Sex Differences and Conjugal Interdependence on Parenthood Stress and Adjustment: A Dyadic Longitudinal Chinese Study

Luo Lu

ABSTRACT. This study explored sex differences and conjugal interdependence in stress and adjustment of young Chinese fathers and mothers in the half-year period following the birth of their children. Ninety pairs of married couples took part in this panel study conducted twice at six weeks and six months after the birth of their children. Results showed that (a) Wives reported heightened stress, worse health and lower marital satisfaction than husbands, (b) a substantial degree of conjugal interdependence was revealed in significant correlations of health and marital satisfaction between partners, and (c) conjugal discrepancy in stress had an adverse impact on personal well-being and marital satisfaction of wives. These results were discussed in relation to existing theories and research, as well as the distinct characteristics of contemporary Chinese society. [Article copies available for a fee from The Haworth Document Delivery Service: 1-800-HAWORTH. E-mail address: <docdelivery@haworthpress.com> Website: <http://www.HaworthPress.com> © 2004 by The Haworth Press, Inc. All rights reserved.]

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This research was supported by a grant from the National Science Council, Taiwan, ROC, NSC89-2413-H-037-008.
http://www.haworthpress.com/web/MFR
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Digital Object Identifier: 10.1300/J002v36n03_05
KEYWORDS. Chinese parents, conjugal interdependence, parenthood transition, sex differences

At the turn of the century, the traditionally conservative East Asia is undergoing profound economic and societal modernizations. As a consequence, the divorce rate has skyrocketed in this region. Even though Taiwan is a prototypical Chinese society with a strong Confucius family tradition, the latest official estimate indicates that for every three new marriages one ends up in divorce (Executive Yuan, 2001). Research has suggested that problems that lead to marital dissolution begin early in relationships (Thornes & Collard, 1979). Transition to parenthood has been described as a "crisis" for both men and woman (Cowan, Cowan, Heming, Garret, Coysh, & Curtis-Boles, 1985). However, extant research on parenthood adjustment has been heavily influenced by the dominant societal ethos of parenting being a "women's issue," and consequently little attention has been paid to sex differences, especially men's adjustment when they become fathers. The present study thus focused on these possible sex differences. Specifically, our dyadic design is a more rigorous method to examine conjugal similarities and discrepancies. Our two-wave panel design also allowed considerations of both the earlier (six weeks) and later (six months) transition stages to parenting. As it is not a foregone conclusion that western research findings can be generalized to a vastly different culture such as the Chinese one, our study with Chinese parents represents a pioneering study with important implications.

Although this paper focuses on the parenthood transition immediately following the birth of a child, what we explored has important implications for the entire duration of the parent-child relationship. First, the quality of parenthood adjustment and quality of the marital relationship may directly impact on the parent-child relationship. For example, Osofsky (1979) suggested that postnatal distress may hinder the crucial bonding between mother and child. Owen, Lewis, and Henderson (1989) also found that men and women who have close and confiding marriages are more likely as parents to be warm, sensitive, and to hold positive attitudes about their babies and their parenting roles. The stress of the transition to parenthood and changes in the quality of the marital relationship during this period may have crucial effects on the parent-child relationship.

Second, a more subtle kind of influence may involve family climate and social learning. Research has suggested that problems that lead to marital dissolution begin early in relationships (Thornes & Collard, 1979) and difficulties in parenthood transition may be just one such "crisis" (Cowan et al., 1985). Parental divorce adversely affected children in the areas of academic achieve-
ment, behavior/conduct, psychological adjustment, and social relations (see Amato & Keith, 1991a & b for reviews). The so-called “intergenerational transmission of instability in relationships” (MacAllister, 1998) is the saddest aspect of the long-term adverse effects of marital problems on children. Overall, the quality of parenthood adjustment can have important implications for the parent-child relationship, directly and indirectly, immediately and over a long period of time.

