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Chapter

Evaluation and Cultural Influence of Nurses’ Attitudes toward Elderly Care

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Abstract

The elderly population among the 38 countries of the Organization for Economic Co-operation and Development; thus, nurses have many opportunities to care for the elderly. The elderly are more likely to suffer from diseases, such as geriatric syndrome and sarcopenia, in addition to frailty. Medical personnel is reported to have a protective attitude, but the problems of nurses’ dialog attitudes include confusion, concern, prejudice, and difficulty in dialog with patients with critical illnesses. Therefore, we had developed the scale to evaluate the negative aspects of nurses’ interactive attitudes toward the elderly. The validity and reliability for the scale of the 15-item and 7-law methods were determined. A comparison of the dialog orientation scales of nurses and nursing students revealed that nurses are more positive as they gain more experience. Additionally, nurses were more negative about age discrimination in dialog and the difficulty of dialog with seriously injured people than caregivers because nurses care for more severely ill elderly. Moreover, we implemented a program to conduct dialog training with the elderly from the stage of nursing students, which revealed a clear effect.

Keywords: elderly care, nurse, prejudiced attitude, cognitive bias, Japan

1. Introduction

This chapter provides research-based insights for improving the quality of care for the elderly, particularly within New Research in Nursing – Education and Practice. The important keywords are “successful aging” and “age discrimination.” Focusing on age discrimination, especially cognitive distortions in caregivers, is necessary for the elderly to achieve happy aging.

Before the 1980s, aging was viewed as a period of increasing physical and mental frailty. However, this viewpoint has clearly changed since the early 1990s and has been influenced by the notion of “successful aging” advocated by Rowe and Kahn [1]. As expressed in the terminal decline model proposed by psychologists, crystallized intelligence continues to function until just before death, and older people are capable of contributing to society, which should be considered a desirable objective [2]. Nurses involved in healthcare with older people should understand the characteristics...
of aging and be free of cognitive bias when treating older people [3]. Ageism discrimination is one of these cognitive biases.

Ageism refers to cognitive bias toward older people and is a specific form of discrimination, such as racism and sexism. Specifically, Butler [4] defined ageism as “a process of systematic stereotyping and discrimination against people because they are old.” This type of bias, which results from cultural and social influences [5], is distinctive for each country and ethnic group. This may be a specific problem in Japan, with Palmore [5] observing that the general Japanese population holds feelings of respect and contempt for older people. Indeed, it can be difficult to correct through education.

In February and March 2004, the Japanese Cabinet Office performed the “Survey on Public Attitudes to Aging,” which used the Fraboni Scale of Ageism (FSA) to evaluate cognitive bias against older people among 6000 Japanese respondents aged ≥20 years. Respondents who were older males living in major cities or prone to illness expressed strong feelings of avoidance and rejection toward older people. People form views about others beginning from their childhood who influenced by one's family and community. Another research in Japan indicated that views toward older people are positive in elementary school but less positive in junior high school and high school. Children frequently consider older people to be physically weak [6]. In other words, cognition changes negatively with the time affected. Therefore, Japanese culture and social influences may enhance the prejudice against older people.

2. Increasing number of elderly people in the population

2.1 Japanese average life expectancy and high aging rate

Japan's Ministry of Health, Labor, and Welfare reported a Japanese population of 122,780,487 as of October 1, 2021, following a year-on-year downward trend since 2007.

The population aged ≥65 years in Japan accounted for 36,214,000, with an increase of 188,000 from the previous year, having the highest ratio of 28.9%.

The population aged ≥75 years accounted for 18,674,000, with an increase of 72,000 from the previous year, having the highest ratio of 14.9%. The total ratio of elderly people aged ≥65 years was 42.38 in the population [7]. Hence, one in two or three Japanese people is an elderly person.

The average life expectancy of the Japanese was the highest ever in 2020. The most recent average life expectancy increased by 0.09 and 0.14 years in 2021, with an average of 81.47 and 87.57 years for males and females, respectively. The difference in life expectancy between males and females was 6.10 years, which decreased by 0.05 years from the previous year. Therefore, the life expectancy of males has relatively increased [8].

