# Undergraduate Students' Image of the Elderly based on Knowledge and Attitudes*

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**Abstract :** The purposes of the study were to examine the trend of undergraduate students' knowledges and attitudes toward elderly and aging traits, and to present the influence of undergraduate students' attitudes.

The subjects were 494 undergraduate students. Statistics used such as frequency, Percentage, Mean, Standard Deviation, Cronbach's $\alpha$, t-test, Duncan test, ANOVA and Stepwise Multiple Regression Analysis.

The results of this study were as follow:

1) Undergraduate students' knowledge level toward the elderly was low, and undergraduate students' attitudes level was middle.

2) There were meaningful differences in attitudes level according to sex, living together with elderly (the present time), living together with elderly (the past time), the presence of grandfather. It also had a significant correlation to the undergraduate students' knowledge.

3) The variables which affected the undergraduate students' attitudes were knowledge, sex, present co-residency with grandparents, past co-residency with grandparents, the presence grandfather, period of co-residency with grandparents that were explained about 24%. Among variables, knowledge of elderly was a very important variable on undergraduate students' attitudes.

**Key Words :** undergraduate, image of elderly, knowledge, attitude

## I. Introduction

The Korean society is moving toward an aged society, as the elderly comprise more than 14 % of the total population. The development of medical science, nutritional improvements and quality of life may account for some of this growth. Due to this demographic surge, more attention should be focused on social support and life satisfaction in the aged population.

The proportion of the elderly in Korean society has risen as society has modernized, and some have noted the privileges and social positions of the elderly have declined over time (Cox, 1988). In other words, roles of the elderly were important in a traditional agricultural society because they provided useful information and knowledge based on their previous experiences. However, the

modern emphasis of labor efficiency and effectiveness and the demand for new knowledge make it difficult for the elderly to maintain their authority (power) and position in contemporary society.

Differing historical experiences of the young and old generations have influenced people's perspectives, causing a generation gap that sometimes leads to age-related conflicts. According to studies of the family system based on "Hyo," the generation gap between the young and the old exists, especially as individualism has formed among the young generation. As the young population increases and the old generation has power, the generation gap increases in the variety of areas because of competition over scarce resources (Songae kim, 1991; Yeonkyung Lee, 1999; Yeonjoo Han & Taehyun Kim, 1994).

As a result of these generation gap conflicts, people think that the dependant elderly are a burden, and hold negative stereotypes toward them, based on misunderstanding and indifference (Yunjung Kim & Suna Jung, 2001; Kyunglan Park & Youngsook Lee, 2001; Byungsook Seo & Soohyun Kim, 1999; Sunja Lee, 1989; Sihyung Lee, et al., 1999; Myunghee Jo, 1987; Yongyeon Cha, 1980). Some younger people may sarcastically define the elderly as "useless people", "out of date" or "the elderly become like babies." Also, the young often ignore the old (Korean Woman Society Research Institute, 1999). According to domestic studies (Yongsoon Kim, 2001; Yeonkyung Kim, 2003; Yeonil Kim, 1981; Kyunglan Park & Youngsook Lee, 2001; Byungsook Seo & Soohyun Kim, 1999; Insoo Lee, 2000; Inhae Im, 1987; Kyungsoon Jo, 1982;

Junglan Han, 2000; Yongyeon Cha, 1980), undergraduate students in Korea hold negative images of the elderly, such as passive, weak, dependant, unproductive, disabled, critical, closed-mind, and slow. The negative attitudes are formed from their relationships with the elderly, from their experiences, home education, residence facilities, gender roles, movies, novels, magazines, mass media (TV, radio, etc,) and so forth.

Negative and unfriendly attitudes toward the elderly are considered even worse in America and Western Europe (Brewer et al., 1981; Hummert, 1990;Kogan, 1962; Rosencranz & McNevin, 1964; Schmidt & Boland, 1986; Tukman & Lorge, 1952). In Korea, this ageism negatively influences the well-being of older persons, so the government welfare policy focuses on protection and support for the dependant elderly who are weak in society.

In terms of negative attitudes toward the elderly, there are two ways to solve these problems. First, scientific and systematic studies can increase the quality of life for the elderly. Secondly, we can establish a new environment that "respects the elderly" throughout the whole society. Many studies have suggested that family and social support improves elder happiness.

Generally, universities are very important places that provide students with opportunities to think about their future family and societal roles. Young people are socially responsible to support the elderly, and they will become the future elderly who in turn, need support from society. As a result, educating young people about their attitudes toward the elderly will affect their development as well as the government elderly welfare policies (Yeonkyung Kim, 2003).

In short, this study focuses on finding out how much young people know, understanding about the characteristics of the elderly as well as symptoms of senility, and finding out the factors that affect these images and attitudes among young people. This study will help to establish a new respectful environment so that the elderly can be considered helpful and knowledgeable in society and can enjoy public support as they live their lives.

# II. Theoretical Background

## 1. Characteristics of the Elderly

The average life expectancy of Koreans in 2002 was 75.6 years old (male: 71.7 years old, female: 79.2 years old) in 2002. This is roughly twice the international life expectancy of 45 years old after World War II. As life expectancy has increased, Neugarten (1973) classified the elderly into three ages: 55-64 years old: young-old, 65-74 years old: middle-old, 75 years and above: old-old. Even though we categorize the elderly by age, it is hard to determine the exact definition of the terms "old age" and "elderly." The elderly designation is determined not just by biological and physical factors, but also psychological and social influences and even personal opinion. (Korean Gerontology Institute, 2001).

Breen (1976) classified the elderly into three classes considering these other factors, including 1) people who are declining biologically and physiologically, 2) people who have changed psychologically in mental ability and personality, and 3) people who are in the social decline of roles

and positions. For the purposes of this study, we define the elderly as those above age 60 years old in Korea by the calendar age, however we acknowledge that future cohorts may define old age at age 65.

According to a study of when people strongly recognize the symptoms of being elderly (Gaoak Lee, 1994), older persons answered that "when they physically feel weak", "when they feel a physical change", "when they retire or when they have their 61st' birthday", "when their children get married or when they have grandchildren" in order. This result showed that social and physical characteristics defined their sense of being old.

