The Relationships Between Children’s Perceptions Toward Grandparents and Their Intimate Behavior

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ABSTRACT

This study is focused on the causal relationship between children's intimate behavior and the level of perception towards their grandparents. Their perceptions are related to factors such as proximity, similarity, superiority, favorableness, and self-disclosure. We clarified the relation between intimate behavior and perception using effect factors of children's behavior regarding their grandparents so that this study could be used as an elementary material in developing a solution to improve grandparent-grandchild relationship where the grandparent actively encourages grandchildren's intimate behavior. Regression analysis was used as a hypothesis testing method. The results indicated the following three points. First, perception factors affect active intimate behavior in the order of favorableness, superiority, self-disclosure, and similarity. Second, perception factors affect intimate behavior will in the order of favorableness, superiority, and self-disclosure. Lastly, it was shown that a child's active intimate behavior has an influence on their intimate behavior will.

Keywords: Children, Favorableness, Grandparents, Intimate behavior, Perceptions, Proximity, Self-disclosure, Similarity, Superiority

1. INTRODUCTION

The increase of human life expectancy in modern society also means the extension of old age. Most of who are old adults live to play the roles of grandparents. Experiencing grandparent–grandchild relationship is invaluable for both parties involved. Although the change of family structure from extended families to nuclear families has weakened and sometimes deprived grandparents from fulfilling their roles, it is difficult not to acknowledge the fact that the role of grandparents in a family is still very important. The role of a grandparent is to deliver ancestor’s cultural legacy and wisdom to grandchildren. By doing so, grandparents are able to recognize the meaning of what they have experienced and add meaning to their lives. Healthy relationship with grandchildren can give them not only the feeling of productiveness, but also help them overcome any alienation they may have felt from modern society [50]. On the other hand, children who relate to and communicate with grandparents are given the opportunity to think about the acculturation and continuity of ancestral culture and this can facilitate their socio-psychological development [51]. Therefore, studies on how to strengthen the relationship between grandparents and grandchildren are invaluable in today’s society where the old age are being neglected and alienated. In this study, we tried to clarify the effect factors of children’s intimate behavior toward grandparents based on the Intimate Behavior Theory so that it may contribute to solving old adults’ problems that arise from changes in both one’s values and structure of family in modern
society. Continuation of Korea’s tradition of respecting the elders and filial piety as an established social custom would be able to play a role as a solution in decreasing isolation of old adults. Children’s intimate behavior towards grandparents will be able to improve grandparent and grandchild relationship. Grandparents of today must be able to rise above the reserved attitude towards a passive relationship but instead take responsibility in self-development and be actively engaged in building relationships with their grandchildren. By providing results of studies on the relationship between effect factors of children’s intimate behavior to grandparents, we hope it can be used as groundwork in developing detailed programs for all members of society that can improve communication and interaction with old adults.

Children's prejudice and recognition of the old aged continue to be formed until the age of 12 to 13. This period is extremely important because once their recognition is formed; it stays fixed and is difficult to be changed positively. According to Piaget’s theory of cognitive development, childhood is considered as being in the formal operational stage where children are capable of logical induction and reasoning, and they start to form recognition of others. Also, because children will try to approach those whom they feel positive towards, but avoid people they feel negatively, it could be thought that children’s recognition of their grandparents would influence their behavior towards them. So, it is necessary to further study the factors that can affect children's intimate behavior towards their grandparents than can lead to forming a positive grandparent - grandchild relationship.

Although domestic studies about the aged have been conducted since 1975, they were primarily studies using the perspectives of population sociology or psychology. Also, the majority were simple studies on recognition and differences. Their results are insufficient in clarifying any causal relations on attitude and behavior. There are very seldom studies clarifying the relationship between cognition and intimate behaviors which are related to intimate behavior factors targeting grandparents or old adults. Some of the key problems of studies on behavior towards the aged are the use of concepts and measurement methods. Concepts and terminology of behavior were unclear, ambiguous, and a mixture of different sources of affection motive because they are able to compare themselves to others, receive attention from others, and others can serve as stimulation arousing curiosity and emotional support. Based on preceding studies, the five factors that affect intimate behaviors are level of proximity, similarity, superiority, kindness and self-disclosure.

Firstly, proximity means that it is easier for a person to assimilate with a group of people who are physically closer in distance. The Mere Exposure Effect experiment states that the more we are exposed to someone or something, the more we come to like it because frequent contact increases familiarity. Contact induces interpersonal attraction; so it can be an important component of intimate behaviors. The socio-metric test results of students who have lived in student dormitories for 6 months showed that the percentage of students who chose their next-door students as their close friends were quite high. This result shows that the reason why a person is more attracted to people who are nearby is that frequent contact brings more interaction and the expectation of future encounters and interactions also has an influence.

