

## ORIGINAL RESEARCH

# A conceptual analysis of subjective health status in frail elderly Korean men

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**Abstract**

This study seeks to define and examine the concept of subjective health status among the frail elderly Korean men. Using the concept analysis framework by Walker and Avant, 10 articles related to the subjective health status of frail elderly adults were selected for this study. The results of this study indicate that the antecedents are “State of vulnerable health among the seniors aged 65 or elderly” and “Elderly themselves are aware of their current health conditions”. The attributes are “Health promotional behavior”, “Efforts to maintain physical, mental and social well-being” and “Striving to achieve health goals”. The consequences are confirmed as “State where no complications occur” and “Improvement of life satisfaction”. This study is significant in that it clarifies the concept and attributes of frail elderly, reflecting the characteristics and objectives of nursing.

**Keywords**

Analysis; Frail elderly; Health; Perception; Korean men

## 1. Introduction

### 1.1 Significance of the study

In 2020, Korea's aging population rapidly increased by 15.7% and the number of single-person households aged 65 or elderly (elderly adults living alone) is expected to increase to 33.5% in 2025 [1]. According to the national statistics, 88.5% of cases had one or more chronic diseases, and 44.3% of cases were diagnosed with three or more diseases, respectively [2]. Health care and nursing issues have emerged as socially important issues. In particular, to manage the health of elderly adults, efforts are needed to meet the multidimensional health needs of elderly adults. In addition to acquiring specialized knowledge on diseases and physical aspects, there is a need to provide nursing services in the physical, emotional and social aspects in line with the characteristics of elderly adults [3].

Depending on their health condition, elderly adults may be classified into healthy elderly adults, frail elderly adults, and disabled elderly adults [4]. “Healthy elderly adults” refers to elderly adults who have normal activities of daily living or cognitive function, while disabled elderly adults refer to elderly adults who need help from a third party due to a decline in their physical and mental functions [4]. The term “frailty” may be used across all stages of the life cycle, but frailty, especially used for elderly adults, refers to a condition that demonstrates various symptoms and signs caused by the aging-related decline and a loss of physical function [5].

The term frail elderly adults were first used by the Federal Council on Aging (FCA) to distinguish the elderly adult groups with physical disabilities, emotional impairment or inadequate physical and social environments [6]. Frail elderly adults, who

are in an intermediate stage between healthy elderly adults and disabled elderly adults, are not in a state of disability as a result of tissue damage, but their vulnerability to the stressors that arise during the aging process increases regardless of specific diseases [7, 8]. Therefore, the frail elderly adults experience a variety of symptoms and signs caused by the “aging-related decline” in physical function and a loss of function, which is significantly related to injury, fall, hospitalization, disability, and death [5, 8, 9]. These experiences have a negative impact on the health-related quality of life, and the health-related quality of life of frail elderly adults is likely to be lower than that of the general elderly adult population [8, 9]. The prevalence of depression among elderly Korean men has been gradually increasing as the country undergoes aging, and various studies report that the prevalence of depression among the elderly in Korea is at a significantly high level [5]. According to the 2020 National Survey of Elderly Persons by the Korea Institute for Health and Social Affairs, the prevalence of depression among elderly individuals aged 65 and elderly is approximately 14.3% overall, with the rate for elderly men estimated at around 8–10%. While the prevalence among elderly men is lower than that of women, this may be due to the tendency of men to report depression less frequently or suppress their emotions, which could result in underdiagnosis. Furthermore, depression in elderly Korean men is closely associated with factors such as health problems, financial difficulties, spousal loss, social isolation, and retirement [7]. In particular, the prevalence of depression is higher when there is a lack of social support or when relationships with family are severed. As age increases, the risk of depression tends to rise, and the prevalence of depression among the elderly over 80 is showing an upward

trend. Depression significantly reduces the quality of life for the elderly and is also associated with extreme choices such as suicide. Therefore, social attention and proper mental health care are crucial [8].

It is important for the frail elderly adults to realize their own subjective health condition with a view to realizing their abilities and values and making adjustments and decisions to achieve their health goals [10]. A subjective health condition is an individual's subjective evaluation or perception of his or her health [11]. For elderly adults, subjective health affects their own health behaviors [12], and it has been reported that the better the subjective health, the higher the level of health promotional behavior and health-related quality of life [13]. Given such reasons, it has recently become important to confirm the subjective perception and experience of their health within their individual context. A study to confirm the perception of the subjective health condition of community-dwelling elderly adults who actually experience chronic diseases was conducted [14, 15]. A study of the elderly adult's frailty prevention program was used to determine the subjective health condition, depression, physical strength and quality of life [16]. However, there is a lack of understanding of the changed subjective health experienced by frail elderly adults, who are increasing throughout society [13].

The concept of subjective health status in frail elderly adults currently lacks clear standards and has been interpreted in various ways by researchers [14]. Given the anticipated increase in the number of frail elderly adults living independently, there is a pressing need for a clear definition of their subjective health status [15]. In fact, it is predicted that the number of frail elderly adults living independently will continue to rise. Therefore, it is essential to clearly establish the concept of subjective health in order to facilitate ongoing nursing care and research for this population [15]. However, subjective health is a complex concept shaped by various factors, and as of now, there is no consensus on a clear definition. To better understand and assess the subjective health status of frail elderly adults, future research should aim to systematically define and standardize this concept. This will provide foundational data that can be utilized to enhance the health and quality of life for frail elderly adults in their later years.