**SEX DIFFERENCES IN MENTAL HEALTH AND MARITAL SATISFACTION AS PARENTHOOD ADJUSTMENT**

In most societies, parenthood is generally regarded as a normative life change and has various positive associations such as love and affection (Burnell & Norfleet, 1986; Soloway & Smith, 1987). For both Chinese men and women, the “parental role” ranked the highest in importance among various critical adult roles (Lu & Lin, 1998). However, becoming parents also creates striking transformations of self, identity, and roles (Fiese, Hooker, Kotary, & Schwagler, 1993; Smith, 1995). This has a great impact on the individual’s physical and mental well-being (Abbott & Brody, 1985). Furthermore, due to disparate social constructions of fatherhood and motherhood (Phoenix & Woollett, 1991), men and women may undergo very different psychological processes in becoming parents. “Parenting” has been generally constructed as a “women’s business,” coupled with demands of the role of a primary caregiver. Although becoming a mother greatly changes a woman’s life, becoming a father has not been recognized historically as a major event in a man’s life. Some researchers now argue that the transition into fatherhood is more abrupt, traumatic, and life altering for men than is their transition into marriage (Davidson & Moore, 1996). Men have recently become more attached to their family roles than ever before, including the nurturing aspects of fatherhood. However, academic interests in the implications of fatherhood on men’s well-being and marital satisfaction are just beginning to be recognized.

In contrast to the extensive study on women’s postpartum depression, there has been little examination of postnatal mental health problems in fathers. Rees and Lutkins (1971) found that up to 4% of postnatal fathers were identified as depressed by their family doctors. Ballard, Davis, Cullen, Mohan, and Dean (1994) found a similar figure of 5% among fathers six months after their children were born. However, both of these figures may still be underestimates.

Men’s physical health, on the other hand, received somewhat more attention in scientific research. Ferketich and Mercer (1989) found that men’s per-
ception of their health was significantly poorer at eight months postnatal than during their partners’ pregnancy. Quill, Lipkin, and Lamb (1984) found that men visited doctors more in the year after their children were born than during their partner’s pregnancy. The strong relationship between physical and mental health (Lu & Hsieh, 1997; Lu, Shiau, & Cooper, 1997; Lu, Tseng, & Cooper, 1999) suggests that men experiencing a high level of physical symptoms may actually be having difficulties adjusting to their new role as a father. However, with the prevailing social pressure on women, we expected that parenting would exert a stronger impact on women than on men. Specifically, we hypothesized that women would report higher levels of stress and mental health problems than men (Hypothesis 1).

Transition to parenthood is also associated with a dip in marital satisfaction (Argyle, 1987). This adverse effect is probably caused by the competition for limited resources between parenthood and marriage (Belsky, 1990). Again, previous work has focused almost exclusively on mothers’ reports of marital satisfaction; consequently, we know very little about men’s perception of their marriage following the transition to fatherhood.

One study did examine reports of both men and women, and found that while women’s marital satisfaction declined six months after childbirth, men’s marital satisfaction declined between 6 and 18 months after their children were born (Cowan et al., 1985). This pattern of sex difference implies that both men and women feel the impact of parenthood on their marriage, but women feel it more quickly and strongly than do men. It is possible that the unique biological changes antenatal and postnatal coupled with the burden of childcare lead to more profound impact on women’s lives than men’s during early parenthood (Pfost, Stevens, & Matijcak, 1990). Consequently women are more sensitive to the impact of parenthood on their marital relationship and are more likely to detect early signs of warning. Men traditionally assume their roles of father as a provider rather than a nurturer (Atkinson & Blackwelder, 1993); thus, fathers may be more concerned with financial pressures at the early stage, and only eventually recognize the impact on their marital relationship. As our study focused on the relatively early stage of parenting (between six weeks and six months postpartum), we expected that women would report lower levels of marital satisfaction than men (Hypothesis 2).

**CONJUGAL SIMILARITIES AND DISCREPANCIES IN PARENTHOOD ADJUSTMENT**

Despite possible sex differences in the transition to parenthood, marriage is an intimate relationship within which husbands and wives continuously influ-
ence each other in every aspect of life (Cook, 1998). The marital relationship is a prototypical communal relationship in which strong interdependence is a defining characteristic (Argyle & Henderson, 1985). On the positive side, the "common fate" mentality facilitates the formation of marital alliance, which promotes marital adjustment (Cordova, 2001; Lu, 2000). For instance, Lu (2000) found that Chinese married couples reported strikingly high levels of conjugal congruence on their perceptions of three major family roles: spousal, parental, and filial roles. More importantly, the conjugal congruence on mental health and happiness was also high, whereas dyadic discrepancies on family role experiences were predictive of the individual's well-being. On the negative side, though, living with a psychologically distressed person is a considerable emotional burden and can even cause depressive symptoms in the non-depressed marital partner (Coyne, Kessler, Tal, Turnbull, Wortman & Greden, 1987; Krantz & Moos, 1987). Such emotional contagion results from the high level of interdependence between conjugal partners.

