

## ORIGINAL PAPER

Toshiaki A. Furukawa · Shiro Hori · Hideki Azuma · Yumi Nakano ·  
Mariko Oshima · Toshinori Kitamura · Mayumi Ogasawara Sugiura · Koji Aoki

## Parents, personality or partner? Correlates of marital relationships

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■ **Abstract** *Background* Intimate relationships play an important role in the psychological and physical well-being of women during and after pregnancy. Our previous analyses demonstrated the significant role of marital relations on the woman's emotional status among a cohort of 61 married Japanese couples with a history of two consecutive spontaneous abortions. *Methods* The present analyses examined factors which may be related to the wife's perceived marital quality, including her parental rearing experiences, personality of the woman herself, or the personality of the husband. *Results* The wife's perception of care received from her mother correlated positively with her husband's care whereas overprotection received from the mother also correlated positively with the husband's control. A woman scoring high on the Conscientiousness scale of the five-factor model of personality tended to report more care, and a woman high on the Agreeableness scale less control from her husband, whereas a husband high on the Openness scale tended to show more care in his marital relation. *Conclusion* The continuity hypothesis between the quality of parental relations in childhood and the quality of intimate bonds in adulthood received partial sup-

port in a non-Western sample. This hypothesis merits further exploration, preferably within a more integrated model of marital quality.

■ **Key words** Marital relationship – parenting – personality – recurrent spontaneous abortion – Japan

### Introduction

The significant role of marital relationships in the psychological and physical well-being of women has been supported by much research (Hori et al. in press; Norbeck and Tilden 1983; Nuckolls et al. 1972). Undoubtedly, many factors interplay with each other in the quality of the marital relationship of any couple. Each partner's personality is very likely to be one of the many such influential factors. Moreover, attachment theorists have proposed that there is a profound link between the early attachment relationship with one's parents and the nature of subsequent attachment relationships, including the most intimate (Bowlby 1988). Several empirical studies have been undertaken in the past two decades to examine such continuity but the findings have been varied (Parker et al. 1992).

We have been conducting a prospective cohort study of 61 married Japanese couples with a history of two consecutive spontaneous abortions in order to examine the psychosocial factors influencing recurrent spontaneous abortions (RSA). Our previous report on this cohort has shown that the Control by the husbands and the Neuroticism of the women increased the emotional distress of the women, whereas the Perceived Support Number decreased it (Hori et al. in press). The present paper focuses on the marital relationship of the women and examines whether parental rearing experiences, personality of the women themselves, or the personality of the husbands influence the wives' ratings of their marital quality.

Toshiaki A Furukawa, MD, PhD (✉) · S. Hori · H. Azuma ·  
Y. Nakano · M. Oshima  
Dept of Psychiatry  
Nagoya City University Medical School  
Mizuho-cho, Mizuho-ku  
Nagoya 467-8601, Japan  
Tel.: +81-52/853-8269  
Fax: +81-52/852-0837  
E-Mail: furukawa@med.nagoya-cu.ac.jp

T. Kitamura  
Department of Psychiatry  
Kumamoto University School of Medicine

M. Ogasawara Sugiura  
Department of Obstetrics and Gynecology  
Nagoya City University Medical School

K. Aoki  
Nagoya City Johsai Hospital  
Nagoya, Japan

## Subjects and methods

### Subjects

The details of the subject recruitment and the study procedure have been described elsewhere (Hori et al. in press). Briefly, subjects were a consecutive sample of women with a history of two consecutive first-trimester miscarriages and no live births, who presented to the Habitual Abortion Clinic of the Department of Obstetrics and Gynecology of Nagoya City University Hospital. Of the 90 eligible couples, 61 gave their written informed consent. None of the women had any identifiable causes for RSA, such as uterine anomalies, endocrine abnormalities including luteal-phase defects, polycystic ovary syndrome, chromosomal abnormalities in either partner, autoimmune abnormalities including evidence of antiphospholipid antibodies, or metabolic disorders. The couples were later followed through their third pregnancy.

