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Chich-Hsiu Hung, PhD, RN¹, Ching-Yun Yu, MSN, RN¹,
Shun-Jen Chang, PhD¹, and Joel Stocker, PhD¹

Abstract

Purpose: To compare differences in psychosocial changes among experienced and first-time mothers over 6 postpartum weeks. **Design:** A trend research study design. **Method:** A cohort of 439 first-time mothers and 420 experienced mothers during the 6 postpartum weeks was recruited in southern Taiwan. Each participant was interviewed over the phone to complete the Hung Postpartum Stress Scale, the Social Support Scale, and the Chinese Health Questionnaire. **Findings:** Concern about lack of social support was significantly higher in first-time mothers in the third week than in the first week. **Conclusions:** Postpartum stressors are different for inexperienced and experienced mothers, and these stressors vary in their importance over the 6 postpartum weeks, suggesting that the postpartum nursing needs of the two groups in 6 postpartum weeks may be different. **Implication for Practice:** Knowledge and skills in mothering capability should be emphasized for first-time mothers, and physical exercises are needed for both groups of mothers.

Keywords

health status, para, postpartum ritual, postpartum stress, social support, maternal/child, transcultural health, women's health, correlational design, Taiwanese

Introduction

The postpartum period is a stressful time for women. In addition to experiencing pain, fatigue, and distress during and immediately after giving birth (Mercer, 1986), these women are required to make complex adjustments (Bowman, 2005). They not only have to recover from childbirth, they must also care for their needy infants. Postpartum stress may make it difficult for women to function effectively as mothers and may adversely affect their health (George, 2005; Hung, 2007b). During the postpartum period, women may need social support to help them cope with these stressors (Hung & Chung, 2001).

Studies suggest that social support buffers individuals from the potentially adverse effects of stressful events (Achat et al., 1998; Cohen & Wills, 1985; Too, 1997). One study reported that a mother's perception of the amount of positive support she receives favorably influences adaptive maternal behavior (Logsdon, Birkimer, & Barbee, 1997). Social support has been found to play a positive role in helping postpartum women cope during this stressful transition period and maintain a favorable health status (Hung, 2004).

Evidence suggests that, for mothers, the most important period for learning to care for their own and their children's health is immediately after childbirth and the immediate weeks and months that follow (Beger & Cook, 1998; Bowman, 2005;

Martell, Imle, Horwitz, & Wheeler, 1989). Up to 1995, the average length of hospital stay was close to a week following childbirth in Taiwan. However, because of national health insurance cost-containment measures, hospital stay was reduced to an average of 3 days, leaving much less time for the professional care and education of these women (Hung, 2005b). At the same time, postpartum home visits by public health nurses were taken out of the health care system. As a consequence, new mothers in Taiwan today are more vulnerable and lack much of the assistance that new mothers had available to them in previous generations (Hung, 2005a).

Although a reduction in hospital stay following delivery does not necessarily result in an increased mortality or rehospitalization for mothers or infants (Brooten, Roncoli, Finkler, Cohen, & Mennuti, 1994; Carty & Bradley, 1990), nursing research suggests that identifying and meeting the needs of new mothers in the early postpartum period should be considered an ongoing and vital nursing goal (George, 2005). Some research in this area has been undertaken, but much of it investigates the preparedness and concerns of inexperienced

¹Kaohsiung Medical University, Kaohsiung, Taiwan

Corresponding Author:

Chich-Hsiu Hung, School of Nursing, Kaohsiung Medical University,
No. 100, Shih-Chuan 1st Road, Kaohsiung 80708, Taiwan
Email: chhung@kmu.edu.tw

mothers (George, 2005; Lugina, Christensson, Massawe, Nystrom, & Lindmark, 2001), not the concerns of experienced mothers during this period. Given that many women have more than one child (i.e., are "experienced"), we should pay closer attention to the needs of this population of postpartum mothers.

