting Needs Questionnaire was developed by authors by identifying common parenting needs found in the relevant literature [16-18], and through the clinical experience of the authors. It is a self-reported questionnaire that parents answered according to a five-point scale, with a higher score reflecting a higher perceived level of parenting needs. This questionnaire consists of four subscales including 23 items of care needs, 8 items of psychosocial needs, 7 items of social welfare, and 7 items of

follow-up information.

Five doctoral and master's degree nursing professionals whose specialties were in neonatal nursing and health education were invited to verify the content validity of the questionnaire. These experts rated items on a five-point scale from "not applicable" to "quite applicable". Items with a mean score of less than 3 were deleted. The content validity indices on the four subscales of the Parenting Needs Questionnaire were between 0.89 and 0.95. Furthermore, a pilot study was conducted to measure the content validity and the reliability of the Parenting Needs Questionnaire. Cronbach's alpha was used to assess the internal consistency. For this study, the Cronbach's alpha was 0.97 for the whole questionnaire, and from 0.95 to 0.99 for the subscales.

**Parenting Confidence Questionnaire:** Parenting confidence was measured by Parker and Zahr's [19] Maternal Confidence Questionnaire (MCQ). The questionnaire was used to measure maternal confidence in parenting of their infants, and the ability of mothers to recognize the needs of their infants. Tseng, Hsu, and Chen [20] translated the questionnaire into Chinese, with back translation to English. The Chinese version questionnaire consisting of 12 items that mothers answered according to a five-point scale, has been used in some studies, and Cronbach's  $\alpha$  ranged from 0.89-0.91, and test-retest reliability ranged from 0.69-0.75 [18,20]. A Chinese version of the Parenting Care Questionnaire was used in the current study, and Cronbach's  $\alpha$  was 0.90.

**Research Ethics and Data Collection:** This study was proved by the Institutional Review Board of Chung Shan Medical University, Taiwan (Grant Number: CSMU92-OM-B-010). This study was conducted in the normal newborn nursery and neonatal intermediate care unit of a medical center. The author contacted the subjects, and invited them to participate in this study when their newborns were admitted in hospital. Questionnaires and two consent forms were given to the parents on the same day their newborn was discharged from the hospital. Questionnaires required approximately 30 minutes to complete. Parents were asked to return the questionnaires, and one copy of the informed consent after completion. All subjects were instructed to keep

one copy of the informed consent for their records. A coding number was assigned to each returning questionnaire to ensure confidentiality and anonymity. The consent form and the questionnaires were stamped with a code number in the right top corner, starting with 0001. If the subjects wanted to withdraw from the study, they were instructed to call the researcher and ask to be withdrawn. After a request for withdrawal from the study was received, the researcher located the questionnaires that were submitted based on the code number, and then destroyed the questionnaires.

**Data Analysis:** Descriptive statistics, Pearson's correlation, and multiple regression analysis were used to analyze the data. *P*-values <0.05 (two-tailed tests) were regarded as statistically significant. All statistical analyses were performed using SPSS version 13.0 software for Windows (SPSS Inc., Chicago, IL, USA).

## Findings

**Demographic Characteristics:** In total, 96 subjects, 55 mothers and 41 fathers, participated in the study. The mean age of the subjects was 32.0 years. Most of the parents had an educational level of college or above, and did not participate in classes for infant care. Approximately one half of the births was vaginal deliveries, multiparous and had planned pregnancy. The mean gestational age of the newborns was 37.7 weeks, and the mean birth weight was 2902 g. All demographic data are presented in Table 1.

**Distribution of Parenting Needs and Confidence:** The Parenting Needs and Confidence data are shown in Table 2. The mean total score for parenting needs was 188.59 after summing the care needs, psychosocial needs, social welfare, and follow-up information. Generally speaking, parents were in high need of newborn care information. Further, the parenting needs were followed in rank by care needs, follow-up information, social welfare, and finally, psychosocial needs. The mean score of parenting confidence was 40.41, indicating that the subjects

