



## Review on the Elements Related to the Development of End of Life Care Quality Evaluation Index that Enriches the Final Years of the Elderly

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### Abstract

**Purpose:** A detailed literature review was conducted with the goal of extracting quality indicators that could function as the underlying data for developing a quality index for end-of-life care that would create more enriched final years for the elderly in Japan.

**Methods:** Literature review.

**Results:** Literature searched elderly people, terminal care, relief, the measure, the nature index and the guideline in the keyword. We decided to make 34 pieces of literature which met all the adoption standards in 507 extracted pieces applicable to analysis. The index factors extracted used the categorization by subject (disease) conditions as their criteria and included 24 factors in cancerous disease, 12 in dementia disorder, 17 in disease-unspecific end-of-life care, 9 in spiritual or psychological pain, 15 for bereaved families and 17 for caregivers. The research subjects extracted from the literature were mostly patients in the end-of-life period with cancerous or disease-unspecific illness and the literature that stood out incorporated various theories.

**Conclusion:** As the indexes for the quality indicators related to enriching end-of-life care for the elderly, a total of 94 index factors were extracted, including constitutional symptom, ADL, cognition, emotion, relationships with others, consideration for family and the bereaved, medical technology, psychological care, and others. These index factors demonstrated their validity in evaluating the multi-sided aspects of the quality of care and suggested the possibility of their application as a quality index evaluating factors for end-of-life care.

### Keywords

Elderly; End of life care; Quality indicators; Review

## Introduction

The development of common tools is desirable as a means of care to guarantee a certain level of quality to enrich the last years of any elderly person. In our super-aged society, viewing the health of the elderly more positively and comprehensively, the development and

verification of evaluation tools for gerontological nursing expertise that can be practically implemented in the context of medical treatment at the final stage of life is an urgent issue. Although there are various ways for the elderly to spend their last years, it is extremely important to examine from the viewpoint of nursing how to enrich the final stage of life. More than half of the Japanese wish to die at home, but due to the limitations in nursing care resources, this is only realized in about 10% of the cases [1]. In fact, the places where elderly people die are mostly various medical facilities, including elderly care facilities such as elderly welfare facilities or acute hospitals, medical treatment type hospital, etc. Cognitive decline often occurs in the last stage of the elderly, and it can be easily assumed that their will cannot be expressed at that time [2]. In that case, it is important to provide quality assurance of terminal care that is not influenced by the situation or condition, or one that encompasses them. The care needs of patients in the palliative or terminal period are often closely related to their health status and quality of life [3]. What is important in a quality index of the palliative or terminal care for frail elderly people is a comprehensive assessment of palliative care, the basis of the support, a global picture of the direction of care, and the establishment of care goals [4]. With expertise in lifelong care in the rich terminal period of elderly people, it is desirable to develop a care indicator for the security of the quality of care from the point of view of nursing to comprehensively cover hospitals and related areas. In order to organize these challenges, it is necessary to scrutinize the content of the literature through a focused and systematic review method, and to advance the specialization of the core ability of nurses related to care [5].

Therefore, in this paper, with consideration for the significance and the utilization possibility of a terminal care index to enrich the final years of the elderly in Japan, we reviewed the past 10 years of related Japanese literature; gather knowledge from the general viewpoint of "Research trends on quality indicators of terminal care for the elderly." We did this with the aim of extracting quality index elements from the viewpoint of keyword extraction as the basic material for the development of a terminal care index, which we hope will hereafter help to enrich the last years of the elderly in Japan.

## Definition of Terms

1. End of life care for the elderly: Defined as care that places importance on elderly people in the final stages of their lives that are living with the consciousness that their life is coming to the end and during a time when various aspects of the aging process become pronounced.

## Methods

### Data collection

A literature search was conducted using the Japan Medical Abstracts Society (JAMAS) Web Magazine (Ver. 5) as a database. Keywords used for the search were chosen based on the compatibility within the context of domestic literature, in addition to other criteria such as containing both the words "elderly" and "guideline" as well as being monographs published in the past five years (2007 to 2012). Connecting each keyword with 'and,' the search results were

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obtained and then eventually narrowed down with the last criteria of "original articles." The JAMAS Web Magazine provided 507 articles as matching results. Moreover, in another search using the keywords "elderly," "terminal care," "mitigation," and "scale (as in "evaluation standard" or "evaluation scale")," with each set of keywords connected by 'or' and after a final, further refined search with the word "original article," 215 articles were provided as the results.