Another problem with these previous studies is that they make use of so many different methods and have not used a reliable or consistent scale (Beger & Cook, 1996; Bowman, 2005; Bowman & Ruchala, 2006). Thus, they have left educators and staff nurses with only disparate fragments of clinically useful, evidence-based information (Bowman, 2005; Lugina, Nystrom, Christensson, & Lindmark, 2004). Hung (2007c) conducted a study to differentiate among various postpartum stressors and compare women's postpartum stress, social support, and health status in relation to parity differences among low-risk postpartum women. That study, however, can only be generalized to low-risk women and, further, did not indicate the trend in psychosocial changes experienced by all postpartum women. Assessing the fluctuations of postpartum women's psychosocial factors is important because the time immediately following childbirth and extending into the weeks and months following is a critical period in the process of maternal role attainment (Hung, 2007c).

Therefore, the aim of this study was to assess postpartum psychosocial changes using a trend study design for a population that included high-risk as well as low-risk, experienced as well as inexperienced, women. We administered three validated and reliable scales to compare differences and changes in postpartum stress, social support, and health status over 6 postpartum weeks.

Method

Sample

At 18 registered general hospitals and obstetric clinics in the Kaohsiung area of southern Taiwan, we recruited 439 first-time mothers and 420 experienced mothers to participate in this study at two points in time: during their hospital or clinic stay and during one of their 6 postpartum weeks. Only women who had given birth to a live baby and were able to speak and read Mandarin Chinese participated. We used a trend study design with a cohort of 67, 68, 77, 71, 78, and 78 first-time mothers and 80, 75, 67, 68, 68, and 62 experienced mothers on one of the respective 6 postpartum weeks. The trend study design is a form of longitudinal study in which different samples from a population are studied over time with respect to some phenomenon (Lolit & Beck, 2008). It permits researchers to examine patterns and rates of change over time and to predict future developments (Lolit & Beck, 2008).

In total, 878 potential participants were first administered a questionnaire collecting demographic data during their stay in one of the medical care facilities, at which time the details of the study were explained to them by a research assistant and informed written consent was obtained. Because this was

a trend study, we conducted an interview with six different sets of women at six different postpartum times, after they had been discharged. The interview consisted of three questionnaires administered to 67, 68, 77, 71, 78, and 78 first-time mothers and 80, 75, 67, 68, 68, and 62 experienced mothers at postpartum weeks 1, 2, 3, 4, 5, and 6, respectively. In total, 439 first-time mothers and 420 experienced mothers were interviewed. Nineteen of the 878 women we had originally recruited did not participate in the postpartum telephone interviews, making for a response rate of 97.8%.

Instruments

The participants were interviewed by telephone using three instruments: the Hung Postpartum Stress Scale (Hung PSS; Hung, 2007a), the Social Support Scale (Smilkstein, 1978; Smilkstein, Ashworth, & Montano, 1982), and the 12-item Chinese Health Questionnaire (Cheng & Williams, 1986). The 62-item Hung PSS is a valid and reliable instrument for assessing the postpartum stress of both high- and low-risk Taiwanese women during the 42 postpartum days. Exploratory factor analysis indicated construct validity for three attributes of postpartum stress: concerns about maternal role attainment, concerns about negative body changes, and concerns about lack of social support (Hung, 2007a).

The generalizability of the Hung PSS is high for postpartum Taiwanese women, with high Wrigley-Neuhaus coefficients of congruence found across type of delivery, levels of education, pregnancy planning, preferred sex, number of children, and postpartum days (Hung, 2007a). The internal consistency coefficient for its three attributes across the full sample and within pertinent subsamples also showed the Hung PSS to be a reliable instrument for measuring Taiwanese women's postpartum stress, with α coefficients ranging from .84 to .94 (Hung, 2007a). The scale's items are ranked on a 5-point Likert-type scale from 1 (*not at all*) to 5 (*always*) based on the degree of postpartum stress perceived by participants at the time of data collection. The score for postpartum stress is derived by summing all item ratings, resulting in scores between 62 and 310, with higher values indicating higher stress. The internal consistency coefficient using Cronbach's α in this sample was .95.

The Social Support Scale (SSS) includes the Family APGAR (Adaptation, Partnership, Growth, Affection, and Resolve; Smilkstein, 1978) and Friend APGAR (Smilkstein et al., 1982). Its construct validity for the two dimensions of family support and friend support has been verified through factor analysis (Hung, 2001). It has been found to be reliable, with Cronbach's α coefficients of .90 (Hung, 2007c) and .92 (Hung & Chung, 2001). It is a 10-item, 5-point Likert-type scale. Items are scored using 1 (*never*) to 5 (*always*), from which a summative score is derived. The total possible score is between 10 and 50, which represents the frequency with which social support is available from either family or friends. High scores indicate high social support during the postpartum period. Cronbach's α was .92 in this study.