A clearly defined concept would provide the foundation for the theoretical development of phenomena, and through the concept analysis, the properties and accurate definition of the concept can be secured, and it could also be utilized as the materials to help support the development of a subjective health assessment tool for frail elderly adults [1, 7–10, 13, 14].

Walker and Avant's [16] concept analysis method is the most widely used method in nursing to clarify concepts. It allows for the identification of the attributes of a concept and helps distinguish between similar but not identical concepts. This method is also useful in clearly redefining concepts. Accordingly, based on Walker's and Avant's concept analysis framework [16], this paper has attempted to analyze the concept of the subjective health condition of frail elderly adults, identify relevant attributes, develop tools to improve the subjective health condition of frail elderly adults, and provide education for elderly adults' health promotion, thereby contributing to the provision of the basic data for nursing program development.

## 1.2 Research objectives

This paper defined the concept of the subjective health condition of the frail elderly adults and identified the relevant attributes through the concept analytical method of Walker and Avant [16]. The specific research purposes are as follows: first, to examine the utilization of the subjective health condition concept in previous research and literature focusing on frail elderly adults. Second, to identify the key attributes of the subjective health condition in this population and present model cases accordingly. Third, to explore the antecedents and consequences associated with the subjective health condition of frail elderly adults. Fourth, to compare the use of the subjective health condition concept across different health problem groups.

## 2. Materials and methods

### 2.1 Research design

This study is a concept analysis study that applies the concept analytical method presented by Walker and Avant [16] to identify and understand the subjective health concept and attributes of frail elderly adults and derive antecedent factors, consequences and empirical criteria.

### 2.2 Subjects of the research

As for the references in Korea for this study, the domestic academic journals and dissertations searched as "frail elderly adults", "subjective health", "frail elderly adults and subjective health" at the Korea Education and Research Information Service ([www.riss.com](http://www.riss.com)) were used, and as for the foreign references, those searched as "frail elderly adults", "perception of subjective health condition" and "frail elderly adults and perception of subjective health condition" in MEDLINE (PubMed) and CINAHL (EBSCO) were used.

In this paper, the domestic literature was searched through the Korea Education and Research Information Service ([www.riss.kr](http://www.riss.kr)), and the domestic literature was searched through MEDLINE (PubMed) and CINAHL (EBSCO) for the academic journals and theses. The criteria for literature selection were literature in Korean or English with full text access in Korean published from January 2014 through January 2024, and articles and conference presentations were excluded.

Based on this, a total of 36 documents published from 01 January 2014, through January 2024 were identified, including 16 from the Korea Education and Research Information Service, 9 from PubMed, and 11 from CINAHL. Thirty-four manuscripts were initially classified by excluding two manuscripts for which the full text was not accessible. Secondly, three manuscripts written in languages other than Korean and English were excluded, and fifteen manuscripts that did not include the concept of perceived health or were duplicate searches were additionally excluded. Among the sixteen manuscripts classified in this manner, in the process of reading the entire text, eight manuscripts were used to analyze the subjective health condition of frail elderly adults, excluding those that had low relevance to the research topic or could not

derive the concept of subjective health condition of frail elderly adults in terms of attributes, antecedents, and consequences. Table 1 illustrates the keywords used when searching literature using internet databases.

### 2.3 Data collection and analytical method

In this study, with a view to understanding the overall concept and characteristics of subjective health of frail elderly adults, the researcher used the Korean search terms such as “frail elderly adults”, “subjective health”, “frail elderly adults and subjective health” and the English search terms such as “Frail Elderly Adults”, “Perception of Subjective Health Condition”, and “Frail Elderly Adults and Perception of Subjective Health Condition” and searched the Korean and foreign references. Thereafter, the researcher verified how the concept of subjective health of frail elderly adults is used within the selected references.

The two researchers selected appropriate databases to confirm the research topic and wrote entry terms. Based on this, the literature to be used in the final analysis was extracted and analyzed to determine how the subjective health condition concept of frail elderly adults was used. To ensure the reliability and validity of the paper, the two researchers wrote down the use of the concept, the attributes of the concept, the antecedents, and the consequences of the concept. They then selected and analyzed the data and found the meaning and attributes of the concept through discussion and agreement. During the analytical stage, when the two researchers could not reach complete agreement, they repeated the same process and procedure, and based on this, complete agreement was reached. When analyzing the concept, the method of Walker and Avant [16] was used, and the specific procedures are as follows: Select a concept to be analyzed; determine the purpose or goal of the analysis; check the scope of use of the concept by any means you can find; determine the attributes of the concept; → Present the model cases; → Present similar, related and opposite cases; → Check the antecedent factors and results of the concept; → Define the empirical referents of the concept.

### 2.4 Preparation of the researcher

This researcher earned a doctorate in nursing, conducted research on tool development for their doctoral thesis, and has experience publishing concept analysis papers in domestic nursing academic journals [17]. In addition, through an extensive literature review on concept analysis, the ability to analyze and understand the concept of subjective health status of frail elderly adults presented in the literature was prepared.