Accumulating evidence now suggests both the "common fate" mentality and "co-morbidity" of distress in couples, but no study has yet focused on this phenomenon during the crucial family stage of parenthood transition. We thus hypothesized that the interdependence of marital partners would manifest in conjugal similarities in stress, health, and marital satisfaction (Hypothesis 3-1). We also hypothesized that conjugal discrepancy in stress would impact on personal well-being and marital satisfaction (Hypothesis 3-2).

**PARENTING IN A CHINESE CULTURAL CONTEXT**

As noted by Phoenix and Woollett (1991), motherhood and fatherhood are socially and culturally constructed. Becoming a parent in a Chinese society may entail some distinct experiences. The aforementioned "common fate" thesis may be more applicable to Chinese couples than American marriages. As the most influential Confucian philosophy asserts, the life of each individual is only a link in that person's family lineage and that each individual is a continuation of his/her ancestors, and family is at the center of a Chinese person's existence (Lu, Gilmour, & Kao, 2001). Traditionally, becoming a parent is the ultimate purpose of a marriage. In so doing, a Chinese person not only acquires a socially desirable status and accomplishes the integrity of his/her personality, but also realizes the ultimate life goal of continuation, preservation, and prosperity of the family lineage and its collective well-being (Lu, 2001a). The Chinese family as a commune binds its members, especially marital partners, in health and sickness, in happiness and distress. Such family values are still central in modern Chinese life (Yang, 1988), although having a
son and a daughter is increasingly perceived as equally desirable at least in Taiwan. The close-knit Chinese social institutions also help to nurture and maintain such a strong "common-fate" mentality among family members (Lu, 1997), especially married couples (Lu, 2000). On the other hand, because the Chinese culture places more emphasis on the father-son axis than the husband-wife axis (Hsu, 1953), the impact of the birth of a child on the marital relationship may be even greater than in a Western society.

Empirical studies of Chinese societies have indeed found that married couples view the parent-child relationship as more important than the conjugal relationship (Chen, 1978) and parental stress is detrimental for both sexes (Lu & Lin, 1998). The issue of sex differences is especially relevant in the Chinese context of parenthood transition. The Chinese paternalistic culture has gravely magnified the gender difference of agency vs. communion (Bakan, 1966), which is prevalent in most societies. Specifically Chinese men are responsible for dealing with the "outside" world, whereas Chinese women are responsible for dealing with the "inside" world, with family borders as the dividing line. Using a dyadic design, Lu (2000) found that husbands were more committed to the worker role, whereas wives were more committed to the parental role. However, whether and/or how husbands and wives experience their parenthood transition differently has never been explored among the Chinese. The general expectation was that the aforementioned sex differences and conjugal interdependence would be magnified in a Chinese cultural context.

THE PRESENT STUDY

Thus far, we have argued that men and women may have different experiences and influence each other in their adjustment to parenthood. It is imperative, therefore, that the impact of parenthood be systematically examined for both men and women. However, most of the existing studies have either focused on men or women separately, or treated sex differences as aggregated group differences—namely, all married men contrasted with all married women, but not as married couples. There are two inherent methodological problems when study samples of men and women who are not married to each other are used. First, when men and women report their marital satisfaction, we cannot be sure that they are making judgments of the marital relationship as husbands and wives do. Second, the issue of "common fate" or "co-morbidity" in couples cannot be explored. To overcome these methodological shortcomings, a dyadic "within-subject" design must be adopted to examine the sex differences more rigorously. In other words, when men and women are mar-
ried to each other in a study, a "purer" sex-related pattern (i.e., a conjugal pattern) should emerge.