The 12-item Chinese Health Questionnaire (CHQ-12) is a culture-specific, reliable, and valid instrument developed by Cheng and Williams (1986) for case-finding of minor psychiatric disorders in Taiwanese communities. It has been found to have a sensitivity of 78% and a specificity of 77% (Chong & Wilkinson, 1989). On this scale, participants rate how frequently they experience each symptom on a 4-point scale from 1 (*not at all*) to 4 (*more than usual*). Ratings of 1 and 2 were recoded as 0, and ratings of 3 and 4 recoded as 1. All item ratings were added, forming a summary score ranging from 0 to 12, with cut-off scores of 3 and above defined as “case” and 2 and below as “noncase” to identify minor psychiatric morbidity in community settings (Chong & Wilkinson, 1989). Cronbach’s α coefficient has been reported to be .84 in a previous study (Cheng, Wu, Chong, & Williams, 1990). In this study, Cronbach’s α was .72.

Procedure

During postpartum hospitalization, a trained research assistant visited each potential participant, explaining the study and consent form using a standardized script. The participant completed the demographic questionnaire and signed a written consent form. A plastic folder containing the survey instruments—that is, the Hung PSS, the SSS, and the CHQ-12—was then given to each of the women. They were asked to keep it handy for a telephone interview to be done after their discharge from the hospital. The timing of the phone interview with each participant was sequenced in ascending order according to when she was recruited for the study. Thus, the earliest recruits were phoned first (Week 1), and so on, each participant receiving a call during only one of her 6 postpartum weeks at her postpartum residence by the research assistant. The assistant read aloud each question of the Hung PSS, the SSS, and the CHQ-12 while the woman followed along with her copy and responded to the questions verbally. The protocol for this study was approved by each participating institution and the research ethics committee of Kaohsiung Medical University Hospital before data collection.

Data Analysis

Data were analyzed with *t* test, chi-square, and the Bonferroni post hoc statistics using SPSS, version 11.5.

Findings

Characteristics of Inexperienced Mothers and Experienced Mothers

The average age of the 439 first-time and 420 experienced mothers was 27.88 years ($SD = 4.56$) and 30.55 years ($SD = 4.08$), respectively. Most women in both groups (75.8% and 73.8%) had senior high school or junior college diplomas. More than half of first-time (52.2%) and fewer than half (45.5%) of experienced mothers were employed full time.

Most of the first-time (71.9%) and experienced (71.2%) mothers’ total monthly household incomes ranged from 25,001 to 75,000 New Taiwan Dollars (US\$725 to \$2,174). The mean months of marriage was 20.56 months ($SD = 19.02$) for first-time mothers and 60.20 months ($SD = 33.95$) for experienced mothers. Only 36.7% of first-time and 35.5% of experienced mothers had planned pregnancies.

A majority of the first-time mothers (95.7%) and experienced mothers (95.5%) reported no complications during pregnancy. The range of gestational age for inexperienced mothers was from 27 to 42 weeks, with a mean of 38.69 weeks ($SD = 1.61$); for experienced mothers, it from 28 to 41 weeks, with a mean of 38.25 weeks ($SD = 1.71$). Regarding the characteristics of birth, 39.6% of the inexperienced mothers and 43.1% of the experienced mothers had vaginal deliveries, about 97.0% of the inexperienced and experienced mothers did not suffer from complications during the delivery process, and most in both groups were satisfied with this childbirth experience. In addition, 95.9% of the inexperienced mothers and 95.7% of the experienced mothers had a healthy infant, 2.7% of the inexperienced mothers and 1.0% of the experienced mothers had twin babies, more than 50% of the infants were boys for both the inexperienced and the experienced mothers, and most of the women expressed no preference about infant gender. The range of infant birth weight was from .93 to 4.41 kg for inexperienced mothers’ babies and 1.20 to 4.86 kg for experienced mothers’ babies, with a mean of 3.18 kg ($SD = .48$) and 3.18 kg ($SD = .49$), respectively. Breast-feeding, formula feeding, or a combination of formula and breast-feeding was done by 34.2%, 7.3%, and 58.5%, respectively, of the inexperienced mothers, and 22.1%, 14.5%, and 63.3%, respectively, of the experienced mothers.