## 3. Results

This paper has identified as to how the subjective health condition of frail elderly adults is used according to the concept analysis of Walker and Avant [16], and the relevant results are as follows:

### 3.1 Use of the concept

#### 3.1.1 Dictionary definition

“Frail elderly adults” refers to a group of elderly adults aged 65 or elderly, which accounts for approximately 17% of the elderly adults, and refers to a state of poor health to the extent that they cannot go out as much as they want and spend a significant amount of time inside the house [7, 8]. In English, the term “frail elderly adults” is used. “Frail elderly adults” is defined as elderly adults being frail, as in “The frail elderly adults are individuals over 65 years of age, dependent on others for activities of daily living, and often in institutional care” [18]. Mesh (Medical Subject Headings) defines it as “a state of increased vulnerability to stressors due to decreased function and reserve capacity across multiple physiological systems, characterized by muscle weakness”.

The concept of “subjective health condition” or “self-rated health” is an expression that does not exist in the Korean dictionary, and hence, to analyze the concept of subjective health condition, the dictionary definition of “health condition” was first examined [18, 19]. “Health status” is a term that refers to “a state where the body is continuously and dynamically adjusted in a better direction to the opposing forces surrounding the entity or is in effective adaptation, and is in balance between the entity and its environment” [19], and in English, it is used as the term “health status” or “health condition”. In the English-to-English dictionary, “health condition” means “Health status is an individual’s relative level of wellness and illness, taking into account the presence of biological or physiological dysfunction, symptoms, and functional impairment” [20], whereas “health condition” is “a state of complete physical, mental, and social well-being and not merely the absence of disease or infirmity” [21]. Frail conditions are confirmed as physical weakness, functional decline, and general health problems occur due to the aging of frail elderly adults. In summary, this indicates the vulnerable health status of elderly adults [7, 8]. Subjective health condition refers to how an individual evaluates and feels about their own’s health condition, which refers to the perception of health condition based on subjective emotions, feelings or personal standards. Hence, “Frail elderly adults’ perception of subjective health

**TABLE 1. Searching strategies applied to the Internet database.**

Data base	Search engine	Number of items	Entry terms
RISS (Research Information Sharing Service)	RISS	16	frail elderly (MeSH Terms) OR frail elderly (Text Word) AND perceived health condition (Title/Abstract)
MEDLINE	PubMed	9	“frail elderly” (MeSH Terms) OR frail elderly (Text Word) AND perceived health condition (Title/Abstract)
CINAHL	EBSCO	11	(frailty OR frail elderly) AND (perceived health condition)

condition” discusses the understanding of how elderly adults with vulnerable health conditions due to aging feel about their health status and what subjective experiences they have [18–21].

### 3.1.2 Use of the concept in studies related to subjective health conditions

A subjective health condition is a complex and comprehensive concept that may have various meanings. The subjective health condition measurement is an indicator that well represents overall health conditions, including physical health, disease, and disability [22–41], and indicates the extent to which research subjects subjectively perceive their own health. Self-rated health (SRH) is a subjective evaluation of health and is among the most widely used health measurement tools [23].

Self-rated health refers to the personal awareness of health conditions that may not be measured medically by making a comprehensive evaluation of one’s physical, physiological and psychosocial status [24]. That is, self-rated health refers to a condition assessed directly or indirectly through the presence or absence of an individual’s chronic disease or medical use and is considered one of the indicators that reflects the general level of health along with the clinical health level [25]. It may be assumed that this is because the person who feels the most sensitive to physical changes is the individual himself or herself, and it is a concept that reflects subjective feelings about an overall health condition. Based on a review of the literature, such self-rated health may be defined as a concept that is influenced by not only past and present objective health conditions, but also diseases suffered, medical use status, and various socioeconomic situations of life [26].

### 3.1.3 Use of the concept in the studies related to the subjective health condition of frail elderly adults

The subjective health condition of frail elderly adults refers to the subjective judgment of one’s own health condition [14]. Subjective health conditions are an important motivation for health promotional behavior and an important factor in determining health promotional behavior [16]. Psychological stress, physical, mental, and social well-being influence the self-rated health of frail elderly adults, and a series of negative events experienced in life may cause the self-rated health to become negative as a stress factor. Given such reasons, it is necessary to make efforts to achieve health goals and maintain consistent care to prevent disease. Validated the fact that the more exposed a person is to negative events, such as the death of a family member or job loss, the worse his or her health becomes [27]. Hence, as frail elderly adults experience complex shocks such as physical stress due to their own frailty and psychological loss due to aging, emotional changes due to a series of negative events affect their subjective perception of health, which in turn might influence the satisfaction of their lives. Frail elderly adults are closely related to their psychological health [28], being frail in elderly adults is closely linked to their psychological health. Factors such as health level, physical function, and depression exert the most significant influence on the quality of life in elderly adults [29]. Hence, it is important to understand the subjective health conditions

of frail elderly adults. Furthermore, frail elderly adults’ social participation is a positive factor for psychosocial adaptation or physical health, and the frequency of social participation activities in the quantitative dimension and satisfaction with social participation activities in the qualitative dimension have a significant impact on life satisfaction in old age [30, 31].

