Study on Developmental Transformation in Sibling Relationship Based on the Family System Theory: Cases of First Children

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ABSTRACT. This study provides an exploratory discussion on the developmental transformation of sibling relationship that follows their family system developments. Nine first children in their fifties and sixties were chosen to receive semi-structured interviews. The result found a model consisting of five phases depicting the developmental transformation of sibling relationship: (1) Family Phase (the foundation of the sibling relationship is formed); (2) Independent Phase (siblings start to see each other as equals); (3) Relative Phase (siblings establish their own families and maintain sibling relationship as relatives); (4) Care Phase (siblings cope with each other in support of their aging parents); and (5) Integration Phase (siblings build strong spiritual bonds with other siblings after their parents’ death).

From these findings, it was clarified that the developmental transformation of sibling relationship is generated through the repeated reformation of the family structure along with the changes in their family system.

KEY WORDS: Sibling relationship, Family system, Developmental transformation

Introduction

Siblings are close other people with associations over a long time, sometimes longer than parents or spouses, and living in the same time period (Adachi, 1999). Sibling relationship continues throughout a person’s life, and has various phases. During infancy and school age, there is a hierarchical relationship between siblings, such that the firstborn child cares for the second child (Brody, Stoneman, Mackinnon, & Mackinnon, 1985; Furman & Buhrmester, 1985). In puberty and adolescence, conflicts among siblings decrease, equal and friendly relationships are often observed (Buhrmester & Furman, 1990; Scharf, Shulman, & Avigad-Spits, 2005). After adolescence, contacts among siblings decrease until middle age, and after that, a certain degree of contacts are observed (White, 2001). When people get old, siblings become important sources emotional support once again (Yoshihara, 2006).

It has been suggested that changes in sibling relationships described above are caused by psychological development of individuals and changes in the parent-child relationship (e.g. Kim, McHale, Wayne, & Crouter, 2006). However, psychosocial backgrounds of the changes have not been empirically investigated.

Individuals have been included in various systems (Bronfenbrenner, 1981). For example, from the perspective of family system theory,
which considers the “family as a system that functions through patterns of interaction (Minuchin, 1974),” sibling relationships are considered as being affected by interactions with family members, regardless of age. However, after adolescence, psychosocial conditions related to siblings have not been investigated even in clinical reports.

Carter & McGoldrick (1989) suggested a family life cycle model consisting of six stages. They described that development of a family system is attained through abandoning, or correcting relationships and rules that were adaptive in the former stage, and reorganizing the family structure. Usami, Kozuka, Hiraizumi, Morikawa, Furuyama, & Wakashima (2011) conducted a questionnaire survey on changes in family structures and indicated that bonds and power balance of family members changed as children grew up. In other words, a family develops as its members grow up, by changing its structure. Therefore, development of sibling relationships is considered to be achieved through changes in relationships and rules of the family, which are caused by developments in the family system. It would be useful to focus on the system surrounding siblings and examine the development of sibling relationships from the perspective of family system theory for obtaining data related to family therapy. This study explores developmental transformations in sibling relationships from the perspective of changes in family relationships, as the system surrounding siblings, with the aim of developing research hypotheses.

Methods
Participants
Firstborn children in their 50s or 60s with siblings, living in the Tohoku and Chugoku regions participated in the study (average age=57.65, SD=4.65). In order to maintain simplicity, this study examined the viewpoint of older brothers and sisters regarding the sibling relationship. Furthermore, for the purpose of examining changes in sibling relationships in a series of events, instead of through individual facts, participants in their 50s and 60s were required to recollect their past memories. People in their 70s were excluded because they had experienced a certain degree of life events and were considered to have something in common with other generations, since they grew up after World War II.

Table 1 shows participants’ sex and details of siblings. The participants included six women and three men.

Data collection methods
The author directly or through acquaintances asked the participants to take part in the survey. Semi-structured interviews minutes were conducted during 30-60 from July to September in 2010. The place of the interviews was decided through negotiations with the participants. The contents of interviews were recorded using an IC recorder, after obtaining the agreement of the participants.