Humans have the disposition to want to preserve relationships with those they like and terminate relationships with others they dislike. Intimate behavior is a part in social psychology focused on social behaviors and factors that affect the formation and discontinuation of such relationships. People form relationships by repeating favorable behaviors that reveal their level of interest or kindness to a certain person. Humans sometimes want to form a closer relationship with another specific person. An intimate relationship can be defined as a relationship that is warm and having an increased level of involvement, trust, self-exposure, and is formed through arranging symbol and formalities. The motive in forming a close relationship and friendship is called the affection motive and the actions and behavior one does to form such relationships is called intimate behavior. In general, these actions emerge as efforts to work together with others instead of alone, be attentive to others’ emotions, and sharing lots of conversations together. Thus, it could be inferred that children’s intimate behavior toward grandparents will appear as both physical and emotional intimate behaviors.

Social Exchange Theory is a representative theory about formation and maintenance of interpersonal relationships. According to this theory, a relationship is maintained if the resulting reward seems to outweigh the cost. If we deduce factors that influence affection motives by using Hill’s affection motive type (1987), relationship with others can be sources of affection motive because they are able to compare themselves to others, receive attention from others, and others can serve as stimulation arousing curiosity and emotional support. Based on preceding studies, the five factors that affect intimate behaviors are level of proximity, similarity, superiority, kindness and self-disclosure.

1. Zajonc measured the level of attraction and/or favorable impression in this experiment. A group of university students were shown pictures of strangers from 1 to 25 times. (as cited by Lee Jang-young, 2005)
2. This is a method for measuring the overall amount of structures that appear in a social group. It is a way of analyzing human relationships and group structures by measuring tractions and conflicts among individuals within a group.

2. THEORETICAL DISCUSSION

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an important factor that leads to intimate behaviors by inducing interpersonal attractions. According to preceding studies, teenagers' attitudes towards old adults are related to the level of contact and the quality of relationship they have with the aged [12]. Also, attitude was more negative towards old adults for teenagers who seldom visit their grandparents and teens who have no close grandparents [35], [24]. The fact that one study targeted at high school students revealed that subjects had negative attitude towards the aged [37] and another study result [11] targeted at teenagers' showed positive attitude towards the aged suggests that teens' attitude regarding old adults can differ depending on their subjective experiences [26].

Secondly, similarity explains that people tend to like a certain person more when they have something in common and form networks centered on a group of people that have similar generic characteristics as themselves. Network Theory calls this the "birds of a feather (flock together)" effect [3]. The principle of similarity is important and applied at the first stage of entering interpersonal relationships. It also largely affects maintaining continuous relationships [5]. This is explained in several different ways like inclusive fitness theory in Sociobiology⁵, discrimination efficiency theory in Economics⁴, legitimacy and competition theory in Psychology⁵. According to preceding studies that investigated behavior towards old adults by age, juveniles and adolescent testers showed negative recognition and attitude more than childhood. This is because they have stronger intimacy and identification with their peer groups and remain exclusive from other generations [25]. Although the youth and the elders generally experience generation gap, intimate relationships between them are possible within the framework of family [9], [21]. Mother-daughter relationships share a strong intimacy in terms of having similar interests and life domain [23]. Adolescents are able to fulfill their goal of forming their self-identities in their relationships with grandparents by unifying cultural and mental continuity [12]. They can also share the values of preceding generations through interactions and socialization [21]. This could be explained using inclusive fitness theory of Sociobiology.

Thirdly, superiority means that social backgrounds and personal characteristics such as economic status, appearance, and intellectual abilities are deciding factors for one’s attractiveness. Generally people have a tendency of preferring to form relationships with physically and intellectually superior people [31]. He or she can get positive feedback by being well-dressed and this can have a halo effect and lead to positive assessment on other characteristics [2]. There is a study explaining that physical attractiveness can be attraction factors not only in single encounters but also a factor in maintaining continuous relationships [7]. According to a preceding study, the better the recognition of how grandparents are dressed, the better the grandchildren’s overall behavior towards grandparents including financial, intellectual, personality, and family relations [29], [30]. Also, study results that show grandchildren prefer healthier grandparents [17], [20] are point out that health status of grandparents is a variable that has an effect in grandparent-grandchild relationships [26]. This kind of superiority recognition will induce intimate behavior and such intention will be reflected in grandchildren’s intimate behavior towards grandparents.

Fourthly, favorableness means that people like someone who is kind to them but dislike and exclude someone if they feel he or she does not like them [4]. If a person acts in positive compensation to someone, the other person feels responsible to reciprocate and act positively towards that person. When this accumulates, it forms a positive spiral. It is more likely for this kind of relationship of balanced mutual compensation to last longer than others [5]. A preceding research showed that individuals interacted in a positive and favorable way when they were told the other liked them and the opposite was true for those who were told the others disliked them. For the group that was told nothing and allowed to interact freely, individuals tend to hide their favorableness and were reluctant to show emotion [43]. The age of grandchildren show varied grandparent-grandchildren relationship. The grandparent likes young grandchildren and the grandchild like the grandparent as well, but they become more distant as they grow older [49]. As shown above, if one’s favorable behaviors induce another individual’s intimate behavior; this could be applied to grandparent-grandchild relationship. Grandparents could take the initiative in showing positive interest in grandchildren and induce intimate behavior.