### Data analysis

Among the searched articles, the desired articles were extracted out as the subject of analysis by the researchers, based on following points: 1) must be medical and/or nursing science-related academic or college journal, 2) must be in the format of an academic research paper, consisting of research purpose, methods and other required elements, 3) must contribute to or provide suggestions regarding issues related to nursing care for elderly in their final years, that is, to be inspirational for the development of a terminal care quality evaluation index, and 4) exclude bibliographic research articles. Viewpoints on the development of terminal care quality evaluation index that enriches the final years of the elderly were then exhibited, keeping in mind the selection of concepts and keywords related to evaluation and assurance of the care quality. As the result of the article selection according to the purpose of this research, 34 articles were selected as the research subjects. Analysis was conducted from the viewpoints of (1) place (2) condition, and (3) care contents. In addition, the analysis took into consideration the situations, in which the nursing professional's own spiritual viewpoints, QOL and/or opinion on respect for people's life, and dignity were included in those results, when categorizing them.

Subsequently, more viewpoints were exhibited based on the classification by the "condition" aspect. Potential factors that had the possibility of being reflected in the evaluation of care quality were extracted from each viewpoint. Based on the extracted factors, only the criteria of keywords, the analysis and examination were examined among researchers in order to keep the consistency above a certain degree between each item name, abstraction level and care contents.

### Results

Literature searched elderly people, terminal care, relief, the measure, the nature index and the guideline in the keyword.

We decided to make 34 pieces of literature which met all the adoption standards in 507 extracted pieces applicable to analysis.

The review process is summarized in [Figure 1](#).

### Trends of care quality index

Out of 34 articles selected, the following categorization was attempted in order to capture the movement of the care quality index ([Table 1](#)).

Among the three categorizations of 1) place, 2) condition and 3) care contents, 1) "place" was the first to provide selections of special facilities such as medical institutes like hospitals or special nursing home for the elderly, at home, or both. Seventeen articles had set the special facilities such as medical institutes like hospitals or special nursing home for the elderly as their research subject place. Thirteen had set the 'at-home nursing', and four had both places as their research subjects.

Next, in the category 2), "condition," 11 articles targeted cancer patients, 4 focused on senility, 9 of them dealt with terminal stages

without specifying illness, 3 looked at spiritual pain, 3 dealt with or contained mentions of the bereaved family, and 4 dealt with caregivers or their equivalents.

Next, in the category 3), "care contents," 8 articles dealt with the reality of care-giving, 2 with care-intervention, one dealt with the quality of care and 23 articles focused mainly on the spirituality, QOL and the utilization of other various theories that quote approximate concepts such as the Comfort Theory.

### Elements of the terminal care quality index that enriches the final years of the elderly

For the extraction of elements of the terminal care quality index, viewpoints were exhibited in order to further extract potential elements that have the possibility to connect to the 'care contents' within the criteria of the keywords, from the six categories in the "condition" viewpoints, which are cancer, senility, terminal care without specifying illness, spiritual pain, bereaved family and care giver ([Table 2](#)).

The extraction of the elements were conducted with the consideration of extracting terms that have the potential to be keywords in the process of the development of a terminal care quality index that enriches the last years of the elderly. During the process, both the abstraction level and the consistency on the scale of concepts were ignored.