Erikson (1950) categorized the psychological development level of humans into 8 levels. The elderly time was classified as the last developmental level, termed self-actualization. If the elderly failed to fulfill this self-actualization, they would experience frustration. During this last stage, they were able to recognize and accept their mistakes, weaknesses, failures and despair. However, most Korean elderly feel frustrated by the loss of their status in society. In other words, they experience financial difficulties from retirement, isolation and loneliness associated with the generation gap, and physical problems such as health conditions and diseases. Future cohorts of older persons can expect to have these difficulties as well.

Therefore, it is important to know about the characteristics of the elderly. Older persons may have increased levels of melancholia, cautiousness, rigid attitude, dependency, strong affection toward familial objects, frequent past recollections, and self-centeredness. Some have suggested

personality changes with age including passivity, introversion, androgynous gender roles and concern on their ability to leave an inheritance. Biological aging involves changes in physical appearance, bone and muscle structure, digestion and respiratory function, sensory perception and so forth. Psychological aging can include declines in memory, reasoning power, perception and thinking. Social aging involves the changes of rules, expectations, social status and roles among older persons.

These losses and declines cause negative images of the elderly, and leads people to have exaggerated perceptions and attitudes regarding the older population. The elderly are perceived as sick, tired, asexual, slow, memory impaired, unable to learn, irritable, isolated, unproductive and defensive (Jin Yun & Suckmi Jo, 1982; Yongyeon Cha, 1980; Kamer et al., 1998; McTavish, 1971; Nuessel, 1982; Palmore, 1982; Stevens & Crouch, 1995). This inaccurate knowledge and stereotyping cause conflicts among generations and make the elderly - related problems difficult to solve.

This bias and negative attitude toward the elderly result from too much focus on the physical declines and changes, generalization by ignorance of the diversity. Heckhauser et al. (1989) indicated that experience, knowledge, mental health, kindness and honesty increase around during a person's seventies and eighties. Education level, occupation and economic status influence the ability to learn, adapt and problem solve in old age. Dorland studied mental health of older persons and noted the average age of retirement was 66.7 years old, and those aged 40 were able to write great novels, including a compilation of life experiences.

## 2. Pre-study on the Image Recognition of the Elderly

Even though studies of youth recognition and attitudes toward the elderly were initiated in the 1950s in Western Europe, Korea has only begun this inquiry in the 1970's as the population began to age rapidly. The modernization theory (1972) explained the reasons for status declines as social roles of the elderly rapidly decreased during industrialization. The elderly in modern society lost the previous roles of respect, authority and power, only to become isolated, lonely and dependent. Now, many studies have pointed to the modern bias and negative stereotyping toward the elderly in society (Byungsook Seo & Soohyun Kim, 1999; Jin Yun, Suckmi Jo, 1982; Myunghee Jo, 1974; Yongyeon Cha, 1980; Chunhyuck Che, 1992; Aarmstrong-Esther et al., 1994; Kamer et al., 1998; Lookinland & Anson, 1995; McTavish, 1971; Nuessel, 1982; Palmore, 1982; Stevens & Crouch, 1995; Tuckman & Lorge, 1952).

According to the pioneering study of attitudes toward the elderly, Tuckman and Lorge (1952) surveyed graduate students who recognized the elderly as economically instable, unhealthy and lonely people. Also, they felt that physical and mental abilities of the elderly were declining. Rosencranz & McNevin (1964) indicated that undergraduate students thought the elderly were inefficient, dependable and selfish. Hawkins (1996) studied about attitudes of undergraduate students toward the elderly by classifying the elderly into three age groups by gender (65-74 years old, 75-99 years old, and above 100 years old). The results showed that the older the person,

the more negative attitude existed.

Yongyeon Cha (1980) pointed out that undergraduate students in Korea believe the elderly are conservative in their lifestyle and hobbies, they experience economic and social problems and they express anxiety when describing the present and future. Byungsook Seo and Soohyun Kim (1999) recognized images toward the elderly among Korean undergraduate students included inactive, passive, weak, not busy, dependent, small, unproductive, unsatisfied, incapable, poor, negative, greedy, narrow-minded, alienated, closed, slow, conservative, stubborn, static, gray, and so on. This result matched with the study of Gyiyeon Sin (1995) and Sunja Lee (1989) that reported young people in adolescence had negative images toward the elderly.

By contrast, according to several studies in Korea (Pilsun Quak, 1989; Gyiyeon Sin, 1995; Yeonjin Oak, 1990; Sunghae Yun, 1990; Yeonmi Lee, 1990; Sunghae Jo, 1990; Chunhyuck Che, 1992), they indicated that respondents had positive actual fact recognition toward the elderly. This positive result depended on the mother's attitudes (Yeonsoo Kim, 1994; Taehyun Kim & Gilyang Jun, 1997; Kyunglan Park, 1994; Dongin Seo, 1989; Junggi Seo, 1993; Yunoak Jan, 2002; Thompson & Walker, 1987, Kennedy, 1992), genders of respondents (Yeonsoo Kim, 1994; Sunja Lee, 1989; Myunghee Jo, 1987; Yongyeon Cha, 1980; Chunhyuck Che, 1992; Tuckman & Lorge, 1952), education levels of respondents (Armstrong-Esther et al., 1994; Huber et al., 1992; Karner et al., 1998), living experiences with the elderly (Myunghee Kang, 1990; Guangsook Kim, 1987; Byungsook Seo & Soohyun Kim, 1999;

Mijung Sin, 1990; Yeonjin Oak, 1990; Yeonmi Lee, 1990; Sunja Lee, 1989; Inhae Im, 1987; Hansoon Im, 1992; Yongyeon Cha, 1980; Chunhyuck Che, 1992; Junglan Han, 2000), the ages of the elderly (Misoon Song, 1984; Sunghae Yun, 1990; Sunja Lee, 1989; Kawkins, 1996; Sanders et al., 1984), the areas of study (Insoo Lee, 2000; Jangsoon Im, 1979; Sunghae Jo, 1990), experiences and relationships with the elderly (Yeonsoo Kim, 1994; Inhae Park, 1979; Byungsook Seo & Soohyun Kim, 1999; Sunja Lee, 1989; Youngsin Im et al., 2002; Misil Jung, 1996; Myunghee Jo, 1974; Junglan han, 2000; Barton, 1999; Bringle & Kremer, 1993; Cartestenses et al., 1982; Caspi, 1984; Knapp, 2000), voluntary experiences (Anderson & Hanley, 1999), and so on.