Fifthly, self-disclosure concept has been actively studied in the mental health and interpersonal relationship context since the 1960’s with increasing academic interests [33]. Depending on scholars, self-disclosure is coined as other terms such as "self-exposure" or "self-expression" but the definitions vary. Self-disclosure is defined as a process of informing oneself to others [49], willingly exposing one’s important personal information as a means for others to get to know one better [48], and/or sharing one’s conflicts, problems, interest and their reactions and feelings about them by telling others [46]. On the other hand, a linguistic criterion is given by being defined as information about oneself that is delivered to another individual using language as a medium. Self-disclosure is expressing each other’s information in a relationship whether it is intentional or unintentional [6]. Also it is processes having other people recognize themselves by clearly expressing and showing their own true character and view points [47]. Intimacy and mutual dependency increase as two individual’s common life domains and characteristics increase. Such process of intimacy getting deeper is called the social penetration process [41]. Self-disclosure is essential and fundamental in forming and setting the direction of personal relationships because individuals have to know each other first [31]. In some cases, self-disclosure can result in negative outcomes such as social consent, material
KEDI (Korea Educational Development Institute) investigated the rate of students taking supplementary courses in 2006. Targets were 2,363 parents, 1,852 children from 18 Kindergartens, elementary, middle, and high schools. Result showed that 86.6% of kindergarten, 87.4% of elementary, 74.6% of middle school, and 58.7% of high school, and 28% of industrial high school students was taking supplementary courses. [54]

were selected 1 each from 3 districts randomly. This was to prevent repeated answers. Researchers visited selected private schools and collected data from structured questionnaires. Questionnaires were distributed by the ratio of sex and grade. Also, we visited the private institution and implemented Structured Questionnaires to sample students. With the exception of 13 questionnaires which either had no consistency or sincerity, 168 questionnaires were used for final analysis.

3.2. Definition of factor manipulation and Questionnaire constitutes

Children’s cognition means the status of cognition towards grandparents from mother’s side and father’s side. In other words, in this study, cognition is formed by facing directly grandparents from both sides. Also this study included the level of cognition which is related to effect factors of intimate behaviors such as proximity, similarity, superiority, favorableness, and self-disclosure. First, proximity means how often and how long one is in contact with somebody in every day life. In this study, it means how long and how often do children contact grandparents from both sides. Second, Similarity is to see how similar one is to others. Similarity is defined as how similar the grandchild is with both grandparents. Third, superiority is information about how much better the other person is compared to oneself; financially, intellectually, and appearance wise. In this study, it means children’s cognition of grandparents’ appearance. Fourth, favorableness is the level of others’ intimate behaviors towards the subject. In this study, it means how much grandparents share intimate behavior to their grandchildren. Fifth, Self-disclosure is how much subjects express themselves to others. We defined it as how much grandparents share their current life, emotions, and thoughts with others. Intimate behaviors are actions intended to build better intimate relationship with others. This study included children’s active intimate behaviors as well as intimate behavior will towards grandparents. First, active intimate behavior means active behavior for intimate relationship with others and in this study; it means action that children take on themselves towards grandparents including physical and affectionate behavior. Second, intimate behavior will is the intention to maintain and develop an intimate relationship with others. Here, this is children’s intention of behavior towards grandparents and includes physical and affectionate behavior will. [Table 1] is a detailed explanation.

3.3. Study target and Data collection

This study targeted 168 students who are taking supplementary courses among 4th to 6th grade elementary school students living in G city. Sampling method used was stratified random sampling. The rate of using private institution nationwide was 87.4% which is a significantly high value. Therefore it was reasonable for choosing these groups of students as objects of study. In order to select the private institutions in collecting children’s questionnaire data from, we consulted the list of private institutions for elementary school students that was provided on the G city’s ministry of education website. Institutions from three districts were chosen that could adequately represent children’s gender and grade, considering the limitations of time and cost in collecting data. The basis of selection was that the institutions must be from different districts and that they have more than 80 students available to answer the questionnaires.

