HEALTH LITERACY AND ACCESS TO INFORMATION OF KOREAN ELDERLY IN SEOUL

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ความแตกฉานทางด้านสุขภาพและการเข้าถึงข้อมูลที่เกี่ยวกับสุขภาพของผู้สูงอายุชาวเกาหลีในกรุงโซล

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งานวิจัยนี้ศึกษาเกี่ยวกับระบบประกันสุขภาพสำหรับผู้สูงอายุในประเทศเกาหลีใต้ว่าด้วยเรื่องระบบสุขภาพที่มีผู้ป่วยเป็นศูนย์กลาง งานวิจัยนี้มุ่งประเด็นไปที่ความแตกฉานทางด้านสุขภาพและการเข้าถึงข่าวสารความรู้ด้านสุขภาพ งานวิจัยฉบับนี้ใช้การศึกษาทั้งในเชิงคุณภาพและเชิงปริมาณ ในการวิจัยเชิงคุณภาพได้ทำการสัมภาษณ์ผู้สูงอายุชาวเกาหลีในกรุงโซล 5 คน และในเชิงปริมาณได้เก็บข้อมูลโดยการทำแบบสอบถามผู้สูงอายุชาวเกาหลีในกรุงโซล 81 คน ผลการศึกษาแสดงให้เห็นว่าระบบประกันสุขภาพประเทศเกาหลีใต้มีการส่งเสริมเกี่ยวกับกระบวนการดูแลสุขภาพที่ว่าด้วยเรื่องระบบสุขภาพที่มีผู้ป่วยเป็นศูนย์กลางตามหลักการสากลไม่มากนัก มีสิ่งที่พิสูจน์ค่อนข้างน้อยที่ผู้สูงอายุได้รับการกระตุ้นสนับสนุนในการป้องกันโรคของพวกเขาและกิจกรรมในการดูแลตนเองหรือการพัฒนาชุมชนในการบริการด้านสุขภาพและนโยบายที่เกี่ยวข้องกับสุขภาพ ผลการศึกษายังแสดงให้เห็นอีกด้วยว่าผู้สูงอายุชาวเกาหลีจำนวนหนึ่งมีความแตกฉานทางด้านสุขภาพบางด้านค่อนข้างน้อยอยู่ นอกจากนี้ความแตกฉานทางด้านสุขภาพขึ้นอยู่กับการเข้าถึงข้อมูลข่าวสารซึ่งรูปแบบจัดการการเข้าถึงข้อมูลข่าวสารนี้ยังเป็นอุปสรรคสำหรับผู้อาวุโสชาวเกาหลีในกรุงโซล ผลการศึกษาเหล่านี้บอกเป็นนัยว่ารัฐบาลเกาหลีใต้และองค์กรที่เกี่ยวกับการดูแลสุขภาพควรจะพัฒนายุทธศาสตร์ใหม่ ๆ สำหรับการจัดหาข้อมูลข่าวสารที่เกี่ยวกับสุขภาพที่เหมาะสมกับผู้สูงอายุ

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This research examined the current healthcare insurance system for the elderly in South Korea according to international patient-centered frameworks. This research mainly focused on health literacy and access to health information. This research applied both quantitative and qualitative approaches. Questionnaire was used as research instrument for quantitative approach, while interview was used as research instrument for qualitative approach. The questionnaire was collected from 81 senior citizens of South Korea, while interview was collected from five senior citizens of South Korea. Furthermore, data collected from questionnaire were analysed using descriptive statistics and Chi square, while data collected from interview were analysed using content analysis. The result showed that South Korea current health insurance system does not really facilitate the sort of collaborative care processes recommended by international patient-centered frameworks. There is rare evidence that seniors are encouraged to take an active role in their own disease prevention and self-care activities or the development of community health services and health-related policies. The result also indicated that many elderly Koreans have less health literacy in a number of key areas. Besides, health literacy is dependent upon access to information, and the formats in which information is typically provided create access barriers for Korean seniors. These results imply that South Korea's government and healthcare organizations should develop new strategies for the provision of health-related information that suitable for senior people.

Field of Study: Korean Studies Student's Signature .....
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CHAPTER I

INTRODUCTION

1.1 Research Background and Rational

South Korea's population is aging faster than that of any other nation in the world due to increased longevity and a declining birth rate, and these trends have placed significant stress on the country's healthcare insurance system (Song, 2009). It is estimated that by 2050, 38% of South Korea's population will be over the age of 65 (Kwon, 2009a).

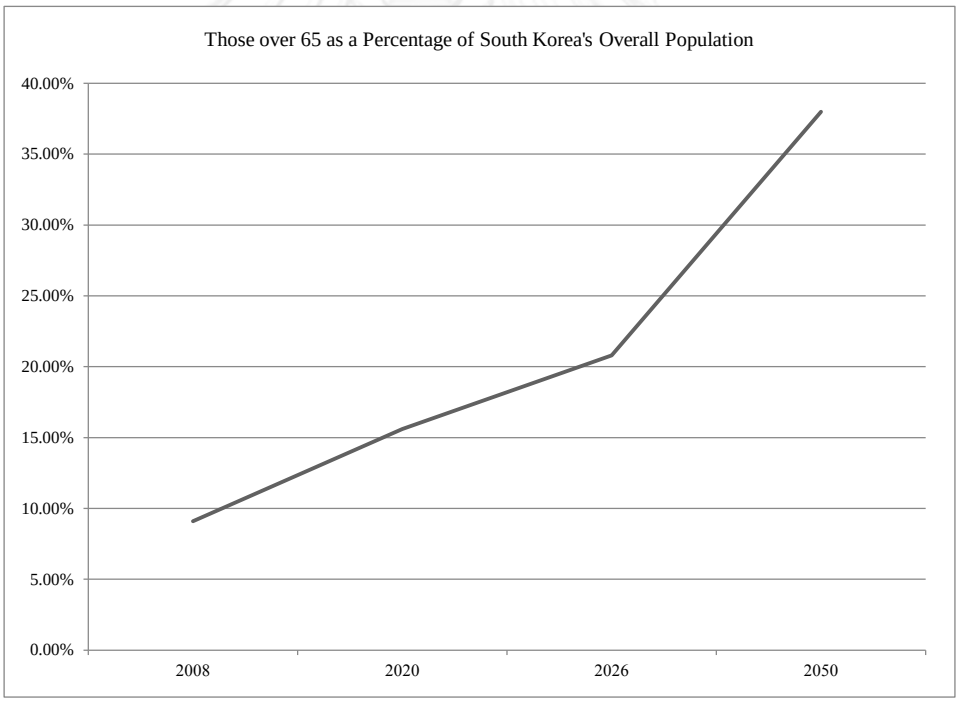

Figure 1: South Korean Elderly as a Percentage of Overall Population (Sources: ISSA, 2008, for 2008 and 2020 Estimates; Kang et al., 2012, for 2026 Estimate; Kwon, 2009a, for 2050 Estimate)

According to Orimo, Ito, Suzkui, Araki, Hosoi (Orimo, 2006), the traditional definition of elderly encompasses all those over 65 years of age. However, this group can be subdivided into the early elderly, who are between 65 and 74 years of age, and the late elderly, who are 75 years of age and older. The elderly have more comprehensive and complex healthcare needs because they are more likely to suffer from many common health conditions, including circulatory diseases such as coronary heart disease and hypertension, various cancers, endocrine diseases such as diabetes, dementia, respiratory illnesses such as pneumonia and chronic obstructive pulmonary disease, and musculoskeletal diseases such as arthritis and osteoporosis (K. R. Shin, Shin, C., & Blanchette, P. L., 2013). Therefore, funding healthcare for seniors requires a good insurance system. A study of eleven countries conducted by Schoen, Osborn, Squires, Doty, Pierson, and Applebaum (2010) found that healthcare insurance design had profound effects on access to healthcare, healthcare costs, and the experiences of patients when interacting with their insurers. Patient-centered healthcare is one of a good insurance system that accepted by many international organization (WHO, 2013),(Institute, 2013a) and (IAPO, 2007). However, a review of the literature indicates that South Korea's healthcare insurance programs do not meet the criteria for patient-centeredness and, by extension, good design.

Definitions of patient-centered healthcare vary, but they typically incorporate elements such as patient education and the sharing of knowledge, collaboration with patients and their families, holistic care that addresses non-medical issues as well as medical ones, respect for the preferences and needs of patients, and accessibility (Cronin, 2004). The defining characteristic of patient-centered care is that patients are active participants (Coulter, 2006). Communication and partnership for health promotion are emphasised under the patient-centered model (Beauman, 2003).

According to the World Health Organization (WHO, 2007), current healthcare systems typically focus on biomedical factors at the expense of patient wellbeing. These systems are doctor-dominated and technology-driven, and current financing mechanisms do not support adequate care. Instead, they encourage healthcare practitioners to keep consultations brief and avoid making necessary referrals. When more thorough medical evaluations do occur, they tend to be focused on specific

body systems or medical conditions, failing to take context and psychosocial factors into account. Moreover, medical ethics and relational skills among healthcare practitioners are not prioritised, and patients and their families are provided few if any opportunities to participate actively in patient care. These problems are exacerbated by the insufficient health literacy of many patients. Given these shortfalls, the WHO (2007) argues that although healthcare systems should maintain their focus on technical quality, there is also a need to address the experiential aspects of healthcare and the physical, social, environmental, cultural, and economic factors that interact to influence health outcomes.

Moreover, WHO (2007) states shifting health patterns throughout the world have changed the burden of disease so that chronic conditions have surpassed infectious diseases as the most prevalent health issues in the Southeast Asian and Western Pacific regions. Now, health problems that more commonly afflict the elderly such as cardiovascular disease, diabetes, depression, and disabilities comprise more than half of the overall disease burden, and this trend is expected to continue. Therefore, the healthcare system will need to evolve to meet these modern requirements. The International Alliance of Patients' Organizations (IAPO, 2007) notes that the only economically feasible way to manage a healthcare system that has shifted toward treating chronic conditions is to develop more patient-centered, collaborative models of care that emphasize self-management by patients.

Despite the dramatic improvements in healthcare that have been achieved in recent years, many people are no healthier in body and mind or satisfied with the healthcare they currently receive (World Health Organization, 2007). This problem is particularly evident in South Korea, where social forces such as changing family structures, increased labour force participation by women, and the aging of the overall population have led to increased demand for long-term care and better healthcare overall (Kwon, 2009b).

Although they are the ones most likely to require both general healthcare and long-term care, the elderly tend to be limited in their economic capacity to pay for it, which will necessitate the development of a more effective insurance scheme in the nation (Kwon, 2009b). A comprehensive review of the literature indicates that

despite the need to develop a patient-centered healthcare insurance system to ensure good healthcare for South Korea's ever-increasing elderly population, no prior researchers or theorists have developed frameworks for patient-centered insurance schemes. The current study seeks to address this gap in the academic literature by developing an appropriate, research-supported framework to inform the efforts of government agencies, the healthcare industry, and other stakeholders in establishing and implementing a healthcare insurance system that will meet the complex and multifaceted needs of Korea's seniors under the perspective of heath literacy and access to health information.

1.2 Research Aim

This research aims to study the current healthcare insurance system for the elderly in South Korea according to international patient-centered frameworks under the perspective of heath literacy and access to health information.

1.3 Research Objectives

1. Analyse the healthcare insurance system for the elderly in South Korea according to international patient-centered frameworks under the perspective of heath literacy and access to health information
2. Investigate health literacy and access to information with regard to the South Korean health insurance system for the elderly

1.4 Research Questions

1. What are the characteristics of international patient-centered frameworks?
2. How is the healthcare insurance system for the elderly in South Korea consistent with international patient-centered frameworks with regard to health literacy and access to information?

1.5 Scope of Study

This research will use a mixed-methods approach that incorporates both quantitative and qualitative research to provide a more complete overview of the issues surrounding healthcare insurance for seniors in South Korea. The scope will be limited to the nation of South Korea due to the intention to highlight issues relevant to the South Korean healthcare system in particular and to explore options for developing a more patient-centered healthcare insurance program in the nation. All sampling for both interview and questionnaire will be collected in Seoul, a capital of South Korea. This study will be cross-sectional rather than longitudinal as the focus is on the nation's current healthcare insurance programs and the ways in which they could be improved to better meet the needs of South Korean seniors.

1.6 Significance of Study

According to the WHO (2007, p. 17), developing a more patient-centered healthcare system will yield many gains, including "increased patient safety, improved adherence to care plans, improved treatment and health outcomes, increased patient satisfaction with care, and improved quality of life for patients and their families, the community and society at large." This assertion is supported by prior research, which indicates that adopting a patient-centered approach increases both doctor and patient satisfaction and quality of life for patients while reducing anxiety, as well as increasing the system's efficiency by decreasing the number of diagnostic tests and referrals required (Beauman, 2003). Past research has also shown that when patient-centered approaches are used, patients are more likely to adhere to treatment regimes (WHO, 2003).

A nation's healthcare insurance program is a key element of its overall healthcare system, so developing a more progressive healthcare system requires establishing patient-centered insurance schemes. However, a review of the literature indicates that this is a relatively new area of inquiry; although patient-centered frameworks for general healthcare have been developed by organizations such as the IAPO, the Picker Institute, and the WHO, there is still a need to develop

frameworks for patient-centered healthcare insurance programs. This need is particularly urgent, given that shifting demographics have led to aging populations in many nations, including South Korea, and this ever-increasing population of seniors who suffer from multiple health issues is likely to become an overwhelming burden on poorly funded healthcare systems.

This research will make a significant contribution by developing a framework for patient-centered insurance that meets the needs of South Korean seniors. This framework will be useful not only for those in charge of policy and planning for South Korea's healthcare system, but may also potentially inform the efforts of stakeholders in other nations who are facing similar crises.

CHAPTER II

LITERATURE REVIEW

2.1 Healthcare System for Elderly

2.1.1 Definition

According to the World Bank (Bank, 2007), a healthcare system is an arrangement of interconnected parts and functions focused on the provision of health services. Elements within the system include patients, their families and communities, government ministries concerned with health-related issues, health services providers and organizations, pharmaceutical companies, financing bodies, and others. The functions of the healthcare system include the provision of health services (including both preventive and treatment services), financing the system and managing its resources, and establishing the policies and regulations that govern it.

A healthcare system for the elderly has more complex requirements because the elderly are more likely to be afflicted with disease, to suffer from multiple comorbid conditions (Yu, 2007), and to require general long-term care in addition to regular healthcare (I. O. Kang, 2010). Therefore, a healthcare system for the elderly must include not only regular healthcare facilities and specialists but also long-term care facilities and health workers who can provide in-home care.

Insurance is an important aspect of the healthcare system, particularly for seniors who are more likely to require healthcare services and less likely to be able to pay for them (Ahn, 2004). Key issues in the development of healthcare insurance programs include the choice to implement tax-funded or social health insurance, determining who will be covered by the benefits, choosing between single and multiple schemes, determining methods for purchasing insurance and delivering insurance payouts, and various political issues surrounding insurance and healthcare in general (Kwon, 2008). For the elderly who are more inclined to suffer from chronic health conditions (Yu, 2007) and to have limited financial resources (Ahn, 2004), it is

critical to have a well-funded healthcare system that can provide comprehensive care and support the effective management of medical conditions.

2.1.2 The Importance of Healthcare for the Elderly

Healthcare provides significant benefits for all people, but it is particularly critical for both the quality of life and longevity of the elderly. Longevity effects have been notable in South Korea, where improved medical care has the extended the average life spans of men from 51.1 years to 75.7 years and women from 53.7 to 82.4 years over the past half-century (Song, 2009). However, quality-of-life benefits should not be underestimated, given that the elderly are more likely to live with chronic conditions and thus benefit significantly from health interventions that slow the progress of disease and reduce pain and the risk of complications. Diseases that commonly afflict the elderly include coronary heart disease, hypertension, cancer, diabetes, dementia, pneumonia, chronic obstructive pulmonary disease, osteoporosis, and arthritis (K. R. Shin, Shin, C., & Blanchette, P. L., 2013). Elderly people often suffer from multiple comorbid conditions that leave them disabled and dependent (Yu, 2007) and they typically require both regular healthcare and long-term care (I. O. Kang, 2010). Meeting the general healthcare needs of seniors who reside in long-term care facilities is a particular challenge (I. O. Kang, Park, C. Y., & Lee, Y., 2012).

Ahn and Kim (2004) conducted a study of rural Korean seniors who lived on their own, finding that they typically suffered from multiple diseases, had limited functional capabilities to engage in daily life activities, got little if any exercise, were more inclined to suffer from diminished cognitive ability and depression, and tended to be impoverished. The researchers concluded that there was a desperate need for multiple, complex healthcare services for this group.

The connection between increased likelihood of impoverishment and advanced age is particularly important for healthcare. In South Korea, as in many other nations, children have typically supported their elderly parents financially; however, with declining birthrates and increasing longevity, more elders are likely to

be left without financial support (Kim, 2011) and poor individuals tend to receive the least responsive healthcare (WHO, 2007). A large-scale study of aging conducted by Park, Jung, and Lee (Park, 2009) found that health status varied in conjunction with income and wealth; the most affluent individuals tended to be much healthier than the poorest, and the magnitude of this discrepancy increased with age. This finding is in keeping with the findings of other research (S. G. Lee, & Jeon, S. Y. , 2005). Given that the elderly are more at risk for health problems and more likely to live in poverty, healthcare is particularly critical for this group.

2.1.3 The Healthcare Insurance System for the Elderly in South Korea

2.1.3.1 Systems and Policies

South Korea's government introduced mandatory healthcare insurance 1977 for those working in large industrial corporations. This coverage was then extended incrementally to self-employed individuals, with the program eventually expanding to cover the nation's entire population by 1989 (Kwon, 2008). Korea's current healthcare insurance system has three components: the National Health Insurance Program, the Medical Aid Program, and the Long-Term Care Insurance Program, which was established to address the healthcare demands posed by the nation's aging population (Song, 2009).