The present analyses are based on data gathered as part of the Parenthood Transition Project (Lu, 2001b). These data have been used for testing a generic model of parenthood resources and adjustment (Lu & Kao, in press), delineation of trajectories of post-parenthood adjustment (Lu & Kao, 2002), and contrasting prenatal-postnatal adjustment against continuing adjustment after the parenthood transition (Lu, 2002). This represents the first attempt to explore sex/conjugal differences within this data.

The target population for the Parenthood Transition Project was parents who had a child born in two randomly drawn months and resided in the metropolitan city of Kaohsiung, Taiwan. Using the random sampling procedure, parents listed in the Kaohsiung Municipal Birth Registration were invited by phone to participate in the study. As a longitudinal (two-wave panel) study, each consenting participant answered a structured questionnaire twice, once when his/her child was six weeks old (Time 1), and another when the child was six months old (Time 2). Participation was anonymous and the survey was conducted by mail. A total of 483 parents (253F and 230M) with newly born children returned completed questionnaires at least once (response rate = 63%). This response rate is comparable to the reported average of mail surveys using general population (60% ± 20) (Baruch, 1999). Among our 483 participants, 204 had data for both Time 1 and Time 2, and 90 pairs were married to each other. Respondents were paid for their participation.

**METHODS**

**Participants**

The present dyadic sample was composed of the 90 pairs of married couples from the Parenthood Transition Project who have complete data for all relevant measures. The original sample in the project is a representative one compared against the national census data (Executive Yuan, 2001), and the present dyadic sample is not different from it in terms of demographics. To reiterate, as a longitudinal study, each participant answered a structured questionnaire twice, six weeks and six months postpartum.

**Measurements**

Data for the present analyses came from three parts of the structured questionnaire.
Stress of parenthood. The Perceived Stress Scale was originally developed by Cohen, Kamarck, and Mermelstein (1983), translated and revised into Chinese by Kao and Lu (2001). This 14-item Chinese version has demonstrated good reliability and validity with both Chinese students (Kao & Lu, 2001) and community young adults (Tsai & Chen, 2002). The scale was used in the present study to measure stress of the parenthood transition. Five-point scales were used for rating the frequency of a particular stress feeling (0 = never, 4 = very often), and high score indicates a higher level of perceived stress. Sample items are “In the last month, how often have you been upset because of something that happened unexpectedly?” and “In the last month, how often have you felt confident about your ability to handle your personal problems?” (reverse scored). The average (across two times) Cronbach’s α was .81 in the present study.

Mental health. Three subscales, depression (7 items), anxiety (7 items), and somatic symptoms (5 items) from the SCL-90-R (Derogatis, Rickels, & Rock, 1976) were used to assess mental health. The Chinese version was revised and applied to many and various independent samples, including students (Lu, 1994a & b), a community representative sample of adults (Lu & Shih, 1997), employees (Lu, 1999), and community elderly (Lu & Hsieh, 1997). Three-point scales were used for rating the severity of a particular symptom (0 = not at all, 2 = very severe), and high score indicates more mental symptoms, hence worse health. The average (across two times) Cronbach’s α was .91 in the present study.

Marital satisfaction. This was rated by participants in reference to the marriage as a whole. A 7-point scale was used (1 = very dissatisfied, 7 = very satisfied), high score means greater satisfaction with marriage. Previous research has demonstrated that single-item global measures of satisfaction are acceptable, and may even be more indicative than the summation of facets (Wanous, Reichers, & Hudy, 1997).

In addition, sex, age, education attainment, and employment status were recorded.

RESULTS

Sample Characteristics

In our dyadic sample, husbands were between 22-47 years old and wives were between 21-44 years old. Husbands were significantly older than wives (see Table 1). The age distribution was comparable to the larger project sample (mean = 30.02, SD = 4.86). The distribution for educational attainment in
this dyadic sample was also comparable to the larger pool (mean = 13.29, SD = 1.85). Husbands were better educated than wives as shown in years of formal education (see Table 1). Almost all fathers were working (95.5%), but only half of the mothers (53.3%) had paid jobs. Overall, our participants were young, well educated and half of these young mothers were combining career with motherhood. As some participants had missing data on some questionnaire items, the actual sample size varied for each analysis. The pairwise deletion method was adopted to treat missing data against alternative methods (e.g., mean substitution or imputation or listwise deletion) in order to maximize the utility of raw data without serious artificial distortion.