**Table 1:** Demographic data of study participants (n=96)

| Variables                                  | n (%)      |
|--|------------|
| <b>Parents</b>                             |            |
| Mother                                     | 55 (57.3)  |
| Father                                     | 41 (42.7)  |
| <b>Age<sup>a</sup></b>                     | 32.0 (4.3) |
| <b>Education</b>                           |            |
| ≤ 12 (High school)                         | 31 (32.3)  |
| ≥ 13 (College)                             | 65 (67.7)  |
| <b>Planned pregnancy</b>                   |            |
| No   | 42 (43.8)  |
| Yes  | 54 (56.3)  |
| <b>Parity</b>                              |            |
| Primipara                                  | 46 (47.9)  |
| Multiipara                                 | 50 (52.1)  |
| <b>Classes for infant care (antenatal)</b> |            |
| No   | 70 (72.9)  |
| Yes  | 26 (27.1)  |
| <b>Delivery</b>                            |            |
| Vaginal                                    | 50 (52.1)  |
| Cesarean section                           | 46 (47.9)  |
| <b>Gender of infant</b>                    |            |
| Female                                     | 57 (59.4)  |
| Male                                       | 39 (40.6)  |
| <b>Gestational age (week)<sup>a</sup></b>  | 37.7 (3.2) |
| Full term (≥ 37weeks)                      | 80 (83.3)  |
| Preterm (<37weeks)                         | 16 (16.7)  |
| <b>Birth weight (in grams)<sup>a</sup></b> | 2902 (710) |

<sup>a</sup>Mean (Standard Deviation)

in this study had slightly poor parenting confidence.

At the end of the questionnaire, each parent was asked to list who he or she wanted to ask for help about newborn care. Only 36.5% of participants received support from their partner. The three most frequently cited persons to ask for help were nurses (82.3%), parents (54.2%), and doctors (40.6%).

**Relationships between Demographic Data, Parenting Needs, and Confidence:** *T*-test and Pearson's correlation were performed to explore the impact of demographic characteristics on parenting needs and confidence. The results are shown in Table 3. The parents having a planned pregnancy, preterm infants and cesarean section delivering had higher parenting needs. In addition,

the newborn birth weight correlated negatively with parenting needs. Multiparous parents reported higher parenting confidence than primiparous parents.

The relationship between parenting needs and confidence are shown in Table 4. There was no significant relationship between parenting needs and confidence; however, needs in psychosocial support were significantly and positively correlated with parenting confidence.

**Factors Contributing to Parenting Needs and Confidence:** Stepwise multiple regression analysis indicated that the birth weight could explain 5.2% of the variance of parenting needs. Furthermore, parity and needs in psychosocial support predicted 13.8% of the variance in parenting confidence (Table 5).

**Table 2:** Distribution of parenting needs and confidence

| Variables                    | Item Number | Mean (SD)      | Range   | Mean of each item |
|------------------------------|-------------|----------------|---------|-------------------|
| <b>Parenting needs</b>       | 45          | 188.59 (24.46) | 102-225 | 4.19              |
| <b>Care needs</b>            | 23          | 97.97 (13.92)  | 44-115  | 4.26              |
| <b>Psychosocial needs</b>    | 8           | 32.80 (4.98)   | 8-40    | 4.10              |
| <b>Social welfare</b>        | 7           | 28.81 (5.70)   | 7-35    | 4.12              |
| <b>Follow-up information</b> | 7           | 29.01 (4.80)   | 7-35    | 4.14              |
| <b>Parenting confidence</b>  | 12          | 40.41 (9.87)   | 12-60   | 3.37              |