### Measures

Upon entry into the prospective study and before their third pregnancy, the women and their husbands were administered a self-report battery including the following instruments. The women filled in all the following instruments while the husbands were asked to complete only the IBM and NEO-FFI.

#### Marital relationship

The perceived quality of the marital relationship was measured with two instruments.

■ **The Intimate Bond Measure (IBM).** This assesses two key underlying dimensions, Care and Control, of intimate relationships (Wilhelm and Parker 1988). High test-retest reliability, minimal sensitivity to state effect of depression and predictive validity for post-natal depression have been reported by the original developers of the scale (Boyce et al. 1991; Wilhelm and Parker 1988). In the present cohort, the internal consistency reliability of the two subscales of the IBM was Cronbach's alpha of 0.87 and 0.86, respectively.

■ **The Quality of Relationship Inventory (QRI).** This inventory assesses the individual relation-specific support along three dimensions of Support, Conflict and Depth (Pierce et al. 1991). In the present cohort, Cronbach's alphas for these three subscales were 0.77, 0.81 and 0.77, respectively.

#### Parental rearing practices

The quality of the women's early relationships with their parents was measured on the Parental Bonding Instrument (Parker et al. 1979). It is a widely used self-report questionnaire containing 25 items and produces two orthogonal measures of perceived parental behaviors, Care and Overprotection. Good test-retest reliability over 3–10 years (Wilhelm and Parker 1990), relative independence from the subject's current psychopathology and moderate to good validity as measures of actual (and not merely perceived) relationships (Parker 1981) have been reported. In the present sample, the reliability of the Care and Overprotection subscales was 0.90 and 0.88 for the mother and 0.85 and 0.81 for the father.

#### Personality

The personality of the miscarrying women and their husbands was measured with a self-report questionnaire based on the Big Five Factor model of personality, namely the NEO-Five Factor Inventory (NEO-FFI) (Costa and McCrae 1992). This model depicts a person's personality structure along the five orthogonal dimensions of Neuroticism, Extraversion, Openness, Agreeableness, and Conscientiousness. The past two decades have witnessed a rapid convergence of views regarding the structure of personality traits, because these five factors have repeatedly been found to account for a large amount of

variance in the data, irrespective of sampling procedures, instruments used and techniques of factor analysis (Digman 1990). The NEO-FFI is one of the standard measures of the Big Five Factor model. In the present sample, the Cronbach's alphas were 0.81 for Neuroticism, 0.73 for Extraversion, 0.55 for Openness, 0.69 for Agreeableness, and 0.78 for Conscientiousness.

#### Psychiatric symptoms

The mental status of the women was assessed with the Symptom Checklist-90 Revised (SCL-90-R) (Derogatis 1992). It is one of the most widely used self-report questionnaires for general psychopathology and has good reliability and validity (van Riezen and Segal 1988). Although this scale can produce nine subscale scores corresponding to depression, anxiety, somatization, and so on, the Global Severity Index (GSI) is usually taken as the best single indicator of the overall level of the subject's current psychopathology. The Japanese version has been used in a separate study and its linguistic equivalence with the original English version has been ascertained by means of back translation (Furukawa et al. 1996).

### Analyses

The current study focuses on the wives' perceived marital relationships, namely the wives' IBM and QRI scores, as dependent variables. We used SPSS for Windows Version 10.0 (SPSS Inc. 1999) to perform all the data analyses. First, the influences of early parental relationships and current personality of the women and their husbands on the marital quality were examined with Pearson's product-moment correlation coefficients. When two or more significant predictors emerged, we attempted to tease out the most influential factors through stepwise multiple regression analyses. Because the present study represents an exploratory analysis, we set the level of significance at the conventional value of  $p < 0.05$  and did not correct for multiple comparisons.

## Results

For the 61 couples included in the present analyses, the mean (SD) age was 30.2 (3.5) for the wives and 32.6 (4.1) for the husbands. The couples had been married, on average, for 3.3 (1.8) years. At the time of the data collection, 10.9 (13.0) months had passed since their last spontaneous abortion. Overall the women reported only some mild psychopathology, scoring on average 0.39 (0.34), or 55 percentile of the normative data, on the GSI of the SCL-90-R.