**Sex Differences**

Sex differences in stress and adjustment were examined by conducting paired t-tests. In this series of analyses, husbands and wives were treated as two “dependent samples.” Results are incorporated in Table 1. Overall, wives reported greater stress, worse mental health, and lower marital satisfaction across both times. Therefore, our Hypotheses 1 & 2 were supported.

We conducted more detailed analyses looking at conjugal discrepancies in specific aspects of mental health, namely, depression, anxiety, and somatic symptoms. Similar paired t-tests procedures were carried out. Results revealed that wives consistently reported significantly more depressive symptoms than husbands at both Time 1 and Time 2 (paired t = −2.74, df = 88, p < .01 and

<table>
<thead>
<tr>
<th>TABLE 1. Sample Characteristics and Scores on the Research Variables</th>
</tr>
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<tbody>
<tr>
<td><strong>Husbands</strong> (N = 90)</td>
</tr>
<tr>
<td>Mean</td>
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<tr>
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<tr>
<td><strong>Demographics</strong></td>
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<tr>
<td>Age</td>
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<tr>
<td>Education</td>
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<tr>
<td><strong>Research variables</strong></td>
</tr>
<tr>
<td>Stress 1</td>
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<tr>
<td>Stress 2</td>
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<tr>
<td>Mental health 1</td>
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<tr>
<td>Mental health 2</td>
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<tr>
<td>Marital satisfaction 1</td>
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<td>Marital satisfaction 2</td>
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* p < .05 **p < .01 ***p < .001
paired $t = -3.29$, df = 87, $p < .001$ respectively). However, husbands and wives were not at all different regarding anxiety and somatic symptoms at six weeks and six months postpartum.

We further examined the potential effects of spousal age differences on perceived stress, mental health, and marital satisfaction, to see if couples with larger age differences were any different compared to couples with smaller age differences. The spousal age difference (DIF) was represented by the absolute value of a wife’s age subtracting her husband’s age. First, Pearson correlations were computed between spousal age differences and personal (husbands’ and wives’) scores on perceived stress, mental health and marital satisfaction at both Time 1 and Time 2. No significant correlations were found between spousal age differences and any of the research variables. Second, Pearson correlations were computed between spousal age differences and conjugal discrepancies in perceived stress, mental health and marital satisfaction at both Time 1 and Time 2. Conjugal discrepancy (DIF) was represented by the absolute value of a wife’s score of a particular construct subtracting her husband’s. Only two significant correlations (out of 12) were found: between spousal age differences and (1) conjugal discrepancies in depressive symptoms (Time 1) ($r = .22$, $p < .05$), and (2) conjugal discrepancies in marital satisfaction (Time 2) ($r = .38$, $p < .001$). It seems that couples with larger age differences tended to have larger discrepancies in postpartum depressive symptoms and marital satisfaction compared to couples with smaller age differences.

**Conjugal Interdependence and Its Impact on Personal Adjustment**

Conjugal interdependence on stress and adjustment was examined by correlating scores of a husband and wife for a particular construct. The last column in Table 1 presents results of this correlation analysis. There were significant conjugal correlations in marital satisfaction across both times. There was also a significant conjugal correlation in health at Time 2. However, husbands and wives did not correlate in their stress scores. Overall conjugal interdependence was consistently observed for the evaluation of marital quality, less strongly for personal health, but not for perceived stress. Therefore, our Hypothesis 3-1 was partially supported.

To examine whether conjugal discrepancy in stress was predictive of the individual’s adjustment, four series of hierarchical regression analyses were carried out, with the husband’s and the wife’s health/marital satisfaction at Time 2 as dependent variables. As our sample had relatively large age and education ranges, these two variables were controlled in multiple regression analyses for their potential contributions to mental health and marital satisfaction. Thus, for all four sets of regression, age and education years were entered for statistical control at
Step 1. At Step 2, health/marital satisfaction at Time 1 was entered as a “baseline” control to take advantage of our longitudinal data. Conjugal discrepancy in stress at Time 2 was then entered. To statistically represent “conjugal discrepancy,” a wife’s score of a particular construct was subtracted from her husband’s, and the absolute value of this result (DIF) was then used in the analysis. Full regression equations are presented in Table 2. Standardized β, standardized error, and F value were taken from the final equations.