Frail elderly adults experience psychological depression and anxiety due to their frailty, but they reestablish their awareness of their health by maintaining relationships with others or neighbors and participating in social participation such as senior centers or welfare centers, thereby proving their own existence and feeling a sense of security [26, 35]. When frail elderly adults perceive that their self-rated health is high in their changing lives, they are socially integrated by maintaining psychological stability and communicating with society. It is important for frail elderly adults to recognize their own subjective health condition to realize their abilities and value and demonstrate the ability to control and make decisions to achieve health goals [32].

Frail elderly adults experience physical symptoms and functional decline, and this condition affects their mental health and environment, leading to depression, helplessness and even suicidal thoughts. Consequently, they exceed the recovery threshold and deteriorate to a state where they need someone’s help to overcome it. To overcome it, it was confirmed that frail elderly adults make efforts to maintain physical, mental, and social well-being through programs linked to the community [33, 34]. In a study by Kim *et al.* [35] on the subjective health perception of frail elderly adults, it was affirmed that frail elderly adults attempt health promotion activities by making efforts to achieve health goals to overcome unpredictable physical limitations and physical decline. The efforts to maintain physical, mental, and social well-being may be said to be an important key factor that can help promote health behaviors through subjective health perception and were considered factors related to frail elderly adults [36, 37].

The physical, mental and social well-being of the elderly adults is expressed based on the integration of personal context and subjective perception [38]. It was claimed that frailty among elderly adults occurs when the function of one or more of the physical, mental, and social areas is lost, resulting in negative outcomes [39]. The meaning of frailty for elderly adults is comprehensively related to social and cultural issues, including the mental, social and spiritual meanings as well as the physical meaning. Hence, the meaning of frailty that researchers and clinical experts value is gaining importance [31].

## 3.2 Critical attributes of the concept

The key attributes of the “subjective health condition of frail elderly adults” identified based on a literature review have been confirmed to be: (1) Subjective health status perception [8, 15, 20, 34–37, 39], (2) health promotional behavior [20, 34, 37], (3) efforts to maintain physical, mental, and social well-being [15, 35–37], and (4) efforts to achieve health goals [35–37]. Table 2, (Ref. [8, 15, 20, 34–37, 39]); Table 3, (Ref. [8, 15, 20, 34–37, 39]) illustrates the literature that presents the critical attributes.

**TABLE 2. Meaning of defining attributes of the subjective health condition among the frail elderly Korean men.**

Attributes	Citation
(1) Subjective health status perception	Kwon, SM., Kwon, RW., Lee HR. [20] (2020)
	Park, JS & Oh, YJ. [34] (2017)
	Kim, JH., Yang, HM., Kang, PR., & Choi, JE. [35] (2015)
	Chang KO. [36] (2017)
	Park, JS & Oh, YJ. [37] (2016)
(2) Health promotional behavior	Park JK, Kim SL. [15] (2014)
	Jing Z <i>et al.</i> [39] (2020)
	Fried <i>et al.</i> [8] (2021)
	Kwon, SM., Kwon, RW., Lee HR. [20] (2020)
(3) Efforts to maintain physical, mental, and social well-being	Park, JS & Oh, YJ. [34] (2017)
	Park, JS & Oh, YJ. [37] (2016)
	Kim, JH., Yang, HM., Kang, PR., & Choi, JE. [35] (2015)
	Chang KO. [36] (2017)
	Park, JS & Oh, YJ. [37] (2016)
(4) Efforts to achieve health goals	Park JK, Kim SL. [15] (2014)
	Kim, JH., Yang, HM., Kang, PR., & Choi, JE. [35] (2015)
	Chang KO. [36] (2017)
	Park, JS & Oh, YJ. [37] (2016)

**TABLE 3. Main contents of the paper.**

First Author (year)	Title	Main contents
Kwon, SM., Kwon, RW., Lee HR. [20] (2020)	The Influence of Depression and Perceived Health Status on Health-Promoting Behavior of Community-Dwelling Frail Elderly Adults”	This study explores the influence of depression and perceived health status on health-promoting behaviors in community-dwelling frail elderly adults. It emphasizes the relationship between psychological factors and physical health, suggesting that depression significantly impairs health-promoting behavior.
Park, JS & Oh, YJ. [34] (2017)	Health Promotion Behavior, Perceived Health Status, Social Participation and Empowerment in Frail Elderly Receiving Home Visiting Services	This research examines the predictors of empowerment among frail elderly adults receiving home health services. It identifies factors such as social participation and perceived health as significant contributors to empowerment, which in turn positively impacts their health and well-being.
Kim JH. [35] (2015)	Self-Rated Health of Frail Elders	This paper focuses on self-rated health in frail elderly adults. It highlights how frail individuals’ perception of their own health influences their overall well-being and behavior, emphasizing the importance of self-perceived health in managing frailty.
Chang KO. [36] (2017)	Effects of Elderly People’s Frail Prevention Program on Subjective Health Condition, Depression, Physical Fitness, and Quality of Life for Senior Center Participants	This study investigates the effects of a frailty prevention program on subjective health, depression, physical fitness, and quality of life in elderly adults. It shows positive outcomes in all areas, demonstrating that targeted programs can improve both mental and physical health in the elderly.
Park JS. [37] (2016)	Predictors and Frailty Level in the Frail Elderly Adults Receiving Home Visiting Health Care Services	This research identifies frailty level predictors in elderly adults receiving home care. It outlines various physical, mental, and social factors that contribute to frailty, providing insights into early detection and intervention strategies for frailty management.
Park JK. [15] (2014)	Factors Affecting the Elderly’s Frailty among the Vulnerable Social Group	This paper examines the factors that affect frailty in vulnerable elderly adults. The study concludes that physical function, health behavior, and social support are key elements influencing frailty, suggesting that comprehensive support systems are needed to mitigate its effects.