Table 1 shows the Pearson product-moment correlations between the two measures of marital relationships and the PBI. Maternal Care had a positive correlation

**Table 1** Correlations between the women's early relationships and their marital relationships

	PBI			
	Maternal Care	Maternal Overprotection	Paternal Care	Paternal Overprotection
IBM Care	0.29*	-0.12	0.21	-0.14
IBM Control	-0.02	0.28*	-0.14	0.08
QRI Support	0.13	-0.18	0.04	-0.02
QRI Conflict	0.08	0.35*	0.01	0.19
QRI Depth	-0.02	0.03	-0.08	0.06

\*  $p < 0.05$

with the husband's care with a correlation coefficient of 0.29 (95%CI: 0.03–0.51). Maternal Overprotection correlated positively with the husband's Control ( $r = 0.28$ : 0.03–0.50) and the Conflict with the husband ( $r = 0.35$ : 0.04–0.60).

The correlation coefficients of the couple's personality with the marital relationship are tabulated in Tables 2 and 3. The wife's Conscientiousness appeared to have the strongest association with the marital quality, positively correlating with the husband's Care ( $r = 0.28$ : 0.03–0.50) and Support ( $r = 0.51$ : 0.23–0.71), and negatively correlating with the husband's Control ( $r = -0.26$ : 0 to -0.48). Furthermore, when the wife's score on Agreeableness was high, the husband's control tended to be less ( $r = -0.33$ : -0.08 to -0.53); when the husband's Openness score was high, such a husband tended to show more care ( $r = 0.27$ : 0.01–0.49).

Nine women scored at or above the standard cut-off point of 0.78 for the GSI of the SCL-90-R. Excluding these women did not change the correlation coefficients examined above.

When we entered the wife's maternal Care, the wife's Conscientiousness and the husband's Openness scores into a stepwise multiple regression analysis, only the maternal Care remained as a significant predictor of the IBM Care score. When we entered the wife's maternal Overprotection, and the wife's Agreeableness and Conscientiousness scores as predictors of the husband's Control score, the first two predictors remained (beta = 0.25,  $p < 0.05$  for Overprotection and beta = -0.28,  $p < 0.05$  for Conscientiousness).

## Discussion

Although not consistent in all the details, our findings do appear to be in line with a number of the foregoing studies in the general population which reported a mod-

est association between childhood experiences with the parents and the adulthood relationship with the marital partner.

Brennan and Wamboldt (1990) administered both the PBI and IBM to primary care attenders and found a positive correlation between maternal care and partner care, and between maternal overprotection and partner control. They also found a negative correlation between maternal care and partner control. Among 115 pregnant women attending prenatal classes, their attachment with the mother correlated positively with the attachment with the husband (Zachariah 1994a, b). In a community sample of 94 married women, Belt and Abidin (1996) measured the early parental experiences by the PBI and the current marital quality by the QRI. In this study both the parental care and overprotection on the PBI showed moderate influence on the marital relationship. Parenting care positively influenced the support and depth scores and negatively influenced the conflict score, whereas overprotection negatively influenced the support and depth scores.

There is also one Japanese study. Kitamura and colleagues administered the semi-structured interview version of the MAT and the self-report PBI to 79 married women in a general population survey (Kitamura et al. 1995). In this sample, paternal care was found to influence the Dyadic Consensus and Satisfaction subscales of the MAT. The authors further examined the correlations of MAT subscales with the subjects' personality traits and found the neuroticism score to negatively affect these two MAT subscales.