**Table 3:** Differences among parenting needs and confidence with respect to demographic data (n=96)

| Variables                                  | Parenting needs |        |       | Parenting confidence |        |       |
|--|-----------------|--------|-------|----------------------|--------|-------|
|  | Mean            | t or r | P     | Mean                 | t or r | P     |
| <b>Parents<sup>b</sup></b>                 |                 | 0.541  | 0.06  |                      | 0.132  | 0.9   |
| Mother                                     | 187.0           |        |       | 40.6                 |        |       |
| Father                                     | 189.8           |        |       | 40.3                 |        |       |
| <b>Age<sup>a</sup></b>                     |                 | -0.158 | 0.1   |                      | 0.051  | 0.6   |
| <b>Education Level (yr)<sup>b</sup></b>    |                 | 1.753  | 0.08  |                      | 1.139  | 0.3   |
| ≤ 12 (High school)                         | 193.9           |        |       | 42.1                 |        |       |
| ≥ 13 (College)                             | 186.0           |        |       | 39.6                 |        |       |
| <b>Planned pregnancy<sup>b</sup></b>       |                 | 2.089  | 0.04  |                      | 0.497  | 0.6   |
| No   | 184.0           |        |       | 41.0                 |        |       |
| Yes  | 194.4           |        |       | 40.0                 |        |       |
| <b>Parity<sup>b</sup></b>                  |                 | 1.459  | 0.1   |                      | 2.913  | 0.005 |
| primipara                                  | 192.4           |        |       | 37.4                 |        |       |
| multipara                                  | 185.1           |        |       | 43.2                 |        |       |
| <b>Classes for infant care<sup>b</sup></b> |                 | 0.774  | 0.4   |                      | 0.474  | 0.6   |
| No   | 191.8           |        |       | 41.2                 |        |       |
| Yes  | 187.4           |        |       | 40.1                 |        |       |
| <b>Delivery<sup>b</sup></b>                |                 | 2.174  | 0.0   |                      | 0.014  | 0.9   |
| Vaginal                                    | 183.0           |        |       | 40.4                 |        |       |
| Cesarean section                           | 193.7           |        |       | 40.4                 |        |       |
| <b>Gender of infant<sup>b</sup></b>        |                 | 0.651  | 0.5   |                      | 1.281  | 0.2   |
| Female                                     | 187.2           |        |       | 41.5                 |        |       |
| Male                                       | 190.6           |        |       | 38.8                 |        |       |
| <b>Gestational age<sup>b</sup></b>         |                 | 2.019  | 0.046 |                      | 1.154  | 0.2   |
| Full-term                                  | 186.4           |        |       | 39.9                 |        |       |
| Preterm                                    | 199.7           |        |       | 43.0                 |        |       |
| <b>Birth weight<sup>a</sup></b>            |                 | -0.229 | 0.025 |                      | -0.093 | 0.4   |

<sup>a</sup> Pearson's correlation; <sup>b</sup> Two Samples Test

## Discussion

During the postnatal period, infants require rapidly changing physical and psychosocial care, challenging parents to tailor their parenting techniques to the infant's changing needs. Thus, it is critical to understand how parenting confidence and needs unfold, specifically during early childhood. The previous study that indicated maternal age was an important factor associated with maternal confidence [21]. Young age, being a first-time parent, and having a low educational level, may be related to lack of previous knowledge and experience [22-23]. In our study,

parental age and educational level were not important factors associated with parenting confidence and parenting needs. This could be due to a high homogeneity in age distribution and educational level among the parents in this study.

Previous research has indicated that parity may be an indicator of caregiving experience that help mothers know what their infant's behavior means, and they may use this experience as a criteria for the evaluation of care needs[40]. Multiparous women may view themselves as more competent in caregiving than do primiparous women[24-26]. Similarly, our study results indicated that multiparous and experienced parents perceived a

**Table 4:** Pearson's correlation between parenting needs and confidence (N=96)

| Variables                  | Parent's needs | Care needs    | Psychosocial needs | Social welfare | Discharge follow-up |
|----------------------------|----------------|---------------|--------------------|----------------|---------------------|
| <b>Parental confidence</b> | <b>0.075</b>   | <b>-0.052</b> | <b>0.206*</b>      | <b>0.136</b>   | <b>0.154</b>        |

\* Correlation is significant at the level of less than 0.05 (2-tailed).

**Table 5:** Stepwise multiple regression of parenting needs and confidence

|                      | Predictors           | Accumulated R <sup>2</sup> | R <sup>2</sup> | Beta   | t-value | P-value |
|----------------------|----------------------|----------------------------|----------------|--------|---------|---------|
| Parenting needs      | Birth weight         | 0.052                      | 0.052          | -0.229 | -2.280  | 0.025   |
|                      | Parity               | 0.086                      | 0.086          | -0.310 | -3.210  | 0.002   |
| Parenting confidence | Psychosocial support | 0.138                      | 0.052          | 0.229  | 2.376   | 0.020   |

significantly higher level of confidence. In addition, parents who had previous experiences of parenting, or who had anxiety related to parenting of newborns, exhibited a higher parenting needs score. Thus, there is a need for flexibility in postnatal care options that acknowledges the needs of each parent, and how these needs may change with parity and prior experience.