According to Song (2009), Korea's National Health Insurance Program has four components: The *Ministry* for Health, Welfare and Family Affairs (MIHWAF), which engages in supervision and makes policy decisions; the National Health Insurance Corporation (NHIC), which manages the program, enrols citizens, collects contributions, and sets fee schedules; the Health Insurance Review Agency (HIRA), which reviews medical fees and evaluates healthcare; and the medical institutions that provide health services. All Korean citizens are eligible for National Health Insurance Program coverage, and the program currently covers 96.3% of the population (approximately 47 million individuals). Citizens may be insured either through employment by others or self-employment. Under the workplace insurance scheme, employees pay 5.08% of their salaries and the coverage includes spouses,

siblings, descendants, and direct lineal ascendants. The self-employed pay a contribution that is based on various factors including property, income, living standards, and participation in economic activities. Insurance co-payments vary based on the type of medical care required. The program is funded by contributions from employees, employers, and the self-employed; tobacco surcharges (6% of the total); and government subsidies (14% of the total). The 3.7% (nearly 2 million individuals) not covered under the National Insurance Health Program rely on Korea's Medical Aid Program, which was established in 1979 to ensure coverage of low-income individuals. Eligibility for this scheme is determined by MIHWFA criteria and the program is funded by local and central governments and the National Health Insurance Program.

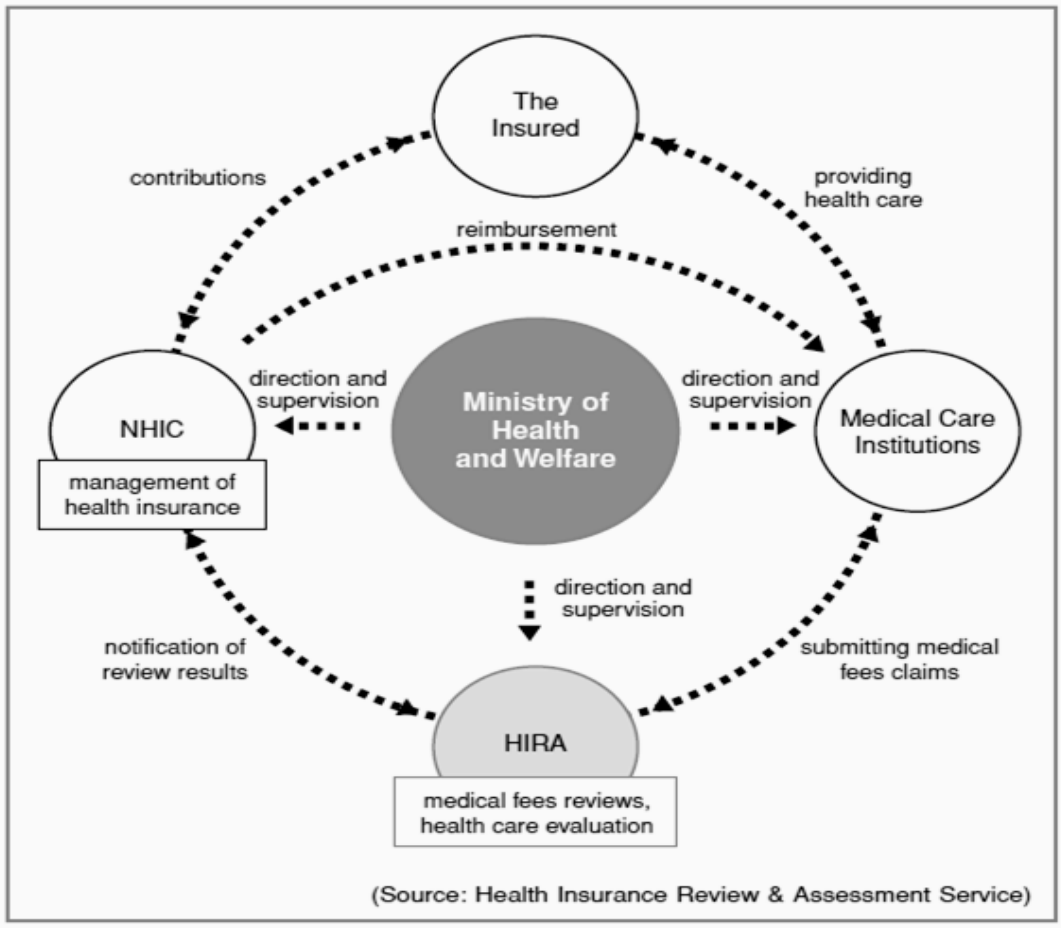

Figure 2: The Structure of South Korea's National Health Insurance Program (Source: Song, 2009)

South Korea's Long-Term Care Insurance Program was established in 2008 to address the healthcare challenges associated with current demographic trends (Song, 2009). Korea is facing a healthcare crisis because it has a rapidly aging population and the number of informal caregivers has decreased significantly due to women's increasing participation in the labor force and changing family structures. According to the International Social Security Association (ISSA, 2008), Korea's elderly, who comprised approximately 9.1% of its population in 2008, are expected to make up 15.6% of the overall population by 2020. There are currently about five million elderly Koreans, and of these, at least one million are afflicted with cardiovascular disease or dementia (ISSA, 2008). This has created an extreme burden on the current healthcare insurance system, with the gap continuing to widen between the need for long-term care by Korea's elderly citizens and the funding required to pay for it (Kwon, 2009b).

According to Song (2009), Long-Term Care Insurance is a pilot program that is offered in several locations throughout the nation. To qualify for coverage, individuals must have age-related limitations that significantly affect their ability to engage in daily life activities (those under 65 are eligible for the program only if they suffer from age-related health problems such as Alzheimer's disease, Parkinson's disease, or stroke-related paralysis). The program covers medical treatment services including nursing and day-to-day care such as bathing and laundry services. It is currently funded with contributions made by the insured. Korea's government hopes to expand coverage to those with less serious limitations in the future. Kang et al. (2012) note that eligibility for the scheme is determined based on mental and physical status and does not take family support or financial status into account.

South Korea Ministry of Health and Welfare (M. o. H. a. Welfare, 2013) has separated long-term care into four main grades as show in Table 1. Long-term care is eligible for elderly aged 65 years or above, who cannot depend on themselves for six months or more due to the geriatric diseases including dementia, stroke, or Parkinson´s disease (M. o. H. a. Welfare, 2013).

Table 1: Long-Term Care Grading

Grade	Status	Detail
Long-Term Care Grade 1	Most severe	• Elderly who suffer from serious disease and are bedbound • Cannot move by him/herself • Depend on other people to help with daily activities such as dressing, eating, and toileting
Long-Term Care Grade 2	Severe	• Depend on other people to help with daily activities such as dressing, eating, and toileting • Mostly stay in bed and need wheelchairs to support their daily life
Long-Term Care Grade 3	Moderate	• Able to move or walk with walking aids • Can go out but with help from other people
No Grade	Mild	• Able to take care of all daily life activities such as eating, walking, dressing, and toileting, but need assistance sometimes

Jones (Jones, 2010) provides more detail about South Korea's Long-Term Care Insurance Program, noting that eligibility is based upon an assessment of the individual's ability to perform 52 activities that are required for daily living. The NHIC, taking physician recommendations into account, then determines an appropriate level of care. Benefits are provided in the form of services rather than monetary

payouts except for situations where long-term care facilities are not available. Jones (2010) notes that 12.3% of South Korean seniors applied for benefits in April 2010, but of these, only 45.9% received them, which amounted to approximately 4.4% of South Korea's seniors in April of 2010. Approximately one-third of Long-Term Care Insurance beneficiaries are in institutional care, with a copayments of 20%, and the rest are receiving home-based services with a 15% copayment. The remainder of the program is funded by local governments (30%) and the payment of premiums (55%). Due to the increasing proportion of seniors in the overall population, premiums were increased by more than 50% in 2010 and now comprise 0.35% of income (Jones, 2010).

Moreover, co-payments is the system that individual require to pay several amount of payment depend on level and type of medical care (Table 2) but not more than 3 million won or 2,400USD within 6 months (Song, 2009).

Table 2 Co-payments

Classification	The portion of health care costs
Inpatient	10–20% of total treatment cost
Outpatient	
Tertiary care hospital	Per-visit consultation fee + 50% of treatment cost
General hospital	50% of (treatment cost + Per-visit consultation fee)
Hospital	40% of (treatment cost + Per-visit consultation fee)
Clinic	30% of treatment cost
Pharmacy	30% of total cost

Private insurance is also an option for those in South Korea who can afford it. Private insurance as a percentage of overall healthcare financing in the nation increased from 0.7% on 1980 to 4.4% in 2008, and 76% of South Korea's population purchased supplemental private insurance in 2008 (Jones, 2010). However, given that a significant proportion of South Korea's seniors live in poverty (Ahn, 2004), private insurance is not likely to be a feasible option for many of the nation's elderly citizens. This supposition is supported by the research of Shin et al. (D. W. Shin, Jung, K. T., Kim, S., Bae, J. M., Kim, Y. M., Ryu, K. W., ...& Yun, Y. H., 2009) who found that

those who had purchased supplementary private health insurance in South Korea tended to be younger and better educated.

2.1.3.2 Benefits

Seniors are more prone to suffering from a variety of diseases and chronic conditions than their younger counterparts (Yu, 2007) and many also require long-term day-to-day care in addition to health treatment services (I. O. Kang, 2010). Healthcare insurance provides a number of benefits for South Korea's elderly. According to a report delivered jointly by the WHO and South Korea's Ministry of Health and Welfare (2012), the country's National Health Insurance Program, which covers the majority of individuals in the nation including most of its elderly citizens, supports services provided by various healthcare centers including hospitals, clinics, and pharmacies, as well as the diagnosis of disease, hospitalization, rehabilitation, and outpatient services. Korea's new Long-Term Care Insurance Program provides even more benefits for seniors, with services including housework, meal preparation, bathing, cleaning, laundry, shopping, and general nursing for those who are unable to care for themselves due to geriatric diseases.

Many of Korea's seniors live in poverty (Ahn, 2004), and this trend is likely to worsen, given that Korean seniors have historically been dependent on their children for financial support and this source of support is now eroding due to low birth rates and increased longevity (Kim, 2011). Therefore, it is critical for seniors to have a good healthcare insurance scheme in place so that they can receive the treatment and day-to-day care they require to survive and enjoy the highest possible quality of life. Although the Korean healthcare insurance system has a number of strengths, it also has some significant weaknesses that render it unable to support patient-centered care for most of the nation's senior citizens. This is evident in the fact that despite a decline in overall mortality and disability among elderly Koreans since the introduction of the nation's comprehensive healthcare insurance program, mortality due to diabetes, heart disease, and cancer has actually increased and self-rated health has decreased among this demographic group (Jang, 2010).

2.1.3.3 Strength and Weakness

Strengths of the Korean healthcare insurance system include its successes in rapidly extending coverage to encompass the entire national population, mobilizing healthcare resources, and constraining healthcare expenditures (Kwon, 2008). Moreover, the new Long-Term Care Insurance Program has been designed to support better health, stable livelihoods, and improved overall quality of life for seniors while reducing the burden of care for their family members through the provision of both institutional and community-based services (I. O. Kang, Park, C. Y., & Lee, Y., 2012). However, Korea achieved rapid coverage for its entire population by creating a system with low contributions and high out-of-pocket expenses for healthcare services (Mathauer, 2009). As a result, the most affluent South Koreans spend just 2% of their incomes on health services while the poorest spend 12% of their total incomes (Ruger, 2007). Although Korea has made great progress with the establishment of its National Health Insurance scheme, it still lags behind many other OECD nations in providing affordable healthcare to its poor, elderly, and disabled individuals. Moreover, benefits paid out by the system are relatively low (Moon, 2012).

Additional weaknesses of the Korean healthcare insurance system include the fact that it is dominated by private providers, it has a problematic mix of public and private insurance schemes, and it is ill-equipped to deal with the challenges of a rapidly aging population (Kwon, 2008). There is also a lack of coordination between health sectors concerned with long-term care and those dealing with other health issues, as well as inefficient use of resources and insufficient health services for those who require long-term care facilities (I. O. Kang, Park, C. Y., & Lee, Y., 2012). Furthermore, there are regional inequalities in terms of logistical access to medical services because the majority of private medical facilities have been established in urban areas, where 92.1% of the nation's physicians currently work, despite the fact that 20.1% of South Korea's citizens live in rural areas (Song, 2009).

2.2 International Patient-Centered Frameworks

2.2.1 The World Health Organization (WHO)

Working on behalf of the United Nations (UN), the WHO sets the norms and standards with regard to health issues, develops agendas for health research, monitors health trends, positively influences health policy, and offers technical support to nations that require it (WHO, 2013). The WHO (2007) has identified patient-centeredness as one of the six most important attributes of healthcare quality (the others are efficiency, effectiveness, timeliness, safety, and equity).

The WHO's (2007) definition of patient-centered care is broader than that of other organizations. It advocates for a people-centered approach that acknowledges the need to address health issues before people become patients. This means conducting outreach to families and communities beyond clinical settings in order to inform and empower them to protect and promote their own health. This people-centered approach also incorporates the needs of the health practitioners and organizations that must be empowered to improve the system overall. People-centeredness in healthcare, as envisioned by the WHO, balances the needs, rights, responsibilities, and capacities of all stakeholders within a healthcare system, and it is based upon universally held principles and values that are in keeping with international law and established human rights.

The WHO's (2007) international patient-centered framework is designed to encourage collaborative participation in healthcare systems by patients, families, and broader communities, and to ensure that these systems respond to the needs of patients in holistic and humane ways. Key elements of the WHO framework include:

- Developing a culture of communication and care whereby patients are informed, given choices, and provided with opportunities to make decisions about their own care
- Ensuring that providers respect the dignity and privacy of their patients
- Making healthcare responsive, responsible, and accountable

- Ensuring that healthcare is affordable, evidence-based, effective, ethical, safe, holistic, and accessible
- Developing healthcare environments that are supportive both for patients and healthcare practitioners
- Putting mechanisms in place for effective policy development and quality improvement

To achieve these goals, those in charge of healthcare policy and planning must adopt a multifaceted approach designed to reorient all aspects of the healthcare system toward people-centeredness. The WHO (2007) lists of a number of strategies for promoting people-centered healthcare, which include:

- Increasing health literacy through public outreach and educational programming in schools and communities and online
- Developing patients' communication and negotiation skills
- Enhancing patients' capacity for self-care and self-management with interventions, disease-management programs, and supportive practitioners and peer groups
- Improving the ability of the voluntary sector, including both professional and community-based organizations, to participate in healthcare improvement
- Enhancing social infrastructure (health-oriented groups, consumer organizations, etc.) through funding and training to increase community participation in the planning and delivery of healthcare services
- Developing community leaders who can act as champions for patient-centered healthcare
- Enhancing the capacity of healthcare leaders to introduce people-centered healthcare initiatives and healthcare practitioners to provide more compassionate, high-quality, safe, ethical, and holistic care
- Making healthcare environments more comfortable and conducive to healing
- Making coordination of care more efficient and effective
- Developing better multidisciplinary care teams

- Improving incentives and standards to facilitate patient-centered healthcare
- Developing better models of care overall.

Adopting these strategies requires improving the healthcare workforce and its networking and referral systems; establishing better funding mechanisms for the system to encourage patient-centered provider behaviour (in other words, better insurance programs); increasing the evidence base for healthcare improvement; using technology more effectively; improving monitoring, accountability, and professional standards; providing support for those who have suffered adverse events within the health care system; and ensuring better protection of patient information (Institute, 2013a)

2.2.2 The Picker Institute

The Picker Institute works to promote patient-centered care by sponsoring education and research in collaboration with various institutions and individuals. The organization focuses on measuring patient experiences and using the insights gained from this research to support the adoption of best practices in healthcare (Institute, 2013a). Coulter and Ellins (2006) summarize the Picker Institute's framework for patient-centered care, which emphasizes the role of patients and their families as active participants. Within this framework, patients and those closest to them are encouraged to take the steps necessary to prevent illness; diagnose and treat minor, temporary conditions; and work collaboratively with healthcare practitioners to select the best forms of treatment for chronic conditions and serious illnesses. The authors note that it is critical not only to recognize these roles but also to strengthen them through various strategies, including the enhancement of health literacy and the promotion of a sense of personal health ownership in the public. This patient-centered approach also requires the monitoring of healthcare systems to inform improvement strategies and to ensure that patients are provided with the choices required to meet their needs. It is also important to ensure that healthcare providers receive the compensation necessary to ensure high-quality care. Principles of patient-centered care, as defined by the Picker Institute (2013a), include:

- Respect for the needs, preferences, dignity, and values of patients
- Seamless integration and effective coordination of healthcare
- Improved information access, communication, and education (enhanced health literacy to encourage better preventive and self-care)
- Making patients as physically comfortable as possible through pain management, assistance with daily living activities, and ensuring that healthcare environments are clean and comfortable
- Providing emotional support and alleviating patients' anxieties and fears
- Involving family and friends in all aspects of patient care
- Making transitions from clinical settings to home environments less traumatic through the provision of information and support services
- Ensuring that healthcare is accessible in terms of availability, timing, transportation, and other issues

According to Coulter and Ellins (Coulter, 2006) the goals of patient-centered care, as defined by the Picker Institute, could be achieved by improving health literacy, clinical decision making, self-care, patient safety, access to information, the overall care experience, and service development. These requirements could be met by:

- Improving the capacity for self-care by offering patient education, encouraging self-monitoring and self-treatment, providing support groups, and ensuring that patients have access to both their own medical information and telecare options
- Enhancing safety through better infection control, promoting adherence to treatment regimes, encouraging patients to report adverse reactions to medications, and taking safety precautions
- Increasing accessibility by using new modes of communication including teleconsultation and establishing more walk-in clinics and outreach centres
- Improving the overall healthcare experience by collecting feedback from patients to inform system improvements, ensuring that patients have a range

of choices in providers, and putting mechanisms in place for advocacy and complaints handling

- Developing services through consultation with patients (this can be done using focus groups and forums)

A recent report released by the Picker Institute (2013b) defined further long-term goals for its patient-centered healthcare framework. These goals include expanding the continuum of care beyond the current healthcare system to encompass general health promotion; supporting meaningful patient and staff engagement; and improving system design, accountability, and measurement of patient-centeredness. However, the organization notes that the latter requirement presents a challenge because commonly used metrics are typically standardised on a national level and do not measure all things that are important to patients and their families.