Postpartum Stressors for Inexperienced Mothers and Experienced Mothers

During the 6-week postpartum period, two items, “the baby getting sick suddenly” and “the flabby flesh around my belly,” were constant as the first-time mothers’ top-five postpartum stressors over the 6 postpartum weeks. Items of “body soreness,” “getting back my original body figure,” and “interrupted sleep” were constant concerns as the experienced mothers’ top-five postpartum stressors across the 6 postpartum weeks.

Comparisons of Inexperienced and Experienced Mothers’ Concerns About Maternal Role Attainment, Negative Body Changes, Lack of Social Support, and Family Support and Friend Support

The PSS covers three attributes of concern that may cause stress: concerns about maternal role attainment, negative

Table 1. Comparisons of Inexperienced and Experienced Mothers' Concerns About Maternal Role Attainment, Negative Body Changes, Lack of Social Support, and Family Support and Friend Support ($N = 859$)

	Inexperienced Mothers, Mean (SD)	Experienced Mothers, Mean (SD)	t	p
First week	$n = 67$	$n = 80$		
Maternal role attainment	73.54 (19.59)	62.74 (21.34)	3.17	.00**
Negative body changes	28.00 (8.95)	26.70 (9.60)	.84	.40
Lack of social support	29.00 (7.79)	31.89 (11.24)	-1.83	.07
Family support	18.43 (4.82)	17.27 (4.45)	1.51	.13
Friend support	18.36 (4.48)	17.41 (4.12)	1.33	.19
Second week	$n = 68$	$n = 75$		
Maternal role attainment	72.10 (17.64)	61.00 (20.60)	3.45	.00**
Negative body changes	29.62 (8.97)	26.19 (9.75)	2.18	.03*
Lack of social support	30.99 (8.12)	33.00 (10.34)	-1.30	.20
Family support	18.21 (4.64)	17.05 (4.47)	1.51	.13
Friend support	18.09 (4.31)	16.88 (4.99)	1.54	.13
Third week	$n = 77$	$n = 67$		
Maternal role attainment	76.95 (19.50)	63.12 (20.82)	4.11	.00**
Negative body changes	29.79 (9.10)	28.55 (8.98)	.82	.41
Lack of social support	33.94 (9.98)	34.51 (10.00)	-.34	.73
Family support	17.74 (4.14)	17.21 (4.19)	.76	.45
Friend support	17.48 (4.43)	16.24 (4.53)	1.66	.10
Fourth week	$n = 71$	$n = 68$		
Maternal role attainment	72.21 (18.92)	58.26 (17.76)	4.48	.00**
Negative body changes	29.34 (7.56)	27.15 (8.84)	1.57	.12
Lack of social support	33.38 (9.20)	32.84 (10.18)	.33	.74
Family support	17.96 (4.58)	17.10 (4.79)	1.08	.28
Friend support	18.24 (4.78)	17.10 (4.97)	1.37	.17
Fifth week	$n = 78$	$n = 68$		
Maternal role attainment	69.78 (19.24)	60.43 (18.25)	3.00	.00**
Negative body changes	28.05 (8.83)	28.32 (8.15)	-.19	.85
Lack of social support	32.79 (9.83)	34.87 (9.60)	-1.29	.20
Family support	16.97 (4.93)	15.93 (4.26)	1.36	.18
Friend support	18.36 (4.79)	16.40 (5.13)	2.39	.02*
Sixth week	$n = 78$	$n = 62$		
Maternal role attainment	69.09 (22.87)	59.90 (16.79)	2.74	.01**
Negative body changes	29.08 (10.57)	27.85 (9.01)	.73	.47
Lack of social support	31.78 (11.49)	31.87 (7.95)	-.05	.96
Family support	17.95 (4.20)	17.69 (4.06)	.36	.72
Friend support	17.24 (4.40)	17.15 (4.90)	.13	.90

* $p < .05$. ** $p < .01$.

body changes, and lack of social support (Hung, 2007a). The inexperienced mothers had significantly higher mean scores on concerns about maternal role attainment than the experienced mothers across the 6 weeks postpartum (Table 1). The inexperienced mothers also had significantly higher mean scores for concerns about negative body changes than the experienced mothers in Week 2. With regard to two attributes of social support, we found no significant difference in family support or friend support between the two groups of mothers over the study period except for Week 5. During that week, first-time mothers reported significantly greater support from friends than experienced mothers (Table 1).