## III. Methods

### 1. Respondents and Resource Gathering

This study surveyed samples of S university students in S city in Korea. We purposively chose convenience samples throughout four class levels and five different colleges. Research assistants led and collected this survey during the class time. The survey was conducted from September 10 to November 20, 2003 and structured survey questionnaires were used. Of the initial 520 surveys, 494 were used, as the others had unreliable or incomplete answers.

### 2. Tool for this Study

The tool for this study was the structured

questionnaire. The survey asked general personal questions to the respondents and included measurement of knowledge and the attitudes toward the elderly. The following explains in detail about each part's content, the framing processes and confidence level.

### 1) The measurement of knowledge about the elderly

To find out degrees of knowledge about the elderly, we used Palmore (1998)'s Fact on Aging Quiz (FAQ 1) of True-False format from the study of Youngsin Im, et al. (2002). FAQ 1 consisted of 25 statements that included facts and biases regarding physical/physiological, psychological, and family/social issues. Respondents were asked to answer True (one point), False (zero point) or I don't know (zero point). To measure degrees of knowledge, points of each answer added up to calculate the total (the lowest point value is zero, the highest is 25). The correct answers for each even number were true and the right answers for each odd number were false.

### 2) The measurement of attitudes toward the elderly

To know degrees of attitudes toward the elderly, we adopted Sander's, et al. (1984) Semantic Differential Scale. Respondents' attitudes were assessed based on degree of agreement with 20 adjective pairs that had the opposite meanings to express the characteristics of the elderly. Each question assigned 5 points by Likert scaling and degrees of attitudes were added up and analyzed. The higher the total, the more positive the attitude

young people show toward the elderly. Conversely, the lower the total, the more negative the attitude (the lowest point is 20 points, the highest point is 100 points). If points from each question were between 2.5 to 3.5 and the total from the series of questions was between 50 points to 70 points, we analyzed that their attitudes were neutral.

### 3) Background variability

Variables which affected knowledge and attitudes toward the elderly were gender, colleges, grades, economic conditions, father's job, mother's job, the birth order of father, the birth order of mother, the respondents' number of siblings, their birth order, religion, voluntary experiences, grandparent mortality status, living with grandparents currently or not, past co-residence experiences with grandparents, and the length of time co-residing with grandparents.

## 3. Study Analysis

This study used SAS Package Program to analyze and three analytical methods. The methods were as follows:

1) We calculated the frequency and percentage to find the general characteristics of respondents and their degree of knowledge about the elderly.

2) We calculated the mean and standard deviation of knowledge and attitudes toward the elderly. Also, we used ANOVA, t-test and correlation to know degrees of knowledge and attitudes along with the background variables.

3) We ran step by step multiple regressions to predict attitudes toward the elderly.

## IV. Results

## 1. General characteristics of respondents

<Table 1> General Characteristics of Respondents

| Variables | Classes | N (%) | Variables | Classes | N (%) |
|---|---|---|---|---|---|
| Gender | Male<br>Female | 262(53.0)<br>232(47.0) | The number of brothers and sisters of respondents | Only one child<br>2 - 3 siblings<br>4 - 5 siblings<br>Above 6 siblings | 10( 2.0)<br>400(81.0)<br>71(14.4)<br>13( 2.6) |
| Major | College of Natural Science<br>College of Human Society<br>College of Education<br>College of Engineering<br>College of Agriculture | 100(20.2)<br>100(20.2)<br>78(15.8)<br>135(27.3)<br>81(16.4) | Birth order of respondents | The only son, daughter<br>First son, daughter<br>Other sons, daughters<br>The last son, daughter | 11( 2.2)<br>218(44.1)<br>104(21.1)<br>161(32.6) |
| Grade | Freshman<br>Sophomore<br>Junior<br>Senior | 178(36.0)<br>137(27.7)<br>114(23.1)<br>65(13.2) | Religion | Yes<br>No | 258(52.2)<br>236(47.8) |
| Economic condition | Less than 100 million Won<br>101-102 million Won<br>201-300 million Won<br>More than 301 million Won | 54(10.9)<br>164(33.2)<br>172(34.8)<br>104(21.1) | Voluntary experiences | Yes<br>No | 206(41.7)<br>288(58.3) |
| Father's job | Unemployed<br>Simple labor, agriculture or fishery<br>Sale(business, services)<br>Office worker<br>Government employee, administrative management, professional job | 45( 9.1)<br>142(28.7)<br>127(25.7)<br>88(17.8)<br><br>92(18.6) | Yes/ No on Present Co-Residency with Grandparents | Grandfather on your father's side   Yes<br>  No | 16( 3.2)<br>478(96.8) |
| Mother's job | Simple labor, agriculture or fishery<br>Sale(business, services)<br>Office worker,<br>Government employee, administrative management, professional job Housewife | 65(33.5)<br>92(47.4)<br>37(19.1)<br><br>300(60.7) | | Grandmother on your father's side   Yes<br>  No | 56(11.3)<br>438(88.7) |
| Birth order of father | Only one child<br>First son<br>Other sons<br>The last son | 8( 1.6)<br>182(36.8)<br>260(52.6)<br>44( 8.9) | | Grandfather on your mother's side   Yes<br>  No | ·3( 0.6)<br>491(99.4) |
| Birth order of mother | Only one child<br>Fist daughter<br>Other daughters<br>The last daughter | 2( 0.4)<br>161(32.6)<br>303(61.3)<br>28( 5.7) | | Grandmother on your mother's side   Yes<br>  No | 13( 2.6)<br>481(97.4) |
| Co-Residency with Grandparents | Below five years<br>Above five years<br>Nothing | 112(22.7)<br>160(32.4)<br>220(44.9) | Yes/No on Past Co-Residency with Grandparents | Yes<br>No | 273(55.3)<br>221(44.5) |

## 2. Knowledge and Attitudes about the Elderly

### 1) Knowledge about the elderly

<Table 2> illustrates degrees of knowledge from answers to each statement. Statement number 6, 2, 4, 12, 22 out of 25 in total had the highest correct answer rate in order, and statement 23, 19, 7, 21 had the lowest rate of correct answers. Statement number 8, 18, 20, 19 had the highest answer rate for "I don't know," repectively. In other words, respondents had the correct knowledge from statements such as "There is a tendency that physical strength decreases, as people get old", "Five senses (the sense of sight, hearing, taste, touch and smell) decline, as people get old", and "Breathing capacity declines, as people get old."