2.2.3 The International Alliance of Patients' Organizations (IAPO)

The IAPO is a global coalition of patient organizations spanning all disease areas, nationalities, and levels, with local, national, regional, and international participants. The organization's mandate is to support patients and their caregivers and family members by advocating on their behalf and bringing important issues to the attention of policymakers (Rigby, 2006).

According to the IAPO (2007), patient-centered healthcare represents a paradigm shift toward a more collaborative model of care whereby patients have more autonomy and there is a stronger emphasis on patient education and self-management, an approach that is better able to meet patients' needs and is tailored to their preferences. Under the IAPO framework, there are five key elements of patient-centered healthcare:

- Respect
- Choice and empowerment
- Patient involvement in the development of health policies

- Access to healthcare services and support
- Access to information

According to the IAPO (2007), respect encompasses the values, preferences, and needs of patients, as well as their independence and autonomy. Choice and empowerment denote patients' rights and responsibilities with regard to participation in their own healthcare, as well as the need for a responsive healthcare system that provides options to help patients improve not only their health but also their overall quality of life. Promoting patient involvement in the development of healthcare policies can be achieved by encouraging and supporting patient engagement in decision making at all levels (not only for policies that directly affect healthcare but also those which influence the social systems that affect health outcomes).

Ensuring access and support under the IAPO (2007) patient-centered framework means guaranteeing that both preventive and treatment healthcare services are available to everyone regardless of their socioeconomic or health status. It also requires providing holistic healthcare that considers not only a patient's physical health issues but also his or her emotional needs. Furthermore, it must take into consideration socioeconomic factors such as family issues, education, and employment that may influence healthcare choices and the capacity for self-care.

The provision of information encompasses all knowledge required for patients and those who care for them to make informed decisions regarding the prevention, treatment, and management of health issues. Such information must be offered in formats that patients can use regardless of their abilities, language, culture, or age (IAPO, 2007).

According to the IAPO (IAPO, 2012), when measuring indicators of patient-centeredness, the key elements of the patient-centered framework can be divided across three domains: individuals and communities, health practitioners, and healthcare organizations. For individuals and communities, the degree of patient-centeredness is reflected by health literacy, self-management of health issues, communication, involvement in the voluntary sector as it relates to health, and the social infrastructure that has been established to encourage community participation

and advocacy with regard to health issues. Among health practitioners, patient-centeredness is indicated by the provision of compassionate, holistic, safe, high-quality care. In healthcare organizations, policy measures of patient-centeredness include healthcare environments, models of care, coordination of care, family involvement, patient education, multidisciplinary care teams, quality of healthcare, ethical issues, and the development of leadership capacity.

Groves (Groves, 2010) summarises the IAPO's framework for patient-centered healthcare as an approach that focuses on whole people rather than their diseases. This represents a significant paradigm shift whereby patients are engaged and empowered to take charge of their own healthcare. This approach stands in sharp contrast to the old doctor-and-disease-centered model of medicine. The IAPO (IAPO, 2006) considers the adoption of its patient-centered healthcare framework to be the most cost-effective option for improving patient health outcomes, an assertion that has particular relevance for those developing insurance programs to finance healthcare.

2.2.4 A Comparison of the WHO, Picker Institute, and IAPO Frameworks

The WHO, Picker Institute, and IAPO frameworks for patient-centered healthcare share many common elements, including a mandate to:

- Improve the overall quality of healthcare
- Increase health literacy and access to information so that patients will be empowered take an active role in their own healthcare
- Develop a healthcare system that meets the needs and preferences of individual patients rather than relying on a one-size-fits all model
- Provide holistic care rather than focusing narrowly on the treatment of diseases
- Ensure that healthcare is accessible (a key aspect of accessibility is affordability because healthcare that is too expensive is not accessible)

Although the three international frameworks are quite similar overall, there are some minor differences in what is emphasized under each model. The WHO (2007) framework emphasizes protecting the dignity and privacy of patients, enhancing communication skills, making healthcare environments more supportive and ethical for both patients and healthcare providers, and enhancing social infrastructure and the capabilities of the voluntary sector. The Picker Institute (2013a) emphasizes integration and coordination of healthcare services, better transitions from clinical to home environments, patient comfort, and the involvement of family and friends in patient healthcare. The IAPO (IAPO, 2007) emphasizes respect for patients and expanding the continuum of care.

2.3 Health Literacy and Access to Information

On completion of the literature review through Section 2.2.4, there were five areas found in common for a patient-centered healthcare framework. These areas include improving general quality of care, improving health literacy and access to information, developing a best-fit model for patient care rather than relying on one-size-fits-all, providing holistic care, and improving healthcare accessibility. This is a wide-ranging set of topics and recommendations, and exploring all of these areas would be outside the scope of the present project. The area of health literacy and access to information has been selected as the topic for examination.

2.3.1 Health Literacy and Access to Information

The key concepts in this research are health literacy and access to information. While related, these are actually two distinct concepts. In this section, a definition of each of these concepts is provided, theoretical perspectives are examined, and how it is used in healthcare insurance systems for elderly are discussed.

2.3.1.1 Health Literacy

Health literacy can be defined in several ways, including individual skills-based definitions (being able to read and understand health information) and outcome-based definitions (whether individuals can use health information to improve their own health) (Osborne, 2012). However, these definitions tend to ignore the role of the healthcare provider or information provider in the development of health literacy, which means that they cannot be used to understand health literacy as an interaction between the individual and the institutions of healthcare. Osborne (2012, p. 2) offers a more satisfactory definition, which is that "health literacy is a shared responsibility between patients… and providers… Both must communicate in ways that the others understand." This means that healthcare patients have a responsibility to seek out and learn to understand health-related information, while healthcare providers have a responsibility to communicate to patients in ways that are understandable. Health literacy includes both understanding skills and analytical skills (such as being able to understand how health insurance rules may apply) (Osborne, 2012).

A number of studies have shown that health literacy is a challenge in elderly populations, particularly those faced with changing rules and requirements about healthcare systems. For example, low health literacy was one of the main barriers to low-income elderly populations making use of electronic personal health records (PHRs) introduced in the United States (E. Kim, Stolyar, A., Lober, W. B., Herbaugh, A. L., Shinstrom, S. E., Zierler, B. K., et al., 2009). The study found that over 60% of the sample had low levels of health literacy, which meant that even if the overcame challenges like low computer literacy the records would still be hard to understand. Low health literacy is particularly a problem for elderly populations because many elderly people have complex, comorbid, and chronic health conditions that can be difficult to understand and manage (Gazmararian, 2003). Teaching health literacy is one of the requirements of a just healthcare system that meets the needs of everyone, including the elderly (Volandes, 2008).

There are some recommendations available for how healthcare systems, including those for the elderly, could address the problem of low health literacy (Paasche-Orlow, 2006). These recommendations include three principles (including productive interaction, healthcare organization, and using an ecological or community-based view). Some of the recommendations include making sure patients comprehend information, improving provider communication skills, using communication technologies, using patient-centered care, simplifying communications, and setting quality targets. These recommendations would be useful for implementation in a healthcare system, including an insurance or treatment system, to promote institutional and individual health literacy.

2.3.1.2 Access to Information

As briefly discussed above, access to information is also necessary. Access to healthcare information can be defined briefly as being able to find information about a particular healthcare issue or general concerns, including information about conditions, symptoms, treatments, and how the healthcare insurance system works (Osborne, 2012). This includes both personal health information (medical records) and general health information. Access to health information is one of the critical factors in health literacy, since it is not possible for patients to be health literate if they cannot find information. Some typical sources of health information in healthcare systems include doctors, nurses, and other treatment providers; the Internet; insurance information sites; and government organizations (such as elderly care or healthcare ministries, depending on the country) (Osborne, 2012). As this suggests, access to health information is one of the key elements of health literacy, since it provides the information that the patient can analyze and understand.

As with health literacy, access to health information can be a significant challenge for the elderly. For example, a study in the United States showed that the elderly may not have Internet access needed for electronic health records (for personal information) (S. H. Kim, 2009). This also creates a problem for accessing general health information, since even if elderly patients have Internet access they may not have search and information access skills required to find health

information. There can also be problems with communication skills of providers, who may not be able to fully identify what types of information patients need, and with information from healthcare systems (including insurance systems), which can be confusing, outdated, or inaccurate as well as simply unavailable (Paasche-Orlow, 2006). Ensuring that patients have access to health information, through approaches such as developing communication technology-based systems and improving provider communications, is one of the main steps toward ensuring patients can develop health literacy (Paasche-Orlow, 2006).

2.3.2 Health Literacy and Access to Information for the Elderly in South Korea

The goal of this research is to examine health literacy and access to information in South Korea specifically. This section focuses on these areas, including statistics about health literacy and access to information, methods used by the South Korean government to address these issues, and academic studies of whether or not these programs have worked effectively. The overall assessment of health literacy and access to information for the elderly in South Korea, at least as facilitated by the government's healthcare insurance program, is that it is poor or marginal. This is an area that could definitely use improvement.

2.3.2.1 Health Literacy for the Elderly in South Korea

The extent of knowledge about health literacy in the South Korean elderly population is limited. A study of South Korean elderly adults (n =103) used the Korean Functional Health Literacy instrument in order to examine health literacy, along with studying health conditions (S. H. Kim, 2009). This study found that the sample did generally have lower health literacy, although rates varied. Low health literacy was also associated with lower physical activity and function, higher levels of pain, and higher levels of reported arthritis and hypertension. Thus, the expected relationship between low health literacy and poorer health was seen in this study. However, meta analyses of health literacy studies have indicated that the issue is rarely studied in detail, usually finding only one study on the topic in recent years (Loke, 2012). There are also no official statistics about health literacy offered by the

government of South Korea. However, there is an instrument called the Korean Health Literacy Scale, which has been reduced to a short form (12 items) for use in the elderly population (T. W. Lee, & Kang, S. J., 2013). This indicates that health literacy is an active area of research in the South Korean elderly population, although it has not yet been fully examined.

There is some information available about initiatives of the South Korean government to improve health efficiency in the elderly, under the healthcare insurance system or otherwise. One of these efforts is increasing the use of technology to provide information about healthcare in elderly populations (Linstead Goldsmith, 2012). This is consistent with recommendations for leveraging communication technologies in order to increase health literacy through broadening access to information (Paasche-Orlow, 2006). However, most of the initiatives identified by Linstead Goldsmith (2012) are actually directed to cost containment or other measures, rather than improvement of health literacy. This is concerning because it could indicate that health literacy is not a priority of the South Korean government at this time.

The Ministry of Health and Welfare (2013b) identifies a number of programs that could potentially be used to improve health literacy in the elderly (although there is no guarantee that this is taking place for any particular group of elderly people). For example, the Comprehensive Service Program for Healthy Living Practices is a health promotion program that provides health information and incentives about issues like nutrition, smoking, exercise, alcohol, and weight maintenance to South Koreans that are eligible (including the elderly) (M. o. H. a. Welfare, 2013b). These programs address general health literacy as well as specific requirements of individuals (for example, the stop smoking hotline is separate from the weight loss hotline, allowing individuals to choose the type of support they need). The program also encourages participants to make preventative care and check-ups a priority, educating them about the value of these mechanisms. However, the elderly are not eligible for check-ups under this program, as this is covered under the elderly care program (M. o. H. a. Welfare, 2013). This makes it difficult to assess the impact of this educational campaign on the elderly, particularly on older people

who may have turned 60 before the current program was in place. There is no evidence that the healthcare insurance program for the elderly explicitly addresses health literacy concerns, although the government does state that long-term healthcare programs are created for all participants who are eligible (M. o. H. a. Welfare, 2013). In particular, there are no general health education campaigns targeted to the elderly that are visible in the government documents, and there is also no evidence that provider education has been modified to improve communications.

Overall, it appears that there is not yet a comprehensive program to encourage health literacy in the South Korean Government's healthcare insurance system for the elderly. There are a number of programs that individually support health literacy, through approaches like health education, but these are not targeted and do not necessarily address holistic concerns like provider communication skills. There is also no indication that health literacy has been understood based on a holistic model. Thus, this is a significant gap in the potential effectiveness of the program.

2.3.2.2 Access to Information for the Elderly in South Korea

There is some indication that the South Korean government has made efforts to improve access to information for the elderly in South Korea. For example, comprehensive information about the healthcare insurance program is available online, as well as from healthcare providers (who perform assessments to determine the level of coverage under the program) (M. o. H. a. Welfare, 2013). However, this information has two problems. The first problem is that it is targeted to the insurance program itself, rather than to personal or condition-related health information. It does not appear that the South Korean government provides any information about health conditions or personal choices through its website, and neither does it emphasize any provider programs. There is also the problem that the elderly may not be able to access such systems, since they often do not have Internet access at all or may not be skilled in finding information (S. H. Kim, 2009). Although there has

been no formal assessment of how effective this program is, these factors do not look encouraging.

A WHO assessment of South Korea's overall health system does identify some steps toward health information access (for the elderly and for the general population) (World Health Organization/Ministry of Health and Welfare, 2012). However, this also shows that there are limits to provision of health information and access insurance. According to this assessment, South Korea has implemented electronic health records, which are available to patients as well as to providers and are meant to improve healthcare. Thus, there is at least one essential step toward access to information, since patients (including elderly patients) will be able to either access their own records or ask their providers to access them (Volandes, 2008). The main use of other information technology to distribute information about pharmaceuticals, including traditional Korean herbal medicine products (W. H. O. M. o. H. a. Welfare, 2012). This is insufficient to provide all the required information, and once again it is limited to the Internet.

Since a main source of information for the South Korean elderly is the Internet, it is appropriate to ask how effective this actually is at providing information. A qualitative study of South Korean elderly men provides some information about this (Chung, 2011). This study chose a convenience sample of 81 older adults living in elderly communities. It found that 26 of the participants used the Internet generally (28.6%). Of these Internet users, 13 reported previous use of online health information available through the government and other sites (such as commercial and nonprofit sites). While those that did use the Internet for health information thought it was helpful, there were a large number of barriers that stood in the way of more extensive use. These barriers included lack of interest, feeling it was too complicated, not having experience or skill, Internet being too expensive, or disabilities that prevented effective use. Given that these barriers prevented all but about 15% of the participants from accessing health information through the Internet, it is clear that Internet-based programs are insufficient to reach this age group. Thus, programs that are solely Internet-based are not likely to be effective, although there have not been any formal assessments about their effectiveness.

An overall assessment of access to health information within the South Korean healthcare insurance system for the elderly is that it is generally limited. There are a few areas, such as electronic health records, pharmaceutical information, and general information about the insurance program itself, that are available (with the caveat that this information is online and as a result may not be accessible to all elderly people). However, information such as general health information (such as about symptoms or causes of illness) and personal information (outside the EHR) appears to be limited. While individual healthcare providers may be more or less effective at providing information to their patients, there is no organized approach within the healthcare system that is directed to improving access to health information for the elderly. This is a significant gap, and one that means that health information access may be limited for some.

2.4 Concepts and Future Trends of Healthcare for the Elderly

South Korea's elderly population is expected to reach 38% by 2050 (Kwon, 2009a) and because this population has more extensive healthcare needs, it will critical for the South Korean government and other stakeholders to adopt strategies and develop policies to meet the healthcare demands of this increasing population. If they fail to do so, the nation will face a major healthcare funding crisis.

South Korea's government cannot rely on private insurance or significantly increased insurance premiums to fund healthcare because many South Korean seniors cannot afford it. Thus, a system based on private insurance and higher premiums would not be accessible to those who need it most and would increase overall poverty in the nation (Jones, 2010). To provide patient-centered care, Korea's healthcare system must adopt a new funding model to meet the challenges posed by an aging population.

Jones (2010), on behalf of the Organization of Economic Co-operation and Development (OECD), suggests that a broad-based, tax-funded approach, which would spread the financial burden more equitably across the population and various income sources, is the best pro-growth strategy for South Korea. Such an approach

would not only make the system more equitable overall, but would also reduce the administrative costs associated with separate payment systems (Jones, 2010).

Developing the capacity to provide patient-centered care also requires integrating healthcare with other aspects of welfare to broaden the continuum of care and provide more holistic care overall. Thus, there is a need to coordinate the nation's Long-Term Care Insurance Program with welfare services overseen by local governments (Kwon, 2009a).

Quality of healthcare is an additional issue that must be addressed to ensure patient-centered care for South Korea's seniors. At present, quality varies significantly across Long-Term-Care-Insurance-supported institutions. Hence, there is a need for the government to monitor these institutions, disseminate information about their quality, and differentiate payments based on service evaluation to promote better quality healthcare for the nation's elderly citizens (Kwon, 2009a).

CHAPTER III

METHODOLOGY

3.1 Research Approach

Qualitative research typically uses inductive methods of logic, which involve the identification of patterns, while quantitative research methods use deductive logic and are thus suited to the testing of hypotheses and general theories (Johnson, 2004). According to Johnson and Onwuegbuzie (2004), quantitative research has a number of strengths, including the production of numerical data that can be subjected to statistical analysis and the ability to produce generalizable results with a sufficiently large sample size. However, its primary disadvantage is that its narrow focus fails to take context into account.

Johnson and Onwuegbuzie (2004) note that qualitative research also has a number of important strengths, including the ability to study phenomena too complex for quantitative methods, the capacity to examine situations in depth and detail, and the incorporation of contextual factors. However, it also has a number of weaknesses, which include lack of generalizability, replicability, and suitability for hypothesis testing; inability to conduct statistical analysis to measure the strengths of relationships among variables; greater time required to collect data; greater potential for the introduction of researcher bias; and lower credibility with many administrators, political entities, and funding agencies and organizations.

Mixed methods research combines the approaches, methods, techniques, and concepts of qualitative and quantitative research into a single study (Johnson, 2004). According to Johnson and Onwuegbuzie (2004), the strengths of mixed-methods include the ability to supplement the predictive value of numbers with richer narrative data, the potential to answer a broader range of research questions, the ability to simultaneously test hypotheses while taking context into account, the mitigation of the weaknesses of both qualitative and quantitative approaches while drawing upon their collective strengths, the potential to provide stronger evidence for any collusions drawn, and the provision of more complete evidence to inform

both theory and practice. The primary weakness of mixed-methods approaches identified by the authors is the fact that using two methods simultaneously is more complex and resource-intensive, and thus it may be challenging for individual researchers to use mixed-methods approaches.