These results reveal that the elderly who need care mainly consists of people in their 80s.

Deaths in 2021 increased to a postwar high of 1,439,856 (increased by 67,101 from 1,372,755 in 2020).

The number of deaths from malignant neoplasm (tumor) was 381,505 (26.5% of the total number of deaths), and the mortality rate (per 100,000 population) of 310.7 ranked first place, followed by heart disease (14.9%, 174.9), senility (10.6%, 123.8), cerebrovascular disease, and pneumonia, in order.
The number of deaths due to coronavirus disease 2019 (COVID-19) was 16,766. These diseases are among the leading causes of death in the elderly. The majority of Japanese elderly patients in end-of-life care have chronic diseases, such as cancer, heart disease, cerebrovascular disease, and pneumonia, in addition to senility. However, the number of patients following an acute turning point due to COVID-19 infection has increased since 2020. Thus, many patients with chronic diseases require a long treatment period, and they have a long relationship with nurses. Particularly, nurses’ attitudes possibly affect the quality of nurses.

2.2 International comparison of the aging rate

The Organization for Economic Co-operation and Development (OECD) is an international organization with 38 developed countries, mainly European countries, including Japan and the United States. The OECD database predicted Japan to have the fastest-aging population worldwide by 2021. From this point of view, Japan's approach to measures and care for the elderly may set a precedent for other countries [9, 10].

Countries with high aging rates often have low birth rates and total fertility rates. Therefore, an economic guarantee for care is important because it is accompanied by a decreased working-age population. The economic precedent for elderly care in Japan is the Long-Term Care Insurance Law [8].

The aging rate in Japan was at the bottom, middle, and highest in the 1980s, the 1990s, and 2005, respectively, compared to that of other developed countries. This high level is expected to be maintained in the future.

Comparing the number of years required for the aging rate to reach 14%, 126 years in France, 85 years in Sweden, 72 years in the United States, and 126 years in Sweden, compared to relatively short periods of 46 years for the United Kingdom and 40 years for Germany, Japan exceeded 7% in 1970 and reached 14% in 1994, 24 years later.

Conversely, some Asian countries, such as South Korea in 2018 and Singapore in 2017, are expected to have a faster aging speed than Japan [11].

3. Geriatric medicine and characteristics

3.1 Physical changes in the elderly

Many elderly people have physical decline or frailty, with age. Frailty in the elderly not only reduces the quality of life but also carries the risk of various complications. A research group of the Ministry of Health, Labor, and Welfare in Japan defined frailty as “mental and physical vitality (motor function, cognitive function, etc.) decreases with aging, and life functions are impaired due to the effects of multiple chronic diseases, etc., and is a state in which physical and mental vulnerability has emerged.” Conversely, frailty is considered a state in which maintaining and improving living functions are possible through appropriate intervention and support, and appropriate intervention by nurses is required [12].

We calculated the frailty rate of Japanese elderly people through a panel survey, because Japan has the highest aging rate worldwide. The results showed that the rate of frailty was 8.7% among all elderly people. Hence, approximately 11.3 million elderly people in Japan require appropriate intervention and support. They are the target of nursing care, including the elderly living at home, because not all of these are
inpatients. Therefore, nurses should increase their knowledge of the elderly to improve the effectiveness of care because the elderly are important subjects of care [13].

Japan will have 960,000 nurses, including registered and associate nurses, by 2021, with at least one frail elderly person for every nurse. Japanese nurses work in a wide variety of fields, including clinics, healthcare facilities for the elderly, welfare facilities for the elderly, and home-visit nursing, in addition to hospitals. The attitude that nurses take toward the elderly is hypothesized to affect the quality of intervention and support because nurses provide face-to-face life support.