However, many respondents had the wrong knowledge from statements such as "The elderly are more likely to have deep religious belief", "More than ten percent of the present population are 65 years old or more," and "More than five percent of the elderly live in convalescent facilities." In addition, many respondents answered "I don't know" from statements such as "Elderly drivers have fewer car accidents than the young drivers", "Elderly employees are less likely to have job accidents than younger people", and "Most medical staffs give less priority to the elderly".

Furthermore, by classifying statements into three parts that were physical/physiological, psychological, and family/social parts, the physical/physiological part had the highest rate of correct answers 71.5%; the family/social part had the lowest rate by 34.7%. As a result, undergraduate students easily perceived knowledge of physical and external changes due to aging. By contrast, they did not have enough knowledge of internal, and family and social relationship changes. This result corresponds to the results of Youngsin Im, et al. (2002) and Yeonkyung Kim (2003) studies, which examined degrees of the knowledge about the elderly among nurses.

Respondent knowledge about the elderly stood at 12.08 points, lower than the median 13.00 points. This indicated the lack of appropriate knowledge about the elderly and aging. In addition, the scores from each part were 7.14 points in the physical/physiological (11 statements), 2.16 points in the psychological (6 statements) and 2.77 points in the family/social part (8 statements).

### 2) Attitudes toward the elderly

<Table 3> presents respondent attitudes toward the elderly. The total score of attitudes was 64.21 points, which showed neutral tendency because it was between 50 points and 70 points. In other words, attitudes were not positive or negative. From each statement, the number 1, 2, 5, 6, 9, 13 and 18 showed a positive attitude and the number 16 displayed a negative attitude. Instead of considering the elderly as selfish people, respondents thought that the elderly were generous, trusting, and patient.

However, respondents still thought that the elderly were conservative, frequently sick, unproductive and unattractive. These results are consistent with many previous attitude studies toward the elderly (Yeonkyung Kim, 2003; Sunja Lee, 1989; Sihyung Lee, et al., 1999; Youngsin Im, et al., 2002; Myunghee Jo, 1987; Yongyeon Cha,

<Table 2> Degrees of the Knowledge About the Elderly

| Area (Part) | Number/Contents of Statements | The correct answer rate N (%) | The wrong answer rate N (%) | I don't know | The correct answer from each part | M (SD) |
|---|---|---|---|---|---|---|
| The physical/ physio-logical part (11 statem-ents) | 1. Most elderly are senile. (Example, poor memory, dementia) | 260(52.6) | 139(28.1) | 95(19.2) | 71.5% | 7.14(1.82) / 0.65(0.17) |
| | 2. Five senses (the sense of sight, hearing, taste, touch and smell) decline, as people get old. | 445(90.1) | 33( 6.7) | 16( 3.2) | | |
| | 3. Most of the elderly are not sexually active.. | 269(54.5) | 64(13.0) | 161(32.6) | | |
| | 4. Breathing capacity declines, as people get old. | 427(86.4) | 29( 5.9) | 38( 7.7) | | |
| | 6. Physical strengthen weakens, as people get old. | 453(91.7) | 24( 4.9) | 17( 3.4) | | |
| | 8. Elderly drivers have fewer car accidents than young drivers. | 175(35.4) | 97(19.6) | 222(44.9) | | |
| | 9. Most elderly cannot work effectively compared to younger people. | 196(39.7) | 187(37.9) | 111(22.5) | | |
| | 10. More than fifty percent of the elderly are healthy enough to do their daily activities. | 341(69.0) | 71(14.4) | 82(16.6) | | |
| | 12. Generally, the elderly take more time to learn something new than younger people. | 414(83.8) | 38( 7.7) | 42( 8.5) | | |
| | 14. The elderly have a slower reaction time than younger people. | 364(73.7) | 82(16.6) | 48( 9.7) | | |
| | 18. Elderly employees are less likely to have job accidents than younger people. | 187(37.9) | 117(23.7) | 190(38.5) | | |
| The psych-ologic-al part (6 statements) | 5. A lot of the elderly feel depressed and miserable most of the time. | 227(46.0) | 144(29.1) | 123(24.9) | 36.0% | 2.16(1.42) / 0.36(0.24) |
| | 11. The elderly have a hard time adjusting to changes. | 279(56.5) | 112(22.7) | 103(24.9) | | |
| | 13. Mental depression occurs more among the elderly than younger people. | 175(35.4) | 209(42.3) | 110(22.3) | | |
| | 16. Generally, the elderly rarely say that they are bored. | 138(27.9) | 195(39.5) | 161(32.6) | | |
| | 23. The elderly are more likely to have deep religious beliefs. | 53(10.7) | 321(65.0) | 120(24.3) | | |
| | 24. Most elderly hardly get aggressive or angry. | 196(39.7) | 187(38.3) | 109(22.1) | | |
| The social/-family part (8 statem-ents) | 7. More than five percent of the elderly live at a convalescent housing. (Example, assisted living residence, convalescent hospital and nursing home) | 71( 4.4) | 305(61.7) | 118(23.9) | 34.7% | 2.77(1.39) / 0.35(0.18) |
| | 15. Most of the elderly have similar characteristics. | 214(43.3) | 211(42.7) | 69(14.0) | | |
| | 17. Most elderly are isolated from society. | 132(26.7) | 281(56.9) | 81(16.4) | | |
| | 19. More than ten percent of the present population are 65 years old or more. | 31( 6.3) | 320(64.8) | 143(28.9) | | |
| | 20. Most medical staffs are likely to give less priority to the elderly. | 204(41.3) | 144(29.1) | 146(29.6) | | |
| | 21. Most elderly have low income to afford household expenses. | 83( 6.8) | 302(61.1) | 109(22.1) | | |
| | 22. Most elderly want to work regardless of what kinds of job it is. | 398(80.6) | 42( 8.5) | 54(10.9) | | |
| | 25. In 2010, the health condition and social and economic status of the elderly will be worse. | 237(48.0) | 144(29.1) | 113(22.9) | | |
| Total | | | | | 100% | 12.08(3.41) /0.45(0.20) |