Comparisons of Inexperienced and Experienced Mothers' Postpartum Stress, Social Support, and Health Status Over 6 Postpartum Weeks

In our comparisons of postpartum stress, social support, and health status between the two groups, first-time mothers had significantly greater postpartum stress than the experienced mothers at the second (132.71 ± 29.76 vs. 120.19 ± 37.27), third (140.68 ± 34.42 vs. 126.18 ± 35.90), and fourth (134.93 ± 30.31 vs. 118.25 ± 33.08) postpartum weeks. In addition, they reported significantly greater social support at the fifth postpartum week than their experienced counterparts (35.33 ± 8.24

Table 2. Comparisons of Inexperienced and Experienced Mothers' Postpartum Stress, Social Support, and Health Status Over 6 Postpartum Weeks ($N = 859$)

	Inexperienced Mothers		Experienced Mothers		t or χ^2	p
	n	Mean (SD) or n (%)	n	Mean (SD) or n (%)		
First week	67		80			
Postpartum stress		130.54 (31.17)		121.33 (38.12)	1.61	.11
Social support		36.79 (8.03)		34.69 (7.55)	1.64	.10
Health status					0.01	.91
Noncase		48 (71.6%)		58 (72.5%)		
Case		19 (28.4%)		22 (27.5%)		
Second week	68		75			
Postpartum stress		132.71 (29.76)		120.19 (37.27)	2.21	.03*
Social support		36.29 (7.84)		33.93 (8.86)	1.68	.10
Health status					0.07	.79
Noncase		43 (63.2%)		49 (65.3%)		
Case		25 (36.8%)		26 (34.7%)		
Third week	77		67			
Postpartum stress		140.68 (34.42)		126.18 (35.90)	2.47	.02*
Social support		35.22 (7.08)		33.45 (7.76)	1.43	.15
Health status					0.33	.57
Noncase		47 (61.0%)		44 (65.7%)		
Case		30 (39.0%)	23	23 (34.3%)		
Fourth week	71		68			
Postpartum stress		134.93 (30.31)		118.25 (33.08)	3.10	.002**
Social support		36.20 (7.61)		34.21 (8.62)	1.45	.15
Health status					1.35	.25
Noncase		38 (53.5%)		43 (63.2%)		
Case		33 (46.5%)		25 (36.8%)		
Fifth week	78		68			
Postpartum stress		130.63 (33.74)		123.62 (32.03)	1.28	.20
Social support		35.33 (8.24)		32.32 (7.63)	2.28	.02*
Health status					0.21	.65
Noncase		51 (65.4%)		42 (61.8%)		
Case		27 (34.6%)		26 (38.2%)		
Sixth week	78		62			
Postpartum stress		129.95 (40.40)		119.63 (28.86)	1.76	.08
Social support		35.19 (7.42)		34.87 (8.09)	0.27	.79
Health status					2.16	.14
Noncase		46 (59.0%)		44 (71.0%)		
Case		32 (41.0%)		18 (29.0%)		

Note: Case = minor psychiatric morbidity; Noncase = no minor psychiatric morbidity.

* $p < .05$. ** $p < .01$.

vs. 32.32 ± 7.63). We did not find any significant differences in minor psychiatric health morbidity between the two groups at any point during the 6-week study period (Table 2).

Changes in Inexperienced and Experienced Mothers' Respective Postpartum Stress, Social Support, and Health Status Over 6 Weeks

Both the first-time mothers and experienced mothers were found to have some changes in postpartum stress—concerns

about maternal role attainment, negative body changes, or lack of social support—over the 6-week postpartum period. These changes were all insignificant except for the mean score for concerns about lack of social support by first-time mothers (Table 3), which, according to the Bonferroni post hoc test, was significantly higher in first-time mothers in Week 3 than in Week 1. There were no significant changes in mean scores for social support and its two attributes (family support and friend support) or the percentage of “case”/“noncase” for minor psychiatric morbidity over the 6 weeks for either the inexperienced mothers or the experienced mothers.