3.2 Diseases of the elderly

The elderly have various diseases, but these diseases are very different from patients at other developmental stages, such as adults and children. Diseases that are common among the elderly in Japan include geriatric syndrome, sarcopenia/frailty, locomotive syndrome, dementia, cancer, infectious diseases, aspiration lung disease, pneumonia, diabetes and its complications, and hypertension. A geriatric syndrome is a general term for symptoms and signs that are often seen in the elderly with aging and require a medical examination, care, and nursing care. The geriatric syndrome has >50 items of symptoms and signs and is characterized by having multiple symptoms; thus, patients are required to visit multiple clinical departments and hospitals. Physiological aging and pathological aging coexist in geriatric syndrome; thus, factors and effects for recovery should be correctly evaluated. Diseases associated with the geriatric syndrome include hormonal depletion and lacunar infarction. Hormones are associated with the decline of aging and may be treated with hormone replacement therapy [14, 15].

3.3 Points to note in elderly care

Elderly people experience a decline in activities of daily living (ADLs) when they are ill as typified by the geriatric syndrome. The risk factors that double this decline in ADL are cognition, sensory fatigue, falls, depression, and female sex. Cerebrovascular accidents increase the risk fivefold. Moderate aerobic exercise and interactive communication are necessary to avoid these.

Sarcopenia, which is common in the elderly, refers to the loss of muscle mass and muscle strength due to aging, and in October 2016, “sarcopenia” was registered in the International Classification of Diseases and is now positioned as a disease. Sarcopenia affects ADLs, such as walking and standing, requires care, and is prone to falls. Approximately 15% of the elderly aged ≥65 in Japan are considered affected by sarcopenia. As of 2019, the elderly population is estimated to be 35.89 million; hence, approximately 5 million elderly people are likely to have sarcopenia. However, exercise and nutrition are expected to improve muscles even after 70 years old; thus, so exercise and nutrition are important factors in the care of the elderly [13].

4. Attitudes of nurses in geriatric nursing

The elderly have more opportunities to receive nursing care due to symptoms and disabilities caused by aging and illness. The caregiver’s dialog and attitude greatly affect the willingness of the elderly to recover and rehabilitate.

An example is based on Bandura’s theory of social learning. According to his theory, the factors that influence the patient’s behavior are not only the family
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members but also the nurse's emotional arousal and model behavior presentation, which affect the outcome of care. Numerous studies were conducted on this issue of nurses' care attitudes in nursing the elderly, and nurses' knowledge and attitudes are considered important for high-quality care.

4.1 Characteristics and problems of nurses' attitudes toward the elderly

The author focused on the dialog between nurses and the elderly and clarified the problems and characteristics of dialog. The research method was a questionnaire survey using the indwelling method for 833 nursing students. The questionnaire consisted of 43 items whose content validity was confirmed. The evaluation scale was a 7-point scale ranging from "strongly agree" to "strongly disagree." Exploratory factor analysis and multidimensional scaling, which are analysis methods by IBM's SPSS, were used for analysis. As a result, four factors were extracted as characteristics of conversations between nursing students and the elderly. The factors were "confused about involvement," "concern about involvement," "prejudice about involvement," and "difficulty about involvement." These factors represented the attitudes of nursing students influenced by emotions such as anxiety toward the elderly, and the values of nursing students toward the elderly. Also, the characteristic of dialog was the concept placed on the two axes of cognition and attitude. The problem of attitudes of nurses found here can be an important evaluation index for education of nurses.

4.2 Evaluation of factors affecting nurses' attitudes

Disability due to aging has been the most emphasized problem among the target elderly people. For example, ADL indicators [16], dementia-related memory ability evaluation [17], and hearing ability in the elderly [18] were used as measurement indices. They could not measure the effects of problems on the part of caregivers, such as prejudice, although they measured the extent to which disability on the part of the elderly affected dialog. Prejudices are cognitive distortions formed by nurses' internal experiences that negatively influence care and are expected to improve with education. Therefore, the following evaluation scales had been considered as indicators for the side facing the elderly.

Young people's beliefs in communication have been measured [19], but they have not addressed the influence of interlocutors' attitudes and prejudices. The use of existing social skill scales [20, 21] and communication skill scales [22, 23] was attempted in Japan. Kiss-18 is a behavioral index of social skills in dialog relationships, and communication scales developed in Japan include Nagano's [24] evaluation scale for micro-skills training and Ueno's [25] 2003 communication skills scale. Scales are available, but none of them considered the effects of aging as a problem.