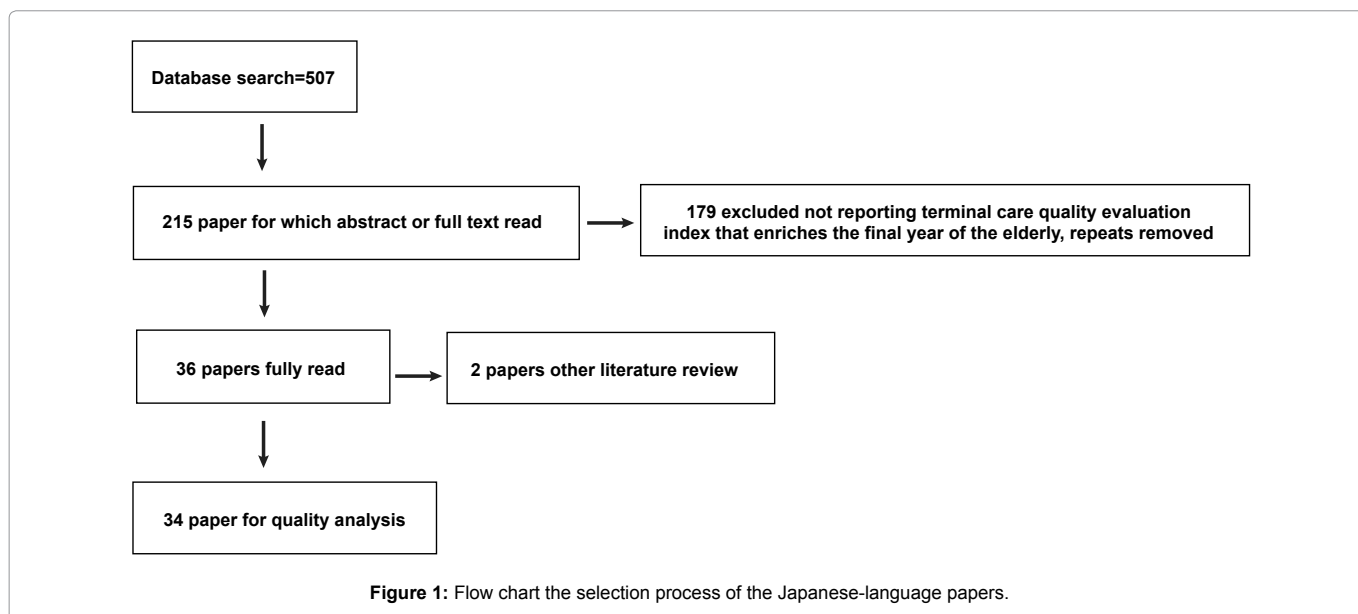
Specifically, for each category, hypostatic factors of the scale and items were respectively extracted from scales used or the contents of assessments, included in the corresponding articles.

There were 11 articles related to 'cancer,' 4 to 'senility,' 9 to 'terminal care without specifying illness,' 3 to 'spiritual pain,' 3 to 'bereaved family,' and 4 articles related to 'care givers.'

There were 155 hypostatic elements extracted from cancer-related articles. Their meanings were integrated by their contents and summarized down to 24 elements, which specifically were: pain, respiratory/circulatory symptoms, digestive symptom, sleep, skin/perception conditions, ADL/IADL, cognitive function, general condition, consciousness level, sense of fatigue, listening closely to the sentiments of the subject and family, family background, confirmation of the subject's decision-making, confirmation of the family's decision-making, anxiety/depression/emotion/feelings, the meaning of the decease, spirituality, self-esteem, QOL, relationship with family and friends, social support, communication between medical staff and the patient, team cooperation between subject/family and the team and economy.

There were 39 hypostatic elements extracted from senility-related articles, meanings of which were integrated by contents, into the 12 elements. The 12 elements are specifically gaze, facial expressions/smile, recognition, conversation, appearance/behavior, grooming, activities, self-esteem, emotion, depression, agitation and care provision at the facility.

Subsequently, 75 hypostatic elements were extracted from articles related to terminal care without specifying illness. Their meanings were integrated by their contents into 17 elements. They are specifically pain, sense of fatigue, respiratory circulation, abdominal symptoms, condition management, sleep, skin perception, ADL/IADL, feelings/emotion, cognitive function, support, spirituality, condition of self-determination, psychiatric care, relationship between patient and family, consideration for the family, and the substantiality of care at facility.