Neither age nor education showed significant effects on any of the dependent variables. Nonetheless, all the subsequently identified significant predictors of mental health and marital satisfaction had been free of “contamination” by age and education. As shown in Table 2, husband’s health at Time 1 was the only significant predictor of his health at Time 2. For wife’s health at Time 2, however, her health at Time 1 and conjugal discrepancy in stress were both significant predictors. For husband’s marital satisfaction at Time 2, again his marital satisfaction at Time 1 was the only significant predictor. For wife’s marital satisfaction at Time 2, however, her marital satisfaction at Time 1, as well as conjugal discrepancy in stress were significant predictors. Overall, conjugal discrepancy in stress exerted adverse effects on wives’ well-being and marital satisfaction, but not on husbands’. Therefore, our Hypothesis 3-2 was partially supported.

**DISCUSSION**

The present study was set against the Chinese cultural background. Adopting a dyadic panel study design, longitudinal data were collected at two times.

### TABLE 2. Hierarchical Regression Analyses Predicting Personal Adjustment

<table>
<thead>
<tr>
<th>Dependent variable</th>
<th>Entered variable</th>
<th>β</th>
<th>R²</th>
<th>F (df)</th>
</tr>
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<tbody>
<tr>
<td>(H) Health 2</td>
<td>(H) Health 1</td>
<td>.65***</td>
<td>.39</td>
<td></td>
</tr>
<tr>
<td></td>
<td>(DIF) Stress 2</td>
<td>.02</td>
<td>.40</td>
<td>12.65*** (4, 79)</td>
</tr>
<tr>
<td>(W) Health 2</td>
<td>(W) Health 1</td>
<td>.41***</td>
<td>.18</td>
<td></td>
</tr>
<tr>
<td></td>
<td>(DIF) Stress 2</td>
<td>.20*</td>
<td>.37</td>
<td>10.61*** (4, 78)</td>
</tr>
<tr>
<td>(H) Satisfaction 2</td>
<td>(H) Satisfaction 1</td>
<td>.47***</td>
<td>.21</td>
<td></td>
</tr>
<tr>
<td></td>
<td>(DIF) Stress 2</td>
<td>.11</td>
<td>.23</td>
<td>5.61*** (4, 79)</td>
</tr>
<tr>
<td>(W) Satisfaction 2</td>
<td>(W) Satisfaction 1</td>
<td>.34***</td>
<td>.16</td>
<td></td>
</tr>
<tr>
<td></td>
<td>(DIF) Stress 2</td>
<td>-.21*</td>
<td>.27</td>
<td>6.97*** (4, 78)</td>
</tr>
</tbody>
</table>

* p < .05  ** * p < .001
postpartum, from a paired sample of husbands and wives. With these methodological strengths, hypotheses regarding sex differences and implications of conjugal interdependence were tested. Sex differences were pronounced for both stress and adjustment, as women reported heightened stress, worse health, and lower marital satisfaction. Conjugal similarities were generally high except for stress, indicating a fair extent of conjugal interdependence. Conjugal discrepancy in stress was predictive of wives’ adjustment but not husbands’. It seems that conjugal interdependence is present in some aspects of parenthood transition and indeed has important implications for women’s adjustment. Thus far, our four hypotheses have been fully or partially supported. The following discussion elaborates on implications of these findings.

Before doing so, however, one sampling condition must be qualified. Our current dyadic sample was composed solely of people in their first marriages. In other words, none of the parents had children from previous relationships or marriages. Our sample was thus rather homogenous regarding marriage history and family developmental stage to warrant the subsequent general discussions.

Sex Differences as Conjugal Discrepancies in Parenthood Transition

Most extant research relating to the transition of parenthood has focused on maternal distress and adjustment. Consequently we know very little about men’s experiences of fatherhood. However, the present study used a community paired representative sample with men and women equally represented. We examined a “purer” form of sex differences in terms of conjugal discrepancies. Our results have revealed a stable pattern over a half-year period after the child was born. Wives consistently reported higher stress, worse psychological health, and lower marital satisfaction than did husbands. More detailed analyses revealed that wives’ poorer mental health was attributable to their inflated depression levels at both testing times, but not anxiety and somatic symptoms.