In the present sample of women with mild to moderate psychopathology in Japan, it was mainly the early relationships with their mothers that were significantly associated with the intimate relationship in adulthood. Maternal overprotection was associated with more perceived control by and more conflict with the husband, while maternal care was associated with more caring re-

**Table 2** Correlations between the wives' personalities and their marital relationships

	The wife's NEO-FFI				
	Neuroticism	Extraversion	Openness	Agreeableness	Conscientiousness
IBM Care	-0.08	-0.19	-0.03	0.13	0.28*
IBM Control	0.21	-0.17	0.12	-0.33*	-0.26*
QRI Support	-0.01	-0.02	0.04	-0.10	0.51**
QRI Conflict	-0.03	0.06	-0.09	0.11	-0.23
QRI Depth	0.01	-0.17	0.09	-0.10	0.25

\*  $p < 0.05$ ; \*\*  $p < 0.01$

**Table 3** Correlations between the husbands' personalities and the wives' perceived marital relationships

	The husband's NEO-FFI				
	Neuroticism	Extraversion	Openness	Agreeableness	Conscientiousness
IBM Care	0.06	-0.05	0.27*	-0.06	0.10
IBM Control	0.07	0.07	-0.18	-0.13	-0.06
QRI Support	0.17	-0.21	-0.08	-0.29	-0.06
QRI Conflict	-0.14	0.14	-0.24	0.13	0.07
QRI Depth	-0.00	-0.04	0.23	-0.10	-0.07

\*  $p < 0.05$ ; \*\*  $p < 0.01$

relationship with the husband. On the other hand, the early relationships with the father did not seem to be related to the women's later relationships with their husbands.

Our study further identified several personality traits for both the wife and the husband which showed significant association with the marital quality. On the wife's side, the most consistent finding was with conscientiousness. Conscientious women tended to rate their marital relationship as more caring, more supportive and less controlling. In addition, agreeable women tended to receive less control from the husband. On the husband's side, openness of the husband appeared to be important for the more caring relationship.

Many caveats are in order, however, before concluding that the observed correlations represent causal relationships. First and foremost of the shortcomings of the present analysis is its cross-sectional nature. Retrospective assessments of the early relationships with the parents and the concurrent evaluation of the subjects' personality traits were done at the same time and any causal interpretation is limited by the plausibility of the hypothesized model. For example, recent studies have revealed considerable heritability to measures of personality (Eaves et al. 1998), parental rearing practices (Perusse et al. 1994), and family relationships (Jacobson and Rowe 1999). Both, the parental style and the marital style could be a response to the women's genetically determined temperaments and personality (Reiss et al. 2000). It is also possible that the observed correlations may be due to some response bias causing parents and partners to be rated similarly. Second, the sample size of our study ( $n = 61$ ) was rather small and, therefore, confidence intervals for correlations coefficients were rather wide. It is possible that we may have committed some type II errors and missed some true associations. Third, how to conceive and measure current marital relationships needs more consistency in the literature in order to arrive at a meaningful interpretation of the findings. For example, each of the four studies reviewed above used different measures to assess the marital quality. Fourth, our sample is limited to couples who have recently experienced RSA and who have sought treatment for this condition at a tertiary care department of obstetrics and gynecology. We should, therefore, exercise appropriate caution in extrapolating our results to married couples in general. Finally, the present analyses are only exploratory and did not correct for multiple comparison. Coupled with the limited nature of our cohort, we must remember that only a subsequent confirmatory study in a separate sample of couples with RSA and replication in different populations can give credence to our findings.

To summarize, the present study provided partial support to the continuity hypothesis between the quality of parenting in childhood and the quality of intimate relationships in adulthood (Parker et al. 1992; Skolnick 1986). This is particularly meaningful because the present study was conducted in a non-Western setting. The

study further highlighted some personality traits, both on the part of wives and husbands, that may be associated with marital quality. However, almost all of the statistically significant association found in the present report had Pearson product-moment correlation coefficients of around 0.3, therefore explaining approximately 10% of the total variance of the marital quality subscale scores. Undoubtedly, many more factors, such as expectations regarding marriage and parenting, relationships with the relatives, and/or employment status of the couples, can affect the perceived intimate relationships of the married couples. In order to understand how marital relationships develop and unfold, we also need to study these factors.

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