**Table 1:** Outline of literature to be analysed.

	Title	Author	Sources	Classification for element extraction
1	Development of an assessment tool for cancer senior citizens about preparations of hospice care at home	Masataka Ooki (2006)	The Ochanomizu Medical Journal,54(4),125-146.	Cancer-related disease
2	Consideration of the reliability of the (Functional Assessment of Chronic Illness Therapy-Spiritual FACIT-Sp) Japanese edition and the validity to the cancer patient	Kai Noguchi et al. (2004)	JGHP,16(1),42-48.	Cancer-related disease
3	Spirituality in Cancer Patients and Possibility of Spiritual Care Based on the Logotherapy	Kai Noguchi et al. (2005)	JGHP,17(1),48-56.	Cancer-related disease
4	Comparative-of the nurse's value in the family's body and the early stage stage after research - separation by death about the psychosocial situation and own value of the family of the deceased of the terminal cancer patient	Eiko Maetaki et al. (2007)	Y.C.H. Medical Bulletin,29-34.	Cancer-related disease
5	Assessment of psychological effects of bereaved families following the death from cancer	Setsuko Oowada et al.(2010)	Japanese Bulletin of Traumatic Stress Studies,6,1-10.	Cancer-related disease
6	Related factor of own feeling of efficacy in a foreign cancer chemotherapy patient	Akiko Hayasi et al. (2010)	Journal of Japanese Society of Cancer Nursing,24(3),2-11.	Cancer-related disease
7	Implementation and evaluation of group therapy designed to enhance self-care ability of cancer patients undergoing treatment	Yuuko Kawasaki et al. (2009)	Palliative Care Research,4(1),201-206.	Cancer-related disease
8	The effect by the physical therapy intervention to the cancer end period patient and consideration to how to concern to future's terminal care	Takeshi Ando et al. (2011)	Physical Therapy Research,18,31-34.	Cancer-related disease
9	Consideration of the reliability of the Functional Assessment of Chronic illness Therapy-Spiritual (FACIT-Sp) Japanese edition and the validity to the cancer patient (It's investigated preliminarily.)	Kai Nogushi et al. (2004)	Japanese Journal of Cancer and Chemotherapy,31(3),387-391.	Cancer-related disease
10	Alternative therapy to a cancerous sharp pain of an old patient in a terminal period. Please do a hand massage	Kashumi Tanaka et al. (2009)	Journal of Japanese nursing society;Gerontological nursing,141-143.	Cancer-related disease
11	The life review contents and the living quality of a progress cancer patient	Mishiyo Ando (2003)	Ann Gunma Health Sci,23,131-136.	Cancer-related disease
12	Development of the index which grasps the effect of the care to a serious recognition shou senior citizen patient (the 1st report) Case application of the index to which a concept of pleasure "comfort" was introduced	Mishiyo Yuasa et al. (2007)	Journal of Chiba Academy of Nursing Science,13(2),80-88.	Dementia-related disease
13	Evaluation-using the match to activation of will expression of the bedridden end period dementia old patient by "bedside activity care program (FY - BACP)"- degree of will expression evaluation scale of" pleasantness for the bedridden end period dementia senior citizen	Sashito Zenba (2002)	The Japanese Psychiatric Nursing Society,75-78.	Dementia-related disease
14	End of Life Care foe Dementia Patients in group Homes: Comparison Between Facilities with and Without Nurses in Their Approaches and Issues	Mayumi Chiba et al. (2011)	Journal of Japanese nursing and social work,1-13.	Dementia-related disease
15	Quality of Life of a dementia of the Alzheimer's type patient Development of measure for evaluation "Dementia Happy Check -Home Care Version-"	Namiko Morimoto et al. (2002)	Japanese Journal of Geriatric Psychiatry,13(9),1051-1060.	Dementia-related disease