The English literature presented a Kogan Scale. The Kogan Scale [26] can measure dialog attitudes influenced by prejudiced attitudes toward the elderly; hence, adopting it as the Japanese language is possible.

However, prejudiced attitudes toward the elderly consider the cognitive influence; thus, considering the kind of cultural influence the subject is receiving and causing cognitive distortion upon evaluation is necessary. Palmer points out that the Japanese view of the elderly is unique regarding the cognitive characteristics of the Japanese toward the elderly. Palmore [27] states that the Japanese government has established Respect for the Aged Day, unlike people in other countries. Concurrently, he points
out that the attitude to evaluation scales proposed by other cultures cannot be applied to Japanese people who have such ambivalent attitudes toward the elderly. Therefore, the author developed a scale to measure Japanese people’s dialog attitudes with the elderly, considering culturally influenced prejudiced attitudes.

5. Evaluation of care attitudes of nurses in geriatric nursing

5.1 Characteristics of evaluation scales

Shimizu developed the Dialog Preference Scales for the Elderly (DPSE or Shimizu scale), which assesses nurses’ negative cognition and attitude tendencies during their conversations with elderly individuals, to help address the problem of ageism among caregivers [28].

DPSE has four subconcepts that reliably assess respondents’ relationships with older people [29] (Table 1). These subconcepts are bewilderment (shown through uncertainty), anxiety, cognitive bias (associated with ageism), and difficulty in communication. No other standardized scale is comparable to the DPSE. However, concurrent validity was detected for the DPSE’s “anxiety in relationships” item and the “authoritative anxiety” item in the Social Anxiety Scale in Social Situations [30]. Additionally, DPSE demonstrated predictive validity for the targeted achievement level for nursing students’ clinical training. The total coefficient of reliability (α) was 0.811, thereby confirming internal consistency reliability. The coefficients of reliability (α) were 0.764, 0.687, 0.671, and 0.670 for bewilderment, anxiety, cognitive bias, and communication difficulty, respectively [29]. This scale requires careful interpretation of the scores because the total score represents the degree of negative aspects of attitudes.

5.2 Characteristics of nurses’ interactive attitudes with the elderly: in comparison with nursing students

We clarified the characteristics of nurses’ interactive attitudes with the elderly in comparison with nursing students. This is a finding obtained from a survey of Japanese nurses and nursing students.

Data collection was conducted at hospitals and seminars in Japan. Participants were nurses (n = 186; males: 2.7%; females: 97.3%) and nursing students [n = 552; males: 2.0% (38.4 ± 10.3 years); females: 98.0% (22.9 ± 4.9 years)]. Nursing student data from a study with the same questionnaire were obtained retrospectively.

Data were gathered using the 15-item Shimizu Scale, which measures attributes and four subconcepts (bewilderment, anxiety, cognitive bias, and communication difficulty). Higher scores indicate more negative cognitions or attitudes (maximum score: 28). Data were descriptively analyzed using t-tests and secondary factor analysis of confirmatory factors. The responses of nurses were compared with the previously collected responses of nursing students who differed from nurses in their experience and knowledge.

Nurses’ total scores (mean: 3.94) were significantly lower than the nursing students’ scores (mean: 4.4), indicating that nurses had a more positive view of communication with older people than nursing students.

The path coefficients for dialog preferences in the subfactor for nurses were 0.48 for bewilderment, 0.36 for anxiety, 0.34 for cognitive bias, and 0.72 for communication difficulty (Figure 1). When comparing the fit of the subconcept analysis model,
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GFI was 0.91 (0.95 for nursing students), AGFI was 0.88 (0.93), and CFI was 0.94 (0.94) for nurses, indicating good model fit for nurses. However, a significant difference was seen in the apprehension score for nurses with <1-year experience compared
with those with more experience (p < 0.05). Overall, compared with the nursing student data previously measured using the same scale [28], experienced nurses had more positive attitudes toward older people on the Shimizu Scale.

