INTRODUCTION

Dignity is an important concept in nursing care, and all individuals have the right to receive dignified care. The importance of providing dignified care in various nursing care settings has been described in many countries Canadian Nurses Association (CNA) (2017); American Nurses Association (ANA) (2016); International Council of Nurses (ICN) (2012). Dignity is easily impaired, and the provision of nursing care, which is expected to keep patients safe and comfortable, may compromise dignity (Papastavrou et al., 2017).

Older individuals are particularly vulnerable because of age-related changes in physical and cognitive functions and presence of several chronic diseases (The Independent Commission on Dignity in Care, 2012; The Japan Nursing Ethics Association, 2015). In 2017, there were an estimated 962 million people aged 60 years or over worldwide, comprising 13% of the global population. By 2050, all regions of the world except Africa will have nearly a quarter or more of their populations at ages 60 years and above (United Nations, 2018). The more the number of older people the more the number of people with dementia. Therefore, currently, approximately 47 million individuals have dementia, and this number is expected to increase...
to 135 million by 2050 (Prince et al., 2016). Despite being more vulnerable, many older patients with dementia experience difficulties in discussing their dignity. Several previous studies have underscored the importance of considering the dignity of older patients with dementia (De Boer et al., 2007; Clare, 2003; Gallagher et al., 2008; Surr, 2006). In an interview survey of older patients with mild-to-moderate dementia, older patients with dementia experienced decreased personal dignity because of changes in identity and loss of autonomy (van Gennip et al., 2016; Oosterveld-Vlug et al., 2015).

The definitions of dignity vary and both nurses and patients themselves experience difficulty in quantitatively understanding how dignity is maintained (Street & Kissane, 2001; Walsh & Kowanko, 2002; Griffin-Heslin, 2005; Matiti & Trorey, 2008; Nordenfelt, 2003 Simone & Sapeta, 2019. Several tools are being developed so that patients themselves can respond to and assess dignity. The J-PDS (Hasegawa & Ota, 2017) is a Japanese version questionnaire to measure patient perceptions of dignity, which was brought by a 35-item questionnaire used for the development of IPDS by Ota et al., (2019). This scale is based on two concepts of dignity: Griffin-Heslin (Griffin-Heslin, 2005) and Walsh & Kowanko (Walsh & Kowanko, 2002), which considers dignity from two perspectives, the nurses and patients themselves. The J-PDS is composed of 21 items under five factors for the patients’ expected level of dignity, including F1: respect for humanity, F2: respect for privacy, F3: courtesy and consideration, F4: respect for justice and equity, and F5: autonomy; and 21 items under three factors for the degree of satisfaction, including F1: respect for privacy, F2: respect for humanity, and F3: respect for autonomy and thoughts. There is other several scales that can evaluate the dignity of hospitalized patients receiving end-of-life care (Chochinov et al., 2008; Periyakoil et al., 2010; Rudilla et al., 2016). For examples, Chochinov et al., (2008) developed the Patient Dignity Inventory, which consists of five factors to determine the causes of distress associated with the dignity of patients approaching the end of life. Tauber-Gilmore et al., (2018) developed a scale to assess dignity of patients in acute-stage wards in which majority of the patients are older; however, this scale also uses patients’ own responses and excludes patients with impaired cognitive function. For older patients outside of hospitals, Jacelon and Choi (2014) developed the Jacelon Attributed Dignity Scale (JADS) to measure the dignity and self-esteem of community-dwelling older individuals, and Papastavrou et al., (2017) developed a Greek version, the JADS-GR. In JADS and JADS-GR, patients respond directly, and older patients with cognitive decline are excluded. Oosterveld-Vlug et al. (2014) developed a long-term care facility evaluation scale—the Measurement Instrument for Dignity Amsterdam—for Long-Term Care facilities (MIDAM-LTC), which measures the dignity of older people living in Dutch nursing homes and uses self-assessments by these individuals; this study also excludes older patients with impaired cognitive function.

The Bradford Dementia Group (1997) developed the Dementia Care Mapping (DCM) method as a measure of dignity in older patients with dementia based on the idea of person-centered care proposed by Kitwood and Bredin (1992). The DCM method evaluates older patients with dementia admitted to hospitals or facilities from two viewpoints: emotion/mood (mood) and relationships (engagement). It evaluates how the patients themselves perceive care related to dignity using proxies. However, this proxy evaluation requires a trained mapper to observe targets every 5 min for at least 6 consecutive hours to perform evaluations, and the assessment is difficult.