16	Policy and Systems for End of Life Care in Nursing Home: Comparisons between Facilities with and without Approaches to End of Life Care	Mayumi Chiba et al.(2010)	Journal of Japanese nursing and social work,163-175.	End-of-life care without disease identification
17	Guideline of decision-making process for terminal care and nurses' attitudes in 'long-term care setting	Miho Matsui (2009)	Journal of the Japan Association for Bioethics,19(1),106-111.	End-of-life care without disease identification
18	Match to relaxation care conference introduction in a general ward	Nami Watanabe et al. (2011)	Journal of Kagawa Academy of Nursing Science,28-31.	End-of-life care without disease identification
19	Idea and the family function to the conjugal Terminal	Nahoko Saiad et al. (2007)	Journal of Japanese nursing society;Nursing synthesis,178-180.	End-of-life care without disease identification
20	The sharp pain grade by the tumor and concerning to control in a special elderly nursing home. One case of a thoracic cord tumor and spinal canal stenosis	Yoshihumi Tatumi et al. (2010)	The Journal of The Minami Osaka Medical Association,58(1),71-76.	End-of-life care without disease identification
21	Pain of the patient it was at home until the end period and who was getting medical treatment and the grade of the correspondence to difficulty and the recuperation on the nursing. In nursing work, a doctor and nursing work.	Emiko Hashimoto et al. (2001)	Journal of Chiba Academy of Nursing Science,7(1),50-57.	End-of-life care without disease identification
22	RELIABILITY AND USEFULNESS OF THE JAPANESE VERSION OF MDS-PC: Minimum Data Set-Palliative Care	Hiroaki Sugimoto et al. (2007)	Journal of the Japanese Society on Hospital Administration,44(3),243-250.	End-of-life care without disease identification
23	Clinical ethics of end-of-life care in an emergency medical center	Asako Matsushima et al. (2012)	Journal of Japanese Association for Acute Medicine,23,39-50.	End-of-life care without disease identification
24	A Study on awareness of death and the terminal stage medical care focused on senesce	Aiko Tanaka et al. (2002)	Memoirs of the Faculty of Integrated Arts and Sciences, Yamaguchi,6,119-125.	End-of-life care without disease identification
25	Try of spiritual care by a nurse to a recuperation person at home	Yukie Shimada et al. (2011)	Journal of Japanese psychiatry,46-51.	Spiritual pain
26	I look back to a case and consider aid of the meaning to live. Theoretical approach of a spiritual pain	Midori Tanaka et al. (2007)	Journal of Japanese nursing society;Adult nursing; II,12-14.	Spiritual pain
27	Study about causality of spirituality and a spiritual care of the nurse who participates in care of the end terminal cancer patient	Kaori Tauchi et al. (2009)	Journal of Japan Academy of Nursing Science. Nihon Kango Kagakukai shi,29(1),25-31.	Spiritual pain
28	Investigation of the factor on which the grief process of the family of the deceased is spread. Inspection from the family of the deceased stress questionnaire and STAI	Kayo Kurihara et al. (2010)	Japanese journal for balance of life,6(1),17-26.	Bereaved family
29	The behavior the family does for the end period patient and research about fulfilment of a need	Yukari Ikeshita et al. (2009)	Journal of Japanese nursing society;Adult nursing,371-373.	Bereaved family
30	Consideration of the degree of agreement of the family* nursing duty and the recuperation grade by the doctor and the recuperation state in the recuperation patient's end period at home	Emiko Hashimoto et al. (2003)	Journal of Japan Academy of Home Care,7(1),68-76.	Bereaved family
31	Study about the factor which influences nursing behavior at the family's nurse to a senior citizen and nursing behavior	Kyoko Ishi et al. (2005)	Journal of Japanese Society of Nursing Research,28(4),61-67.	Caregiver
32	Measurement of "QOL with an individualized weight, linear measure" SEIQoL to a neurology-like disease patient's in-home nursing care person- DW	Mitsurei Miyashita et al. (2008)	Journal of Health and Welfare Statistics,55(1),9-14.	Caregiver
33	The significance of the family care giver support of the end terminal cancer patient at home-informal support by a volunteer-	Miyuki Goto (2012)	Hospice and Home Care,20(1),22-35.	Caregiver
34	From a mind to do and satisfaction from the heart by which degree of satisfaction inspection - patient's satisfaction is a nurse in a relaxation care ward.	Hiroimi Noritake et al. (2007)	Journal of Japanese nursing society; Adult nursing II,377-379.	Caregiver

**Table 2:** Classification from the viewpoint of the situation of the subject and number of extracted element items/ number of extracted articles.