This study will use a mixed-methods approach that incorporates both quantitative questionnaire data and qualitative interview data. The decision was made to adopt a mixed-methods approach due to the complexity of the phenomenon of interest, the need to take context into account while also generating data that can be subjected to statistical analysis, the desire to create a more holistic picture of the situation by including both patient and healthcare provider perspectives, and the limited resources available to conduct this study (it would not have been feasible to recruit a large sample of healthcare providers for this research, so this component was purely qualitative by necessity).

3.2 Data Collection

According to Sridhar (Sridhar, 2008), primary data, which is collected directly from the source for a particular research purpose, can be obtained by questioning subjects verbally or on paper or by using first-hand records, observations, or experimental methods. Secondary data makes use of studies, reports, and other documents produced for purposes other than those of the current study but which are relevant to the present research and can be used to provide supplementary data. Although primary data has the advantages of suitability and being up to date, secondary data allows for broader coverage of a particular topic or phenomenon and it tends to be free and easy to collect.

This research will involve the collection of both primary and secondary data. Primary data will be used to answer the research questions developed for this study and secondary data will be used to provide context for the findings and insight into factors that may influence them.

3.2.1 Questionnaire

Questionnaires are instruments that contain the questions required to conduct self-administered surveys for particular research purposes (Schutt, 2006). There are numerous advantages associated with survey research. Surveys are an easy, quick, efficient, and inexpensive means by which to collect primary data from a relatively large population sample to answer specific research questions. Moreover, they allow for standardization of the wording of questions and their delivery, and they yield quantitative data that can be subjected to statistical analysis (Ramzan, 2012).

This study will use a survey questionnaire to generate numerical data for statistical analysis because the resources available to conduct this research are limited. Using a questionnaire will provide data from a relatively large population sample in a short span of time with few resource requirements. Furthermore, it will enable statistical testing for reliability prior to using the questionnaire in the full-scale study.

3.2.1.1 Pilot Test

A pilot test is a small-scale replica of an actual study that is conducted in advance of the full-scale study to test all aspects of the study's design, including its measurement instrument. (Sridhar, 2008), enabling the researcher to identify any flaws within the overall research method or the questionnaire used and modify them as needed before undertaking the full-scale study. Thus, pilot testing is a critical step to take before embarking on a study that makes use of a research instrument, particularly one that has not been tested for use in prior studies.

The current study will be preceded by a pilot test during which 40 copies of the questionnaire will be administered to a group of subjects. Cronbach's alpha values will then be generated using SPSS software to assess the reliability of items and item categories, and the research instrument will be adapted as required to ensure sufficient reliability.

3.2.2 Interview

Interview techniques allow for more versatile and in-depth questioning than survey questionnaires because the researcher can follow up on interesting or unclear responses (Ramzan, 2012). Therefore, conducting an interview for the healthcare provider component of this research was deemed the most suitable approach. The choice was made to conduct the interview by telephone in order to eliminate the need for travel by both the researcher and the respondent, which is among the primary advantages of telephone interviews (Ramzan, 2012). Telephone interviews provide the same benefits as synchronous face-to-face interviews because they allow for flexible interaction between the interviewer and the interviewee (Opdenakker, 2006). Given the limited resources available to conduct this study and the desire to make the process as convenient as possible for the interviewee, as well as the need to maintain a flexible interview approach for this component of the research, conducting this interview by phone was considered to be the best possible method.

3.3 Sample Strategy and Procedure

3.3.1 Questionnaire

The target population for this study will be elderly Korean citizens. A recent report released by South Korea's Statistical Office indicates that Korean seniors (those 65 years of age and older) comprise 11.7% of the nation's population, which amounts to more than 6 million individuals (Vatvani, 2013). Therefore, for the purposes of sampling, this can be considered an infinite population.

Godden (2004) provides a useful formula to calculate sample sizes for infinite populations:

$$SS = \frac{Z^2 \times (p) \times (1 - p)}{C^2}$$

- SS = Sample size
- Z = Z-value[A] (1.96 for a 95% confidence level was used for this study)
- P = Percentage of population picking a choice, expressed as decimal[B] (0.5 was used)
- C = Confidence interval, expressed as decimal (0.05 was used)

Using the formula listed above provides a sample size of 384 (rounded off to the nearest whole), which indicates that this is the number of subjects required to provide statistically meaningful results. However, due to time and specific target respondents, the sample size of this study will be 81.

The data will be collected in Seoul since the target population for this research is elderly Korean citizens. The sample population for this study will be recruited using a convenience sampling method. Convenience samples, which are also called non-probability samples and opportunity samples, are selected from among those willing to participate and provide data for a particular study rather than by using probability sampling methods to generate a truly random sample (Price, 2013). A convenience sampling method was deemed the best approach for this research due to several advantages it provides, including easy access to a pool of subjects, fast recruitment, and minimal resource requirements (Tariman, 2010).

The questionnaire will be reviewed and approved by an expert in medical filed and professors at Chulalongkorn University.

3.3.2 Interviews

Interviews will be conducted with five Korean seniors to yield insights into their perspectives on South Korea's health insurance system. Interview methods range along a continuum from structured to unstructured, with the latter being more akin to observation while the former involves the use of closed questions and is thus more like survey research. The semi-structured interview is a mid-range option along the structured-to-unstructured continuum (Newton, 2010).

These interviews will be semi-structured. This method was chosen because it has a number of significant advantages, including providing in-depth information,

allowing the interviewee to influence the topic (which can yield unexpected and useful findings), enabling the researcher to develop an understanding of the participant's perspective, and facilitating the free flow of information in general while simultaneously allowing for some degree of structure with the use of an interview guide (Organization, 2004).

Semi-structured interviews do not yield generalizable data (Organization, 2004). However, the goal of these interviews is to provide users' perspectives on South Korea's healthcare insurance programs for the elderly rather than to produce data that can be analyzed statistically.

3.4 Data Analysis

3.4.1 Quantitative

According to Chambliss & Schutt (Chambliss, 2012), statistics, which can be described as numerical data that reflect a larger data set, provide simple summations of complex situations and a means by which to develop a better understanding of various phenomena. The authors note that statistical analysis is the way in which researchers make sense of raw data, and thus is a critical step toward understanding situations of interest.

Quantitative data analysis, which is used to describe or predict phenomena of interest, may yield either descriptive or inferential statistics, depending on the purposes of the research. Descriptive statistics are used to describe distributions of variables and their interrelationships while inferential statistics are used to generate estimates of confidence in cause-and-effect generalizations for a population of interest (Chambliss, 2012). Therefore, inferential statistics are more suitable to testing hypotheses where conclusions must be drawn about cause and effect whereas descriptive statistics are more suited to exploratory research that seeks to identify issues and perspectives. Given that the goal of the present study is to create an understanding of a particular phenomenon rather than to test the strength of relationships among variables, the research instrument for this study was designed to yield descriptive and inferential statistics (Chi square) that will be subjected to

quantitative analysis using SPSS software. The decision was made to conduct the analysis using SPSS because it is a well-respected software program among social researchers that saves a significant amount of time and reduces the risk of errors.

3.4.2 Qualitative

According to Schutt (2006), qualitative data analysis differs from quantitative data analysis because the focus is on words or pictures rather than numbers. Words, typically in the form of written text, may comprise responses to open questions on a survey, observational notes made by a researcher, or an interview transcript. Linguistic data cannot be subjected to statistical analysis and thus requires different methods. Qualitative analysis methods typically focus on meaning rather than quantifiable phenomena and on a relatively small number of cases rather than a large sample population. Moreover, they are designed to study phenomena in depth and detail and to provide context rather than to make generalizations (Schutt, 2006).

Content analysis is a popular method for analyzing linguistic data. Ramzan (p. 29) (Ramzan, 2012) defines content analysis as "The objective, systematic, and quantitative description of the manifest content of a communication." He also notes that the unit of analysis chosen by the researcher can be individual words, overarching themes or topics, measures of time and space, or characters (objects or individuals). When using this method, the researcher develops a framework of rules for classifying units based on particular analytical categories and then conducts the analysis using this framework.

Content analysis provides a high degree of structure while reducing the risk of analysis bias in qualitative research (Ramzan, 2012). Therefore, it is a useful method for analyzing communications such as semi-structured interviews. Given its suitability for qualitative analysis of both written and verbal communications, content analysis was chosen as the analysis method for the interview data generated by this study.

3.5 Ethical Issues

This research will not involve work with underage, mentally ill, or otherwise vulnerable populations. Nor will it involve deception or put participants at risk for physical, psychological, or financial harm. All participants will be adults who are capable of providing informed consent and participation will be voluntary. Subjects will be fully informed as to the nature and purpose of the study before deciding whether or not to participate and will be free to withdraw their participation at any time. Therefore, the primary ethical issue that must be addressed for this research is protection of respondents' privacy. No information that could potentially be used to identify participants will be collected for this research. Although they will be asked to answer health-related questions when filling out their questionnaires, participants will not be required to provide their names, contact information, or any other identifying information. In addition, no identifying information about the healthcare provider interviewed for this research will be recorded; the interviewee will be referred to as the "healthcare provider" and will not be identified by name or location.

CHAPTER IV

RESULTS AND DISCUSSION

4.1 Quantitative Results (Questionnaire)

Data for the quantitative portion of the study was collected via questionnaires, which covered various information access and health literacy issues. Demographic information was also collected to characterize the sample and identify any demographic skewing that might have influenced the study results.

4.1.1 Demographic Information

As can be seen in Figure 3 below, the sample, which included 81 respondents overall, was nearly equally split between men and women, with males comprising 52% and females 48%.

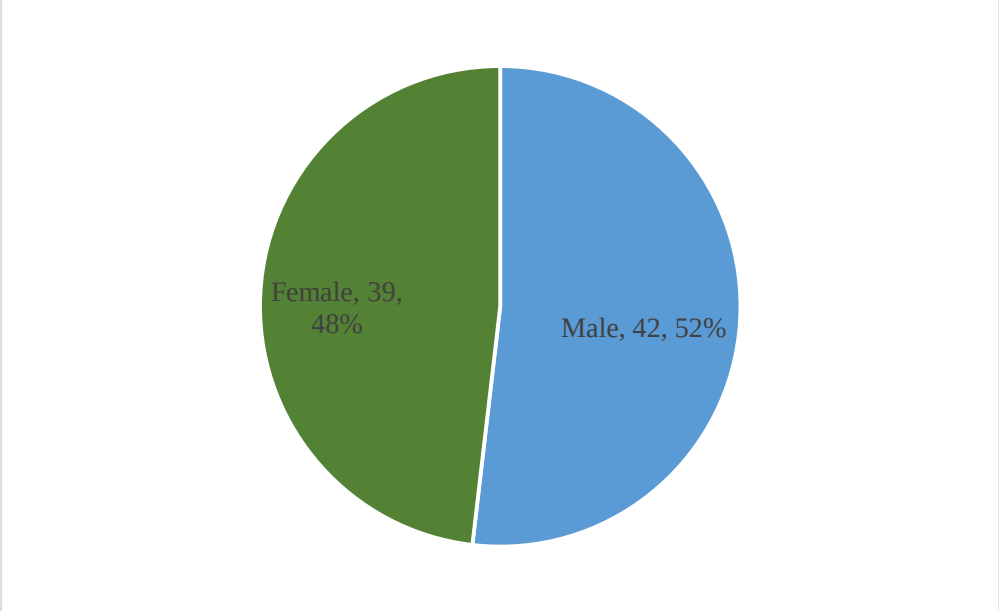

Figure 3: Gender

As shown in Figure 4 below, respondents ranged in age from 55 to over 90 years old. However, the majority were at the younger end of this spectrum, with those aged 55 to 65 comprising 54% of the sample. Nearly one-third of the respondents (31%) were 66 to 75 years of age and 15% were 76 years of age or older. However, very elderly respondents (those over 85 years of age) comprised just 2% of the sample overall.

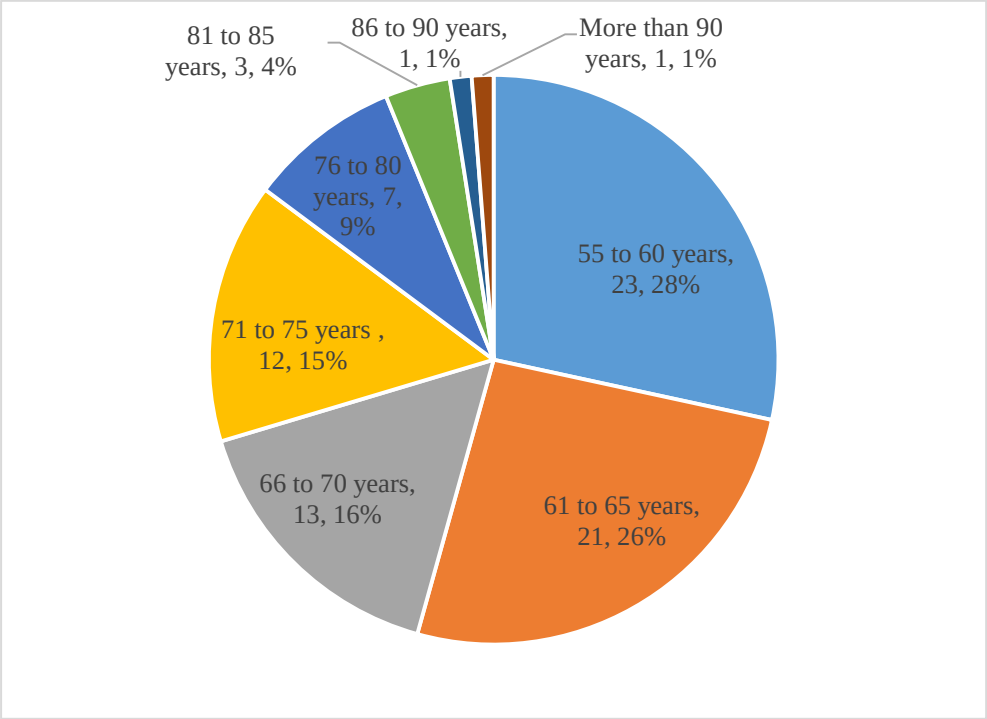

Figure 4: Age

The majority of the respondents (60%) had no postsecondary education, and 22% had not completed high school. Of the 40% reporting some postsecondary education, the majority (31%) had attained bachelor's degrees. An additional 3% had vocational degrees, 4% had master's degrees, and 2% had completed PhDs (see Figure 5 below).

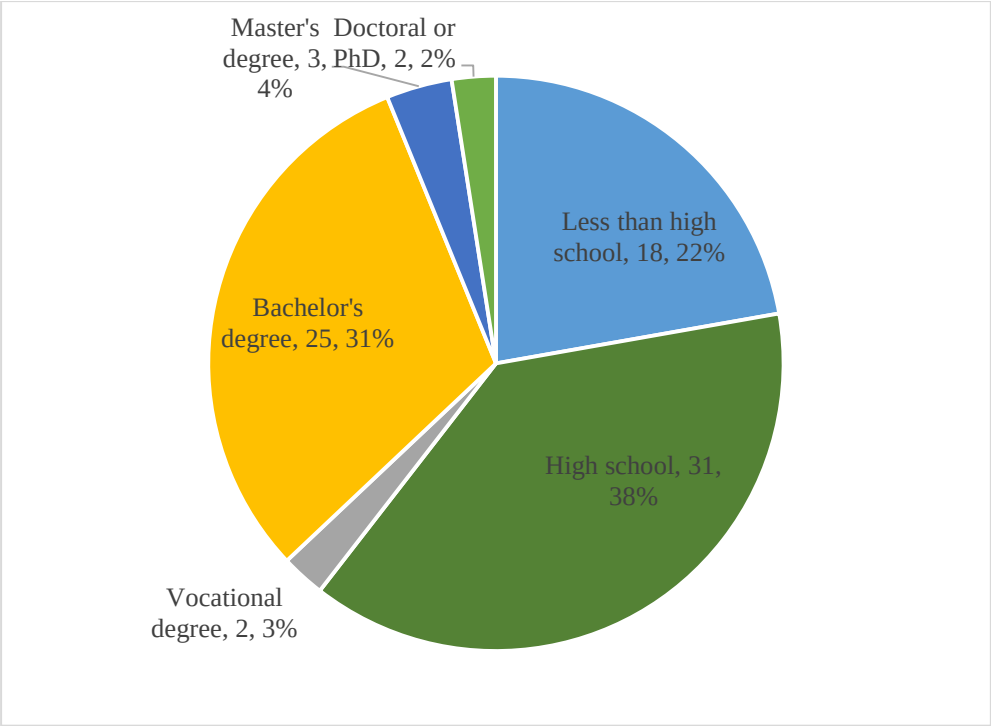

Figure 5: Education

Respondents were most likely to report living with their children (53 participants) or spouses (25). An additional 13 respondents reported living on their own, 4 lived with nieces or nephews, 2 with other relatives, and 1 with his or her mother (see Figure 6 below).

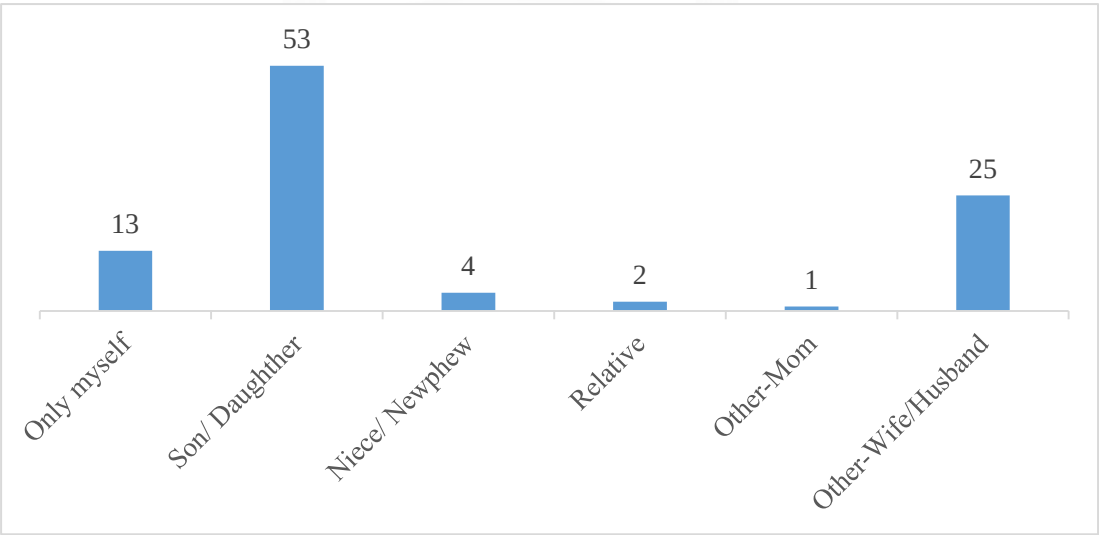

Figure 6: Other People in the Same Home

As can be seen in Figure 7 below, the vast majority of respondents (90%) lived independently. Only 8 reported being dependents on another person.