TABLE 3. Continued.

First Author (year)	Title	Main contents
Jing Z <i>et al.</i> [39] (2020)	Poor Self-Perceived Health is Associated with Frailty and Pre-Frailty in Urban Living Elderly Adults: A Cross-Sectional Analysis	This study focuses on the relationship between frailty and self-perceived health in urban elderly adults. It reveals that poor self-perceived health is strongly associated with frailty, indicating that subjective health assessments are crucial in identifying and addressing frailty in urban populations.
Fried <i>et al.</i> [8] (2021)	The Physical Frailty Syndrome as a Transition from Homeostatic Symphony to Cacophony	The paper analyzes how multidimensional health indicators contribute to frailty in elderly adults, emphasizing the need for a holistic approach to healthcare. It advocates for integrated assessment tools that cover physical, mental, and social well-being to effectively address frailty.
Kwon, SM., Kwon, RW., Lee HR. [20] (2020)	The Influence of Depression and Perceived Health Status on Health Promotion Behavior of Community Dwelling Frail Elderly	This study discusses the health promotion behavior of frail elderly adults, linking positive health behaviors to better outcomes in health-related quality of life. It emphasizes the need for targeted interventions to foster health-promoting habits among the elderly.
Park, JS & Oh, YJ. [34] (2017)	Health Promotion Behavior, Perceived Health Status, Social Participation, and Empowerment in Frail Elderly Adults Receiving Home Visiting Services	This research evaluates the role of social participation and health status in promoting the well-being of frail elderly adults. It demonstrates that active social engagement is a significant predictor of improved health outcomes, encouraging community-based interventions for this population.

### 3.3 Development of cases for the concept cases

#### 3.3.1 Model cases

A model case is a case that includes all important attributes of the concept subject to analysis, which allows the concept to be accurately understood [17]. A model example of the subjective health condition of a frail elderly adult is as follows.

Mr. Kim is 68 years old and was diagnosed with hypertension and diabetes mellitus 5 years ago. While undergoing health care, he was diagnosed with a stroke 3 years ago. After treatment at the hospital, he has suffered from the right upper lower extremity paralysis and ataxia. High blood pressure and diabetes run in the family, and in Mr. Kim's family, his father and mother died from high blood pressure and diabetes. Mr. Kim is currently managing his blood pressure by measuring it every day. His recent blood pressure averaged 160/100 mmHg, and his pulse was 80 to 82 beats/min. After measuring his blood pressure in the morning, he has been repeatedly taking antihypertensive medication (1). After his diagnosis, he quit smoking cigarettes, which he had smoked for 25 years, and cut down on the amount of alcohol he drank every day, fearing that smoking and drinking could cause a recurrence of the stroke. He is controlling his diet and exercising consistently with the expectation that diet control, exercise and medication can improve stroke. He has also taken the prescribed stroke care medications and high blood pressure and diabetes medication exactly as prescribed (2). Furthermore, Mr. Kim joins the stroke self-help group at the hospital he regularly attends, maintains good relationships with stroke patients, maintains his health by hiking and walking, and lives with positive support from people around him (3). Ms. A is managing her stroke well to prevent complications based on trust in her doctor and her family, and she is satisfied with her life (4).

In the model case, Mr. Kim feels satisfied (4) with life

through the awareness of his health condition regarding high blood pressure, diabetes, and stroke (1), health promotion activities to maintain his health (2), and physical, mental and social well-being (3), where all four attributes have been well reflected.

#### 3.3.2 Contrary cases

A contrary case is one where the important attributes of the concept are not contained at all [17]. A 67-year-old, Mr. Park underwent the CAG (Coronary Angiography) and PCI (Percutaneous Coronary Intervention) procedures for Dilated Cardiomyopathy (DCMP). Mr. Park regularly visits the hospital outpatient clinic to receive medication prescriptions and health care. Mr. Park occasionally suffers from dyspnea and orthopnea, but he does not consider it a big deal and does not try to visit the hospital (1). He has lived alone after divorcing his wife and has been unable to receive help from his family. As his income was not sufficient, he ate irregularly, skipping meals, and took medicine irregularly (2). The doctor explained, "If care is not continued, the disease may worsen", but "I am busy living every day, so it is difficult for me to take care of my health". "Even if I manage it anyway, I cannot prevent the condition from worsening". "No one cares about me", He said, feeling physically and mentally exhausted. And he further said, "I can live like this and then die", and he did not take a single action to improve his life satisfaction. After work, he sometimes drank alcohol, fell asleep and did not exercise at all (3). Eventually, his physical condition deteriorated rapidly to the point where dyspnea and orthopnea appeared repeatedly (4). Mr. Park, to the contrary, does not reflect any of the four attributes of his subjective health condition.