Despite the existence of several tools to assess dignity, in all tools except one, the respondents are the older patients themselves and those with impaired cognitive function are excluded. Only the DCM method assesses dignified care via proxy evaluation, but it cannot easily be assessed by nurses in routine care. If healthcare professionals could be provided with a reliable and validated tool to assess dignity for routine use, they may be able to adequately assess dignity expectations and satisfaction of patients with dementia, and such patients would receive more dignified care that meets patients’ expectations. In addition, the quality of care can be improved by having healthcare professionals constantly evaluate their care. Therefore, evaluation tools and methods that patient’s family and nurses in charge can use to easily evaluate dignity on behalf of patients with dementia are necessary. To develop such a dignity proxy evaluation questionnaire, we considered J-PDS is usable, though it is a tool that patients with well cognitive function respond by themselves, because its Japanese version was developed with reliability and validity.

Regarding the proxy evaluation of patients’ dignity, Harris (2015) noted that open discussions on proxy assessment of patients’ dignity are helpful in maintaining the dignity of vulnerable people. However, Zahran et al., (2016) reported that no studies have performed a systematic review of interventions to improve the dignity of older patients in hospitals and noted the need to develop outcome measures for interventions to increase dignity. Therefore, tools and methods for the proxy evaluation of dignity of older patients with dementia who are hospitalized should be developed. Proxy evaluators should be selected from those with low inter-rater disparities (Pickard & Knight, 2005). Based on reports from previous studies regarding proxy evaluators of patient dignity, family members (Councill et al., 2001) and nurses are the candidate proxy evaluators because they continually provide patient care and observe patients.

### 1.1 Study objectives

This study aimed to explore an evaluation questionnaire that enables patients’ families and nurses to serve as proxy evaluators of dignity expectations and satisfaction of older patients with dementia.

### 1.2 Study design

In this study, we conducted a questionnaire survey among three groups. At first, family members and nurses in charge were
interviewed after completing a questionnaire for evaluating the dignity of dementia patients to develop the questionnaire. Next, a questionnaire survey was conducted among three groups: older patients with intact cognitive function, family members of these patients, and nurses.

2 | METHOD

A questionnaire survey was conducted using the draft of the questionnaire for proxy evaluation of dignity (hereinafter, draft questionnaire).

2.1 | Target sites

From 271 general hospitals (excluding pediatrics and obstetrics departments) with over 100 beds in Kanto and Chubu, Japan, 18 institutions agreed to participate in the survey.

2.2 | Target Participants

The inclusion criteria for the survey participants were as follows: hospitalized patients aged 65 years or older with clear consciousness levels who were not diagnosed with dementia or did not present with symptoms of dementia and were able to communicate; family members of the hospitalized patients eligible for the survey, regardless of whether they lived in the same household; nurses in charge with clinical experience of working at a medical institution for at least three years and of providing nursing care to at least five older patients with dementia. The survey was responded to by a group consisting of a patient, their family, and nurse as one triad. When selecting the target patients and family members, the nurses in charge were asked to distribute the draft questionnaire to patients and family members they assessed as having a good mutual relationship.

Because the purpose of this evaluation was to assess the possibility of proxy evaluation of patients, responses from family members and nurses were subjected to correlation analyses with patient responses. Hospitalized older patients without cognitive decline were selected as target participants. The proxy evaluation was expected to be possible even for patients with dementia if the response of elderly patients without cognitive decline was consistent with the responses of their families and nurses in charge, because characteristics such as basic disease and age are almost the same.

2.3 | Questionnaire development

We developed a questionnaire from the interview survey.

The interview survey was conducted at four sites randomly selected from a general hospital (over 200 beds) in Kanto and Chubu, Japan. The participants were nurses involved in the care of older patients with dementia and the family members of these patients. The inclusion criteria for nurses were as follows: at least 3 years of clinical experience and experience with providing nursing care to at least five patients with dementia. The other objective of this survey was to ascertain whether the family could evaluate the patient's thoughts on dignity. Therefore, it was necessary that a family member with a better understanding of the patient be a participant. For that reason, first, we asked the nurses to select a family member in a good relationship with the patient and then selected those who consented to participate in our survey.