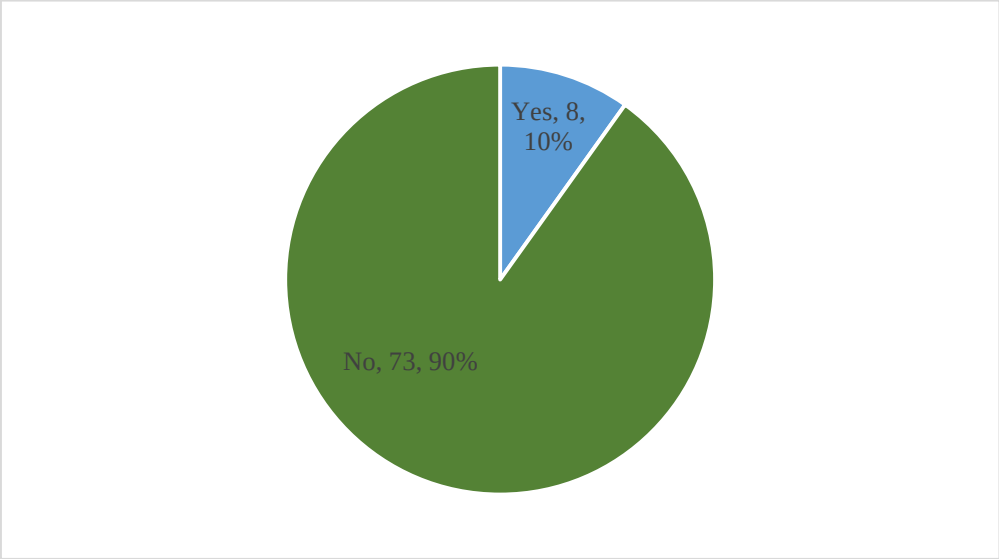

Figure 7: Dependency Status

Respondents were also asked if they were covered under the Long-Term Care Insurance Program. Nearly four-fifths (79%) said that they did not have long-term coverage, nearly one-fifth (19%) said that they had ungraded long-term coverage, and just 2% said that they had Grade 1 or 2 coverage under the Long-Term Care Plan (see Figure 8 below).

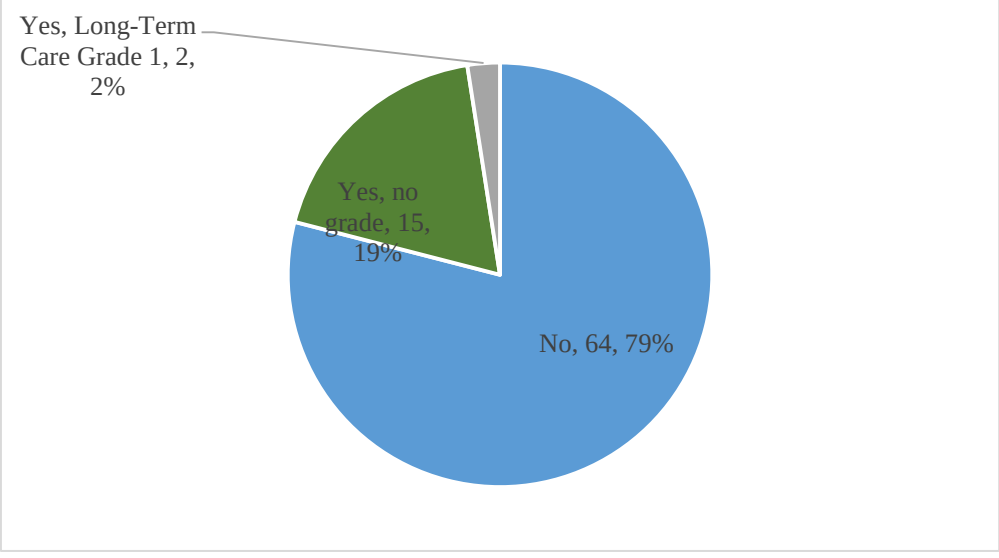

Figure 8: Healthcare Insurance Coverage

When asked about current health issues, the majority of respondents (58) said that they were not currently suffering from any diseases, 13 reported high blood pressure, 5 diabetes, 2 heart disease, 1 geriatric disease, 1 hyperlipidemia, 1 thyroid cancer, and 1 other-unspecified (see Figure 9 below).

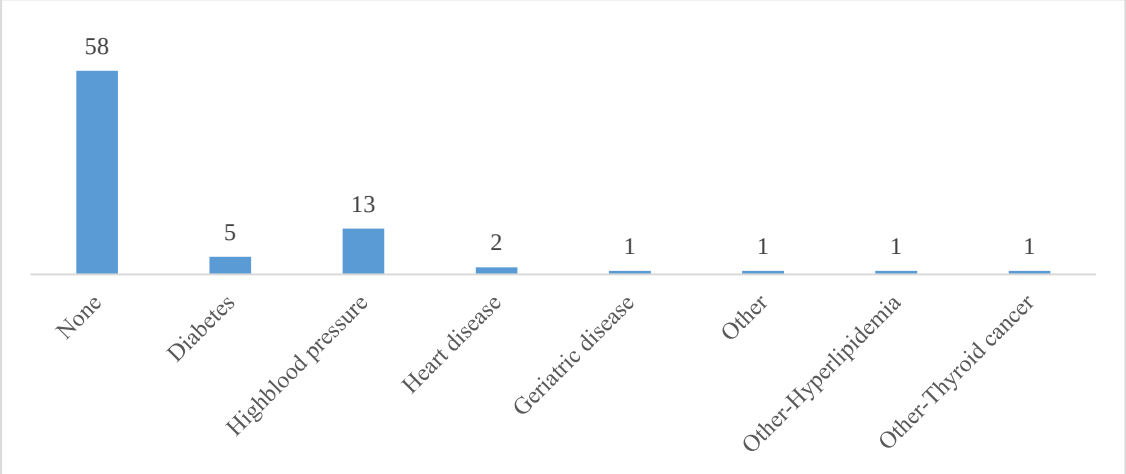

Figure 9: Diseases Afflicting Respondents

4.1.2 Access to Health Information

As can be seen in Figure 10 below, responses to the question about access to health information indicated that there is significant room for improvement in this area. Overall, 42% of respondents did not know how to access information about health insurance services.

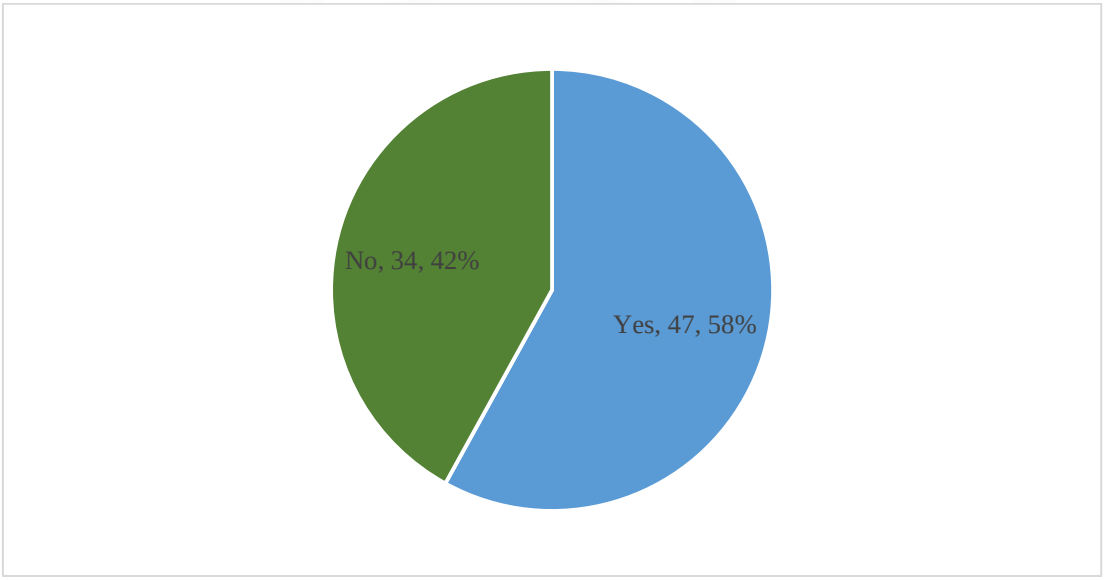

Figure 10: Whether or Not Respondents Know How to Access Health Insurance

Study participants were also asked about the channels through which they access information about health insurance services, and their responses were quite varied. The most popular channels included newspapers (19), the Internet (18), family and friends (16), and the Ministry of Health and Welfare (16). However, some respondents sought information from doctors (5), nurses (5), local authorities (4), or television (1)(see Figure 11 below).

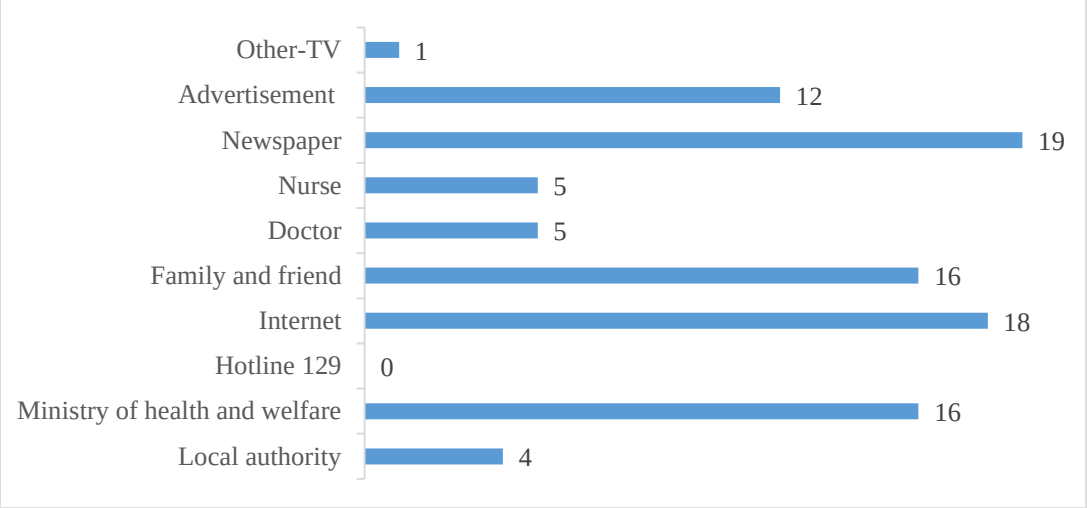

Figure 11: Channels Where Respondents Access Health Insurance Information

When asked about the information they have, 39 respondents said that they had disease-prevention information, 24 had information about services provision, and 13 had information about disease treatment, while 16 had no information at all (se Figure 12 below).

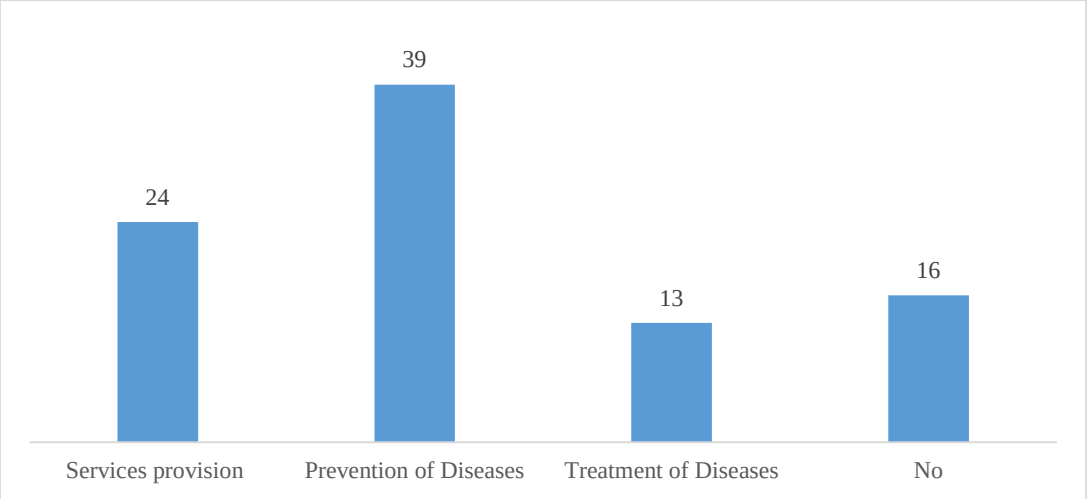

Figure 12: Information Respondents Have

Study participants were also asked how frequently they access health information. As shown in Figure 13, their responses varied, with 30% never accessing health information, 27% saying they sought health information less than once a month, 21% stating that they looked for health information every month, 11% seeking health information every week, and an additional 11% seeking health information on a daily basis. Looking at the results collectively, although a slight majority (57%) sought health information rarely or never, a significant minority accessed health information on a regular basis.

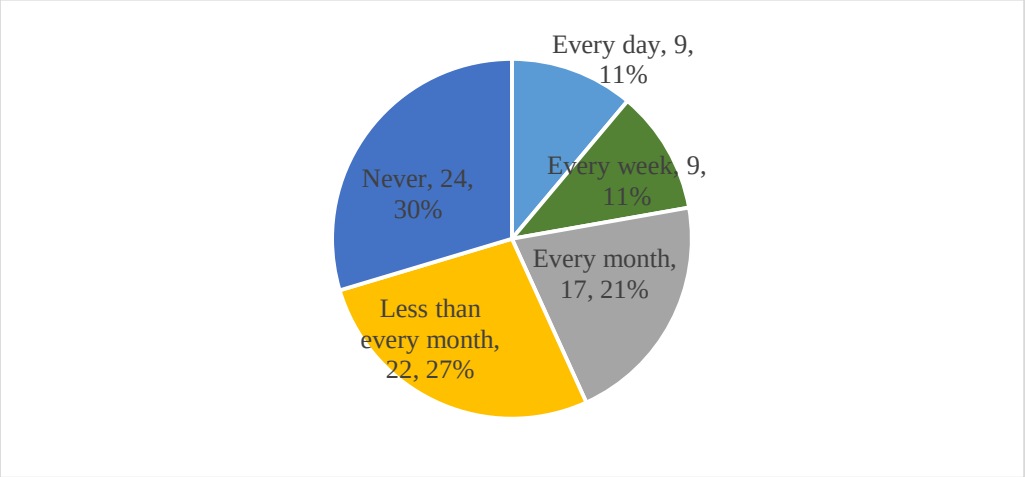

Figure 13: Frequency of Accessing Health Information

When asked about barriers to health information access, the majority (78%) of respondents said that they had no problem accessing health information, while 17% cited lack of computer or Internet access as obstacles and a further 5% noted unspecified difficulties, which may have included problems with reading, hearing, or other issues (see Figure 14 below).

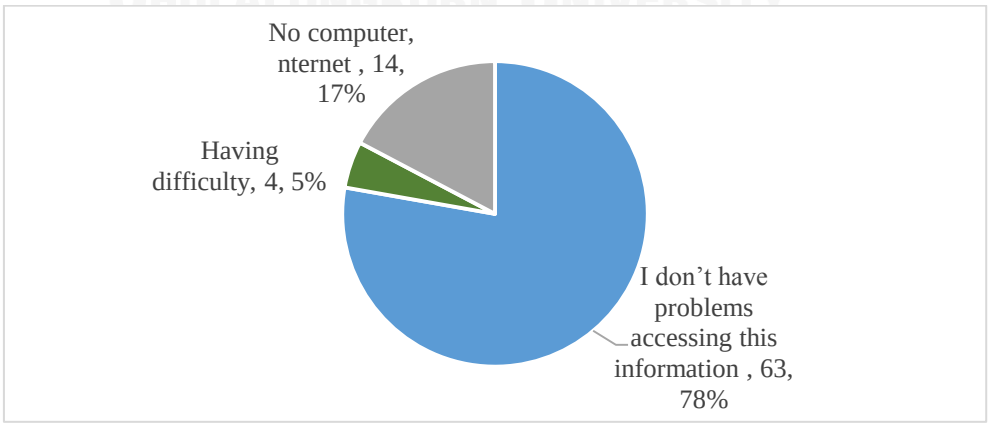

Figure 14: Problems that Prevent Respondents from Accessing Information

Respondents were also asked whether or not they had all the health information they needed. As can be seen in Figure 15 below, the majority (70%) said that they required more information, while just 27% were satisfied with the information they currently had and a further 3% were unsure as to whether the information they had was sufficient.