Contents of questions
The author asked the participants about the
state of their relationship with their siblings in the past and at the present, by following the items below as a guide. Depending on the situation, the order and contents of questions were flexibly changed.

Guide items

1. Were bonds between siblings strong or weak when you were a child/a student/left home/ got married/were bringing up children/at present?

2. Why did you feel as you replied to question 1? Please tell me the relationship with your siblings at each of these periods.

3. What was the relationship between you and other family members (parents or spouses) and between your siblings and other family members (parents or spouses) at each time?

**Ethical considerations**

Before the survey, the author explained about the aim of this study, protection of their anonymity, and their right to freely refuse to answer questions or take part in the survey and obtained their agreement to participate in the study. The author also explained to them that the data resulting from the study would be used only for research purposes and how the data would be stored, used, and destroyed.

**The framework of analysis**

This study aims to develop a hypothesis. For this purpose, the author used Modified Grounded Theory Approach (Kinoshita, 2003) in the analysis, which is known to be suitable for bottom-up model construction based on interview data.

**Analysis methods**

1. Recorded data were made into texts following the protocol.

2. In order to show the changes in relationships with siblings and other family members, the following parts in the data were extracted and given concept names: (1) Communication with siblings, (2) Feelings toward siblings, and (3) Communication between the participants and other family members, or between the siblings and other family members.

3. Before developing the concepts, an analysis worksheet was made and the name of the concepts, definitions, and

**Table 1 Attributes of the participants**

| Sex | Age | The number of siblings | Gender Composition                     |
|-----|-----|------------------------|---------------------------------------|
| A   | Female | 61               | 3                  | Sister/Brother/Brother                  |
| B   | Male   | 59               | 2                   | Sister/Sister                         |
| C   | Male   | 63               | 2                   | Brother/Brother                        |
| D   | Male   | 51               | 2                   | Brother/Brother                        |
| E   | Female | 65               | 3                   | Sister/Sister/Sister                   |
| F   | Female | 53               | 2                   | Sister/Brother                        |
| G   | Female | 57               | 5                   | Sister/Sister/Brother/Brother/Sister   |
| H   | Male   | 52               | 2                   | Brother/Brother                        |
| I   | Female | 57               | 2                   | Sister/Sister                         |
Concrete examples were entered. Simultaneously, concrete examples were searched from other parts in the data, and added to the worksheet. Through considering the relationship between the concepts, mutual correlations were examined. Data were analyzed by repeating the processes ③ and ④.

Validity of the concepts that were developed was examined by confirming similar examples and by comparing examples including the opposite content. Thus, it was attempted to prevent arbitrary interpretation.

The period when similar concepts were observed was regarded as a developmental phase, and several phases were developed. In each phase, relationships between concepts were examined one by one, and categories were developed. Relationships between the categories were examined.

Finally, the concepts were expressed using simple sentences, results of each phase were summarized, the entire flow was confirmed, and the results were expressed in a diagram.

**Results**

Table 2 shows categories that were developed based on relationships among concepts in each phase. Figure 1 shows the relationship among categories and concepts. Explanation of Figure 1 using a story line is indicated below ( " " stands for concepts, 【 】 stands for sub-categories, and [ ] stands for categories).

The first phase was the [Family Phase], in which elder children learn how to get involved with their younger siblings through communication with parents, repeatedly dealt with as older brothers or sisters. When younger children are born, parents repeatedly tell older children to take care of and give priority to their siblings. Thus, older children are “trained as elder brothers or sisters,” come to “take care of their younger siblings,” and get to 【attain the role of a big brother or a sister】. As they feel 【age differences】 because their physique and abilities are different from younger siblings, they become aware of their position as elder brothers or sisters. On the other hand, they feel “burdened by the role” because they cannot play with their friends freely, or they have to give their dependence on their parents. Simultaneously, they feel “expectations from their parents about their role as elder children.” Owing to such conflicting psychological conditions, they feel 【a burden of being big brothers or sisters】.

The second phase is the [Independent Phase], in which sibling relationships gradually change into an equal relationship with physical growth, and a distance from the family increases. 【Age differences】 are not to be felt by the elder children, younger siblings change from those they have to look after to peers, giving or receiving advice or rivaling each other. There is a “transformation of the sibling relationship” and 【perspective of siblings change】.