Prior to the interviews, the interviewees were asked to provide responses to the Patient Dignity Measurement Scale in Japanese (J-PDS) while keeping the dignity expectations and satisfaction of older patients with dementia in mind. J-PDS used in this study is a 35-item Japanese version questionnaire developed by Hasegawa and Ota (2017), which was developed based on Inpatient Dignity Scale (Ota et al., 2019).

The interview survey was conducted between May 2014 and March 2015.

All interviews were recorded and then transcribed verbatim. Verbatim records were repeatedly read. Interview transcripts were analyzed using a content analysis approach. Codes were extracted regarding the reason for responses to J-PDS, whether it was possible to infer the response to a question, why it was difficult to infer the responses to certain questions, and the possibility of proxy evaluation of dignity expectations and satisfaction of older patients with dementia using the questionnaire. The codes were categorized according to similarities. Analysis was performed with 11 nursing researchers experienced in the development of scales. The draft of modified items was evaluated for content validity based on the Content Validity Index (CVI) criteria (Lynn, 1986) regarding consistency levels with the J-PDS questionnaire. Finally, the draft questionnaire was created for proxy evaluation of dignity used in the second-stage evaluation.

2.4 | Questionnaire survey

The questionnaire survey was conducted using the draft questionnaire. The patients were asked to respond to the questionnaire based on their dignity expectations and satisfaction. The patients' family members and nurses in charge responded by inferring the patients' dignity expectations and satisfaction. Demographic data, such as age and sex; for nurses, number of years of experience and job title; for patients, family structure and hospitalization frequency; and for family members, relationship with the patient and frequency of visits, were included. Additionally, the information that nurses and family members used as a reference when inferring the patient's dignity expectations and satisfaction was collected, and patients were asked to answer the Japanese version of the Rosenberg Self-Esteem Scale (RSES-J) (Yamamoto et al., 1982).
2.5 | Survey period

Surveys were conducted between March 2017 and March 2018.

2.6 | Analytical methods

SPSS 25 (IBM Corp) was used for the analyses. Normality of the distributions was checked via a Q-Q plot. Responses obtained from patients, family members, and nurses were anonymously linked to perform (1) exploratory factor analyses to identify factor structures, (2) correlation analyses of responses of patients with their family members and nurses, and (3) multiple regression analyses using patients' responses as the object variable and nurses' and family members' responses as explanatory variables. To confirm the appropriateness of the sample for EFA, the Kaiser-Meyer-Olkin (KMO) measure of sampling adequacy and Bartlett's test of sphericity were conducted. Reliability was evaluated using Cronbach's alpha. Validity was evaluated by comparing the factors extracted by EFA with the J-PDS. EFA was performed using the principal factor method and promax rotation. Factors were extracted if they had eigenvalue ≥1.0 and all constituent items had factor loadings of ≥0.4. All items that showed cross loading on two or more factors were removed.

2.7 | Ethical considerations

Before the study, the ethics committee of authors' institution (Interview survey: No. 14–137, Questionnaire survey: No. 16–133) approved the study. The researchers verbally explained the survey method to the participants and obtained consent to conduct the interview survey. If an individual institutional review board review was required at the survey site, researchers obtained the approval individually. The questionnaires were returned individually to ensure confidentiality.

3 | RESULTS

3.1 | Interview results for questionnaire development

3.1.1 | Participants

Interviews were conducted with 7 family members, and 14 nurses, which comprised seven family and nurse pairs for the same patients, three pairs of nurses giving care for the same patients, and one nurse providing care for one patient, with a total of 11 patients. Average age of the family members was 64.1 years, and the average years of caring for the patients were 5.3 years. Average patient age was 81.0 years. Average age of the nurses was 39.9 years, and the average clinical experience was 14.4 years.

3.1.2 | Basis for inferring the dignity of older patients with dementia

Prior to interviews, the interviewees were asked to provide responses to the Patient Dignity Measurement Scale in Japanese (J-PDS) while keeping the dignity expectations and satisfaction of older patients with dementia in mind. Following the interview after responses to the J-PDS questionnaire obtained, a total of 560 codes were extracted. Among these codes, 297 were associated with expectations for dignity and 263 with satisfaction with dignity. Codes were extracted regarding the reason for responses to J-PDS, whether it was possible to infer the response to a question, why it was difficult to infer the responses to certain questions, and the possibility of proxy evaluation of dignity expectations and satisfaction of older patients with dementia using the questionnaire.