<Table 3> Attitudes toward the Elderly

| Number | Content | M (SD) |
|---|---|---|
| 1 | wise --- stupid | 3.72(0.93) |
| 2 | kind --- unkind | 3.83(0.90) |
| 3 | knowledgeable --- uneducated | 3.37(0.84) |
| 4 | happy --- unhappy(sad) | 3.03(0.83) |
| 5 | faithful(trustful) --- unfaithful | 3.89(0.88) |
| 6 | generous --- selfish | 3.93(0.98) |
| 7 | active --- inactive | 2.64(0.96) |
| 8 | clean --- dirty | 3.05(0.90) |
| 9 | favorable --- unfavorable | 3.70(0.90) |
| 10 | funny --- boring | 2.92(0.94) |
| 11 | productive --- unproductive | 2.77(0.91) |
| 12 | healthy --- unhealthy | 2.59(0.91) |
| 13 | good --- bad | 3.69(0.91) |
| 14 | flexible --- inflexible | 2.93(0.98) |
| 15 | independent --- dependent | 2.83(1.00) |
| 16 | liberal --- conservative | 2.29(0.96) |
| 17 | attractive --- unattractive | 2.72(0.88) |
| 18 | tolerant(patient) --- intolerant | 3.82(0.98) |
| 19 | positive --- negative | 3.28(0.91) |
| 20 | satisfied --- unsatisfied | 3.19(0.93) |
| Total | | 64.21(9.86) |

1980; Junglan Han, 2000). In contrast, respondents from this survey gave the most positive evaluation to the adjective "generous," compared to the most negative evaluation "liberal" which showed attitudes were not bad. This result was also supported by the study of Insoo Lee (2000) and Yeonkyung Kim (2003) where students in a rural area had more positive attitudes than students in an urban area.

## 3. Background Variables of Respondents and Degree of knowledge about Attitudes toward the Elderly

In order to examine background variables of respondents and the degree of knowledge about

attitudes toward the elderly, ANOVA was used for analysis of nominal variables and the correlation was used for analysis of rank variables. From the <Table 4>, there were significant attitude differences among groups at the level of $p<.001$ in gender (F=10.42), at the level of $p<.01$ in present co-residency with grandparents (F=8.70), at whether there was $p<.05$ past co-residence with grandparents (F=3.01) and mortality status of grandparents (F=2.74). In addition, degrees of knowledge about the elderly(r=.3077) had a significant correlation with attitudes toward the elderly at the level of $p<.001$.

In other words, attitudes toward the elderly were positive among males, compared to females, students who co-resided with grandparents currently compared to those who do not, students who lived with grandparents in the past compared to those who had never lived with grandparents in the household, and students who still have a living grandfather, compared to those whose grandfathers are all deceased. Moreover, the more knowledge about the elderly they had, the more positive attitude they expressed.

Even though this study result confirmed the previous studies (Youngsook Jung, 1990; Myunghee Jo, 1987; Yongyeon Cha, 1980; Chunhyuck Che, 1992; Junglan Han, 2000) that male undergraduate students had a more positive attitude than female students, it did not correspond with the results of Sunja Lee's (1989) study that said attitudes toward the elderly become negative as people got old regardless of gender. Furthermore, the longer living experiences with grandparents influenced students to understand the elderly more and to have a more positive attitude.

<Table 4> Background Variables of Respondents and Degree of knowledge about Attitudes

| Variables | | Classes | N | M (SD)    Dun | t / F value |
|---|---|---|---|---|---|
| Gender | | Male | 262 | 65.54(10.74)  A | 10.42*** |
| | | Female | 232 | 62.71( 8.54)  B | |
| College | | College of Natural Science | 100 | 63.51( 9.24)  A | 0.78 |
| | | College of Human Society | 100 | 65.11(10.49)  A | |
| | | College of Education | 78 | 62.97( 7.51)  A | |
| | | College of Engineering | 135 | 64.32(11.09)  A | |
| | | College of Agriculture | 81 | 64.98( 9.66)  A | |
| Religion | | Yes | 298 | 64.15(10.39)  A | 0.02 |
| | | No | 236 | 64.28( 9.26)  A | |
| Voluntary Experience | | Yes | 206 | 64.15( 9.16)  A | 0.01 |
| | | No | 288 | 64.25(10.34)  A | |
| Mortality of Grandparents | Grandfather on the father's side | Alive | 105 | 65.11( 9.29)  A | 2.74* |
| | | Dead | 389 | 64.18( 9.97)  B | |
| | Grandmother on the father's side | Alive | 274 | 64.57( 9.18)  A | 1.14 |
| | | Dead | 220 | 63.84(10.67)  A | |
| | Grandfather on the mother's side | Alive | 131 | 64.69( 7.88)  A | 0.22 |
| | | Dead | 363 | 64.05(10.45)  A | |
| | Grandmother on the mother's side | Alive | 328 | 64.35(10.00)  A | 0.43 |
| | | Dead | 166 | 63.99( 9.61)  A | |
| Present Co-Residency with Grandparents | | Yes | 88 | 67.76( 9.28)  A | 8.70** |
| | | No | 406 | 64.35( 8.04)  B | |
| Past Co-Residency with Grandparents | | Yes | 273 | 65.06( 9.22)  A | 3.01* |
| | | No | 221 | 63.19(10.54)  B | |
| Grade | | N = 494 | | r = .0116 | |
| Economic situation | | | | r = .0065 | |
| Birth order of father | | | | r = .0199 | |
| Birth order of mother | | | | r = -.0138 | |
| Number Respondents' siblings | | | | r = -.0178 | |
| Birth order of respondents | | | | r = -.0425 | |
| Period of Co-Residency with Grandparents | | | | r = .0719 | |
| Degree of knowledge | | | | r = .3077*** | |

* P<. 05, ** P<. 01, *** P<. 001

However, several previous studies (Yeonsoo Kim, 1994; Mijung Lee, 1997; Sihyung Lee, 1999; Yunoak Jang, 2002; Junglan Han, 2000) showed that the quality of experiences with grandparents was more important and influential regardless of living experiences with grandparents. Therefore, they disagreed about the relationship between attitudes toward the elderly and grandparent co-residence.