	Cancer-related disease/11	Dementia-related disease/4	End-of-life care without disease identification/9	Spiritual pain/3	Bereaved family/3	Caregiver/4
1	Pain	Eye contact	Pain	Self-decision rights	Physical symptoms	The patient's ADL and IADL
2	Respiratory and circulatory symptoms	expressions and smiles	Malaise	Sanctity	Mental care	Understanding the medical condition as a caregiver
3	Gastrointestinal symptom	Recognition	Respiratory circulation	The meaning of life	ADL and IADL	Responsibility and approval in care
4	Sleep	conversations	Abdominal symptoms	Self-respect	Cognitive function	Patient's condition management
5	Skin and perception conditions	Appearance and gestures	State management	Joy of life	Self-decision	Physical care for the patient
6	Cognitive function	Grooming and appearance	Sleep	Relationship with others	Stay close to the patient and keep their comfort	Mental care for the patient
7	Cognitive function	Activities	Skin and perception	Motivation and hope	Approval from others	Support for the family

8	General condition	Self-respect	ADL and IADL	Acceptance of the disease	Wanting to know the condition of the patient	Social aid
9	Consciousness level	Emotions	Emotions and feelings	Reason to live	Regret in care	Enhancement of the facility
10	Malaise	Depression	Cognitive function	-	Stay close to the patient's mind	Caregiver's sexual desires
11	Listening to the patient and their family's thoughts	Restlessness	Support	-	Management of the caregiver's physical condition	Economic burden
12	Family background	Providing care at the facility	Spirituality	-	Degree of the feeling of loss	Changing daily life of the caregiver
13	Confirming the patient's decision	-	Situation of self-decision	-	Complexity of the life of the bereaved family	Mental burden
14	Confirming the family's decision	-	Mental care	-	Economy	Spiritual care
15	Anxiety, depression, feelings, emotions	-	Relationship between the patient and the family	-	Distrust of medical treatment	Uneasiness in care
16	The meaning of the illness	-	Consideration for the family	-	-	The caregiver's emphasis
17	Spirituality	-	Enhancement of facility care	-	-	Sleep situation of the caregiver
18	Self-respect	-	-	-	-	-
19	QOL	-	-	-	-	-
20	Relationships with family and friends	-	-	-	-	-
21	Social support	-	-	-	-	-
22	Communication between the medical staff and the patient	-	-	-	-	-
23	Cooperation with the patient and the family	-	-	-	-	-
24	Economy	-	-	-	-	-

Twenty-one hypostatic elements were extracted from articles related to spiritual pain, which were summarized down to 9 elements after integrating their meanings by contents. Specifically, they include the right of self-determination, sanctity, meaning of life, self-esteem, joy of living, relationship with others, will/hope, acceptance of the sickness, and purpose in life.

Forty-eight hypostatic elements were extracted from articles related to bereaved family, which were summarized down to 15 elements after integrating their meanings by contents. They specifically include physical condition, psychiatric care, ADL/IADL, cognitive function, self-determination, standing close to the patient to keep peacefulness, approval by others, wanting to know the condition of the patient, regret in nursing, staying close to feelings of the patient, self-management for caregivers, level of the sense of loss, complexity in the life of the bereaved, economy, and distrust towards medical service.

Eight-six hypostatic elements were extracted from articles related to care givers, which were summarized down to 17 elements after integrating their meanings by contents. They specifically include ADL/IADL of the patient, grasping the symptom as a caregiver, responsibility/approval of nursing, symptom management for the patient, physical care for the patient, psychiatric care for the patient, support for the family, social support, substantiality of the facility, sexual demand of the caregivers, economic load, changes in the daily life of caregiver, mental load, spiritual care, confusion in nursing, what is important to the caregiver and the sleeping conditions of caregiver.

## Consideration

Suggestions for the index must be provided upon understanding the hospitals and the community comprehensively, so that the index for the quality of care will be able to provide terminal care that assures a consistent level of care quality. To establish terminal care that enriches the last years of the elderly, it is essential that the qualities and conditions of final years truly hoped for by the elderly and their families are anticipated.