#### 3.3.3 Borderline cases

A borderline case is a case which contains only some of the important attributes of a concept and cannot be considered a

concept [17]. In this study, it turned out that factors 1 and 3 were included, but factors 2 and 4 were not.

Mr. Kim, who is 75 years old, was diagnosed with hypertension 10 years ago, and one side of his body was paralyzed due to a stroke 8 years ago. He is taking six different medications every day (1). While he has difficulty moving around, he is accepting of his current state of health and is not doing anything to improve his health other than taking medicine (2). He says, "Compared to the patients admitted to other wards, I am healthier", and he feels that he is healthier than the other patients (3). However, he says, "I know that I am getting elderly, my memory is fading, and the time of death is getting closer. Now the situation is getting worse, and I need to get help from someone, but I'm afraid of that" (4).

This example provided includes attributes such as awareness of current health status and maintaining physical, mental, and social well-being, but it does not include attributes of health promotional behavior or efforts to achieve health goals. In the case, the subject is aware of his current health condition and maintains his physical, mental and social well-being on his own. However, he has not engaged in health promotion activities or made efforts to achieve health goals. This represents a case that includes only two dimensions.

### 3.3.4 Related cases

A related case is one that which is related to the concept subject to analysis but does not contain important attributes; hence, it is similar to the concept subject to analysis but has a different meaning upon closer examination [17].

Mr. Lee, who is 68 years old, was diagnosed with right breast cancer in 2021. After undergoing surgery and chemotherapy, she is currently taking medication and visits the hospital regularly to check on her health (1). She said that she lost more than 10 kilograms in one year and was lethargic, but was still able to move around, and hence, she ate whatever she wanted and slept to replenish her physical strength (2). Grateful for her health, she often goes to church to pull herself together (3) and is also finding comfort through the conversations with her church members (4).

In the case of the frail elderly Korean men mentioned above, instead of making efforts to achieve health goals, spiritual aspects are prioritized, and this focus on spirituality leads to the omission of an important attribute: the recognition of subjective health status. This omission marks a difference from the concept as defined in this study, which emphasizes awareness of one's health condition as a key attribute.

## 3.4 Identification of the antecedents and consequences of the concept

Antecedent factors refer to the events that occur before the occurrence of a concept, and consequences refer to the events that occur after the occurrence of a concept [17]. And consequences of the concept for recognizing subjective health conditions include that elderly adults aged 65 or elderly who are vulnerable to health accurately recognize their current health condition and make efforts to maintain physical, mental, and social well-being based on health promotion activities and the efforts to achieve health goals are apparent. After recog-

nizing the subjective health condition, actions are manifested to improve life satisfaction with no complications (Fig. 1).

## 3.5 Determination of the empirical referents of the concept

As the last step of the concept analysis, empirical referents illustrate that the attributes of the concept exist in the actual field. When a concept is abstract, there must be an indicator or reference that can be used to concretely observe and measure the concept in the actual field. It confirms the existence of the concept through specific measurements and utilization in the actual field, and limiting and clarifying the observable characteristics of a concept connects language to facts and conveys its meaning accurately [17].

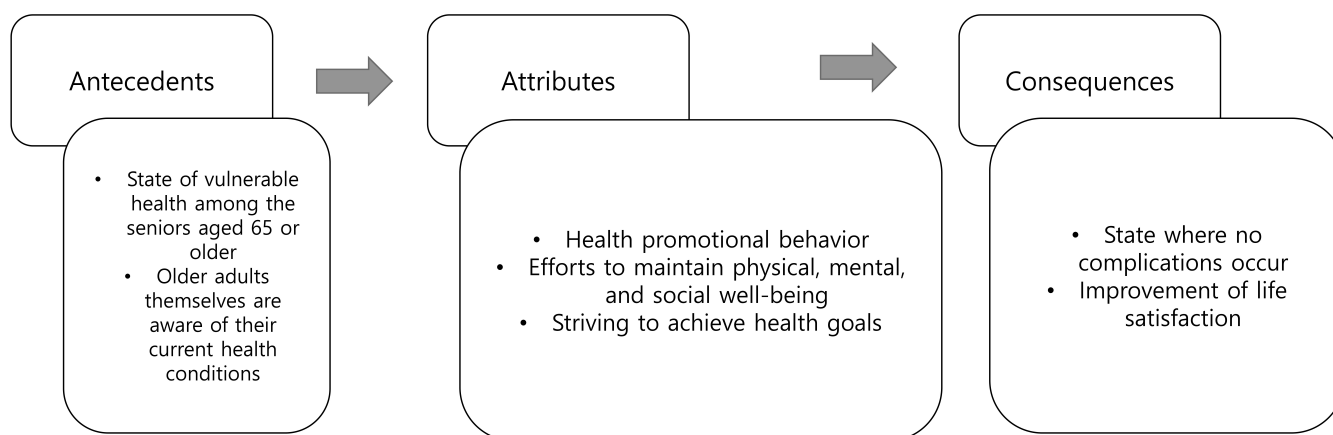
The empirical references confirmed through this study include the health self-rating scale tool developed [41]. The Multilevel Assessment Instrument is a health self-assessment scale that systematically evaluates behavioral abilities in the areas of health, activities of daily living, cognition, time use, social interaction, psychological well-being, and perceived environmental quality. And a Korean tool modified and supplemented to suit the elderly adults, and a modified and supplemented tool based on it, were used for measurement. Furthermore, it was claimed that the Health Perceptions tool developed by Speake *et al.* [42] consists of 3 questions and is a tool to check your current overall health status, your current health status compared to 3 years ago, and your health status compared to others. And it was confirmed that the self-reported health tools translated into Korean were widely used.