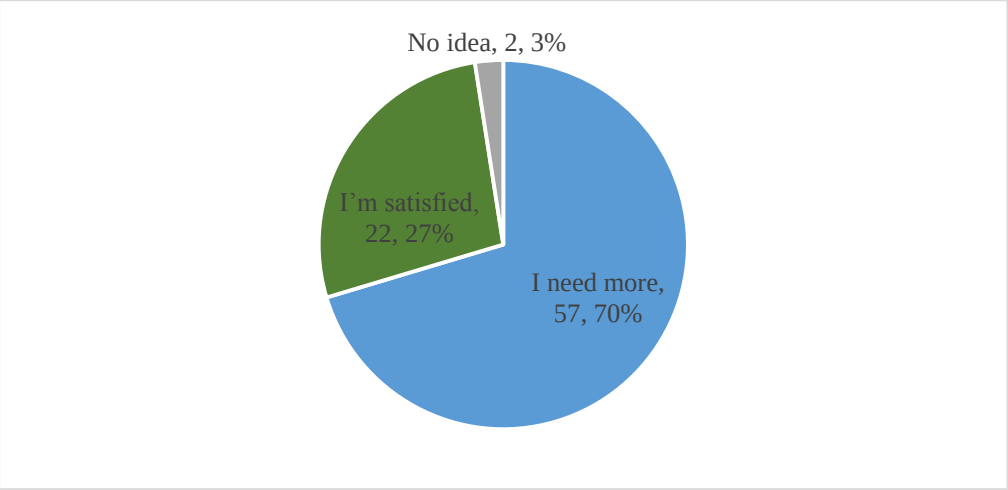

Figure 15: Satisfaction with Current Information

4.1.3 Knowledge of Respondents

Respondents also answered a series of questions to determine their knowledge about the healthcare services available to them. Their responses are presented in the sections that follow.

4.1.3.1 Information about Healthcare Service

As can be seen in Table 3 below, while the majority of respondents (86.4%) knew who was eligible for Korea's regular health insurance services, only 48.1% were able to correctly identify who was excluded from the nation's Long-Term Care Insurance Program. Moreover, 39.5% of respondents could not correctly answer the question regarding which service was excluded from the Long-Term Care Insurance Program (the correct answer was weekly financial support). Overall, their responses indicate that a significant proportion of the elderly Korean population is unaware of or misinformed about elements of the Long-Term Care Insurance Program that may directly affect them in the future.

Table 3: Information about Healthcare Services

Health Care Service in General	**Correct**	**Incorrect**	**No idea**
Who are eligible for health insurance services in South Korea? (Q3.1)	70 (86.4%)	10 (12.3%)	1 (1.2%)
Long-Term Care	**Correct**	**Incorrect**	**No idea**
What is NOT Long-Term Care Insurance Program? (Q3.2)	39 (48.1%)	8 (9.9%)	34 (42 %)
What is NOT included in Long-Term Care Insurance Program? (Q3.3)	49 (60.5%)	9 (11.1%)	23 (28.4%)

4.1.3.2 Information about Common Elderly Diseases

Study participants were asked a series of questions to gauge their knowledge about health issues that are common among the elderly. As can be seen in Table 3 below, a significant proportion of respondents lacked knowledge critical to self-care and prevention of health problems. When asked questions to determine their basic healthcare knowledge, nearly one-third (32.1%) of the respondents did not know the healthy range for blood pressure, nearly half (45.7%) did not know the ideal number of hours to sleep in order to maintain optimum health, and more than half (55.5%) were unable to select the healthiest food from a series of choices. However, nearly all of the respondents (97.5%) did have general knowledge about disease prevention, and knowledge about the foods that contribute to hypertension was also high, with 96.3% of respondents providing the correct answer to this question. General knowledge about diabetes was also high, with 88.9% of respondents selecting the correct definition from among a series of options. However, just over one-tenth of the respondents (11.1%) did not know that diabetes is a disease of high blood sugar.

Table 4: Information about Common Elderly Diseases

Topics	Questions	Correct	Incorrect	No idea
Basic health care	Normal blood pressure level (Q4.2)	55 (67.9%)	21 (25.9%)	5 (6.2%)
	General information to prevent disease (Q4.4)	79 (97.5%)	1 (1.2%)	1 (1.2%)
	Health food (Q4.5)	36 (44.4%)	30 (37%)	15 (18.5%)
	Number of hours that elderly should sleep (Q4.6)	44 (54.3%)	37 (45.7%)	-
Hypertension	What kind of food can lead to hypertension? (Q4.1)	78 (96.3%)	3 (3.7%)	-
Diabetes	What is diabetes? (4.3)	72 (88.9%)	1 (1.2%)	8 (9.9%)

4.1.3.3 Health Literacy

Participants were also asked a series of questions to determine their general health literacy. As can be seen in Table 5, the vast majority of participants (96.3%) had no trouble understanding a medical label. However, a slightly lower proportion (85.2%) understood the information on a nutrition label.

Table 5: Health Literacy

Topics	Questions	Correct	Incorrect	No idea
Understanding medical label	Based on this label, if you have breakfast at 7 am, when you should take this medicine? (Q5.1)	78 (96.3%)	1 (1.2%)	2 (2.5%)
Understanding nutrition information label	Based on this label, how many calories can you receive from this food? (Q5.3)	69 (85.2%)	4 (4.9%)	8 (9.9%)

The percentage of respondents who could not correctly answer a question about a nutrition label (14.8%) was relatively close to the proportion of respondents who said that they never read nutrition labels (21%). Of those who did read nutrition labels, just over one-third (36%) said that they only read them when buying new products and just under one-third (31%) said that they read them from time to time. Only 12% said that they read nutrition labels every time.

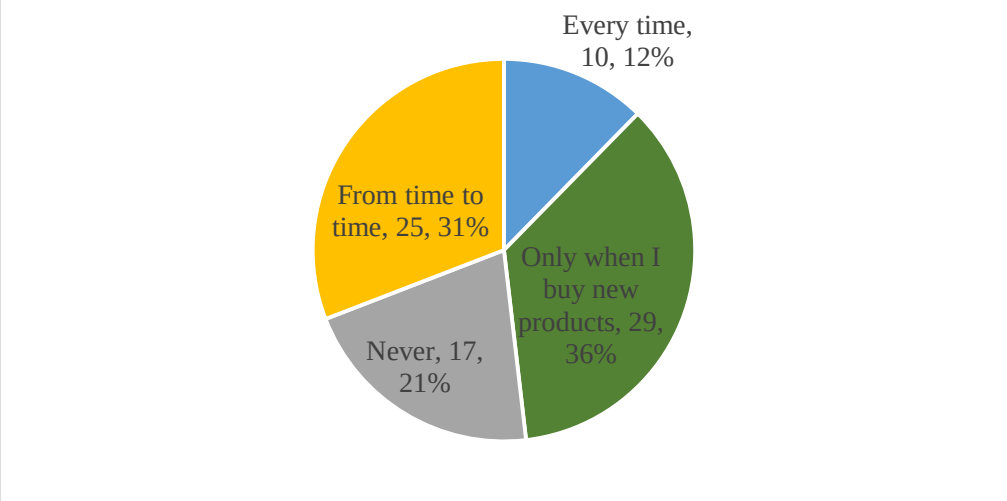

Figure 16: Frequency of Reading Nutrition Information Labels before Buying Food Products

Respondents were asked about their participation in sports and other physical activities. As can be seen in Figure 17 below, the largest proportion of respondents (55) said that they walked regularly. Other activities cited by respondents included yoga (9), swimming (6), ballroom dancing (5), jogging (3), aerobics (2), table tennis (2), other-unspecified (2), cycling (1), and Sepak Takraw (1).

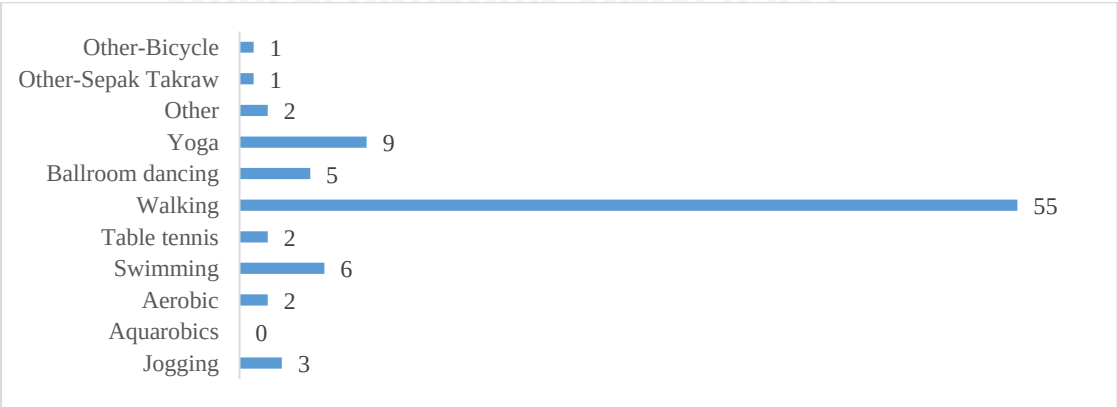

Figure 17 : Sports and Other Physical Activities

Approximately two-thirds (63%) of the study participants were moderately active, engaging in physical activity 3 to 4 times per week, and just over one-fifth of the sample (22%) exercised on a daily basis. By contrast, just over one-tenth (12%) were only active only 1 to 2 times per week and 3% said that they never exercised (see Figure 18 below).

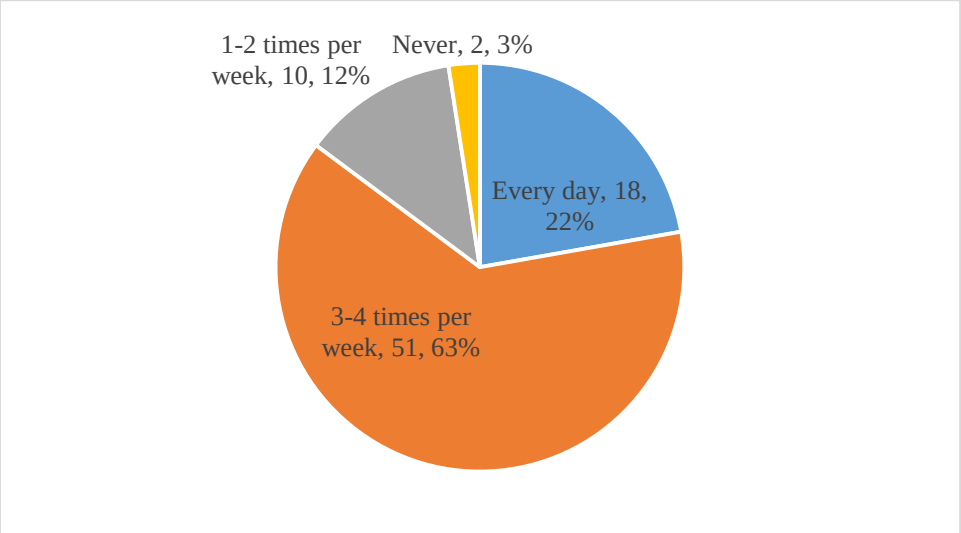

Figure 18 : Exercise Frequency

4.1.4 The Relationship between Demographics and Access to Health information

As can be seen in Table 6 below, the statistical analysis conducted for this study identified a significant difference in access to health information among the participants who have different education levels. However, other demographic factors such as gender, age, and dependency status were found to have no significant difference.

Table 6: The Relationship between Demographics and Access to Health Information

Factors	Gender	Age	Education	Dependency status
Access information about health insurance service	0.119	.237	.029*	.715
*Significant at 0.05 level				

It is quite surprising when looking at the result showed in table 7. The result indicated that all two of participants who earn vocational degree do know how to access to health insurance service, while all two participants who earn PhD do not know how to access to health service.

Table 7: Crosstab – Access to Information and Education

			Access to information		
			Yes	No	Total
Education	Less than high school	Count	7	11	18
		% within Education	38.9%	61.1%	100.0%
	High school	Count	16	15	31
		% within Education	51.6%	48.4%	100.0%
	Vocational degree	Count	2	0	2
		% within Education	100.0%	.0%	100.0%
	Bachelor degree	Count	20	5	25
		% within Education	80.0%	20.0%	100.0%
	Master degree	Count	2	1	3
		% within Education	66.7%	33.3%	100.0%
	Doctoral or PhD	Count	0	2	2
		% within Education	.0%	100.0%	100.0%
Total		Count	47	34	81
		% within Education	58.0%	42.0%	100.0%

4.1.5 The Relationship between Demographics and Knowledge of Health Insurance

Statistically significant difference in knowledge of health insurance were also found among education levels but only for one issue which was participants' general understanding of nationwide health insurance eligibility requirements (see Table 8 below). In contrast, gender, age and dependency status had no significant difference on the same issue examined. However, none of the demographic factors analyzed had statistically significant difference on participants' knowledge regarding the Long-Term Care Insurance Program.

Table 8: The Relationship between Demographics and Knowledge of Health Insurance

Factors	Gender	Age	Education	Dependency status
Health Care Service in General				
Who are eligible for health insurance services in South Korea? (Q3.1)	.571	.873	.012*	.498
Long-Term Care				
What is NOT Long-Term Care Insurance Program? (Q3.2)	.579	.234	.252	.124
What is NOT included in Long-Term Care Insurance Program? (Q3.3)	.498	.494	.319	.272
*Significant at 0.05 level				

Examining the effects of individual education levels on knowledge about health insurance services, it was found that master degree holders were more likely to be knowledgeable than the other degree holders. However, despite some evidence of knowledge increasing in conjunction with education, the relationship is far from clear, given that knowledge did not advance consistently with education levels, as can be seen in Table 9 below.

Table 9: Education and Knowledge about Health Insurance Services Eligibility in South Korea

			q3.1			
			Correct	Incorrect	I have no idea about this	Total
Education	Less than high school	Count	16	1	1	18
		% within Education	88.9%	5.6%	5.6%	100.0%
	High school	Count	29	2	0	31
		% within Education	93.5%	6.5%	.0%	100.0%
	Vocational degree	Count	0	2	0	2
		% within Education	.0%	100.0%	.0%	100.0%
	Bachelor degree	Count	21	4	0	25
		% within Education	84.0%	16.0%	.0%	100.0%
	Master degree	Count	3	0	0	3
		% within Education	100.0%	.0%	.0%	100.0%
	Doctoral or PhD	Count	1	1	0	2
		% within Education	50.0%	50.0%	.0%	100.0%
Total		Count	70	10	1	81
		% within Education	86.4%	12.3%	1.2%	100.0%

4.1.6 The Relationship between Demographics and Knowledge about Common Elderly Diseases

Study participants were asked a number of questions to assess their knowledge about diseases that commonly afflict the elderly. The result showed that there was no significant difference among age level in all areas under knowledge about common elderly diseases. In contrast, dependent and independent elderly (dependency status) were significantly different in many areas such as basic health care and diabetes. Education was also proved to be a factor in determining the participant's knowledge about common diseases in some areas, including hypertension and some parts of basic health care issue. Besides, male and female were significantly different in knowledge about healthy food (see Table 10 below).

Table 10: The Relationship between Demographics and Knowledge about Common Elderly Diseases

Factors	Gender	Age	Education	Dependency status
Basic health care				
Normal blood pressure level (Q4.2)	.765	.390	.027*	.001*
General information to prevent disease (Q4.4)	.331	.983	.973	.009*
Healthy food (Q4.5)	.039*	.703	.021*	.003*
Number of hours that elderly should sleep (Q4.6)	.377	.333	.053	.133
Hypertension				
What kind of food can lead to hypertension? (Q4.1)	1.00	.713	.000*	1.00
Diabetes				
What is diabetes? (4.3)	.623	.933	.197	.0.22*
* The mean difference is significant at the 0.05 level.				

Looking at the knowledge about healthy food between male and female (see table 11), the result indicated that male and female had similar ratio of answering this question correctly, however male seems to have high ratio of answering it incorrectly.

Table 11 Knowledge about healthy food and Gender

			q4.5			
			Correct	Incorrect	I have no idea about this	Total
Gender	Male	Count	18	20	4	42
		% within Gender	42.9%	47.6%	9.5%	100.0%
	Female	Count	18	10	11	39
		% within Gender	46.2%	25.6%	28.2%	100.0%
Total		Count	36	30	15	81
		% within Gender	44.4%	37.0%	18.5%	100.0%

Looking at how different educations can impact knowledge about normal blood pressure level, having a vocational, bachelor and high school degrees tended to be more knowledgeable about blood pressure than those without degrees, master degree and doctoral or PhD. However, as can be seen in Table 12 below, many advanced degree levels did not show likelihood of knowing a person's normal blood pressure level more than other lower education groups. Evidently, all participants with doctoral or PhD did answer this question wrongly.

Table 12: Knowledge about Normal Blood Pressure Level and Education

			q4.2			
			Correct	Incorrect	I have no idea about this	Total
Education	Less than high school	Count	8	7	3	18
		% within Education	44.4%	38.9%	16.7%	100.0%
	High school	Count	22	7	2	31
		% within Education	71.0%	22.6%	6.5%	100.0%
	Vocational degree	Count	2	0	0	2
		% within Education	100.0%	.0%	.0%	100.0%
	Bachelor degree	Count	22	3	0	25
		% within Education	88.0%	12.0%	.0%	100.0%
	Master degree	Count	1	2	0	3
		% within Education	33.3%	66.7%	.0%	100.0%
	Doctoral or PhD	Count	0	2	0	2
		% within Education	.0%	100.0%	.0%	100.0%
Total		Count	55	21	5	81
		% within Education	67.9%	25.9%	6.2%	100.0%

As for the link between knowledge about healthy food and education, bachelor's degree holders were likely to be more knowledgeable than the other

degrees and non-degree holders. In contrast, all vocational degree holders had no idea about the answer for this question (see Table 13 below).

Table 13: Knowledge about Healthy Food and Education

			q4.5			
			Correct	Incorrect	I have no idea about this	Total
Education	Less than high school	Count	4	8	6	18
		% within Education	22.2%	44.4%	33.3%	100.0%
	High school	Count	13	13	5	31
		% within Education	41.9%	41.9%	16.1%	100.0%
	Vocational degree	Count	0	0	2	2
		% within Education	.0%	.0%	100.0%	100.0%
	Bachelor degree	Count	17	7	1	25
		% within Education	68.0%	28.0%	4.0%	100.0%
	Master degree	Count	1	1	1	3
		% within Education	33.3%	33.3%	33.3%	100.0%
	Doctoral or PhD	Count	1	1	0	2
		% within Education	50.0%	50.0%	.0%	100.0%
Total		Count	36	30	15	81
		% within Education	44.4%	37.0%	18.5%	100.0%

All participants with master degree, bachelor degree, high school and non-degree holders had showed that they were knowledgeable about hypertension, one

out of two of doctoral or PhD holders answered this question correctly, while all vocational degree holders answered this question incorrectly (see Table 14 below).