Table 3. Changes in Inexperienced and Experienced Mothers' Respective Postpartum Stress and Social Support and Health Status Over 6 Weeks ($N = 859$)

	1st Week, $n = 67$	2nd Week, $n = 68$	3rd Week, $n = 77$	4th Week, $n = 71$	5th Week, $n = 78$	6th Week, $n = 78$	F or χ^2	p
Inexperienced mothers								
Postpartum stress	130.54 (31.17)	132.71 (29.76)	140.68 (34.42)	134.93 (30.31)	130.63 (33.74)	129.95 (40.40)	1.12	.35
Maternal role attainment	73.54 (19.59)	72.10 (17.64)	76.95 (19.50)	72.21 (18.92)	69.78 (19.24)	69.09 (22.87)	1.57	.17
Negative body changes	28.00 (8.95)	29.62 (8.97)	29.79 (9.10)	29.34 (7.56)	28.05 (8.83)	29.08 (10.57)	0.54	.75
Lack of social support	29.00 (7.79)	30.99 (8.12)	33.94 (9.98)	33.38 (9.20)	32.79 (9.83)	31.78 (11.49)	2.52	.03*
Social support	36.79 (8.03)	36.29 (7.84)	35.22 (7.08)	36.20 (7.61)	35.33 (8.24)	35.19 (7.42)	0.56	.73
Family support	18.43 (4.83)	18.21 (4.64)	17.74 (4.14)	17.96 (4.58)	16.97 (4.93)	17.95 (4.20)	0.90	.48
Friend support	18.36 (4.48)	18.09 (4.31)	17.48 (4.43)	18.24 (4.78)	18.36 (4.79)	17.24 (4.40)	0.85	.52
Health status							5.5	.35
Noncase	48 (71.6%)	43 (63.2%)	47 (61.0%)	38 (53.5%)	51 (65.4%)	46 (59.0%)		
Case	19 (28.4%)	25 (36.8%)	30 (39.0%)	33 (46.5%)	27 (34.6%)	32 (41.0%)		
Experienced mothers								
Postpartum stress	121.33 (38.12)	120.19 (37.27)	126.18 (35.90)	118.25 (33.08)	123.62 (32.03)	119.63 (28.86)	0.47	.80
Maternal role attainment	62.74 (21.34)	61.00 (20.60)	63.12 (20.82)	58.26 (17.76)	60.43 (18.25)	59.90 (16.79)	0.61	.70
Negative body changes	26.70 (9.60)	26.19 (9.75)	28.55 (8.98)	27.15 (8.84)	28.32 (8.15)	27.85 (9.01)	0.76	.58
Lack of social support	31.89 (11.24)	33.00 (10.34)	34.51 (10.00)	32.84 (10.18)	34.87 (9.60)	31.87 (7.95)	1.12	.35
Social support	34.69 (7.55)	33.93 (8.86)	33.45 (7.76)	34.21 (8.62)	32.32 (7.63)	34.84 (8.02)	0.90	.48
Family support	17.27 (4.45)	17.05 (4.47)	17.21 (4.19)	17.10 (4.79)	15.93 (4.26)	17.69 (4.06)	1.22	.30
Friend support	17.41 (4.12)	16.88 (4.99)	16.24 (4.53)	17.10 (4.97)	16.40 (5.13)	17.15 (4.90)	0.65	.66
Health status							2.9	.71
Noncase	58 (72.5%)	49 (65.3%)	44 (65.7%)	43 (63.2%)	42 (61.8%)	44 (71.0%)		
Case	22 (27.5%)	26 (34.7%)	23 (34.3%)	25 (36.8%)	26 (38.2%)	18 (29.0%)		

Note: Case = minor psychiatric morbidity; noncase = no minor psychiatric morbidity.

* $p < .05$.

Discussion

This study found that first-time mothers differed from experienced mothers in both type of postpartum stressors and their perceived importance over the 6 postpartum weeks. The first-time mothers were especially concerned about being able to perform their role as mothers. First-time mothers, who may lack preparedness at a time of increased responsibility and vulnerability, may find themselves overwhelmed and struggling to adapt to new role expectations. Our study found that, compared with the more experienced mothers, they were significantly more concerned with the ability to perform their role as mothers throughout the study period.