Our finding of women’s heightened stress and poorer health, especially depression, is consistent with existing research on maternal distress and adjustment (Brody, 1985; Cowan et al., 1985). In particular, Chinese culture places great emphasis on the continuation of the family line, and places the responsibility of childrearing squarely on the shoulders of women (Kao & Lu, 2001; Lu, Gilmour & Kao, 2001; Yang, 1988). Becoming a mother is not only the most salient role for women (Chen, 1978; Lu & Lin, 1998) but also culturally sanctioned as a women’s legitimate occupation.

Social institutions, customs, and practices in daily life often support cultural ideas. In the Chinese culture there is the custom of a “honeymoon for the
mother” immediately following the childbirth. There is a full set of rituals and practices to be observed, many originating from traditional Chinese medicine. The grandmother usually moves in to live with the young family and take on all household chores and baby-care activities. This custom of “honeymoon for the mother after the birth of a child” is still intact in modern Chinese societies, and it helps to strengthen the cultural discourse that parenting is “a women’s business.” Chinese women have largely internalized these cultural values and even high-achieving professional women are prepared to sacrifice their own career pursuits in order to be “a good mother” (Lin & Liu, 1996). It is thus understandable that becoming a mother may be far more salient and stressful than becoming a father. Worse still, in a modern society when women have to juggle jobs and family responsibilities, as did half the mothers in this sample, motherhood becomes even more taxing.

However, men’s experiences of fatherhood are also experiencing rapid change in a modern society. Traditionally, Chinese fathers were sole bread earners and had little to do with child caring. Contemporary fathers though are expected to share household duties including childcare responsibilities, especially when mothers also are working. Although women still assume a greater share of homemaking activities, the pressure of being “a new good man” is increasing. As we found elsewhere, parenthood stress also was detrimental to men’s health and marital happiness (Lu & Kao, in press). Previous research has even found that husbands report the greater degree of unhappiness (Cowan et al., 1985). Although husbands in the present sample were better off than their wives in overall mental health, they nonetheless reported comparable levels of postpartum anxiety and somatic symptoms. It is clear that both men and women feel the negative effects of having a child on their health and marital relationship. Although wives are generally more committed and carry more burdens of parenting, husbands’ contributions are increasing. Hence scientific research and intervention should better address the needs and concerns of both genders.

Conjugal Interdependence in Parenthood Transition

Despite the acknowledgement that spousal support is important during the parenthood transition, few studies have focused directly on the interdependence of marital partners during this crucial period of family life. However, the present study did test the effects of conjugal interdependence on personal adjustment for both husbands and wives. Overall, the conjugal interdependence was substantial in both aspects of parenthood adjustment: health and marital satisfaction. Our results were thus consistent with the “co-morbidity” proposition and had further extended the research on conjugal interdepen-
dence beyond emotional contagion already documented in the literature (Coyne et al., 1987; Krantz & Moos, 1987; Noh & Avison, 1988).

However, the finding that the wives' but not husbands' health and marital satisfaction were related to conjugal discrepancy in stress seems to suggest that women were more vulnerable than men. This is somewhat consistent with results from research by Cordova (2001) who found that variance in husbands' teamwork (marital alliance) better accounted for marital and parental functioning than did wives' teamwork. Teamwork was also the best predictor of depression, especially for wives. Furthermore, wives' evaluation of supportive co-parenting was predicted by husbands' teamwork. Taken together, Cordova's findings and ours suggest that men may still assume more relative power in the intimate conducts of a marital relationship, and women are more sensitive to the fine grain tone of a relationship. The proposition that women are more sensitive to the impact of parenthood on their marital relationship, and detect early signs of warning, seems to have been supported by the empirical evidence.

Our findings should also be read in the cultural milieu of a modern Chinese society. In all contemporary Chinese societies, traditional and modern values coexist as a result of societal modernization and Western cultural influences (Lu & Kao, 2002b). The once rigid gender division of men as providers and women as homemakers is increasingly transgressed. More and more men are "returning to the family" to take on a caring and involvement in the father role (i.e., the so-called "new good man") while more and more women are stepping out of home to combine career with motherhood. The young, educated urban residents exhibit the strongest trend of synthesizing the traditional and modern values as well as the old and new ways of life (Lu & Kao, 2002b). Our sample evidently belongs to this section of the population, as additional information revealed that 65.7% of the couples jointly cared for their newborn baby (i.e., co-parenting). It is ironic that when husbands are getting more involved in parenting and other aspects of family life, wives' expectations raise and perceived disappointments may be even more distressing. On a positive side, husbands are learning to be more sensitive to their wives' burden and stress (Tsai & Chen, 2002).