Table 14: Knowledge about hypertension and Education

			q4.1		
			Correct	Incorrect	Total
Education	Less than high school	Count	18	0	18
		% within Education	100.0%	.0%	100.0%
	High school	Count	31	0	31
		% within Education	100.0%	.0%	100.0%
	Vocational degree	Count	0	2	2
		% within Education	.0%	100.0%	100.0%
	Bachelor degree	Count	25	0	25
		% within Education	100.0%	.0%	100.0%
	Master degree	Count	3	0	3
		% within Education	100.0%	.0%	100.0%
	Doctoral or PhD	Count	1	1	2
		% within Education	50.0%	50.0%	100.0%
Total		Count	78	3	81
		% within Education	96.3%	3.7%	100.0%

As can be seen in Table 15 below, most participants with non-dependent status were educated about normal blood pressure level.

Table 15 Knowledge about Normal Blood Pressure Level and Dependency status

			q4.2			
			Correct	Incorrect	I have no idea about this	Total
Status	Dependent	Count	4	1	3	8
		% within Status	50.0%	12.5%	37.5%	100.0%
	Non dependent	Count	51	20	2	73
		% within Status	69.9%	27.4%	2.7%	100.0%
Total		Count	55	21	5	81
		% within Status	67.9%	25.9%	6.2%	100.0%

Similarly to result showed for knowledge about normal blood pressure, non-dependent participants seem to have more knowledge on general information about how to prevent disease than the group of dependent participants (see Table 16).

Table 16 General information to prevent disease and Dependency status

			q4.4			
			Correct	Incorrect	I have no idea about this	Total
Status	Dependent	Count	7	0	1	8
		% within Status	87.5%	.0%	12.5%	100.0%
	Non dependent	Count	72	1	0	73
		% within Status	98.6%	1.4%	.0%	100.0%
Total		Count	79	1	1	81
		% within Status	97.5%	1.2%	1.2%	100.0%

Again, non-dependent participants showed that they were more educated about healthy food than dependent participants (see Table 17).

Table 17 Knowledge about healthy food and Dependency status

			q4.5			
			Correct	Incorrect	I have no idea about this	Total
Status	Dependent	Count	1	2	5	8
		% within Status	12.5%	25.0%	62.5%	100.0%
	Non dependent	Count	35	28	10	73
		% within Status	47.9%	38.4%	13.7%	100.0%
Total		Count	36	30	15	81
		% within Status	44.4%	37.0%	18.5%	100.0%

Table 18 displays that 91.8 percent of non-dependents participants knew what diabetes is, while only 62.5 percent of dependent participants knew about this.

Table 18: Knowledge about Diabetes and Dependency status

			q4.3			
			Correct	Incorrect	I have no idea about this	Total
Status	Dependent	Count	5	0	3	8
		% within Status	62.5%	.0%	37.5%	100.0%
	Non dependent	Count	67	1	5	73
		% within Status	91.8%	1.4%	6.8%	100.0%
Total		Count	72	1	8	81
		% within Status	88.9%	1.2%	9.9%	100.0%

4.1.7 The Relationship between Demographics and Health-Related Knowledge

Analysis of the relationship between demographic factors and participants' understanding of medical labels identified no statistically significant difference for

gender, age, education, or dependency status. The further analysis on the participant's understanding of nutrition information label showed that only education level can statistically determine differences in their understanding toward this issue (see Table 19 below).

Table 19: The Relationship between Demographics and Health-Related Knowledge

Factors	Gender	Age	Education	Dependency status
Understanding medical label				
Based on this label, if you have breakfast at 7 am when you should take this medicine? (Q5.1)	.229	.889	.890	.843
Understanding nutrition information label				
Based on this label, how many calories you can receive from this label? (Q5.3)	.817	.925	.000*	.164
* The mean difference is significant at the 0.05 level.				

Considering at Table 20, the result indicated that all doctoral or PhD and bachelor degree holders did understand nutrition information label. High school holders understand this label more than non-degree holders. Moreover, non-degree

holders understand this label more than master degree holders, while all of vocational degree holders did not understand nutrition information label (see Table 20).

Table 20 Understanding nutrition label and education

			q5.3			
			Correct	Incorrect	I have no idea about this	Total
Education	Less than high school	Count	14	0	4	18
		% within Education	77.8%	.0%	22.2%	100.0%
	High school	Count	26	2	3	31
		% within Education	83.9%	6.5%	9.7%	100.0%
	Vocational degree	Count	0	2	0	2
		% within Education	.0%	100.0%	.0%	100.0%
	Bachelor degree	Count	25	0	0	25
		% within Education	100.0%	.0%	.0%	100.0%
	Master degree	Count	2	0	1	3
		% within Education	66.7%	.0%	33.3%	100.0%
	Doctoral or PhD	Count	2	0	0	2
		% within Education	100.0%	.0%	.0%	100.0%
Total		Count	69	4	8	81
		% within Education	85.2%	4.9%	9.9%	100.0

4.2 Qualitative Results (Interview)

Interviews were conducted with five of the research participants to provide more in-depth information about elderly Koreans' understanding of and attitudes toward the nation's Long-Term Care Insurance Program. To better understand their perspectives, interviewees were asked to provide their gender, age, and medical conditions. Participant A was female, 66 years old, and afflicted with waist pain.

Participant B was also female, 79 years old, and suffering from leg problems ("Nowadays the legs are not healthy, so walk with difficulty"). Participant C was male, 69 years old, and when asked about current health issues, said "The articular joint is not good." Participant D, female and 74 years of age, said of her current health, "The articular joint and waist are no so healthy." Participant E, male, 65 years old, suffered from high blood pressure. None of these interviewees were currently covered by South Korea's Long-Term Care Insurance Program.

4.2.1 Participants' Health Insurance Coverage

The interviewees were asked what sort of health insurance they had. Participant A had insurance that focused specifically on cancer: "I have insurance on cancer insurance. In case of cancer, the compensation is maximum 50 million Won." Participant B relied on the regular government-run insurance scheme due to the failure of private insurers to provide good options for elderly policy holders: "Only use the government-run medical insurance. The health insurance offered by private insurance company has no favorable options to elderly." Participant C had a policy that covered cancer and dental issues: "The cancer and teeth is insured. I can claim the insured amount when cancer, and can have implant treatment for teeth insurance." Participant D also relied on the regular government insurance program: "Have only the government-run medical insurance." Participant E had no extra health insurance at all: "I don’t have extra health insurance." Overall, these answers indicate that the interviewees have little additional coverage beyond what is provided under government's regular insurance scheme.

4.2.2 Access to Information

Participants were asked what they knew about their insurance coverage to determine whether or not they were accessing information. Participant A demonstrated a basic understanding of the way her plan worked: "I understand that, under the cancer insurance, insured amount shall be compensated to cancer patient,

which I never use. I have used only the service by Oriental medicine clinic, and orthopedics hospital." However, participant B had no understanding of her insurance, and did not consider it her responsibility to find out: "I have no idea. This is hospital responsibility." Participant C did not fully understand his insurance scheme, though he did have some limited knowledge about it: "I have no particular knowledge. I know only we can claim to insurance company if we are sick. By the way, the government-run medical insurance shall take care of everything." Participant D did not think about her insurance policy beyond the fact that she had coverage options associated with her ID card: "Just issue ID card at hospital, and I can have medical insurance options." Participant E said that insurance information could be accessed via local sources, though he did not specify particular channels beyond a general reference to the hospital: "We can access via hospital and local community." Examined collectively, these answers indicate that elderly Koreans have a poor understanding of their healthcare insurance and tend to rely on the hospitals to take care of things.

4.2.3 Benefits Received from Health Insurance

When asked about the benefits provided by health insurance, Participant A noted that she would only receive special compensation if she was afflicted by cancer and that other issues would be covered by the regular government scheme: "For cancer insurance, I can benefit only when being cancer patient. The rest is under the government-run medical insurance." Participants B and D emphasized cost reductions in treatment as key insurance benefits, citing "cheap price for treatment fee at hospital" and "treatment fee is cheap" as particular advantages. Participant E also noted financial benefits, citing "financial support" as a key advantage, while participant C said that he did not receive any benefits from his health insurance. Examined collectively, these responses indicate that the study participants are aware of the financial benefits insurance can provide.

4.2.4 Difficulty Using Health Insurance

None of the participants in this study had experienced particular challenges in using their insurance. Participant C said: "In case of the government-run medical insurance, the hospital will take care. For the cancer and teeth insurance, I can claim for that, so there is no particular difficulty." A similar response was provided by Participant D: "The hospital will take care of everything, so there is no difficulty." Thus, participants anticipated that any issues would be handled by the hospital and therefore would not concern them. Responses to this question indicate that the interviewees do not find it difficult to use their insurance. However, this is attributable to their assumption that the hospital will take care of everything. Thus, they do not take any responsibility for understanding their insurance options.

4.2.5 Awareness of the Health Insurance System

All of the respondents felt that knowledge about and understanding of South Korea's health insurance system was low among seniors. Participants C and D said that they knew nothing and little about the system respectively ("I don't know about the system," "I do not know much about this"). Participants A, B, and E elaborated on this lack of knowledge, suggesting that the problem was age because older people were less likely to be aware of the system than their younger counterparts. Participant A said: "The elderly mostly do not know about such system. Mainly only young people are aware of insurance, but not the elderly like us." Participant B made a similar assessment: "I think we are too old to understand about this system. The hospital will take care of everything." And participant E made a similar observation: "I don't think that people at my age know much about this." Responses to this question indicate that elderly Koreans have a poor awareness and understanding of their insurance coverage.

4.2.6 Opinions Regarding the Korean Government's Success in Promoting Health Literacy for the Nation's Elderly

Most of the interviewees did not feel that South Korea's government has been successful in promoting health literacy among its elderly citizens. Participant A said that the program was "not successful" and B said, "The hospital side shall inform us whether to be covered by insurance or not," indicating a lack of personal health literacy. Participant D also felt that health literacy promotion was "not successful" and used herself as an example: "I do not know about the information on health managed by the government." Participant E expressed a similar opinion, noting that although the government may have been successful in educating its younger citizens about their insurance options, it had failed with the nation's elderly citizens: "I think it is unsuccessful. I think Korea government did well for young generation but not for elderly." Participant C expressed the single dissenting opinion: "I learnt that President PARK Geun-Hye is expanding the coverage of medical insurance. I can feel it is successful." Evidence supporting these largely negative opinions about the government's success in promoting health literacy among older Koreans can be found in their lack of knowledge about their own insurance coverage, how it works, and the options available to them.

4.2.7 Methods Used by the Korean Government to Promote Health Literacy for Elderly Citizens

Participants B, C, D, and E said that government and healthcare organizations had distributed health literacy information via news sources ("sometimes saw from news", "from news or newspapers, "news," "hospital and news"). However, Participant B also said that "All health information is informed through the hospital," and according to Participant A, health information was "mainly communicated through friends or surrounding people." The fact that elderly Koreans may be getting their health information solely from newspapers and local individuals (typically non-experts who may spread misinformation) suggests that South Korea's government has

failed to take advantage of multiple information distribution channels and to target the channels most appealing to elderly Koreans. By focusing on news media as distribution channels, the government will fail to reach those who do not watch news programs or read newspapers due to disinterest, illiteracy, or other issues.

4.2.8 The Korean Health Insurance System's Performance in Terms of Patient-Centered Care (PCC)

The interviewees all disagreed with idea that South Korea's health insurance system facilitates patient-centered care. Participants B through E elaborated on this, noting that: "The hospital fee is much expensive," "The system is always made by only the government people," "The elderly like us have no participation into the system," and "As far as I know, Korean health insurance system is something opposite from PCC; because government is the one who do everything, we never have a chance to participate in any of this system." The universally negative response to this question indicates that the insurance program established by South Korea's government have failed to provide patient-centered care for the nation's elderly citizens. Given that patient-centered care is likely to produce better health outcomes, this is a significant problem that needs to be addressed.

4.2.9 Recommendations to Make the Health Insurance System Better for South Korea's Elderly Citizens

When asked to make recommendations for improving South Korean's health insurance system on behalf of the nation's elderly citizens, Participant A said that presenting critical information in a clearer and more user-friendly manner would be beneficial: "I wish the explanation has been done in easier way to understand." Participant B did not make any recommendations: "I have no idea". Participant C expressed a need for broader coverage: "I wish to have more expanding coverage of medical insurance." Participant D also noted the need for expanded coverage, focusing on particular issues: "It will be good if MRI, dental treatment is covered." Like

Participant A, Participant E stressed the need for clearer and more direct communication with a focus on general health literacy: "I think government should communicate more to elderly about how to prevent ourselves from being sick." Overall, the recommendations made by participants indicate two problem areas: lack of sufficiently broad coverage to meet the health needs of Korean seniors and poor communication of health- and insurance-related information.

4.2.10 Summary

Examining the findings from the interviews collectively, some problem areas can be identified. First, the elderly Korean interviewees did note significant benefits associated with having health insurance and did not find it difficult to use, largely because the hospitals took care of everything. However, they had little in the way of extended coverage and a generally poor understanding of their existing health insurance. They felt that their government had done a poor job of communicating health literacy information and explaining the nation's insurance options to Korean seniors, and that the existing insurance system in the nation did nothing to facilitate patient-centered care.

4.3 Discussion

This research focused on health information access and health literacy among Korean seniors, as well as the degree to which Korea's existing health insurance system meets the requirements of patient-centered care. These issues are discussed in relation to prior literature in the sections that follow.

4.3.1 Patient-Centred Framework

The findings form interview showed that health insurance system is basically design by government or related parties. They have never participated in developing any part of the system and they basically rely on family or doctor at local hospital about their health. This result showed the opposite from the definitions of patient

center framework that have been reviews in Chapter 2. The WHO (2007), Picker Institute (2013a), and IAPO (2006) frameworks for patient-centered healthcare under the perspective of access to health information and health literacy stated that health care system should be able to increase health literacy and access to information so that patients will be empowered take an active role in their own healthcare. However, this research also found that some Korean seniors know how to access to health information and have some basic health literacy. Therefore, this can be concluded that South Korea health care system for senior citizen has adopted some of patient-centered healthcare framework toward access to health care system and health literacy. The further discussion can be found in the next section.

4.3.2 Health Information Access by Korean Seniors

The findings from this research indicate that Korean seniors are not accessing all of the health information they require. Nearly half (42%) of the respondents in this study did not know how to access information about health insurance services, and a slight majority (57%) accessed health information less than once per month or never. Although the majority (78%) said that they did not find it difficult to access health information, 17% noted that lack of computer or Internet access acted as barriers to information retrieval, and an additional 5% cited other difficulties. Although some participants said that they knew about disease prevention, services provision, and disease treatment, many had no information about any of these issues.

The highest proportion of respondents in this study accessed health insurance services information from newspapers (19), the Internet (18), family and friends (16), the Ministry of Health and Welfare (16), and advertisements (12). Very few obtained this information from nurses, doctors, or local authorities, and none accessed information via hotlines. Obtaining information online may be problematic for those who lack Internet connections or skills, and getting information from family and friends, who are likely to be non-experts and possibly misinformed, could also create problems due to the potential spread of misinformation. News sources may

also be problematic as it is likely that not all seniors read newspapers. Furthermore, in the case of hotline it is quite surprise that none of them use this channel to access health information system. This might happen because of communication failure. For example, Korean senior might not realize about the system, or might not know about the hotline number and how to use it. This case should be further investigate to find out about actual reason of hot accessing via hotline. Overall, the results suggest a need for more senior-friendly distribution channels, which is evident in the fact that the majority of respondents (70%) said that they did not have as much information as they needed.

Particular knowledge gaps were identified with regard to South Korea's insurance programs. Although most of the study participants (86.4%) knew that all South Koreans are eligible for the nation's regular health insurance program, approximately half (51.9%) either did not know that all South Korean citizens are not covered under Long-Term Care Insurance Program or were unsure who was eligible. Moreover, 39.5% either did not know that weekly payouts were not included under the Long-Term Care Insurance Program or were unsure what was included. This suggests that Korean seniors are not accessing sufficient information about their healthcare insurance to make informed decisions.

Personal health records and information about Korea's health insurance program are provided online (Ministry of Health and Welfare, 2012). However, the findings of a study conducted by Chung et al. (Chung, 2011) indicate that this may not be the best information channel for seniors. The researchers found that only a small proportion of the South Korean seniors who participated in the study used the Internet regularly, and just 13 of the 81 study participants had accessed health information on government and other sites (findings from the current study indicated a slightly higher rate of Internet usage among Korean seniors, but those who accessed health-related information online still comprised a minority of the sample overall). The researchers identified a number of barriers to Internet use for Korean seniors, which included disinterest, perception of Internet use as excessively complicated, lack of required experience and skills, cost, and disabilities that prevented Internet use. Overall, just 15% of the study participants accessed health

information online, which indicates that focusing solely on the Internet as an information distribution channel will block access to health information for the majority of Korean seniors.

For respondents in the current study, education and dependency status were both positively linked to information access. However, there was not a perfect relationship whereby access rose in conjunction with each education level, and the number of dependent study participants was relatively low. Therefore, more research is required to draw definitive conclusions with regard to either of these findings.

Statements made by those interviewed for the current study suggest that older individuals do not typically access information about their healthcare insurance. Instead, they assume that the hospitals will take care of things on their end. This indicates that Korean seniors do not take an active role in accessing information and as a result, they know little about their insurance coverage and the exclusions from coverage that may impact them in the future.

4.3.3 Health Literacy among Korean Seniors

Health literacy is particularly critical for seniors because they are more likely to suffer from chronic, complex, comorbid health conditions (Gazmararian, 2003). However, findings from the current study indicate that health literacy among Korean seniors is insufficient. Although the majority of study participants understood medical and nutrition information labels, many lacked the knowledge to correctly answer questions related to diseases that commonly afflict the elderly and strategies for self-care and prevention. Particular knowledge gaps were found for healthy blood pressure range, optimal sleep duration, and healthy food, though most of the participants had some general knowledge about disease prevention, food that contributes to hypertension, and the nature of diabetes. It is also worth noting that the majority of respondents in the current study said that they read nutrition labels infrequently or never. These findings are in keeping with those of prior studies. Past researchers have found that low health literacy is common among seniors, and that

it reduces the likelihood that low-income elderly individuals will access their electronic personal health records (E. Kim, Stolyar, A., Lober, W. B., Herbaugh, A. L., Shinstrom, S. E., Zierler, B. K., et al., 2009).