Moreover, a significant difference in the anxiety scores was observed between nurses with <1 year of experience and those with more experience. Experienced nurses had a more positive attitude regarding communication with older people compared with nursing students. Since this result instructed the current research results, the Shimizu Scale is appropriate for nurses.

The results of this survey show that nurses tend to have more positive attitudes toward the elderly than nursing students and first-year nurses. This is thought to be because the explanatory power of the subordinate concepts of the scale makes it possible to deal with patients with more difficult medical conditions and knowledge of the elderly, thereby reducing anxiety and preventing confusion (31).

5.3 Characteristics of nurses’ interactive attitudes with the elderly in comparison with care workers

Nurses’ interactive attitudes toward the elderly became more positive depending on their experience [31].

What is the difference between nurses and caregivers?

Nurses’ and care workers’ scores on the Dialog Preference Scales for Elderly (DPSE) created from data from nursing students in Japan are compared. For this forward-looking, quantitative, questionnaire-based study, data collection was conducted from 2010 to 2012 with care seminar participants in Japan.

Participants were nurses (n = 277; 36.96 ± 10.33 years old, males; 4.33% females; 95.66%) and care workers (n = 83; 40.52 ± 11.68 years old, males; 25.30% females; 74.69). The samples varied significantly in mean age (p < 0.05) and gender (p < 0.001). The number of years of experience was 139.94 for nurses with SD = 10.99 and 90.99 for care workers with SD = 45.44 (p < 0.001).

Data were gathered using the 15-item Dialog Preference Scales for Elderly (DPSE or Shimizu scale), which assesses nurses’ negative cognition and attitude tendencies during their conversations with elderly individuals [31]. The DPSE measures attributes and the four subconcepts such as bewilderment, anxiety, cognitive bias, and communication difficulty. Higher scores indicate more negative cognitions or attitudes (maximum score: 28). Data were descriptively analyzed using Pearson’s $\chi^2$ test and student’s t-test of confirmatory factors.
Nurses’ total scores (mean; 57.31, SD = 11.84) were not significantly different than care worker’s scores (mean; 57.58, SD = 12.25), indicating that nurses and care workers had a similar view of communicating with older people. However, the subconcept of cognitive bias was significantly lower for nurses, as they likely had higher levels of ageism (p < 0.10).

Additionally, the communication difficulty subconcept was also significantly higher for nurses, possibly because they had been caring for much older patients with more severe illnesses (p < 0.01) [31].

Why do nurses have negative interactive attitudes when caring for the seriously ill elderly?

The reason is that other research results show that medical professionals have a protective attitude toward patients [32]. The protective attitude of medical staff based on the principle of health supremacy is a problem for medical staff in general. Murata et al. revealed that the possibility that nurses have this negative tendency cannot be denied. Negative views of the elderly include prejudices (Ageism) that affect words and actions [27].

6. An effective interactive learning method for geriatric nursing

Factors affecting the quality of nurses’ care for the elderly include prejudiced dialog attitudes, in addition to negative views on the elderly, and protective attitudes. Therefore, learning is necessary to affirm this dialog attitude.

The next section will introduce the learning method.

6.1 Program content

The dialog training program [33] for nursing students who have completed the following pre-learning is introduced. Preparatory learning was positioned at the stage of deepening understanding of the elderly by completing the basic knowledge of basic nursing and practical training for understanding patients and receiving lectures on the elderly for 10 h.

The structure of the program consists of four elements. First, a model demonstration between an experienced nurse and a trained elderly simulated patient is viewed [33–36]. Second, students will role-play with each other. Third, a third-party evaluator and a simulated patient will evaluate the student’s performance. Fourth, the performer student receives feedback from the evaluator and the simulated patient. Here, the simulated patient should verbalize and convey the patient’s inner feelings. A trained simulated patient is a citizen who has the experience of being an elderly patient and who acts like a patient according to the acting scenario created under the learning objectives. Therefore, the citizen’s condition is to be a learning cooperator and to express linguistically the patient-likeness of the elderly. The patient-like expression means having a sense that only the patient can be aware of and being able to verbalize it at the level of student understanding.

