Simultaneous and Cumulative Family Relationship: Examining with ICHIGEKI

Koubun Wakashima1, Takahiro Kozuka1, Norimasa Itakura1, and Takaaki Usami1

1) Graduate School of Education, Tohoku University

ABSTRACT. This study examined family relationship from two perspectives; multi-generation and family history. Multigenerational family study was participated by mother from middle generation (N=132). Result of multi regression analysis on father-child cohesion in multigenerational family showed that only grandparental generational family relationship from father’s family of origin predicted father-child cohesion. Historical family relationship study was conducted with Family Relationship History Graph (FRHG). Research participants were late adolescents (N=108). The results showed that declining of mother–child cohesion did not lead to decline maternal power in family, while, father lost power in family along with declining cohesion with child. Multi-regression analysis on the current father-daughter relationship revealed that both the current and immediately before the current mother-child relationship were predictive of the target family relationship.

KEY WORDS: Family History, Family Relationship, Family Structure, Multi-generation

Introduction

Family is a relationship system based on complex interactions. Family system is formed by both simultaneous and cumulative family relationship. We referred simultaneous family relationship as the present family relationship including multi-generational family relationship. Cumulative family relationship is regarded as a historical family relationship from past to the present.

The purpose of this study was to offer innovative methodologies to comprehend the current family relationship from both concurrent and historical viewpoints.

We obtained large amount of results. We, however, mentioned only the results on father-child cohesion due to space limitations.

Study 1:

Three-generational Family Relationship

The purpose of study 1 was to examine father-child cohesion in multigenerational family relationship. We distinguished three generations; first generation (G1) was referred as grandparents, second (G2) as parents, and third (G3) as child’s generation. Mother from G2 generation was applied as research participant. If there were two or more children in a family, the participants were asked the family relationship with first-born child.

Methods

Procedures and Participants

Data were drawn from 132 Japanese middle
class working mothers (G2). The mean age of the participants was 42.44(SD±8.37). 63 of them had son as first-born child, and 65 having daughter, and 4 did not fill out the question. Mean age of first-born child was 14.22.

**Measures**

We assessed four domains of family relationship applied from Inventory for Character of Intra-Inter Generation in Kinship (ICHIGEKI; Noguchi *et al*, 2009), which was devised to measure family relationship comprehensively with smallest items.

*Cohesiveness* - Cohesiveness was measured for each subsystem by single item. *Power* - Power was measured for each subsystem bi-directionally by two items; for instance, two items measuring power relationship for father-child subsystem were father’s power on child and vice versa. *Interest* – single item assessed interest relationship between dyad. Interest was measured the amount of dyadic connectedness only for benefit. *Openness* - single item for openness for dyad assessed communication about them to other family member. All items were rated on 6-point Likert-style scale for 17 dyads in family.

**Results and Discussions**

First, we conducted multiple regression analysis on father-child cohesion. Predicator variables were the other family relationships (see Figure 1).

Results showed that both marital and mother-child cohesion positively predicted the target variable. These results reflected the fact that each dyadic cohesiveness in father-mother-child triad influences each other (Erel & Burman, 1995). Therefore, both mother-child and marital cohesion may become more cohesive by strengthening the father-child bond. Likewise, bi-directional power relationship between father and child positively predicted the father-child cohesion. The result suggested that adolescent should possess the equal power with father to strengthen their bond. Moreover, father-child bond was predicted by low child power on mother, low paternal power on mother, and high maternal power on father. Based on these results, mother should maintain certain power over father and child for mediating their relationship. Finally, relationship between grandparents from father’s family of origin and child predicted father-child bond. That is, only father’s family of origin may exert influence on father-child cohesion.

Overall, mother is likely to get involved in father’s family line when father and child are cohesive. It means that mother connects with grandparents from father’s family of origin. To mediate the relationship between mother and grandparents in their family of origin, father is a key figure. Father considering mother’s position in his family, in return, is mediated his relationship with child by mother.

**Study 2:**

**Historical Family Relationship**

We conducted Study 2 to examine the association of the current family relationship with past family relationship. Regarding with
### Father–Child Cohesion

- Father → Child (G2 → G3)
  - Power

- Father → Mother (G2 → G2)
  - Cohesion

- Dad’s Grandmother → Child (G1 → G3)
  - Interest

- Dad’s Grandmother → Child (G1 → G3)
  - Cohesion

- Mother → Mom’s Grandfather (G2 → G1)
  - Power

- Father → Mother (G2 → G2)
  - Power

- Father → Dad’s Grandfather (G2 → G1)
  - Openness

### Mother–Child Cohesion

- Child → Father (G3 → G2)
  - Power

- Child → Mother (G3 → G2)
  - Power

- Mother → Father (G2 → G2)
  - Power

- Mother → Mom’s Grandmother (G2 → G1)
  - Power

### Father–Mother Power

- Father → Mother (G2 → G2)
  - Power

### Mother–Father Power

- Mother → Father (G2 → G2)
  - Power

### Father–Dad’s Grandfather Power

- Father → Dad’s Grandfather (G2 → G1)
  - Openness

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*p<.05, **p<.01, ***p<.001.