Research and data collection was done at private schools in G city 3 districts from January 21 to 23 in 2009. Private schools

| Factor | Subordinate factor | Basic concept | Concept in this study |
|--------|-------------------|---------------|-----------------------|
| Proximity | level of contact with others in everyday life | level of contact between child and grandparents |
| Similarity | level of similarity between self and others | level of similarity between child and grandparents |
| Superiority | level of recognizing others; superior conditions | level of children's cognition on appearance of grandparents |
| Favorableness | level of others; intimate behavior towards me | level of grandparents; intimate behavior towards child |
Table 2. Questionnaire constitutes

| Factor                  | Subordinate factor | Items | Source                                      |
|-------------------------|-------------------|-------|---------------------------------------------|
| Perception towards      |                   |       |                                             |
|                        |                   | 20    |                                             |
|                        | Proximity         | 4     | Kim, E. K.(2003), Kim, M. J.(2006), Kim, B. S. (2006), Han, J. R. et al (2006), Park, Y. M. (2004) |
|                        | Similarity        | 4     |                                             |
|                        | Superiority       | 4     |                                             |
|                        | Favorableness     | 4     |                                             |
|                        | Self-disclosure   | 4     |                                             |
| Intimate behavior       |                   | 16    |                                             |
|                        | Physical Behavior | 4     | Sung, Y. S. et al (1995), Choi, H. K. et al (1998), Kim, J. Y. (2001), Sung, K. T. (2001), Kim, Y. J et al (2001), Im, M. Y. (2002) |
|                        | Emotional Behavior| 4     | Park, Y. M. (2004)                         |
| Intimate behavior       |                   |       |                                             |
|                        | Physical Behavior | 4     |                                             |
|                        | Emotional Behavior| 4     |                                             |

3.3. Study Model and Hypothesis

This study analyzed the relationship between children's cognition and intimate behavior and constructed a model as below to clarify a causal relationship between intimate behavior will and measurement variables. [Fig 1]

![Fig. 1. Study Model](image)

The following is the hypothesis for analyzing how children's cognition which is related to proximity, similarity, superiority, favorableness, and self-disclosure that affect intimate behaviors.

- **H 1**: Children’s cognition of grandparents will influence active intimate behaviors positively.
- **H 1-1**: Children’s cognition of grandparents will influence physical intimate behaviors positively.
- **H 1-2**: Children’s cognition of grandparents will influence affection intimate behaviors positively.
- **H 2**: Children’s cognition of grandparents will influence intimate behavior will positively.
- **H 2-1**: Children’s cognition of grandparents will influence physical intimate behavior will positively.
- **H 2-2**: Children’s cognition of grandparents will influence affection intimate behavior will positively.
- **H 3**: Children’s active intimate behavior will influence intimate behavior will positively.
- **H 3-1**: Children’s active intimate behavior will influence physical intimate behavior will positively.
- **H 3-2**: Children’s active intimate behavior will influence affection intimate behavior will positively.

4. HYPOTHESIS TESTING

4.1. Elementary data analysis

The number of analysis objects was 168 and 44.6% is men, 55.4% was women. Fourth grade was 13.1%, fifth grade was 23.8%, and sixth grade was 63.1%. 47.6% of objects lived or are living with grandparents. 52.5% had no experience.

The result of descriptive statistics analysis regarding children’s cognition of grandparents’ in [Table 3] shows that value of superiority was 3.38, favorableness was 3.16, self-disclosure was 2.52, proximity was 2.61, and similarity was...
2.05. This means children are recognizing "superiority" the most and "similarity" the least.

Table 3. Descriptive statistics about cognition

| Item                        | mean   | standard deviation | total mean |
|-----------------------------|--------|--------------------|------------|
| V2_1 Seeing often time in normal life | 2.60   | 1.045              |            |
| V2_2 Being together for many his in normal life | 2.01   | .866               |            |
| V2_3 Seeing on holiday or family events | 3.63   | .715               |            |
| V2_4 More calling than other friends | 2.21   | .975               |            |
| V2_5 Having in common       | 1.91   | .891               |            |
| V2_6 Similar opinions or thoughts | 2.07   | .903               |            |
| V2_7 Well communicated      | 2.52   | 1.021              |            |
| V2_8 Similar hobbies        | 1.72   | .783               |            |
| V2_9 Clean                  | 3.46   | .774               |            |
| V2_10 Neatness              | 3.43   | .770               |            |
| V2_11 Neatness, Smart       | 3.39   | .782               |            |
| V2_12 Well dressed          | 3.07   | .875               |            |
| V2_13 Calling me often time | 2.49   | 1.067              |            |
| V2_14 Miss me a lot         | 3.35   | .902               |            |
| V2_15 Welcoming me          | 3.65   | .737               |            |
| V2_16 Keep promising with me| 3.14   | .923               |            |
| V2_17 Talk his story a lot  | 2.34   | 1.026              |            |
| V2_18 Talk honestly his life| 2.63   | 1.088              |            |
| V2_19 Express his opinion or thoughts a lot | 2.54 | .947 | |
| V2_20 Express his feeling   | 2.57   | .983               |            |

With the result of descriptive statistics regarding children’s active intimate behavior and intimate behavior will, affective behavior was 3.40, physical behavior was 3.31, affective behavior was 3.03, and physical behavior was 3.02 as shown in [Table 4].