## 4. Discussion

Subjective health perception in frail elderly Korean men individuals is reported as a strong predictor reflecting their disease state and self-management capabilities [23]. Furthermore, higher levels of subjective health perception in frail elderly Korean men individuals are closely associated with improved health-promoting behaviors and enhanced quality of life [19]. Therefore, despite unpredictable physical limitations and decline, the personal efforts and positive health perceptions of frail elderly Korean men individuals can be considered essential core elements that can enhance health behaviors. Accordingly, this study attempts to define the concept of subjective health status in frail elderly Korean men using the concept analysis method by Walker and Avant [16].

In previous research involving frail elderly Korean men individuals, it has been confirmed that a higher level of subjective health perception positively correlates with better health status [23]. Additionally, it has been reported that the frail elderly Korean men have a lower level of subjective health perception compared to non-frail elderly Korean men [33]. Recognizing one's subjective health status amidst unexpected physical decline is an important indicator for achieving personal health goals. This highlights the necessity for a concept analysis of the subjective health status of the frail elderly [19].

As a result of analyzing the concept of frail elderly adults' perception of subjective health conditions, the key characteristics have been confirmed to be "awareness of the current



**FIGURE 1. Concept of subjective health condition of the frail elderly Korean men.**

health condition”, “health promotional behavior”, “efforts to maintain physical, mental, and social well-being”, and “efforts to achieve health goals”. As a result of a conceptual analysis in a paper, frail elderly adults have multifaceted attributes related to physiological, psychological, social lifestyle, and economic factors [35]. They are also confirmed to be dependent because they need help from others due to limitations in daily life. The extent of recovery was reduced, and it had the attributes of exhaustion. That is, by analyzing the existence of dynamic processes, multidimensional factors, dependency, and vulnerability, a concept similar to frail elderly adults was confirmed in the results of this paper. In a research study that used a concept similar to subjective health condition, and as a result of a concept analysis using health confidence, health confidence may be used as an indicator of the patients’ subjective perception of health and was confirmed as a concept that may provide a positive direction for the patients in health promotion activities, which is apparently similar to the results of this research [35]. Currently, the interest in frail elderly adults has increased in Korea due to population aging. Accordingly, it is necessary to recognize the subjective health condition of frail elderly adults and develop a health care service program that may maintain the physical, mental, and social well-being necessary for performing daily life and improve health goals to prevent frail elderly adults from progressing to the condition.

As a result of this paper, the “subjective health status perception” was derived as the most important concept of subjective health condition for frail elderly adults [43], and it turned out that the worse the subjective health level, the higher the frailty score, and subjective health level was demonstrated to be a major variable affecting frailty in elderly adults [42]. People who perceive their subjective health to be low have turned out to experience higher morbidity and mortality, meaning that the subjective outcomes are also related to several important objective indicators [44–46]. When planning a program to prevent frailty in elderly adults in the future, it is believed that accurately measuring and scoring the subjective health condition recognized by the elderly adults will be able to identify the subjective health condition of the frail elderly adults. Subjective perceptions provide important aspects of care for elderly adults [47, 48]. Accordingly, it would be

necessary to develop a highly reliable tool that may identify the subjective health condition of frail elderly adults, monitor the subjects periodically, and manage them on an ongoing basis.

The second important concept of the subjective health condition of frail elderly adults was identified as “health promotional behavior”. For frail elderly adults, self-rated health affects health behaviors [14], and it has been reported that the better the self-rated health, the more health promotional behavior and the higher the level of health-related quality of life [16]. However, the research conducted to date includes self-rated health in intervention research by simply creating a score scale or a random variable to measure the level of discomfort for each function [40]. It is considered that there is a need for intervention research to develop accurate tools to check and measure them and verify how the health promotional behaviors change accordingly.

The third important concept is the “efforts to maintain physical, mental, and social well-being”, which is similar to the core elements identified [41]. Based on this, it is determined that a nursing approach that helps frail elderly adults achieve physical, mental, and social well-being based on the accurate recognition of their subjective health condition would be useful.