Also, the results of this study indicated that attitudes changed depending on degrees of knowledge about the elderly. This finding corresponds with the study by Youngsin Im, et al. (2002), Kyunglan Park & Youngsook Lee (2001), and Karner et al. (1998) that found the more knowledge about the elderly they had, the more positive attitude they expressed.

## 4. Relative Power of Variables that Influence Attitudes toward the Elderly

<Table 5> illustrates the relative power of independent variables that influenced attitudes toward the elderly by using multiple regressions. Before doing the regression analysis, the residual analysis was operated through the Durbin-Watson coefficient on the process of regression diagnostics. As a result, the Durbin-Watson coefficient was close to 2, the self-relationship among residuals did not exist. The multi-co-linearity problem when the range of VIF was more than 10 also did not appear since the range of VIF was $1.25 < VIF < 1.78$.

From <Table 5>, the order of the relative power that influenced attitudes the most was the knowledge about the elderly ($\beta, = 1.7674$), gender

<Table 5> Influence of Variables on Attitudes toward the Elderly

| | Variables | B | $\beta$ | $R^2$ (step) |
|---|---|---|---|---|
| Attitude score | Gender | -.1896 | -1.6504** | 0.04(2) |
| | Major | -.0099 | -.0640 | |
| | Grade | .0434 | .3805 | |
| | Economic situation | .0075 | .0745 | |
| | Birth order of father | .0600 | .8033 | |
| | Birth order of mother | .0307 | .4697 | |
| | Number of Respondents' siblings | -.0580 | -1.2043 | |
| | Birth order of respondents | -.0171 | -1.2602 | |
| | Religion | -.0621 | -1.1507 | |
| | Voluntary experience | .0149 | .2754 | |
| | Mortality status of grandfather on the father's side | .0504 | 1.0070* | 0.02(5) |
| | Mortality status of grandmother on the father's side | .0286 | .5243 | |
| | Mortality status of grandfather on the mother's side | -.0437 | -.9253 | |
| | Mortality status of grandmother on the mother's side | -.0527 | -1.0270 | |
| | Present Co-Residency with Grandparents | .1874 | 1.0740** | 0.03(3) |
| | Past Co-Residency with Grandparents | .1171 | 1.0150** | 0.02(4) |
| | Period of Co-Residency with Grandparents | .0928 | .9368* | 0.01(6) |
| | Degree of knowledge | .2084 | 1.7674*** | 0.07(1) |
| Constant | | | 43.48 | |
| $R^2$ | | | 0.24 | |
| F value | | | 3.64 ** | |

* P<. 05, ** P<. 01, *** P<. 001

($\beta$, = -1.6504), present co-residency with grandparents ($\beta$, = 1.0740), past co-residency with grandparents ($\beta$, = 1.0150), mortality status of grandfathers ($\beta$, = 1.0070), and period of co-residency with grandparents ($\beta$, = 0.7368). Additionally, 24 % of the variance could be explained, especially, since degrees of knowledge about the elderly could be explained 7 %, it was the most influential variable predicting attitudes toward the elderly. Therefore, attitudes toward the elderly were more positive if they were male students, living with grandparents currently, having lived with grandparents in the past, having living grandfathers, and having longer co-residence with grandparents.

# V. Conclusion

As Korean society moves toward an aging society, improved quality of life for the elderly is a big concern. First of all, we need to determine problems associated with the image of the elderly with respect to knowledge and attitudes. Thus, it is very important to establish a new environment that people respect the elderly and communicate well regardless of generation gap barriers.

The purposes of this study was to find out what kinds of elderly images the young generation have, how much they know about the elderly, what kinds of attitudes they have toward the elderly and what factors influence these attitudes. The summaries of these results are as follows.

First, the score of the knowledge about the elderly from respondents was 12.08 points which was a little bit lower than the medium level of 13 points. Students did not have an accurate knowledge about aging and characteristics of the elderly. In addition, the scores from each part were 7.14 points in the physical/physiological (11 statements), 2.16 points in the psychological (6 statements) and 2.77 points in the family/social part (8 statements).

The total score of attitudes toward the elderly was 64.21 points, which expressed neutral tendency because it was between 50 points and 70 points. Also, respondents considered that the elderly were generous, trustful, and patient, instead of thinking of the elderly as selfish people. Conversely, respondents still considered that the elderly were conservative, frequently sick, unproductive and unattractive.

Secondly, according to the respondent background variables and attitudes toward the elderly depending on the degrees of knowledge, significant attitude differences among groups were discovered at the level of $p<.001$ in gender (F=10.42), at the level of $p<.01$ in present co-residency with grandparents (F=8.70), at the level of $p<.05$ in having past co-residence experiences with grandparents (F=3.01), and mortality status of grandparents (F=2.74). Furthermore, degrees of knowledge about the elderly(r=.3077) showed a significant correlation with attitudes toward the elderly at the level of $p<.001$. Thus, attitudes toward the elderly were positive among males, students who live with grandparents currently, those who lived with grandparents in the past, and the students with living grandfather(s). Also, the more knowledge about the elderly they had, the more positive attitudes they held toward older persons.

Finally, the relative power that influenced attitudes the most was knowledge about the elderly ($\beta$, = 1.7674), gender ($\beta$, = -1.6504), present co-residency with grandparents ($\beta$, = 1.0740), past co-residency with grandparents ($\beta$, = 1.0150), mortality status of grandfathers ($\beta$, = 1.0070), and period co-residency with grandparents ($\beta$, = 0.7368), respectively. In addition, 24 % of variance could be explained. Level of knowledge about the elderly was the most influential variable explained by 7 %. Therefore, if they were male students, living with grandparents currently or in the past, having grandfathers alive and having longer co-residence with grandparents, attitudes toward the elderly turned out to be more positive.

Two solutions will be suggested as a result of this study.

First, since the most powerful influential variable in attitudes of undergraduate students toward the elderly was knowledge about the elderly, learning the correct knowledge and understanding will be a touchstone for the welfare of the elderly. However, the right knowledge of undergraduate respondents was below the median level. They had a very low rate of correct answers in psychological and family/social aspects of the questionnaire, which represented the lack of understanding about the lives of older persons. Therefore, through an accurate recognition about physical/physiological, psychological, and family/social aging traits, people need to get rid of negative images, stereotypes, discriminatory attitudes and biases toward the elderly. Effective education delivery systems for accurate knowledge need to be built based on home education and school education at an elementary, middle and high school level. Furthermore, by requiring classes related to gerontology regardless of majors, students can have an opportunity to establish a positive view toward the elderly. Moreover, Korean society needs to build up a strong environment that people can respect the elderly by providing an educational class opportunity to adults through mass media.