Table 4. Descriptive statistics about active intimate behavior and intimate behavior will.

| Item                        | mean   | standard deviation | total mean |
|-----------------------------|--------|--------------------|------------|
| V3_1 Good at running errands | 3.18   | .859               |            |
| V3_2 Help when holding heavy things | 2.92   | .914               |            |
| V3_3 Help people             | 2.95   | .832               |            |
| V3_4 Help for asking         | 3.11   | .829               |            |
| V3_5 Communicate well        | 2.87   | .958               |            |
| V3_6 Good relationship       | 3.18   | .884               |            |
| V3_7 Using respect terms     | 3.25   | .890               |            |
| V3_8 Providing help when need help | 2.82 | .924 | |
| V3_9 Keep running an errand well | 3.31 | .827 | |
| V3_10 Keep helping people lift heavy | 3.22 | .853 | |
| V3_11 Keep helping things    | 3.35   | .774               |            |
| V3_12 Keep helping people asking for help | 3.36 | .754 | |
| V3_13 Keep having communication | 3.26 | .857 | |
| V3_14 Keep having a good relationship | 3.41 | .784 | |
| V3_15 Keep using respect terms | 3.54  | .682               |            |
| V3_16 Keep helping when need a hand | 3.38 | .780 | |

4.2. Verification of reliability and validity

This study did factors analysis to verify questionnaire’s validity. Varimax method (an orthogonal rotation method) was used. Also to verify each item’s reliability, Cronbach’s α technique was used. Cronbach’s α method was used to assess the reliability of items which are components of scales.

For cognition factors sampling, 18 out of 20 questions were used. Verification result of factor analysis, KMO Bartlett, was .830 which means discrimination validity by factors is ensured. Factor load age was .500 which is acceptable. Accumulation dispersion was 71.783 which is acceptable. Factors’ reliability of cognition to grandparents was over .733 which is acceptable.

Table 5. Analysis of Validity and reliability regarding children’s cognition

| Item                        | Superio    | Self-disclosure | Simillari | Proxim     | Favorable    | Commu       | Cronbach’s α |
|-----------------------------|------------|----------------|-----------|------------|--------------|-------------|--------------|
| V2_10                       | .927       | .088           | .005      | .060       | .189         | .906        | .884         |
| V2_11                       | .909       | .130           | .019      | .052       | .121         | .861        | .824         |
| V2_9                        | .884       | -.024          | .112      | .053       | .121         | .811        | .827         |
| V2_12                       | .621       | .088           | .246      | .202       | .300         | .585        | .754         |
| V2_19                       | .029       | .844           | .143      | .096       | .103         | .754        | .759         |
| V2_18                       | .143       | .822           | .055      | .110       | -.001        | .712        | .733         |
| V2_20                       | .050       | .781           | .276      | .054       | .029         | .693        | .657         |
| V2_17                       | -.007      | .646           | .161      | .239       | .164         | .527        | .678         |
| V2_8                        | .036       | .074           | .845      | .101       | .039         | .733        | .733         |
| V2_6                        | .035       | .239           | .829      | .136       | .132         | .781        | .735         |
| V2_5                        | .090       | .248           | .757      | .185       | .008         | .678        | .682         |
| V2_7                        | .319       | .167           | .581      | .260       | .322         | .638        | .555         |
| V2_1                         | .217       | .120           | .089      | .852       | -.011        | .796        | .759         |
| V2_2                         | .053       | .093           | .329      | .801       | .000         | .761        | .711         |
| V2_4                         | -.002      | .293           | .134      | .636       | .278         | .586        | .733         |
| V2_15                        | .196       | .125           | .025      | .005       | .868         | .808        | .822         |
| V2_14                        | .241       | .013           | .154      | .142       | .796         | .735        | .837         |
| V2_16                        | .298       | .449           | .134      | .050       | .495         | .555        |              |
| eigen value                 | 3.223      | 2.928           | 2.689     | 2.057      | 2.025        |              | .822         |
| variance                    | 17.904     | 16.264          | 14.938    | 11.427     | 11.251       |              | .892         |
| % variance                  | 17.904     | 34.168          | 49.106    | 60.533     | 71.783       |              |              |

For children’s active behavior factors sampling, 6 out of 8 questions were used. The results are shown in [Table 6]. Verification result of factor analysis, KMO Bartlett, was .817 which means discrimination validity by factors is ensured. Factor loading was .500 which is acceptable. Accumulation dispersion was 70.938 which is acceptable. Factors’ reliability of children’s active behaviors towards grandparents was over .756 which is acceptable.

Table 6. Reliability and validity analysis of active behaviors

| Item                        | Physical Behavior | Affective Behavior | Communality | Cronbach’s α |
|-----------------------------|------------------|-------------------|-------------|--------------|
| V3_1                        | .848             | .087              | .726        |              |
| V3_3                        | .796             | .305              | .727        | .892         |
| V3_4                        | .743             | .424              | .732        | .756         |
| V3_5                        | .092             | .893              | .807        |              |
| V3_6                        | .315             | .791              | .725        |              |
| V3_8                        | .417             | .605              | .540        |              |
| eigen value                 | 2.186            | 2.070             |              | .837         |
| variance                    | 36.431           | 34.507            |              |              |
| % variance                  | 36.431           | 70.938            |              |              |
discrimination validity by factors is ensured. Factor loading was .500 which is acceptable. Accumulation dispersion was 80.632 which is acceptable. Factors’ reliability of children’s behavior intention to grandparents was over .884 which is acceptable.