Lastly, the “efforts to achieve health goals” have been identified as an important concept. Even in a study by Kwon & Park [33], the frail elderly adults were making efforts to achieve their own health goals through the self-care of their own health, and they recognized that it was possible to pioneer their lives positively through achieving these goals. This may also be supported by the research results showing that frail elderly adults have a negative impact on health due to physical decline and reduced social roles [43]. Based on the concept of subjective health condition confirmed through this study, it is important to enable frail elderly adults to accurately understand their current health condition and improve their ability to manage their health through continuous health behavior. Furthermore, it is expected that the development of a clear tool for subjective health conditions that may be used in the actual field and its measurement will empirically confirm the concepts identified in this study [42]. Additionally, it is believed that it is necessary to develop and apply an evidence-based, system-



atic intervention program. Through the intervention program, the frail elderly adults can systematically learn about how to faithfully achieve their health goals and positively impact their quality of life in a multidimensional manner by maintaining their current health condition optimally without complications. Future research proposals, including qualitative studies and the development of tools related to subjective health perception, specifically considering the characteristics of frail elderly adults who cannot maintain independence in self-care, are highly important. However, it is necessary to clearly explain the significance and potential impact of these proposals and integrate them into the research context. This will help to better convey the practical value of the recommendations.

Inflammaging, marked by elevated inflammatory markers like CRP (C-reactive protein) and IL-6 (Interleukin-6), is a key contributor to frailty in elderly men, leading to muscle loss, functional decline, and increased vulnerability to stressors. Sarcopenia, exacerbated by malnutrition, physical inactivity, and hormonal changes (e.g., reduced growth hormone and testosterone), heightens the risk of falls, disability, and loss of independence. Cognitive decline and depression further worsen frailty by impairing daily function and self-care. Effective nursing care, including nutritional support, physical rehabilitation, and chronic disease management, is essential to slow frailty progression and improve the quality of life for elderly adults [37].

Recently, frailty in the elderly is understood as a condition that arises not from a single factor, but from a variety of factors that interact and accumulate over time. Consequently, multidimensional assessment tools have been developed, and these tools are designed to include the subjective health perception of the individuals being assessed [9]. Until now, the subjective health perception of frail elderly Korean men individuals has been treated solely as a disease group contrasting with healthy elderly and as a potential reserve for disabilities, requiring interventions. From this perspective, frailty has not been considered in the context of successful aging [10].

Frail elderly Korean men individuals often have severe or complex health conditions, which results in longer hospital stays compared to other age groups, separation from family, and limited physical and mental capacities for self-care [33]. Furthermore, many frail elderly Korean men are hospitalized due to acute health deteriorations, necessitating continuous health status monitoring by medical professionals [10]. Therefore, if multifaceted research on qualitative studies and tool development related to subjective health perception, considering the characteristics of frail elderly Korean men individuals who cannot maintain independence for self-care, is conducted, it could positively aid medical professionals in monitoring this vulnerable population. Developing a tool that allows healthcare professionals to assess the subjective health condition of frail elderly individuals can help in tailoring personalized treatment plans. The tool could include validated self-assessment health scales that provide insight into how frail individuals perceive their health and well-being. This could be integrated into routine care to monitor changes in health status over time. Implementing educational programs for both the elderly and the professionals providing care would enhance understanding of frailty and its management. Edu-

cating frail elderly individuals about lifestyle modifications, self-care practices, and the importance of mental well-being can enable them to make informed decisions about their health. At the same time, educating caregivers can help them provide better support and foster a more comprehensive approach to caregiving.

## 5. Conclusions

This paper conducted a conceptual analysis of the subjective health condition of frail elderly Korean men, and the concepts of subjective health condition turned out to have the attributes of the subjective health status perception, “health promotional behavior”, “efforts to maintain physical, mental, and social well-being”, and the “efforts to achieve health goals”. The results of this paper are meaningful in that they intended to secure the basis data for intervention among frail elderly Korean men, such as health promotional behavior and efforts to achieve health goals, through the conceptual analysis of self-rated health of frail elderly Korean men, and that they conducted research that had not been conducted to date on the concept of subjective health condition. Based on the results of this paper, it is expected that a tool will be developed to measure the content identified as the concept of subjective health condition of frail elderly Korean men and will serve as the basic data for nursing intervention research results for improvement. Furthermore, this paper is meaningful in that it has secured the basic data for research on nursing intervention and program development by focusing on the subjective health condition of frail elderly Korean men at a time when we are rapidly entering an aging society. Based on the results of this paper, recommendations are made as follows: First, develop a highly reliable tool that may measure the subjective health condition of frail elderly Korean men. Second, develop and apply an educational program that may improve the subjective health conditions of frail elderly Korean men.

## AVAILABILITY OF DATA AND MATERIALS

Data are available for research purposes upon reasonable request to the corresponding author.

## AUTHOR CONTRIBUTIONS

SJP and EJM—study conception and design acquisition; drafting and critical revision of the manuscript; data collection; analysis and interpretation of the data; English review. SJP—discussion and conclusions, suggestions. EJM—abstract and references and final submission. Both authors contributed to editorial changes in the manuscript. Both authors read and approved the final manuscript.

## ETHICS APPROVAL AND CONSENT TO PARTICIPATE

Passed review by the Clinical Trial Review Committee of Seoul Women’s College of Nursing, Korea, IRB No: SWCN-202112-HR-002. Informed consent has been obtained from the

participants involved.

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## CONFLICT OF INTEREST

The authors declare no conflict of interest.

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