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**Figure 1**

*Regressions Predicating Father – Child Cohesion from the other family relationship variables*
historical family relationship, we considered past family relationship as a reconstructed impression in the present since we did not focus on what it was exactly like at that time.

Methods
Procedures and Participants
Participants were 108 University and Vocational School Students; 34 men and 74 women. Mean age was 20.6 (SD±3.93).

Measures
Family relationship history
Family Relationship History Graph (FRHG) (Wakashima et al, 2009) that each participant drew a graph to measure the successive change of impression for family relationship from 3 years of age to the present. In the present study, we applied FRHG to assess three dimensions of family relationship; 1) dyadic cohesiveness, 2) each individual power in family, and 3) family related stress.

In our analyses, we used FRHG data only the period when child’s age is from 3 to 19.

Analysis Plan
First, we clarified the mean score transition from 3 to 19 years of age. Furthermore, two multiple regression analyses were conducted on 1) family-related stress at the present and 2) father-child cohesion at the present. Predictor variables were 1) All time family relationships, and 2) All time family relationships except father-child cohesion. As for multiple regression analyses, we did not conduct analyses on male participants’ data since we obtained only inadequate amount of data to gain sufficient statistical power.

Results and Discussions
First, we calculated mean score for each variable to examine the developmental change (Figure 2). Based on the trajectories, we compared father-child and mother-child relationship. For mother, declining of cohesion with child did not result in losing power in family, while, father lost power in family along with declining cohesion with child. This difference might reflect the fact that mother does not lose her power in family even though she is not be able to maintain cohesive bond with her child. Prior studies have shown that mother usually has frequent contact with child. (e.g. Shek, 2006) However, Father, in many cases, has less contact with child than mother. Therefore, to exercise his influence on child, father might be required to have an intimate relationship with his child.

Next, we conducted factor analyses on each FRHG index to divide the continuous data from 3 to 19 years into meaningful time periods. Subsequently, Multi-regression analysis (stepwise) was conducted on family related stress. The predictors for family related stress were the current father-daughter cohesion ($\beta=-.49, p<.001$) and father’s power when daughter was from 16 to 18 ($\beta=.47, p<.001$). Thus, family related stress related to the current relationship and immediately before the current with father for female late adolescents. This result might reflect the findings that influence of parent-child relationship in childhood is
defined by experiences in later developmental stage (Luthar, et al., 2000; O'Connor, 2003)

Next, we conducted another multiple regression analysis on the current father-daughter cohesion (Figure 3). The result showed that both the current and immediately before the current mother-child relationship were predictive of the current father-child relationship. These results might reveal the strong inter-relatedness between father-child and mother-child relationship. Regarding implication for clinical practice, we suggest focus more on the current family relationship than past such as early childhood when treating family with child problem.

**General Discussions**

We presented a part of results for understanding family relationship by two innovative methodologies. We confirmed inter-relatedness of father-mother-child triad from both studies. In study 1, importance of equal power relationship between father and child for father-child cohesion was found. The results of the study 1 also suggested that cohesive father-child relationship is supported by mother’s mediating role between them. In
study 2, we found the current and immediately before the current family relationship possessed major influence on the current target family relationship than historical family relationship such as those in early childhood.

Prior research has pointed out that there are more multi generational residences in Japan than in other developed countries (Kashiwagi, 1998). Despite the fact, few Japanese researchers have examined three or more generational family relationship (Kawai, 1998; Ikuta et al, 2007).

Previous findings showed that grandparental generation has influence on younger generation for many areas; (e.g. child’s problem behavior (Brook et al, 2002), sexual abuse (Leifer et al., 2004), divorce (Amato & Cheadle, 2005), anorexia nervosa (Canetti et al, 2008). Most of the previous studies, however, focused on past multigenerational family. Therefore, future research should focus on the current multigenerational family relationship because our study suggests that the current target family relationship might be influenced by both the other current family relationship and immediately before the current.

This study proposes some suggestions to overcome the methodological problems for understanding simultaneous and cumulative family relationship. More data might be required to confirm the results in future study. Furthermore, future research should examine

Figure 3
*Regressions predicting the Present Father-Daughter Cohesion from Both Historical and the Present Other Family Relationships*
family relationship from several different family members’ viewpoints.

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