The basis for inferring patient expectation and satisfaction was classified into seven categories (Table 1). The number shown in the table is the number of nurses who answered. Many nurses indicated that there was "difficulty in proxy inferring" the dignity expectations
and satisfaction of individual older patients. They expressed little confidence in their responses because when they thought about the patient, their belief as a nurse and their evaluation of their nursing care would affect their estimations and responses. Family members indicated that “they confuse their feelings with those of older patients with dementia and it is difficult to respond” as reasons for difficulty in inferring patient responses. However, some family members indicated that “satisfaction is clear, because they could observe patient reactions. Therefore, it is easier to respond to questions on satisfaction rather than expectation.” Also, it became clear that family members could infer the expectations and satisfaction of the patient from facial expressions and reactions, similar to nurses.

3.1.3 | Feasibility of proxy evaluation using the J-PDS questionnaire

After the interview, to assess the possibility of proxy evaluation using the questionnaire, responses were obtained from 12 out of 14 nurses and 6 out of 7 family members. Ten nurses responded “can be inferred” or “can be inferred if corrected,” and two nurses responded “cannot be inferred.” Five family members responded “can be inferred,” “a portion can be inferred,” or “I would like to infer,” and one responded that “cannot be inferred.” Thus, the J-PDS questionnaire was deemed difficult to use; however, its use was feasible with modifications, and items of the questionnaire were thus modified.

3.1.4 | Modification of the J-PDS questionnaire

Based on the interview responses regarding the possibility of inferring dignity expectations and satisfaction of older patients with dementia, items in the J-PDS questionnaire were classified according to whether modifications were required for family members and nurses to evaluate these questions on behalf of the patients: (a) no modifications, (b) partial modifications, (c) major modifications, and (d) deletion (no use as a proxy question).

The results showed that 4 questionnaire items required no modifications, 13 required partial modifications, 9 required major modifications, and 9 required deletion. Regarding items of satisfaction, additional three items needed to be deleted.

The draft of modified items was evaluated for content validity by 11 nursing ethics researchers experienced in the development of scales based on the Content Validity Index (CVI) criteria (Lynn, 1986) regarding consistency levels with the J-PDS questionnaire. The items were reviewed, modified, and evaluated three times.

From the aforementioned evaluation, after 8 of 35 items regarding expectations for dignity were adopted without modification, 22 were adopted with modifications, and 5 were deleted because it was difficult to obtain responses to these items via proxy evaluation. Finally, a 30-item questionnaire was prepared for the proxy evaluation of expectation of dignity. Regarding satisfaction, after 8 of 35 items regarding satisfaction with dignity were adopted without modification, 15 items were adopted after modification, and 12 were deleted, and finally, a 23-item the draft questionnaire was developed for the proxy evaluation of satisfaction with dignity.

3.2 | Questionnaire results

3.2.1 | Attributes of respondents

Of the 174 sets and 512 copies of the draft questionnaire sent to 18 general hospitals that agreed to participate in the questionnaire surveys, 81 patients, 75 family members, and 77 nurses sent back responses for a total of 233 respondents. Among these, 186 responses excluding those with clear deficiencies in the response were included in the analysis. Responses were obtained from 69 patients, 57 family members, and 60 nurses. In total, 52 complete sets of responses were obtained from patients, family members, and nurses; on the other hand, 5 sets of only patients and family members, 8 sets of only patients and nurses, and 4 responses from only patients were obtained. The response rate to the questionnaire was 45.5%, and the effective response rate was 74.7% (Table 2).