Simultaneously, “the frequency of contacts with siblings decreases” and that with friend increases. Thus physical and mental 【distance
[Family Phase]
- Age difference.
- Attain the role of a big brother or sister.
- A burden of being big brothers or sisters.

[Independent Phase]
- Perspective of siblings change.
- Decrease from siblings increase.
- Rebellion against parents

[Relative Phase]
- The Frequency of contacts decreases.
- Interaction between families.
- Conflict with original family.

[Care Phase]
- Construct the structure of caregiving.

[Integration Phase]
- Psychological change
- Build strong spiritual bonds with each other.

**Figure 1** Feature of sibling relationships at each phase

![Figure 1](image)

from siblings increase]. Furthermore, the rebellion against parents begins.

The third phase is the [Relative Phase], in which siblings come to have a relationship as relatives. When children get a job, or get married, they begin to “give priority to their own job and family.” [The frequency of contacts decreases] because they get together only at special events, such as Bon Festivals, or New Year’s holidays. On the other hand, as each sibling come to have their own family, new “relationships between spouses” and “relationships with nephews and nieces” develop. Through “family leisure activities,” interaction between families are initiated, instead of interaction with individual sibling.

However, sometimes, there are conflicts in which parents and siblings get involved, and conflicts with the original family occurs. As parents get older, the [Care Phase] begins. Siblings have to talk about caring for their parents. Again they have to often get together, “cooperate among siblings” for caring for their parents. By getting the “spouses’ cooperation,” construct the structure of caregiving, which consists of siblings and
Table 2  Categories and concept names

| Categories Subcategories                                      | Name of concepts                        | Definition                                                                 | The number of talks | The number of the persons included in the category |
|--------------------------------------------------------------|-----------------------------------------|---------------------------------------------------------------------------|---------------------|--------------------------------------------------|
| **Phase I families**                                         | Attain the role of a big brother or a sister | Training to play big brother/sister roles                                  | 9                   | 5                                                |
|                                                              | Training to take care of younger brothers/sisters | Considering and taking care of younger siblings as a big brother/sister    | 9                   | 5                                                |
| Age difference                                               | Recognizing younger siblings as weak, little people | Parents’ expectation as a big brother/sister                              | 3                   | 3                                                |
| A burden of being big brothers or sisters                    | Sensing parents’ unspoken expectations  | Burdened of a bigbrotherly/bigsisterly role                               | 5                   | 3                                                |
| Perspective of siblings change                               | Transformation of the sibling relationship | Feeling changes in siblings perspectives                                   | 5                   | 5                                                |
| Equal relationship                                           | Giving or receiving advice, talking, and competing with each other | Distance from siblings increase Contacts with siblings decrease, interactions with friends increase | 4                   | 3                                                |
| Rebellion against parents                                   | Feeling rebellious against parents and disobeying | Rebellion against parents                                    | 3                   | 3                                                |
| The frequency of contacts decreases                         | Giving priority to one’s own job and family, than to siblings | The frequency of contacts decreases                                     | 3                   | 3                                                |
| Contact at special events                                    | Siblings get together just at special events, such as New Year’s holidays or Bon Festival | Interaction between families Relationships between spouses | 4                   | 4                                                |
| Relationships with nephews and nieces                        | Having close relationship with nephews and nieces | Relationships with nephews and nieces                                     | 3                   | 3                                                |
| Family leisure activities                                    | Enjoying leisure activities with sibling’s family, e.g. going on trips | Conflict with original family Conflicts with the original family          | 3                   | 3                                                |
| Conflict with original family                                | Conflicts with parents or siblings about parent-child relationships | Conflict with original family                                            | 2                   | 1                                                |
| Construct the structure of caregiving                        | Cooperating with siblings to care for parents | Construct the structure of caregiving                                      | 3                   | 2                                                |
| Spouses’ cooperation                                         | One’s own or siblings’ spouses support care giving | Spouses’ cooperation                                                        | 2                   | 2                                                |
| Psychological change                                         | Changes in familiarity                   | After parents’ death, feeling closer to siblings                           | 6                   | 3                                                |
| Regrets about sibling relationships                          | Looking back over former sibling relationships and feeling regret | Build strong spiritual bonds with each other Consideration for siblings | 6                   | 4                                                |
their families. After going through the [Care phase], the closeness between siblings increase, because they cooperated with each other for caregiving and because they have lived through the same time period. Thus there are “changes in familiarity”. On the other hand, they look back over the past relationship and reconsider past events, and sometimes feel “regrets about the sibling relationship.” Thus [psychological changes] are caused, and they [build strong spiritual bonds with each other] and come to “consider each other”, their condition, their health, among others. This phase is the [Integration Phase], in which they start to establish a new sibling relationship, without being intermediated by their parents and [perspective of siblings change]. Simultaneously, “the frequency of contacts with siblings decreases” and that with friend increases. Thus physical and mental [distance from siblings increase]. Furthermore, the [rebellion against parents] begins.