The postnatal period is a time when parents are faced with learning how to care for their new infants. The more parents feel prepared for caring for their infant, the greater their feelings of fulfillment and accomplishment in parenthood [7,21]. Increased parenting confidence in the early postnatal period may positively influence the experience of parenthood, and enhance the ability of parents to adequately care for their infant [21,27,28]. In our findings, there was no significant relationship between parenting needs and confidence; however, needs with respect to psychosocial support were significantly and positively correlated with parenting confidence.

Studies have found that the more difficult and demanding the child is, the more parents felt isolation from society and less parental confidence [21,29]. Despite this, parents have reported that support from professional providers focused primarily on their infants, and left their needs largely unmet [25]. We found the same features in our findings in that preterm and low birth weight predicated more parenting care needs. In our study mothers who delivered by cesarean section had higher parenting needs. This may be because cesarean section delivery is typically unexpected, or because infants delivered by cesarean section have more physical problems [30].

Another issue is that parenting confidence and needs are affected by psychosocial factors. Information and significant support from others, and sufficient advice from health professionals have been shown to contribute to feelings of

competence and success of parents in their new role, and to be significantly associated with the support services they have received [22,27]. Maternal support received from important supporters such as their partner and their own mother has been shown to be positively correlated with maternal competence [21,24]. In our study, the top three resources for support were nurses, parents, and doctors. However, recent research has indicated that women felt there was a lack of professional support at times while they were in the hospital, commenting that staff were too busy or unavailable to provide the care that they expected [26]. Our results are striking, and thus we must not only understand the availability of support resources, but also that satisfaction with this support is likely to have a more important effect on a parent than the actual contribution of the support.

Better preparation of parents for child care should be multifaceted, for example antenatal care and postnatal care programs. Antenatal care is sensitive to parenting needs, and can improve parenting confidence [31]. On the other hand, comprehensive postnatal care programs should include hospital care covering information about infant care and community-based care, including home visits by public health nurses, infant care classes, and developing a peer support group. In addition, the provision of parenting related classes or supporting groups to pregnant women when they receive prenatal check-up can be of help in enhancing their parenting confidence. It is interesting that in our study the top support resource was nurses, but only 27.1% of subjects participated in classes for infant care. Traditional Chinese custom dictates that women are required to stay indoors for the first month postpartum. This can make it difficult for postpartum women to seek help, and reduces the opportunities to discuss their needs at health education classes

provided by hospitals or in other settings. So that, providing information about infant care through public health nurses in the postpartum period is a more convenient and cost effective method than utilizing nurses in the hospital, especially because in Taiwan every township has its own community health center staffed by well-trained public health nurses or midwives.

**Limitations:** There are some limitations of the present study. A convenience sample of Taiwanese was used, so the findings might not be generalized to the general population. Future studies should reflect more diversity with respect to culture, ethnicity, and geographic location. The sole use of self-reported outcomes may have introduced bias. Future studies should include measures that objectively reflect parenting confidence and needs. We do believe that fathers and mothers have different parenting needs in the postnatal period. However, based on literature review this issue has seldom been covered in the research of oriental societies. Thus, our study has focused on parents, and on whether or not differences exist in parenting confidence and needs between fathers and mothers. For further study of specific paternal and maternal confidence and needs, we may need a large sample of parents with a longitudinal study design.

**Applications:** During the postnatal period, infants require a timely physical and psychosocial care, thus, it is important for care provider to understand about the level of parenting confidence and needs. The findings of this study help care providers to identify parents with low parenting confidence at an early postpartum stage. It's also found that parents who had a planned pregnancy, preterm infants or cesarean section were in a higher need in parenting ability. In the future, health care teams should provide appropriate psychosocial support and health education based on parents needs. This study suggests that a comprehensive prenatal and postnatal care program should include covering check-up parenting confidence. This claims that health care providers could develop a peer support group for enhancing parents' confidence.

## Conclusion

The results of our study suggest that the important factors that predict parenting confidence in the postnatal period include parity and psychosocial support. In addition, birth weight can also help predicate parenting needs in most cases. For the community health teams providing postnatal care, it is important to understand the confidence level and needs of parents. The findings of this study help care providers to identify parents with low parenting confidence at an early postpartum stage

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**Conflict of Interest:** None

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