Table 7. Reliability and validity analysis of behavioral intent

| Item | Physical behavior will | Affective behavior will | communality | Cronbach’s α |
|------|-----------------------|------------------------|-------------|--------------|
| V3_10 | .872 | .310 | .857 | .934 |
| V3_9 | .845 | .340 | .829 | |
| V3_11 | .822 | .454 | .882 | .884 |
| V3_12 | .699 | .580 | .825 | |
| V3_14 | .351 | .857 | .858 | |
| V3_15 | .258 | .778 | .671 | |
| V3_13 | .466 | .777 | .820 | |
| V3_16 | .514 | .666 | .708 | |
| eigen value | 3.310 | 3.140 | 3.140 | |
| % variance | 41.371 | 39.251 | 39.251 | .944 |

4.3 Analysis of correlation among predictor variables

Correlation of each predictor variables were all significant (** p<.01). Affective behavior and active behavior (.915), physical intent and behavioral intent (.953), affective intent and behavior intent (.943) showed especially high correlation. The lowest was superiority and self development (.242). The results of the analysis of correlation among predictor variables are shown in [Table 8].

Table 8. Analysis of correlation among predictor variables

| Factor | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 |
|--------|---|---|---|---|---|---|---|---|---|----|----|
| Similarity | 1 | | | | | | | | | | |
| Superiority | .319 | 1 | | | | | | | | | |
| Favorableness | .397 | .516 | 1 | | | | | | | | |
| Self-disclosure | .447 | .242 | .371 | 1 | | | | | | | |
| Physical behavior | .320 | .409 | .446 | .337 | 1 | | | | | | |
| Proximity | .12 | .06 | .13 | 1.88 | .062 | | | | | | |
| Affective behavior | .503 | .443 | .491 | .461 | .394 | 1 | | | | | |
| Physical behavior | .375 | .406 | .496 | .390 | .863 | .607 | 1 | | | | |
| Proximity | .07 | .06 | .13 | 1.88 | .062 | | | | | | |
| Active behavior | .455 | .474 | .523 | .459 | .829 | .915 | .719 | .676 | 1 | | |
| Behavioral intent | .396 | .465 | .539 | .405 | .639 | .663 | .953 | .943 | .737 | 1 | |

** p<.01

4.4. Hypothesis testing

To verify hypothesis 1 according to the study model, multiple regression analysis was used. Hypothesis 1 was partially adopted because the results showed that children’s recognition to grandparents have a statistically significant influence on intimate behaviors (Similarity (p=.040), superiority (p=.002), favorableness (p=.001), self-disclosure (p=.003), F=24.745, R²=.416).

In the order of importance, favorableness, self-disclosure, and similarity influence active intimate behaviors. Hypothesis 1-1 was partially adopted because the results showed that children’s recognition of grandparents had a statistically significant influence on physical intimate behaviors (Superiority (p=.007), favorableness (p=.004), self-disclosure (p=.049), F=12.432, R²=.255) in the order of importance, favorableness, superiority, and self-disclosure influence active physical intimate behaviors. Hypothesis 1-2 was partially adopted because the results showed that children’s recognition to grandparents have a statistically significant influence on emotional intimate behavior (Similarity (p=.003), superiority (p=.010), favorableness (p=.008), self-disclosure (p=.006) F=24.882 R²=.417). In the order of importance, similarity, favorableness, self-disclosure, and superiority influence active emotional intimate behavior. These results were the same as preceding the outcome [12], [20], [21], [23], [25], [26], [29], [30], [32], [39], [43], [50], that similarity, favorableness, superiority, and self-disclosure influence intimate behaviors. However, the reason that proximity does not influence intimate behaviors seems to there are not many opportunities to come into contact with each other due to the change of family structures. Analysis result of hypothesis 1 is shown in [Table 9].