3.2.2 | Correlation between patients' responses and family members' or nurses' responses to the proxy evaluation

Analysis of correlations between patients’ responses and family members’ or nurses’ responses was performed. There were significant correlations between family members’ and patients’ responses to 18 of 30 items of expectations for dignity (r = 0.13–0.45) and for 21 of 23 items of satisfaction with dignity (r = 0.44–0.64) (p <.05). Conversely, there was only a weak significant correlation (r = 0.27) between patients’ and nurses’ responses to only one item under expectations for dignity (p <.05) and no item under satisfaction with dignity. However, when their clinical experiences were narrowed down to 20 years or more, the number of items showing significant correlations increased; there were correlations in responses to 10 of 30 items of expectations for dignity (r = 0.50–0.84) and 6 of 23 items of satisfaction with dignity (r = 0.56–0.78) (p <.05). Additionally, in multiple regression analyses (stepwise method) with patients’ responses as a dependent variable and responses of family members’ and nurses with 20 years or more responses as independent variables, there were significant correlations (R² = 0.42–0.75) in responses to 11 of 30 items of expectations for dignity and in 9 of 23 items (R² = 0.42–0.77) of satisfaction with dignity (p <.05; Table 3).

3.2.3 | Means and standard deviations of responses of patients, family members, and nurses

The means and standard deviations of responses from patients, family members, and nurses with clinical experience of 20 years or
more are shown in Table 4. The ratios of the mean response regarding expectation of patients from family members and nurses with ≥20 years of clinical experience were 0.94–1.08 for responses of family members and 0.96 for responses of nurses with ≥20 years of clinical experience, whereas the ratios regarding satisfaction were 0.92–0.94 for responses of family members and 0.83–0.91 for responses of nurses with ≥20 years of clinical experience.

### 3.2.4 Information used as references when inferring responses

The patients’ family members and nurses selected on the basis of judgment from seven items, including the patient's facial expressions and remarks, as a reference when inferring the patient's dignity expectations and satisfaction (Table 1, right). Over 80% of nurses inferred responses from patients’ facial expressions and remarks and 70% from patients’ reactions and attitude. Conversely, 70% of family members inferred responses from patient’s facial expressions and remarks and only 50% from patients’ the reactions and attitude.

### 3.2.5 Exploratory factor analysis

Exploratory factor analysis was performed on the patient's own responses by narrowing down the analysis to items that showed correlations between patients’ and family members’ or nurses’ responses. The number of items was 23 items regarding expectations for dignity and 22 items regarding satisfaction with dignity.
| No | Patient– family members | Patient– nurses | Patient– nurses for 20 years or longer | Patient– family members– nurses for 20 years or longer (multiple regression) |
|----|-------------------------|----------------|-------------------------------------|--------------------------------------------------|
|    | r                       | r              | r                                  | R²                                               |
| 1  | 0.377**                 | −0.022         | 0.512*                             | 0.456*                                           |
| 2  | 0.325*                  | 0.101          | 0.436                              | 0.292                                            |
| 3  | 0.340*                  | −0.141         | 0.420                              | 0.326                                            |
| 4  | 0.156                   | −0.193         | 0.014                              | 0.027                                            |
| 5  | 0.311*                  | −0.128         | 0.092                              | 0.159                                            |
| 6  | 0.254                   | 0.065          | 0.811**                            | 0.718**                                          |
| 7  | 0.135                   | −0.077         | 0.310                              | 0.178                                            |
| 8  | 0.170                   | −0.065         | 0.266                              | 0.157                                            |
| 9  | 0.126                   | −0.002         | 0.333                              | 0.210                                            |
| 10 | 0.278*                  | −0.072         | 0.335                              | 0.481*                                           |
| 11 | 0.461**                 | 0.000          | 0.424                              | 0.268                                            |
| 12 | 0.177                   | −0.019         | 0.176                              | 0.243                                            |
| 13 | 0.192                   | −0.042         | 0.643**                            | 0.426*                                           |
| 14 | 0.308*                  | 0.141          | 0.313                              | 0.266                                            |
| 15 | 0.296*                  | 0.050          | 0.157                              | 0.202                                            |
| 16 | 0.206                   | −0.115         | 0.511*                             | 0.319                                            |
| 17 | 0.281*                  | 0.002          | 0.756**                            | 0.557**                                          |
| 18 | 0.131                   | −0.175         | −0.097                             | 0.282                                            |
| 19 | 0.217                   | 0.132          | 0.844**                            | 0.752**                                          |
| 20 | 0.369*                  | 0.269*         | 0.721**                            | 0.506*                                           |
| 21 | 0.252                   | −0.137         | 0.477                              | 0.665**                                          |
| 22 | 0.288*                  | 0.064          | 0.268                              | 0.274                                            |
| 23 | 0.401**                 | −0.002         | 0.531*                             | 0.523*                                           |
| 24 | 0.234                   | −0.008         | 0.170                              | 0.170                                            |
| 25 | 0.420**                 | 0.058          | 0.502*                             | 0.471*                                           |
| 26 | 0.402**                 | −0.023         | 0.397                              | 0.679**                                          |
| 27 | 0.448**                 | 0.000          | 0.557*                             | 0.331                                            |
| 28 | 0.389**                 | −0.091         | −0.026                             | 0.368                                            |
| 29 | 0.332*                  | −0.074         | −0.052                             | 0.165                                            |
| 30 | 0.383**                 | −0.005         | 0.174                              | 0.345                                            |