Marriage is "a holy mystery in which man and woman become one flesh... that husband and wife may comfort and help each other... that they may have children... and begin a new life together in the community" (Alternative Service Book, 1980). These are some of the central features of marriage—sharing bed, food and property, producing children, and caring for one another; it is a commitment to a biological partnership and a social alliance. To realize the promise of marriage, the husband and the wife need to work together in close coordination, including co-parenting at the early stage of family life. Scien-
tific research can help couples to better achieve this goal by appreciating and understanding their idiosyncratic needs and developing more effective intervention programs.

Limitations and Conclusions

It should be kept in mind that these data came from a cross-sectional self-report design. One cannot draw causal conclusions, and there is the concern about possible percept-percept bias. Arguing against this possibility are the findings that over half of the correlation and regression coefficients were non-significant (see Tables 1 and 2). This suggests that there was no pervasive underlying bias inflating these relationships. Nonetheless, one should still be cautious in interpreting the data, as well as data from other studies using similar designs.

The other limitation of the present study pertains to the generalizability of our findings. We adopted random sampling methods in our Parenthood Transition Project to minimize sampling bias, and the current dyadic sample is not different from the larger project sample in terms of demographics. Still, Taiwan is a heterogeneous and vibrant society with rich albeit subtle regional differences, especially between the fast developing industrial urban areas and the more traditional agricultural rural areas. Hence, a sample drawn from a booming metropolitan southern city (the second largest in Taiwan) could not be regarded as representative of the entire country. The potential differences between Taiwan and other major Chinese societies such as the People’s Republic of China (PRC) may be even more profound due to their unique political, economic, and social characteristics (Lu, Cooper, Kao, & Zhou, in press). Further research needs to target other distinctive groups in these Chinese societies, such as rural populations and young parents in the PRC in search of convergence or divergence of evidence.

What do our findings inform family scholars of parent-child relationship? Previous research has suggested that postnatal distress may hinder the crucial bonding between the parent and the child (Ososky, 1979). As we found that wives generally suffered higher postnatal distress than their husbands, this pattern of sex difference may imply that the mother-child relationship is more at risk than the father-child one. This implication is especially grave as in most societies the mother is still the primary caregiver for the child, and the psychic costs of a less than satisfactory mother-child relationship on both the mother and the child is not to be overlooked. On the other hand, we found a substantial degree of conjugal interdependence between partners during the parenthood transition. This is encouraging as marital alliance or co-parenting is beneficial for both postnatal distress alleviation (Cordova, 2001) and the establishment
of a warm parent-child relationship (Owen, Lewis, & Henderson, 1989). It seems reasonable to suggest that efforts made to foster and nurture marital alliance or co-parenting would most likely yield beneficial effects on the developing parent-child relationship, especially the mother-child relationship.

Of what do our findings inform family policy makers and practitioners then? Since previous work has suggested that the problems that lead to marital breakdown start early within relationships (Thornes & Collard, 1979), early preventive measures are most likely to be effective as they would address problems before conflicts have become serious. As we have found that the birth of a child does entail substantial stress and costs on personal well-being as well as marital satisfaction for both men and women, preventive interventions aimed at supporting couples at this family stage are likely to have long term beneficial effects on the functioning of their developing family, including, of course, the evolvement of a healthy parent-child relationship. Although we found that women seemed to bear the brunt of parenthood transition more than men, and interventions to support family have traditionally been directed towards women, men’s needs should not be ignored. As we have demonstrated that men were not better off than women in terms of postnatal anxiety and somatic symptoms, support offered to fathers should be increased. Perhaps even at the national policy level, fathers should be encouraged to get more involved in the co-parenting teamwork amongst other aspects of the family life. One foreseeable consequence of the greater paternal involvement is a warm and constructive father-child relationship, which is often absent in traditional family life.

REFERENCES