Table 9. Analysis of H1

| H | Factor | Unstandardized Coefficients | Standardized Coefficients | t | p | R² |
|---|--------|-----------------------------|---------------------------|---|---|---|
| H1 | constant | .59 | .23 | 2.52 | .013 |
| | Proximity | .07 | .06 | .99 | 1.26 | .209 |
| | Similarity | .14 | .07 | .15 | 2.07 | .040 |
| | Superiority | .20 | .07 | .22 | 3.16 | .002 |
| | Favorableness | .24 | .07 | .24 | 3.30 | .001 |
| | Self-disclosure | .18 | .06 | .21 | 3.04 | .003 |
| | constant | .98 | .28 | 3.56 | .000 |
| | Proximity | .00 | .07 | .00 | .05 | .963 |
| | Similarity | .08 | .08 | .08 | 1.01 | .312 |
| | Superiority | .22 | .08 | .22 | 2.73 | .007 |
| | Favorableness | .25 | .09 | .24 | 2.90 | .004 |
| | Self-disclosure | .14 | .07 | .16 | 1.98 | .049 |
| | constant | .36 | .26 | 1.37 | .173 |
| | Proximity | .12 | .06 | .13 | 1.88 | .062 |
| | Similarity | .22 | .08 | .22 | 2.90 | .003 |
| | Superiority | .20 | .09 | .20 | 1.62 | .010 |
| | Favorableness | .22 | .08 | .20 | 2.70 | .008 |
| | Self-disclosure | .18 | .07 | .19 | 2.77 | .006 |

To verify hypothesis 2 according to study matrix, multiple regression analysis was used. Hypothesis 2 was partially adopted because result showed that children’s recognition to grandparents have a statistically significant influence on intimate behaviors (Superiority (p=.002), favorableness (p=.000), self-disclosure (p=.006) F=21.224, R²=.377) in the order of importance, favorableness, superiority, self-disclosure influence on intimate behavior will. Hypothesis 2-1 was adopted because the results showed that children’s recognition to grandparents influence physical behavior will. Hypothesis 2-2 was adopted partially because the results showed that children’s recognition to grandparents influence
affective behavior will. Superiority (p=.001), favorableness (p=.000), self-disclosure (p=.026). F=19.616, R²=.358) in the order of importance, favorableness, superiority, self-disclosure influence affective behavior intention. These results were the same as preceding outcome that favorableness, superiority, self-disclosure affect intimate behavior will. However, the reason that proximity and similarity do not influence intimate behavior will seems to be because they have very few chances to contact each other. It is thought that grandparent-grandchild relationship should be approached using a cultural-affective view rather than a socio-biological view. Analysis result of hypothesis 2 is shown in [Table 10].

Table 10. Analysis of H2

| H Factor | Unstandardized Coefficients | Standardized Coefficients | t | p | F | R² |
|----------|-----------------------------|---------------------------|---|---|---|----|
| constant | .06 | 1.06 | .24 | 4.47 | .000 | 21.224 (p=.000) | .377 |
| Proximity | -.06 | .06 | -.07 | -.39 | .323 | | |
| Similarity | .13 | .07 | .15 | 1.94 | .054 | | |
| Superiority | .22 | .07 | .23 | 3.21 | .002 | | |
| Favorableness | .30 | .07 | .31 | 4.03 | .000*** | | |
| Self-disclosure | .16 | .06 | .20 | 2.76 | .006 | | |

| H Factor | Unstandardized Coefficients | Standardized Coefficients | t | p | F | R² |
|----------|-----------------------------|---------------------------|---|---|---|----|
| constant | 1.02 | 1.02 | .27 | 3.73 | .000 | 16.524 (p=.000) | .317 |
| Proximity | -.08 | .07 | -.09 | -1.16 | .246 | | |
| Similarity | .15 | .08 | .15 | 1.92 | .057 | | |
| Superiority | .19 | .08 | .18 | 2.42 | .017 | | |
| Favorableness | .31 | .08 | .29 | 3.64 | .000** | | |
| Self-disclosure | .19 | .07 | .21 | 2.75 | .007** | | |

To verify hypothesis H2 according to study matrix, multiple regression analysis was used. This was adopted because the results showed that children’s active intimate behaviors influence intimate behavior will. (Physical behavior (p=.000), affective behavior (p=.000). F=93.88, R²=.527) in the order of importance, affective behavior, physical behavior affect intimate behavior will. Hypothesis 3-1 was adopted because the results showed that children’s active intimate behavior to grandparents influence physical intimate behavior (physical behavior (p=.000), affective behavior (p=.000). F=85.687, R²=.504) in the order of importance physical behavior, affective behavior affect physical intimate behavior will. Hypothesis 3-2 was adopted because the results showed that children’s active intimate behavior to grandparents influence emotional intimate behavior (physical behavior (p=.001), affective behavior (p=.000). F=70.759, R²=.455) in the order of importance affective behavior physical behavior affect affective behavior will. This result shows that the reason why active intimate behaviors influence intimate behavior will appears to be because of the result they want to keep positive relationship as showed in preceding studies. Analysis result of hypothesis 3 is as shown in [Table 11].