6.2 Training method

The following are the specific training methods.

The program consists of lectures and exercises. Lectures for 45 min focused on the involvement techniques of the micro-skills hierarchy constructed by Allen Ivey [37].
The exercise consists of three stages. The scenario is a geriatric scenario for a simulated geriatric patient. The first stage of the exercise is the actual model performance. A model performance of a nurse counselor and a simulated elderly patient is performed for 15 min according to the elderly scenario. At this time, the students will observe and the teacher will explain the involvement behavior and the use of micro-techniques after the implementation. The second stage involves small group role-plays of four students. Students take on the role of nurse, patient, recorder, and evaluator, and the entire group changes roles. The theme of the scenario is “Recently Worrying,” and the performance is recorded for 5 min. The student receives 2 min of feedback from the evaluator after completing the performance. The evaluator gives feedback using the evaluation form for the frequency of use of the micro-techniques and the mayor’s video images and recorded voices used by the recorder. This is done reciprocally. The third stage is a 15-min role-play between a student representative and a simulated patient. Students observe this and receive feedback from performers. Here, questions about the difference in feelings are asked and answered by the visiting students. Finally, the teacher summarizes the learning and concludes (Figure 1).

6.3 Effects of training

We surveyed the results of implementing an interactive learning program for the elderly with 48 nursing students [33]. After the exercise, students stated its worth because they are learning (100%), they understood the actual atmosphere, attitudes, and postures (29%), and they learned more about non-verbal communication, communication selection, and interaction. Of the respondents, 29% understood the content of the lecture through role-playing and feedback, 29% understood the content of the lecture, and 19% thought of it as a useful learning experience as it reduced their anxiety. As for the simulated patients, 95% stated a good practice experience of participating in the simulated patients. This is supported by the following statements: “the model performance gave me an atmosphere that I could not capture with videotapes or lectures,” “I experienced different viewpoints through role-playing,” and “feedback from a tape recorder made my reflections more effective.” Additionally, “I was surprised by the simulated patient’s appearance,” “I could not clarify the difference between paraphrasing and closed questions,” “I felt a real tension in the nurse counselor’s skillful technique, Speaking,” “I was able to see the depth of my habits,” “I was able to see my habits objectively,” and “Students’ feedback helped me understand.” These descriptions suggest that the program was effective.

The statistical examination revealed that the items before and after program learning were significantly “clarified clues for non-verbal communication.” This is supported by the following statements: “the other person’s intentions are reflected in the non-verbal communication that naturally occurs in the process of empathizing with them,” “the silence that affects the first meeting and the first impression has meaning,” “the anxiety of communication is reduced,” etc. Therefore, through this type of learning, students will reduce their anxiety about interacting with the elderly and reduce their expressions of embarrassment.

7. Conclusion

Japan has the highest rate of the aging population in the OECD. Moreover, Japan has rapidly become an aging society in a short period compared to countries such as
France. In Asia, South Korea and Singapore are also aging faster than Japan. In 2000, Japan developed a Long-Term Care Insurance Law for the financial security of elderly care, called the Long-term Care Insurance Law. Twenty-two years have passed since its inception, and it continues to utilize the Long-Term Care Insurance Act with some modifications. Japan’s elderly care methods, including the Nursing Care Insurance Law, will serve as a reference for countries that will become aging societies in the future.

In this chapter, it was explained that young caregivers requires to understand as old people who lived in an unknown past, to understand the physical and psychological changes that accompany aging, and to understand the attitudes of caregivers themselves. As a way of solving problems, the attitudes of nurses were evaluated, and improving the quality of care with undistorted attitudes was explained, as well as specific teaching methods.

I recommend that caregivers, in a country that is becoming an aging society, use this as a reference and hope that they will contribute to the successful aging of the elderly.

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Conflict of interest

The authors declare no conflict of interest.

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