Next, since this study showed that living experiences with grandparents were helpful to construct a positive attitude toward the elderly, more interaction with the elderly will open a door for understanding and communication between generations. We dispute results from several other studies that living with the elderly can bring a negative effect, as we believe that frequent interactions with the elderly will increase an accurate knowledge and support of the older generation. High divorce rates and other modern family changes may limit the ability for children to interact or co-reside with their grandparents. Families should encourage contact and communication between the old and young generations. Developing useful programs, for example, family life programs or family relationship improvement programs that can derive a close relationship between the young and the elderly, will enhance communication opportunities and will benefit all involved.

Finally, restrictions of this study are as follows:

It will be unreasonable to generalize this result nationally, because the sample respondents are only selected from a university in a fairly rural area in S city. The reliance of the survey result can be limited due to the differences in sample size for the variables.

# ■ References

Kang, Myunghee (1990). Study about attitudes of undergraduate students toward the elderly. J. of the Home Management Institute, 11(5), 5-17.

Quak, Pilsun (1980). Study about perceptions of high school students toward the elderly. A Master's Thesis in JeunBook University.

Kim, Songae (1991). Study about family values and supporting of elderly parents. J. of the Korea Home Management Association, 9(2).

Kim, Guangsook (1987). Study about a view of elderly from teenagers:focusing on middle and high School teenagers in Seoul. A Master's Thesis in Sungsin Female University.

Kim, Mihe (2001). Study about attitudes toward the elderly from undergraduate students whose major is social welfare. J. of Korea Gerontological Society, Fall Scholarship Conference in 2001, 155-165.

Kim, Sooyoung, Yang, Kyungmi, O, Hyunee, & Kim, Jinsun (2002). Attitudes and knowledge about the elderly from students whose major is nurse and social welfare. J. of Korea Gerontological Society, 22(3), 21-36.

Kim,Yeonsoo (1994). How the relationships between parents-grandparents and grandchildren grandparents influence actual fact recognition about the elderly and aging to teenagers. A Master's Thesis in Eyhyaw Female University.

Kim, Youngsook (2002). Comparative study in urban and rural about the elderly images of middle and high school students. J. of Korea Gerontological Society, 21(3), 75-89.

Kim, Yongsoon (2001). Study about an elderly supporting recognition of undergraduate students. A Master's Thesis in Administration Law Graduate School, Dangook University.

Kim, Yunjung & Jung, Suna (2001). Attitudes of teenagers toward the elderly: focusing on an examination of the relationship between the recognition and behavior toward the elderly. J. of the Korea Home Management Association, 19(6), 173-183.

Kim, Yeonkyung (2003). How grandparent related variables influence attitudes of undergraduate students toward the elderly. J. of Korea Gerontological Association, 23(3), 63-77.

Jun, Gilyang & Kim, Taehyun (1997). The present situations and tasks of family elderly supporting in Korea. Elderly Welfare Policy Institute, 7(2), 75-82.

Kim, Haekyung (1997). Study of the teenagers' attitudes toward the elderly and the generation gap with grandparents: Comparative study of Korean teenagers in a Korean immigration family and American teenagers. J. of the Korea Home Management Association, 15(4), 65-79.

Park, Kyunglan (1994). Influences between the quality of parent-grandparents' relationship and the relationship of grandchildren and grandparents. J. of Korea Gerontological Society, 14(2), 74-89.

Park, Kyunglan & Lee, Youngsook (2001). Analysis of stereotypes toward the elderly from undergraduate students. J. of Korea Gerontological Society, 21(2), 71-83.

Seo, Dongin (1989). The recognition of grandchildren in the relationship between grandmother and grandchildren and roles of grandmother. J. of the Korea Home Management Association, 7(2), 45-60.

Seo, Byungsook & Kim, Soohyun (1999). Study of undergraduate students' images toward the elderly. J. of Korea Gerontological Society, 19(2), 97-111.

Seo, Junggi (1993). The recognition of granddaughter in the relationship with grandparents and perceptions of the elderly. A Master's Thesis in Eyhyaw Female University.

Shin, Gyiyeon (1995). Image recognition of children and teenagers toward the elderly. A Master's Thesis in Gookmin University.

Korean Woman Society Research Association (1999). The elderly and Korean society. Society and Culture Research Institute.

Oak, Yeonjin (1990). Study of the recognition differences about the elderly problems among generations. A Master Thesis in Sangmyung Female University.

Yun, Sunghae (1990). Comparative study of the recognition toward the elderly from teenagers, adults, and old people. A Master Thesis in Sungsin Female University.

Yun, Jin & Jo, Suckmi (1982). Structure study of Kyungsan aging fact recognition measurment. J. of Korea Gerontological Society, 2, 5-15.

Lee, Gaoak (1994). Korean elderly housing service policy: housing services for the elderly and the development of Korean style model for the supporting system. International Scholarship Seminar of Korea Gerontological Society.

Lee, Mijung (1997). Study of children's recognition about the elderly. A Master Thesis in Boosan University.

Lee, Sunja (1989). Attitudes toward the elderly from each age class. A doctoral thesis in Eyhyaw Female University.

Lee, Sihyung (1999). Attitudes of teenagers toward the elderly and the supporting awareness. Samsung Life Institute: Society Mental Health Research Institute, 99(2).

Lee, Youngsook & Park, Kyunglan (2000). Study of co-ownership activities between teenagers grandchildren and grandparents. J. of Korea Gerontological Society, 20(3), 1-16.

Lee, Yeonmi (1990). Study of attitudes and images toward the elderly from middle school students: focusing on the TV dramas and comedies. A Master's Thesis in Yeonse University.

Lee, Insoo (2000). Study of degrees of recognition toward the elderly from undergraduate students in a rural area. J. of Korea Gerontological Society, 20(2), 123-135.

Im, YoungShin, Kim, Jinsun, & Kim, Kisoon (2002). Nurses' knowledge and attitude toward elderly. J. of Korea Gerontological Society, 22(1). 31-46.