When examining the quality index of how the final years should be spent for the limited subject of 'elderly people,' conventional reports tend to expect cancer to be the subject's disease. Considering the fact that malignant neoplasm now ranks first in the cause-specific mortality rate, if the patient has a disease at his/her terminal stage, or if there is a potential necessity for care expected, the representative disease to be corresponded will most likely be the malignant neoplasm, with the exception of the case of decrepitude which dramatically increases the ratio in the cause of death for later-stage elderly. Therefore, if the purpose is to guide elderly people at their terminal stage to enrich the final years of their lives, careful examination is essential. There could be a situation in which the provision of all information about the disease and/or the treatment are not necessarily desired, due to the existence of some prejudice, level of understanding, difference in the amount of knowledge or tendency in intellectual process, regarding that disease. It is essential to recognize the possibility of different results being selected between the examination from the aspect of the quality index as a subjective evaluation by an individual, and the best treatment/recuperation choices suggested by specialists [6]. Similarly, even when information

is sufficient, in many cases elderly people can be very passive when making their own decisions on the definitive treatment choice [7]. The result of this research also shows the elements of 'confirming the decision-making of the subject and/or family,' along with other potential elements, such as 'pain,' 'respiratory/circulatory symptoms,' 'digestive symptoms,' and 'level of consciousness,' being extracted from articles related to cancer disease. In addition, the element of 'listening closely to the sentiments of the subject and family' suggests the importance of imagining the feelings and emotion of the party concerned when getting involved. Along with the 'physical condition' and 'confirmation of self-determination,' even a kind of high-level psychological state seen in the "QOL," which can also be related to approximate concepts such as 'meaning of the disease,' and 'spirituality,' can be observed.

Moreover, external effectors such as social assistance, economy, and connections to the society through support and relationship could also be important factors. If strictly limited to the context of keyword extraction, these items can be elements with a certain level of relevance as the index for terminal care quality that enriches the last years for the elderly, upon focusing on cancer disease. In the case of intervention as a care quality index, it will be applied mainly to medical facilities, where medical personnel will be the majority. Viewpoint of the care intervention by caregivers such as visiting nurses and family members comes next. Some documents reports focusing on examination of credibility and validity as the development of new scale. On the other hand, there are a few reports conducting quantitative analysis, using existing scale, on the relationships between a concept and another concept or a phenomenon and another phenomenon. In terms of the care contents, it is important to carefully evaluate and review the care through each case. However, in the case of post-bereavement, there are divergence in the care evaluations reviewed by both bereaved family and the nurse. The degree of divergence is in inverse proportion to the number of days spent in hospital, which suggests that the closer their viewpoints get, the less divergence will be generated. On the other hand, in terms of pain evaluation as well as its control in the QOL of patient, evaluating with not just one index but from multiple viewpoints can provide more precise grasping of the situation. Which suggest that the viewpoint of pain management is essential in the quality index. Then again, in views on life and death from various subjects and in the behavioral tendency during the 'departure', direct nursing actions, supporting actions for the acceptance of death and emotional supporting actions could in some cases lead to generating a sense of regret. In reviewing of their own nursing experience, in many cases caregivers have some kind of regret related to nursing, such as insufficiency in nursing knowledge or communication [8]. These cases require intervention and consideration for that issue. Included within the elements extracted from documents related to bereaved families and caregivers are; 'regret and confusion regarding nursing', 'standing close to the feeling of the patient', 'changes in the daily life of the caregiver', and 'what is important for the caregiver'. All of these elements depict how bereaved families and caregivers strove to provide care as much as they could even while their own daily lives were being tossed about and, at the end of caregiving, how they looked back on themselves - some hoped for approval, while others learned lessons, or just regretted. As the viewpoint of the quality index for terminal care, rather than to focus on the elderly as a care receiver, it is necessary to secure the position of the elderly within the relationship between others, including the caregiver and medical personnel. In the guideline for terminal care [9], even though the reality shows that only about a half of the nursing professionals in the research