The third phase is the [Relative Phase], in which siblings come to have a relationship as relatives. When children get a job, or get married, they begin to “give priority to their own job and family.” [The frequency of contacts decreases] because they get together only at special events, such as Bon Festivals, or New Year’s holidays. On the other hand, as each sibling come to have their own family, new “relationships between spouses” and “relationships with nephews and nieces” develop. Through “family leisure activities,” [interaction between families] are initiated, instead of interaction with individual sibling. However, sometimes, there are conflicts in which parents and siblings get involved, and [conflicts with the original family] occurs.

As parents get older, the [Care Phase] begins. Siblings have to talk about caring for their parents. Again they have to often get together, “cooperate among siblings” for caring for their parents. By getting the “spouses’ cooperation”, [construct the structure of caregiving], which consists of siblings and their families. After going through the [Care phase], the closeness between siblings increase, because they cooperated with each other for caregiving and because they have lived through the same time period. Thus there are “changes in familiarity”. On the other hand, they look back over the past relationship and reconsider past events, and sometimes feel “regrets about the sibling relationship.” Thus [psychological changes] are caused, and they [build strong spiritual bonds with each other] and come to “consider each other”, their condition, their health, among others. This phase is the [Integration Phase], in which they start to establish a new sibling relationship, without being intermediated by their parents.

**Discussion**

Development of sibling relationships accompanied by the development of the family system is discussed from the perspective of the family life cycle, as suggested by Nakagama(2001). In the Family Phase, the firstborn children care for their younger siblings and are highly conscious of age differences. It is considered that this phase,
which continues from the birth of the second child to graduation from junior high school, or the university, is the longest phase. During this phase, siblings show secondary sexual characteristics and differences in physique, which gradually decrease. In this phase, in which there are large physical differences and differences in abilities between siblings, older children might be compelled to think they have to do something for their younger siblings. However, they cannot immediately play the role of a big brother, or sister. Feeling burdened by the role, they gradually come to play it through communications with their parents. In previous studies, it was indicated that the firstborn children tend to control, or support their younger siblings in infancy and school age (Minnett, Vandell, & Santrock, 1983; Brody et al., 1985). In this period, sibling relationships are considered to be rearing-centered. In the family life system, this period continues “from childbirth to the youngest child’s entrance into elementary school,” during which parents becomes adapted to parental roles, leading to the development of a system for child rearing. During the time in which parents become adapted to parental roles and communication patterns between parents and children are developed, the firstborn children are learn and come to play the role of big brother or sister.

In the Independent Phase, differences in physiques and abilities become unremarkable. Siblings come to resemble peers, giving and receiving advice, in addition to competing with each other, and they develop a certain distance. This period is considered to range from the time when secondary sex characteristics become apparent to marriage. Buhrmester & Furman (1990) suggested that sibling relationships gradually become equal from puberty to adolescence, and this idea is corroborated by this study. In the family life cycle, parental change, family members become individualized, and the boundary between family members also change. This period is considered to continue from the time when “children start going to elementary school” to the time when “children reach puberty or adolescence.”

As a result of family members becoming individualized, siblings become able to keep an appropriate distance and interact with each other as equal individuals. In this phase, the position of firstborn children changes from being a big brother, or a big sisters to an being individuals. Also the content of communication changes at this time. On the other hand, communication between parents and children does not change so soon and as a result, occasionally; strong feelings of rebellion against parents might develop.