A study of South Korean seniors conducted by Kim (2009) found that elderly Koreans tended to have relatively poor health literacy, though there was significant variation in the sample. Low health literacy was associated with low physical activity, as well as interacting factors such as pain, arthritis, and hypertension. Respondents in the current study were relatively active for their ages, with the majority engaging in some sort of physical exercise at least 4 times per week and only 3% saying that they did not exercise at all. Therefore, this group may represent a sub-demographic of seniors who are likely to have greater health literacy than their less active and more functionally impaired counterparts.

Gender, education and dependency status differences can lead to different health literacy to some degree in the current study. The result showed that Korean senior who depend on other people seem to have low level of health literacy. This might be the results of social life style of Korean that live as family, and social norms that junior should take care of senior (Chao, 2002). Basically, daughter/ son/ niece/ nephew plays an active role in taking care of elderly health. For this reason, elderly who depend on other person might has low level of health literacy than non-dependent elderly. However, as with information access, not all advanced education levels conferred an advantage in terms of greater health literacy and the small number of dependent participants made it difficult to generalize these findings. The relatively small sample size may have also been a factor in the inconclusive findings for the impact of education on health literacy because there were not many individuals in each educational category.

The findings from the interviews conducted for this research indicate that elderly Koreans are not satisfied with their current level of knowledge, and that the government has done a poor job of communicating health-related information to seniors. Additional shortfalls with regard to patient-centered care are discussed in the section that follows.

4.3.4 Shortfalls of the Existing System with Regard to the Ideals of Patient-Centered Care

The findings from this study indicate that Korea's existing healthcare insurance system does not meet the requirements for patient-centered care. Coverage is insufficient to address many critical health issues that elderly people are likely to face, and the government has done a poor job of communicating general health information and key elements of its insurance program (such as important exclusions) to its elderly citizens. Although the nation's insurance program provides broad coverage for basic health issues, it does not address broader issues of health literacy or support the widespread community outreach prevention activities recommended by various international patient-centered frameworks (Coulter, 2006), (WHO, 2007).

Most of the seniors who participated in the current study relied on the limited national health insurance program and did not have any supplementary coverage, a finding that is in keeping with that of Shin et al. (2009), who concluded that younger and better educated Koreans were more likely to purchase supplementary health insurance. Some of the interview participants identified coverage as a particular shortfall of the current system.

Prior research has shown that healthcare systems serving the elderly have more complex requirements due to higher rates of disease (Yu, 2007) and long-term care requirements (I. O. Kang, 2010) for this demographic group. The seniors who participated in the current study were relatively active and healthy, and most lived with others, so they represented a particularly fortunate subgroup of seniors. Korean seniors who live on their own are more likely to be in poor health, functionally limited, inactive, cognitively impaired, depressed, and impoverished, so there is a desperate need to provide comprehensive healthcare services to address the needs of these elderly individuals (Ahn, 2004). In the future, more seniors will likely live on their own due to increasing longevity combined with declining birth rates (Kim & Cook, 2011), so it will also be critical to reform the healthcare and insurance systems to address these changing demographics. Although the nation's Long-Term Care Insurance Program has been introduced to better meet the needs of seniors, its availability is currently limited to a small percentage of Korean seniors (I. O. Kang, Park, C. Y., & Lee, Y., 2012).

Key features of patient-centered care include collaboration between patients, their families, and healthcare providers and involving patients in the development and improvement of services by collecting feedback (Coulter, 2006), (IAPO, 2007), (WHO, 2007). However, this research found no evidence of the Korean system doing anything significant to facilitate collaboration or solicit feedback. Accessible healthcare is another critical feature of patient-centered care (IAPO, 2007), but Korea's current healthcare system is characterized by low contributions and high healthcare service expenses, which favors the affluent and makes healthcare less accessible for the poor (Mathauer, 2009).

Accessible information is also a critical element of patient-centered care (IAPO, 2007). However, although personal health records and information about Korea's healthcare insurance program are available online (M. o. H. a. Welfare, 2013), computers, Internet connections, and technology skills are required for access. Providing health-related information online creates an access barrier for seniors who do not have Internet connections or lack the skills required to search for the information they need (S. H. Kim, 2009).

Health literacy is another important aspect of patient-centered care (Coulter, 2006), (WHO, 2007). Although Korea's government has made some efforts to distribute information, this study found no evidence that the general healthcare system or the national insurance system has done anything significant to support the use of new modes of communication recommended by the Picker Institute such as teleconsultation and the establishment of widespread outreach centers (Coulter, 2006). To meet the ideals of patient-centered care, healthcare organizations and governments must provide information in formats that can be used by all citizens (IAPO, 2007). However, much of the information made available to Korean citizens is distributed via the Internet or traditional news sources, and not all Korean seniors are able to access these sources. Moreover, international patient-centered care frameworks emphasize patient education and self-management (IAPO, 2007), but this research has found that many elderly Koreans lack critical knowledge about health issues, prevention and self-care, and insurance exclusions, which indicates that the government could do more to increase the health literacy of its elderly citizens.

CHAPTER V

CONCLUSION AND RECOMMENDATIONS

5.1 Conclusion

Questionnaires were distributed and interviews conducted to assess the degree to which South Korea's health insurance system meets the health literacy and information access needs of the nation's seniors, as well as whether or not it supports patient-centered care. This research was guided by the following two objectives:

1. Analyse the healthcare insurance system for the elderly in South Korea according to international patient-centered frameworks
2. Investigate health literacy and access to information with regard to the South Korean health insurance system for the elderly

Conclusions based on the study findings are provided in the sections that follow.

5.1.1 South Korea's Healthcare Insurance System Compared to International Patient-Centered Care Frameworks

This research found that South Korea's healthcare insurance system falls far short of the ideals specified by international patient-centered care frameworks. Problem areas include failure to:

- Provide sufficiently broad coverage to meet the seniors' healthcare needs
- Involve patients and their friends and families as active participants in the delivery of healthcare services
- Provide health-related information in formats that are accessible to all of the nation's elderly
- Conduct widespread community outreach and other activities designed to promote health literacy for seniors

Most seniors in South Korea rely on the nation's regular healthcare insurance system because they cannot afford additional coverage. However, the nation's existing healthcare insurance plans provide very narrow coverage, and therefore cannot address the complex healthcare needs of the nation's seniors. This creates an accessibility barrier in terms of cost.

The current system also does not really facilitate the sort of collaborative care processes recommended by international patient-centered frameworks. There is rare evidence that seniors are encouraged to take an active role in their own disease prevention and self-care activities or the development of community health services and health-related policies. Instead, they remain largely passive healthcare consumers, letting the hospitals handle issues related to their health and their healthcare insurance. Rather than being empowered to take an active role in their own health, they have less understanding of the healthcare system and the strengths and weaknesses of their nation's existing insurance program.

Information access and health literacy are critical to patient-centered care, and they have been identified as particular areas of weakness by the current study. Until barriers to access and lack of information literacy among seniors are addressed, South Korea's healthcare system will not meet the standards of patient-centered care.

5.1.2 Health Literacy and Information Access

Many elderly Koreans lack health literacy in a number of key areas. This lack of knowledge is likely to have a negative impact on their health because they will be less inclined to engage in effective preventative and self-care behaviors. Health literacy is dependent upon access to information, and the formats in which information is typically provided create access barriers for Korean seniors.

Rather than conducting widespread community outreach and offering options such as teleconsultation (hotline) for all health issues, the nation's government and healthcare organizations provide most critical health-related information via electronic sources. Many seniors lack the knowledge, skills, and experience required

to use these sources effectively (or at all), and some do not even have Internet access. Lack of health literacy and access barriers are related problems that must be addressed with integrated solutions. Recommendations are provided in the section that follows.

5.2 Recommendations of the Research

A number of recommendations can be made based on the findings of this research. First and foremost, South Korea's government and healthcare organizations should develop new strategies for the provision of health-related information that do not require Internet access and computer skills. Potential options include community outreach activities, the establishment of drop-in health information centers, and offering more personal consultation options to reduce or eliminate information access barriers and promote greater health literacy among the nation's seniors.

Second, to provide patient-centered care, a healthcare system must encourage patients to take an active role in their own self-care and disease prevention activities, and to contribute to the development of health services and policies. However, this is also dependent upon removing barriers to information access and increasing health literacy, because individuals must be well-informed in order to participate effectively in their own healthcare. Also, it would require putting mechanisms in place to collect patient feedback and suggestions for system improvement.

Third, this research provided some evidence of a positive association between dependency status, information access, and greater health literacy. This suggests that there may be a particular need to promote health literacy among those who depend on the other person and provide more appropriate information channels for this demographic group.

Fourth, South Korea government should seriously implement patient-centred healthcare framework for Korean senior in order to increase number of access to health information and health literacy. The government can do so by using two-ways

responsibility concept that share responsibility between senior and health care provider. If Korean senior can take an active role in their health care (as refer in patient-centred healthcare framework), Korean government can save a lot of money in taking care of senior citizen.

Fifth, South Korea's current nationwide insurance system does not provide sufficiently broad coverage to meet the needs of its seniors. Given the increasing proportion of seniors in the overall population and the fact that many elderly individuals cannot afford to purchase supplemental insurance coverage, there is a pressing need to reform the system so that it will be better able to meet the healthcare needs of the nation's seniors. Increasing the availability of the new Long-Term Care Insurance Program would be beneficial, but additional reforms may also be needed to provide patient-centered healthcare for elderly Koreans.

5.3 Research Limitations

This study had a number of limitations. First, it relied on a convenience sample and self-report measures, so it is possible that bias may have been introduced. In particular, there was a risk that participants may have exaggerated their exercise frequency, given the social desirability of being physically active. Second, the sample population comprised a relatively healthy group, most of whom lived with others. Therefore, the results may not be generalizable to other groups of seniors such as those who live alone and suffer from severe functional impairments. Third, the instrument used for this study included only a small number of questions to assess health literacy. Fourth, due to resource limitations, this study had a relatively small sample population, and because only 81 individuals participated in this research, the numbers of respondents in particular demographic subgroups reflecting age, educational attainment, and dependency status, were relatively small, so it is not possible to make generalizations regarding some of the study findings.

5.4 Recommendations for Future Research

There two studies that could be undertaken to improve and expand upon the findings of the current research. First, it would be informative to conduct a study similar to this one but with a much larger population of seniors and more health literacy questions. This would provide better representation of health literacy among particular demographic subgroups and more generalizable results overall. The use of a larger sample might also provide clearer conclusions regarding the impact of education and dependency status on health information access and health literacy. However, such a study could only be conducted with the aid of significant resources.

It would also be beneficial to conduct a survey of South Korean seniors to gather their suggestions for improving the nation's healthcare and health insurance system. Collaborative processes are critical to the provision of patient-centered care. Therefore, soliciting the feedback of seniors would represent a significant step toward meeting the requirements of international patient-centered care frameworks. This survey would ideally include questions regarding preferred information distribution channels, desired healthcare and health information services, suggested system reforms, current barriers to information access, and particular knowledge gaps with regard to health literacy.

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APPENDIX I

LIST OF QUESTIONNAIRE

Please mark x in the blank space for your answer

Are you applicable for Korean health insurance system?

( ) Yes (Please continue to the next question)

( ) No (Please withdraw this questionnaire)

Section 1: Demographic information

1.1 Gender

( ) Male ( ) Female

1.2 Age (count at the survey date)

( ) 55 to 60 years old ( ) 61 to 65 years old

( ) 66 to 70 years old ( ) 71 to 75 years old

( ) 76 to 80 years old ( ) 81 to 85 years old

( ) 86 to 90 years old ( ) More than 90 years old

1.3 Education

( ) Less than high school ( ) High school

( ) Vocational degree ( ) Bachelor degree

( ) Master degree ( ) Doctoral or PhD

1.4 Who do live in the same house with you?

( ) Only myself ( ) Son/ Daughter

( ) Niece/Nephew ( ) Relative, please specify_____

( ) Other, please specify_____

1.5 Are you dependent? For example, need help when going to hospital, need help for daily activities or need help for doing normal activities.

( ) Yes ( ) No

1.6 Are you under long-term plan?

( ) No

Yes under ( ) No grade

( ) Long-Term Care Grade 1

( ) Long-Term Care Grade 2

. ( ) Long-Term Care Grade 3

1.7 What kind of disease are you suffering at the moment? (Selected that all apply)

( ) None ( ) Diabetes

( ) High blood pressure ( ) Heart diseases

( ) Geriatric diseases including dementia, stroke, or Parkinson´s disease

( ) Others, please specify_____

Section 2: Access to health information

2.1 Do you know how to access information about health insurance service?

( ) Yes ( ) No

2.2 How do you access information about health insurance service?

( ) Local authority

( ) Ministry of health and welfare

( ) Hotline 129

( ) Internet

( ) Family and friend

( ) Doctor

( ) Nurse

( ) Newspaper

( ) Advertisement

( ) Others, please specify_____

2.3 What kind of information do you have?

( ) Services provision (i.e. welfare, cost-sharing, medication or prescription)

( ) Prevention of Diseases

( ) Treatment of Diseases

( ) Others, please specify_____

( ) No

2.4 How often do you come across to information about health?

( ) Everyday

( ) Every week

( ) Every month

( ) Less than every month

( ) Never

( ) Others, please specify_____

2.5 What problems might obstruct you from accessing information?

( ) I don't have problem to access this information

( ) Having difficulty (i.e. reading, hearing)

( ) No computer, internet

( ) Others, please specify_____

2.6 Do you think you have all necessary information that you need?

( ) I need more.

( ) I'm satisfied.

( ) Others, please specify_____

Section 3: Information about Health care services

3.1 Who are eligible for health insurance services in South Korean?

( ) All Korean citizens

( ) Korean citizens who pay tax

( ) All Korean citizens over 15 years old

( ) All Korean citizens over 65 years old

( ) I have no idea about this

3.2 What is NOT Long-Term Care Insurance Program?

( ) For all Korean citizens

( ) Only elderly aged 65 years or above are eligible for Long-Term Care.

( ) The elderly aged under 65 who suffers from Alzheimer's disease, can apply this program.

( ) This program helps the elderly who cannot depend on themselves for 6 months or more.

( ) I have no idea about this

3.3 What is NOT included in Long-Term Care Insurance Program?

( ) Housework and meal preparation ( ) Bathing and cleaning

( ) Give money every week ( ) I have no idea about this

Section 4: Information about common elderly diseases

4.1 What kind of food can lead to hypertension?

( ) Salty ( ) Sweet

( ) Sour ( ) No taste

4.2 Which is correct?

( ) Normal blood pressure is <120mmHg (systolic) and <80 (diastolic)

( ) Normal blood pressure is <120 mmHg (systolic) and <90 (diastolic)

( ) Normal blood pressure is <130 mmHg (systolic) and <80 (diastolic)

( ) Normal blood pressure is <130 mmHg (systolic) and <90 (diastolic)

( ) I have no idea about this

4.3 What is diabetes?

( ) Low blood sugar ( ) High blood sugar

( ) High blood pressure ( ) Low blood pressure

( ) I have no idea about this

4.4 What is correct?

( ) Exercising right away after eating can help increase metabolism.

( ) Drinking alcohol everyday can help reduce blood sugar.

( ) Smoking is good for lost weight.

( ) Salty food is not healthy.

( ) I have no idea about this

4.5 What kinds of food is good?

( ) Raw egg ( ) Sashimi (raw fish)

( ) Pickled ( ) Whole wheat bread

( ) I have no idea about this

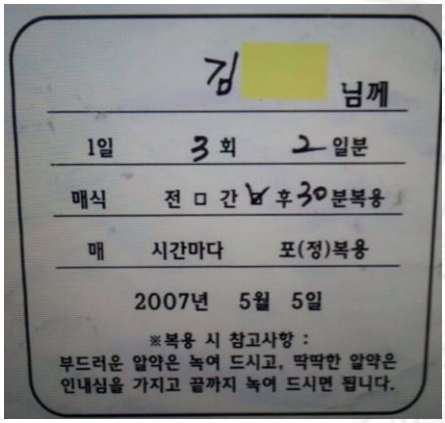
4.6 How many hours should elderly sleep each day?

( ) 5-6 hours ( ) 6-7 hours

( ) 7-8 hours ( ) 8-10 hours

Section 5: Health literacy

5.1 Based on this label, if you have breakfast at 7am. when you should take this medicine?



( ) 6.30am. before breakfast
( ) 7.15am. after breakfast
( ) 7.30am. after breakfast
( ) 6.45am. before breakfast
( ) I have no idea about this

5.2 Do you read nutrition information label before you buy food products?

( ) Every time ( ) Only when I buy new products

( ) Never ( ) From time to time

5.3

Based on this label, how many calories you can receive from this label?

( ) 505 kilo calories ( ) 165 kilo calories

( ) 1,700 kilo calories ( ) 81 kilo calories

( ) I have no idea about this

5.4 What kind of sport do you play?

( ) Jogging ( ) Aquarobics

( ) Aerobic ( ) Swimming

( ) Table Tennis ( ) Walking

( ) Ballroom Dancing ( ) Yoga

( ) Others, please specify_____

5.5 How often do you exercise?

( ) Everyday ( ) 3-4 times/week

( ) 1-2 times/week ( ) Never

APPENDIX II

LIST OF INTERVIEW QUESTIONS

1. Can you give information about yourself? (i.e. your health condition)
2. Are you under long term plan, which one?
3. Please, explain about your health insurance detail?
4. How can you know and access information about health such as health knowledge, health information, and health insurance?
5. What are the benefits do you receive from health insurance?
6. Are there any problem that you have about health issue (knowledge, related parties, and health insurance plan) if so please explain?
7. Do you think most elderly in Korea have sufficient health literacy toward their insurance system? Why?
8. In your opinion, does Korean government successes in managing health literacy for elderly nationwide?
9. What kind of methods Korean government use to communicate with elderly towards health care and health literacy?
10. Do you agree or disagree with this statement “Korean health insurance system is absolutely patient-centred care, where patient has power to engage in their health insurance system.”?
11. Please, give recommendation for health insurance system for elderly?

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