object recognized this fact, there seems to be no relevance to the care intervention attitude. However, regarding hospice and palliative care, it suggests the importance of knowledge and practice. When creating quality index for terminal care, the viewpoint must include not only the symptoms of the patient, but also factors such as support system that surrounds the care for the family, including the grief care. The reality of the terminal care for the elderly includes issues regarding the fairness during the emergency (i.e., sudden changes in condition) from the ethical aspect. Especially in the scenes of emergency medical care, when the patient's mind cannot be confirmed, there have been many cases where the final decision on the medical treatment became ambiguous, or even a conversation with friends and families could not be held. In each case the situation could be different, and it is difficult to indicate the general trend among them. It is necessary to have some sort of consideration or preparation in early stage, especially for the early-stage elderly people, which enable the confirmation of their will or of the family. It could be done through advance directive, such as 'living will', which can be advocated through the preparatory education for dying [9,10]. These viewpoints have high relevancy as the elements for the care quality index. In the care intervention, in addition to the effect of intervention itself, coming in contact with others may also provide stimulus and effect. The condition of 'death-watch' at nursing care public welfare service facilities [11,12] could be very complicated with factors such as the death-watch as the facility, practice of nurses and difficulties that come with it, ethical decision making in terminal care, understanding of nurses who work at nursing care public welfare service facilities, medical treatment at the facility, and the reality of the deceased among others. Though the death-watch at the nursing care facility is increasing, the system of facilities and specific guidelines for it is falling behind the reality. Furthermore, the facilities that have more focus on the initiative in terminal care on daily basis tend to show more preparedness in the situation of death-watch. This suggests that it is important to elevate the awareness of nursing professionals at the facility towards the improvement of care service. On the mental side, even spirituality [13] is at the stage where concept definition of terminology is yet to be clarified. Even though it could take the essential core role on the issue, the importance of grief care is rarely dealt in existing reports and therefore has many unsolved issues in the sphere. It is a matter of considerable urgency to establish the concept definition of terminology, along with discussions on related terms.

There are many documents on spirituality, which do not place emphasis on conceptualization, but deal with the application of its way of thinking into care service or to the introductory comment for conference, describe cases of spiritual pain or about scaling. The visualization of evaluation seems to provide a suggestion of a certain level of security for care intervention. On the other hand, in terms of QOL evaluation, leaving various issues of terminal stage completely up to one professional, or to one category of profession, does not seem relevant [14]. Instead, it is essential to provide precise and delicate intervention, without worrying about repetition, in order to secure the QOL of both the patient and the family. Moreover, not to mention the reinforcements on systems of administration as well as social welfare being inevitable, appropriate provision of information and support from social resource will be equally needed. In order to enrich the treatment experience and recuperation life as much as possible, it is important to examine the relationship between self-efficacy/activities and needs. In the invocation of concepts of life-and-death and grief, the issue is not of the patient alone, but of the views on the future for family and the bereaved, or for the patient

and family. This suggests the importance of advance preparation for dying. The significance of advance prediction and educational intervention for preparation become evident, when avoiding being tossed around by the fear of death or extreme grief. In the Comfort Concept, which is an approximate to the concept of QOL, ensuring a certain level of care quality and maintaining QOL under peculiar circumstances become significant. Accumulation of these incidents becomes the issue that needs to be solved.

Overall, the contents range over wide variety, from physical symptoms such as pain, activities such as ADL, cognitive functions, emotions, family relationship, social support, economy, to QOL. In order to create enriched final years for elderly people, the elements of the quality index for terminal care should not be limited to elderly people. Instead, the evaluation must cover their various relationships with surrounding hardware and software, along with QOL including their own mind and body. These elements, when considered as keywords for the development of the index that secures a consistent quality assurance for the terminal care for the elderly people, still seem to have room for consideration.

## Conclusion

As for extracted elements, among 11 articles about nursing intervention for patients of cancer disease or at terminal stage, 24 elements were extracted. Among 4 articles about dementia disorder, 12 elements were extracted. Among 9 articles about terminal care without specifying illness, 17 elements were extracted. Among 3 articles about spiritual pain, 9 elements were extracted. From 3 articles on or including bereaved families, 15 elements were extracted. Out of 4 articles on caregivers or their equivalents, 17 elements were extracted.

As for elements of the terminal care quality index that creates enriched final years for elderly people, 86 elements were extracted, including pain, sense of fatigue, and cardiovascular/respiratory symptoms among others. Potential elements, each extracted from six categories, extract contents covering multiple aspects as elements for quality index.

Suggestions acquired from potential elements, which were each extracted as the result of summarizing by contents of meanings, showed enough relevance to advance the analysis into more refined selection of elements.

The next task will be the examination of elements extracted during this research, as well as of subordinate concepts and item contents of corresponding theories, which leads to the quality index evaluation chart that can be actually used.

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