| No | Satisfaction with dignity | Patient– family members | Patient– nurses | Patient– nurses for 20 years or longer | Patient– family members– nurses for 20 years or longer (multiple regression) |
|----|----------------------------|-------------------------|----------------|-------------------------------------|--------------------------------------------------|
|    | r                          | r                       | r              | r                                  | R²                                               |
| 1  | 0.595**                    | −0.071                  | 0.580*         | 0.347                               |                                                  |
| 2  | 0.618**                    | −0.068                  | 0.045          | 0.160                               |                                                  |
| 3  | 0.467**                    | −0.092                  | 0.148          | 0.268                               |                                                  |
| 4  | 0.582**                    | 0.101                   | 0.437          | 0.209                               |                                                  |
| 5  | 0.609**                    | 0.014                   | 0.182          | 0.081                               |                                                  |
| 6  | 0.580**                    | 0.008                   | 0.654**        | 0.435*                              |                                                  |
| 7  | 0.614**                    | −0.133                  | 0.196          | 0.144                               |                                                  |
| 8  | 0.644**                    | 0.018                   | 0.112          | 0.433*                              |                                                  |
| 9  | 0.604                      | 0.001                   | 0.184          | 0.036                               |                                                  |
| 10 | 0.521**                    | −0.004                  | 0.363          | 0.434*                              |                                                  |
| 11 | 0.270                      | 0.248                   | 0.776**        | 0.757***                            |                                                  |
| 12 | 0.398**                    | 0.061                   | 0.605**        | 0.304                               |                                                  |
| 13 | 0.619**                    | 0.004                   | 0.311          | 0.772**                             |                                                  |
| 14 | 0.059                      | 0.007                   | 0.362          | 0.073                               |                                                  |

(Continues)
Because Q– Q plots by item analyses did not show normality in several items, we adapted principal factor analysis instated of maximum likelihood in promax rotation. The number of factors was determined based on an eigenvalue of 1.0 or more and items with a factor load of 0.4 or more that did not show double loads of 0.4 or more.

Expectations for dignity

As shown in Table 5, “expectations for dignity” showed a 13-item, 3-factor structure. The seven items under Factor I consisted of four items in F1 (respect for humanity) and three items in F4 (respect for justice and equity) in J-PDS. Factor II consisted of four items in F2 (respect for privacy) in J-PDS. Factor III consisted of two items in F5 (respect for autonomy) in J-PDS. Therefore, F1 (respect for humanity, justice, and equity), F2 (respect for privacy), and F3 (respect for autonomy) were named accordingly those factors based on J-PDS. Cronbach’s alpha coefficients for all 13 items under expectations for dignity and for Factors I, II, and III, which constituted expectations for dignity and demonstrated high internal consistency. The criterion confirming sampling suitability, KMO, was 0.851, which confirmed the adequacy of sampling (Strickland, 2003).

Satisfaction with dignity

“Satisfaction with dignity” showed a 12-item, 2-factor structure. However, when compared to the factor structure of J-PDS, items included in the two factors did not match those in J-PDS. This means satisfaction with dignity could not be extracted appropriately by this questionnaire.

### 3.2.6 Evaluation of criteria-related validity

Based on the results of RSES-J for criteria-related validity, no significant correlations were found between the total scores of all 13 items under expectations for dignity and the total scores for F1 to F3 (p <.05).

### 4 DISCUSSION

#### 4.1 Assessment of the reliability and validity of the questionnaire for proxy evaluation of dignity

For content validity of revised draft questionnaire, all items were repeatedly examined, revised, and evaluated according to the CVI criteria by 11 nursing ethics researchers to ensure its validity. Therefore, a certain level of content validity was ensured during questionnaire modification.