Previous studies have reported that new mothers experience the postpartum period as unpredictable and frustrating because performing their roles as mothers will require knowledge, skills, and motivation (Fredriksson, Hogberg, & Lundman, 2003). A lack of these traits often signals a deficit in mothering capability and may lead to stressful experiences for women (Flagler, 1990). In a study by Mercer (1979), experienced mothers encountered different maternal difficulties than first-time mothers. Although first-time mothers have been reported to be especially concerned about infant care, experienced mothers have been found to be more concerned

about the effect of a new child on the family. In the second postpartum week, more first-time mothers than experienced mothers were concerned about their negative body changes. This difference may be partially because of unrealistic expectations on their part regarding how fast they would regain their prebirth figure.

In addition to a lack of experience, a mother's perception of the amount of positive support she receives may affect her maternal behavior (Mercer, 1986; Tulman & Fawcett, 1991). A lack of social support may influence a woman's ability to view herself as competent and capable of carrying out her role responsibilities and, consequently, may raise her level of stress. Reece's (1993) study found an association between social support from spouse and family and positive self-evaluation in parenting and lower stress in new mothers. Hung and Chung (2001) have also found women with strong family support to have lower levels of postpartum stress.

Unlike countries in the west, women in Taiwan as well as China are expected to follow a traditional custom known as *Tso-Yueh-Tzu* ("doing the month") the first 4 postpartum weeks (Hung, Yu, Ou, & Liang, 2010). During this time, when the social status of women as childbearer is explicitly recognized, new mothers seclude themselves in their homes and rest (Hung, 2005b). This confinement to the home for a full

month after giving birth is a culturally sanctioned period of time for the mother to rest and recuperate. It is customary for an older family member to facilitate the recovery of the postpartum woman by making sure she gets plenty of rest, eats nutritiously, and cares for her own physical well-being (Pillsbury, 1982). Therefore, it may not be surprising that we did not find any significant group differences in women's perception of social support from family and friends during the first month. However, first-time mothers reported significantly higher support from friends than the experienced mothers in the fifth postpartum week, once the customary 1 month period had ended. The difference in support may possibly result from the belief of others that first-time mothers are inexperienced and in greater need of support.

The study also found significant group differences in postpartum stress levels in Weeks 2, 3, and 4 and in social support in Week 5. Most of the postpartum women stayed in hospital for 3 days if they had vaginal deliveries and 5 days if they had Cesarean sections. During hospitalization in the first postpartum week, women could receive professional nursing care. Afterwards, at home with no nursing support, the first-time mothers might have had higher levels of postpartum stress than the experienced mothers in Weeks 2, 3, and 4. Although both the first-time and experienced mothers received comparable family support during the 1-month ritual of *Tso-Yueh-Tzu*, why the first-time mothers received more social support either from family or friends than experienced mothers in Week 5, after the 4-week ritual of *Tso-Yueh-Tzu* had ended, could be because they were considered inexperienced.

Neither group had any significant changes across the 6 postpartum weeks in postpartum stress, maternal role attainment, negative body changes, social support, family support, or friend support, or any significant changes in health status. First-time mothers did report significant increases in lack of social support in the third postpartum week compared with the first, suggesting that these mothers were in greater need of support in the third postpartum week. Mercer and Ferketich (1995), conducting an 8-month longitudinal study, found that the competence of first-time mothers was higher at 4 and 8 months than at early postpartum and 1 month, but no change was observed in experienced mothers' maternal competence. Future research is needed on the psychosocial changes in first-time mothers and inexperienced mothers beyond the 6-week postpartum covered in our study.

Conclusions

In conclusion, the present study indicates that the postpartum stressors were different for first-time mothers and experienced mothers and that these stressors varied in importance over 6 postpartum weeks. These findings provide a basis for the development of programs and resources that can address the unique needs of postpartum mothers. Health care professionals may need to focus on the postpartum stressors that are most likely to be encountered by women based on number

of children and postpartum week. For first-time mothers, programs regarding knowledge and skills in mothering capability throughout the 6-week postpartum period should be emphasized. Fitness and nutritional experts should be on hand to instruct both groups of mothers in appropriate behavior for body recovery. We recommend forms of exercise that promote rest and relaxation as well as recovery. Exercises such as Tai Chi, stretching, and yoga are thought to not only firm up muscles but are also known for their relaxation benefits.

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