In the Relative Phase, the frequency of contact between siblings decreases because siblings must attend to their own jobs and family. This period is considered to range from when the time siblings get married to when they start to care for their parents. In the family life cycle, this phase corresponds to the period from “getting independent of the original family” to “uniting two families through marriage.” Sibling relationships gradually change to interactions between the families,
which includes their spouses and children. White (2001) indicated that contacts between siblings decrease after adolescence until they reach middle age, which is natural because people usually have their own families after adolescence and siblings become relatives. On the other hand, conflicts are sometimes caused between a person’s new family and the original family. Moreover, conflicts between parents and children also sometimes affect sibling relationships and the problem becomes more complicated because of the involvement of their families. Therefore, in this phase, it is important to maintain sibling relationships by taking the rules of new families of each sibling into consideration.

In the Care Phase, siblings, including their spouses keep in touch with each other in order to take care of their parents, and establish a system for their care. This phase continues from when caring for parents is initiated, until they die. In the family life cycle, it corresponds to the period of “children’s becoming independent and the subsequent, family regression period,” in which family members attend to their grand parents’ aging and death. It is necessary to change family systems for caregiving and simultaneously, sibling relationship also have to change as a result of caregiving. If the spouses of siblings were cooperative, the cooperation and unity among siblings is facilitated. As Watanabe (2005) indicated, siblings become important members in care giving and in this phase, siblings construct a system for cooperating.

Finally, in the Integration Phase, siblings look back over the past relationship and feel consideration for other siblings. This phase ranges between parents’ death and siblings’ death. In this period, a new sibling relationship that is not intermediated by parents is established. In the family life cycle, it corresponds to the “period of old family, i.e. period of family replacement,” in which wisdom and experience that aged people have are utilized and the old are replaced by the next generation. Before this phase, interactions between siblings’ families had been intermediated by parents. On the other hand, in this phase, they start to develop new sibling relationship unrelated to relationships with relatives and begin to perceive their siblings as individuals. This evaluation of relationships might result in psychological changes. White (2001) indicated that contacts between siblings increased after 70 years of age. As closeness between siblings increases, the frequency of contact also increases. Sometimes they have regrets concerning their distant relationship in the past, and summarize overall sibling relationship.

As described above, developmental transformations in sibling relationships are determined by changes in family relationships and rules, such as changes in the parent-child relationship, formation of relative relationships, and parents’ death, among others. Sibling relationships are changed only by the development of individuals, but also by changes in relationships, and rules in the surrounding world. Sibling relationships could be easily affected by conflicts and problems
caused by people around them. On the other hand, the relationship might continue for a lifetime, if it changes appropriately. Therefore, it is important to maintain and establish good sibling relationships in different generations.

**Future perspectives**

This study suggested the general process of developmental transformations in sibling relationships. It is suggested that future studies investigate each phase of sibling relationships in detail and the causes of increasing closeness and decreasing interactions should be determined. Furthermore, why sibling interactions increase in later life should be investigated to determine if there are any triggers of this behavior. This study did not examine gender differences, although certain gender differences were observed. For example, in the Relative Phase, women had common topics of conversation about childcare, whereas men rarely interacted with each other. In the future, findings related to each phase should be examined in more details by taking sex differences into consideration utilizing quantitative research methods. Especially, this research was conducted on the subjects of limited areas of Chugoku region and Tohoku region. However, depending on the degree of urbanization, it was pointed out that there were differences in marriage behaviors and communication attitudes between grandchildren’s and grandparents’ generations (Akazawa, Mizukami, & Kobayashi, 2009; Kitamura & Miyazaki, 2009). The data of this research were about the families of provincial towns, but it was possible that their communications and family relationships may be different from the ones of other provincial towns or urban cities. It can be thought that these regional characteristics may be affecting the families and their sub-system sibling relationships more than a little. Therefore, the data of this research should be interpreted as one of the data to form hypothesis. In the future, it is required to present more generalizable results through quantitative research that covers larger areas.

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