Table 11. Analysis of H3

| H Factor | Unstandardized Coefficients | Standardized Coefficients | t | p | F | R² |
|----------|-----------------------------|---------------------------|---|---|---|----|
| constant | 1.12 | .17 | 6.67 | .000 | 93.880 (p=.000) | .527 |
| Physical Behavior | .36 | .06 | .38 | 5.74 | .000*** | | |
| Affective Behavior | .38 | .06 | .44 | 6.60 | .000*** | | |
| constant | .88 | .19 | 4.63 | .000 | 85.687 (p=.000) | .504 |
| Physical Behavior | .48 | .07 | .47 | 6.90 | .000*** | | |
| Affective Behavior | .32 | .07 | .33 | 4.85 | .000*** | | |
| constant | 1.37 | .18 | 7.54 | .000 | 70.759 (p=.000) | .455 |
| Physical Behavior | .23 | .07 | .24 | 3.37 | .001*** | | |
| Affective Behavior | .45 | .06 | .51 | 7.17 | .000*** | | |

*** p > .001, ** p > .01, * p > .05

5. CONCLUSION

The purpose of this study was to investigate effect factors of children’s intimate behavior toward grandparents and to suggest ways for grandparents to actively encourage grandchildren’s intimate behavior. Study results of actual proof analysis showed that children’s recognition factors towards grandparents affected their active intimate behaviors in the order of favorableness, superiority, self-disclosure, and similarity. The factors also affected intimate behavior will in the order of favorableness, superiority, and self-disclosure. It was found that children’s active intimate behavior influenced their intimate behavior will. These results did not match the preceding study result in that proximity influences intimate behavior [11], [12], [24], [35], [37]. However, it matched with study results stating that favorableness influences intimate behavior [43], [50], superiority influences intimate behavior [20], [28], [29], [30], [31], self-disclosure influences intimate behavior [32], [39], and similarity influences intimate behavior [21], [23], [25]. Therefore to induce children’s behaviors more positively, a strategy that allows grandchildren to recognize their grandparents in a favorable, superior, self-disclosed, and similar way should be implemented.

External conditions of learning in developing children’s positive intimate behaviors vary depending on the goals of studying. The most effective method that could be applied to attitude learning in general is the Human Modeling method. Thus, grandparents themselves should be positive models for children. In order to achieve this, we suggest the following. First, grandparents’ active efforts are needed to increase grandchildren’s cognition for favorableness. For example, they could make a phone call first rather than waiting for the children to call them. A suitable voice tone and expressions that show that they miss them and making promises they can keep are required. Communication skill workshops and interpersonal relationship enhancement programs are also needed.

Second, to increase cognition of superiority, grandparents need
to make efforts to take good care of themselves health and appearance wise, emotionally, financially, and socially. For example, they have to study makeup skills, dress coordination, and image consulting to manage appearance. For health, they need to study disease prevention program, nutrition, sanitation programs and exercise programs such as yoga, dancing, gate ball, and other types of exercise. For emotion control, various art therapies, religious education, family programs are necessary. They need an education about asset management programs, rational consumption life. For social relationships, computer courses, group activities, volunteer activities, old people educations can be helpful.

Third, to increase recognition of self-disclosure, grandparents need to improve their self-expression skills. For instance, it would help to have self-management training program for delivering positive information, speech training program from delivering their opinions or lifestyles, “I-Message method” for delivering their emotions or feelings. The ability to express oneself that does not generate conflicts will not only have positive outcomes for grandchildren’s intimate behaviors but in all relationships.

Fourth, grandparents’ efforts to understand their grandchildren’s generation are needed to increase recognition of similarity. They need to learn about Internet-related educations to be able to share interests with grandchildren. To share hobbies, they need to know how to get information about celebrities, music, sports that their grandchildren like using the internet, television, children's magazine, and sports magazines.

If grandparents try to understand their interests, hobbies, favorite things, values, attitudes, and inclinations by adjusting their level to children, it would help them overcome the generation gap and other dissimilarities.

To implement this efficiently, preparation of institutional infrastructure and funding for financial support should come first, so that old age universities, lifelong study institutions, university lifelong study schools, and old age welfare centers can provide various opportunities. In addition, old adults are required to shift their thoughts about paying a fair price for self-improvement programs.

Meanwhile, we have to redefine and construct the concept of “filial piety”, then develop suitable “filial piety” programs for children. For instance, we need programs explaining that “filial piety” is not a difficult concept but an admirable behavior everybody can do with ease by affecting their recognition, motive, emotion and behaviors using audio-visual materials. Developed programs should be operated in schools or classrooms considering the age and level of attendees after schooling through social workers or teenager advisors. Institutional installation should be supplemented. By implementing both programs of grandparent’s active and positive efforts and correct understanding of “filial piety”, it is expected that this can influence the relationship between grandparents and grandchildren and old adults-children relationship positively. Eventually we would be able to minimize social isolation gap that old adults experience. Furthermore, the life of old adults can be upgraded.

Limitations of this study can be improved in terms of selecting study targets. Since we focused on a limited number of children who are living in G city, it is difficult to generalize that mentioned effect factors can be applied to all children. Follow up studies about old adult’s intimate behavior with extending rand of targets along with more specific management programs for old adults and “filial piety” concept for children; we believe they will be invaluable assets.

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