Im, Inhae (1987). Study of Korean teenagers' elderly supporting recognition. A Master Thesis in Eyhyaw Female University.

Im, Chunsick (2000). The elderly and teenagers: the formation possibility of collaborative solidarity. Ederly Welfare Research

Institute, 16(1), 215-236.

Im, Hansoon (1992). Study about the elderly supporting recognition of rural teenagers. A Master's Thesis in Junnam University.

Jang, Yunoak (2002). Teenage recognition about supporting behavior of mother for grandparents and how living experiences with grandparents influence perceptions of teenagers toward the elderly. J. of Korea Gerontological Society, 22(1), 191-207.

Jung, Misil (1996). Recognition of the youth about the elderly through characteristics of the youth, parents, and grandparents. A Master's Thesis in Sookmyung Female University.

Jo, Myunghee (1987). Social and psychological attitude analysis of teenagers toward the elderly. Local Environment, 5, 73-87.

Jo, Sunghae (1990). Elderly welfare policy through the attitude analysis of undergraduate students. A Master's Thesis in Boosan University.

Cha, Yongyeon (1980). Study of undergraduate students' attitudes analysis toward the elderly. The Collection of Thesis in Junjoo University. 9(2), 239-262.

Choi, Chunhyuck (1992). Perception study of undergraduate students about old people and solutions for the elderly' problems. A Master's Thesis in Sungsin Female University.

Korea gerontology institute journal (2001). Understanding of gerontology. Seoul, Daeyoung Culture Publisher.

Han, Yeonjoo & Kim, Taehyun (1994). Family values depending on supporting satisfaction and burden degrees. J. of Korea Gerontological Society, 14(1), 95-116.

Han, Junglan (2000). Study of undergraduate students' attitudes toward the elderly. J. of Korea Gerontological Society, 20(3), 115-127.

Anderson & Hanley, C. (1999). Experiential activities for teaching psychology of aging. Educational Gerontology, 25(5), 449-456.

Armstrong-Esther, C. A., Saqndilands, M. L., & Miller, D. (1994). Attitudes and behaviors of nurses towards the elderly in an acute care setting. J. of Advanced Nursing, 14, 34-41.

Barton, H. (1999). Effects of an intergenerational program on the attitudes of emotionally disturbed youth toward the elderly. Educational Gerontology, 25(3), 623-640.

Breen, L. B. (1976). Aging and the field of medicine, N.Y.: Wiley.

Brewer, M. B., Dull, V., & Lui, L. (1981), Perceptions of the elderly: Stereotypes as prototypes. J. of Personality and Social Psychology, 41, 656-670.

Bringle, R. G., & Kremer, J. F. (1993). Evaluation of an intergenerational service-learning project for undergraduates. Educational Gerontology, 23(3), 656-670.

Cartestenses, L., Mason, S. E., & Caldvell, E. C. (1982). Children's attitudes toward the elderly: An international techniques for a change. Educational Gerontology, 8, 292-301.

Caspi, A. (1984). Contact hypothesis and inter-age attitudes: A field study of cross-age contact. Social Psychology Quarterly, 46(1), 74-80.

Cowgill, O., & Anderson, B. G. (1972). Aging and Modernization. New York: Appleton Century Crofts.

Cox, H. (1988). Later life the realities of aging. New Jersey: Prentice-Hall, Inc, Englewood Cliffs.

Erikson, E. H. (1950). Children and society. New York: W.W.Norton.

Hawkins, M. J. (1996). College students' attitudes toward elderly people. Educational Gerontology, 22(3), 271-280.

Heckhausen, J., Dixon, R. H., & Baltes, P. B. (1989). Gains and losses in development throughout adulthood as perceived by different adult age groups. Development Psychology, 25, 109-121.

Huber, M., Reno, B., & McKenny, J. (1992). Long-term care personnel assess their attitudes and knowledge of the older adult. J. of Advanced Nursing, 17, 1114-1121.

Hummert, M. L. (1990). Multiple stereotypes of elderly and young adults: A comparison of structure and evaluations. Psychology and Aging, 5(2), 182-193.

Karner, K. J., Rheinheimer, D. C., Delisi, A. M., & Due, C. (1998). The impact of a hospital-wide experiential learning educational program on staff's knowledge and misconceptions about aging. J. of continuing Education in Nursing, 29(3), 100-104.

Kennedy, G. E. (1992). Quality in grandparent/ grandchild relationships. J. of Aging and Human Development, 35(2), 83-98.

Knapp, J. L. (2000). Changing students' perceptions of aging. Educational Gerontology, 26(7), 611-621.

Kogan, N. (1961). Attitude toward the old people: The development of a scale and an examination of correlations. J. of Abnormal Psychology, 62, 44-54.

Lookinland, S., & Anson, K. (1995), perpetuation of against attitudes among present and future health care personnel: Implications for elder care. J. of Advanced Nursing, 21, 47-56.

McTavish (1971). Perceptions of old people: A Review of research methodologies and findings. The Gerontologist, 11, 90-101.

Neugarten, B. L. (1973). Personality changes in later life: A developmental perspectives. The Psychology of Adult Development and Aging.

Nuessel, F. H. (1982). The language of ageism. The Gerontologist, 22(3), 273-275.

Palmore, E. B. (1982). Ageism: Negative and positive. Springer Pub. Co. (1998). The facts on aging quiz (2nd Ed.). New York: Spring Pub. Co.

Rosencranz, H. A., & McNevin, T. E. (1969). A factor of attitudes toward the aged. The Gerontologist, 9, 55-59.

Sanders, G. F., Montgomery, J. E., Pittman, Jr. J. F., & Balkwell, C. (1984). youth's attitudes toward the elderly. J. of Applied Gerontology, 3(1), 59-70.

Schmidt, D. F., & Boland, S. M. (1986). The structure of impressions of older adults: Evidence for multiple stereotypes. Psychology and Aging, 1, 255-260.

Stevens, J., & Crouch, M. (1995). The cares about in care in nursing education. International J.

of Nursing Studies, 32, 233-242.

Thompson, L., & Walker, A. J. (1987). Mothers as mediators of intimacy between grandmother and their young adult granddaughters. Family Relations, 36(1), 72-77.

Tuckman, J., & Lorge, I. (1952). The influence of a course on the psychology of the adult on attitudes toward old people and older workers. J. of Gerontology, 43, 400-407.