To evaluate reliability, Cronbach’s alpha coefficients were obtained and showed considerably high scores (>0.80) for all 13 items under expectations for dignity and for Factors I, II, and III, which constituted expectations for dignity and demonstrated high internal consistency. The criterion confirming sampling suitability, KMO, was 0.851, which confirmed the adequacy of sampling (Strickland, 2003).

However, RSES-J, which was adopted as an external standard for criteria-related validity, did not show significant correlations among patients’ responses in terms of total score for expectation and for the three extracted factors. Although dignity and self-esteem may be correlated (Sakurai, 2000), J-PDS shows only a weak correlation with RSES-J (Hasegawa & Ota, 2017). In this study, we revised several questions of J-PDS even if keeping content validity; therefore, such a weak correlation might not be detected in this study.

Comparisons of a five-factor structure of J-PDS showed F1 (respect for humanity) and F4 (respect for justice and equity) of J-PDS were integrated into one factor, whereas F2 (respect for privacy) and F5 (autonomy) were captured independently. Although F3 (courtesy and consideration) was not extracted, the constitutive concept of dignity was considered to be reflected to some extent.

From these findings, although issues with criteria-related validity remain, the questionnaire in this study showed high internal consistency and the appropriateness of sampling could be confirmed. Additionally, content validity was ensured using the CVI standard, and to some extent, the constitutive concept of dignity was
| No. | Question                                                                 | **Patients** |                      | **Family members** |                      | **Nurses for 20 years or longer** |                      |
|-----|--------------------------------------------------------------------------|--------------|----------------------|--------------------|----------------------|-----------------------------------|----------------------|
|     |                                                                          | **Expectations for dignity (with 5 as the maximum possible score)** | **Satisfaction with dignity (with 5 as the maximum possible score)** | **Expectations for dignity (with 5 as the maximum possible score)** | **Satisfaction with dignity (with 5 as the maximum possible score)** | **Expectations for dignity (with 5 as the maximum possible score)** | **Satisfaction with dignity (with 5 as the maximum possible score)** |
| 1   | Physicians/nurses treat me and care for me politely as an individual human being. | 4.31 0.91    | 4.43 0.87            | 4.07* 0.84         | 4.11** 1.02          | 4.24 0.83                        | 3.86** 0.91          |
| 2   | Physicians/nurses maintain eye contact with me while talking.            | 4.33 0.94    | 4.45 0.82            | 4.16 0.81          | 4.35 0.91           | 4.38 0.59                        | 4.05* 0.92           |
| 3   | Before beginning treatment or care, physicians/nurses explain the procedure to me using words that I can understand. | 4.22 0.92    | 4.06 0.98            | 4.19 0.83          | 4.14 1.00           | 4.14 0.85                        | 3.95 0.86           |
| 4   | The nurses respect my desires and preferences about methods of excretion. | 4.38 0.84    | 4.27 0.92            | 4.30 0.71          | 4.20 0.95           | 4.15 0.93                        | 3.90* 0.91          |
| 5   | Physicians/nurses respect me as a human being.                          | 4.36 0.90    | 4.33 1.01            | 4.33 0.69          | 4.37 0.93           | 4.33 0.86                        | 4.10 1.00           |
| 6   | Physicians/nurses listen to me properly, nodding and responding.        | 4.40 0.85    | 4.33 0.95            | 4.28 0.82          | 4.33 0.99           | 4.24* 0.89                       | 3.86** 0.91         |
| 7   | Physicians/nurses talk to me kindly and politely.                       | 4.36 0.92    | 4.49 0.88            | 4.36 0.72          | 4.36 0.91           | 4.19* 0.87                       | 3.86** 0.91         |
| 8   | Physicians/nurses are polite not only to me but to my family as well.   | 4.30 0.92    | 4.38 0.92            | 4.29 0.72          | 4.35 0.84           | 4.29 0.96                        | 3.95* 0.97          |
| 9   | Physicians/nurses talk to me at my eye level.                           | 4.22 0.95    | 4.22 1.04            | 4.14 0.74          | 4.16 0.93           | 4.19 0.87                        | 3.71** 0.78         |
| 10  | Physicians/nurses treat me, understanding my hopes and expectations.    | 4.18 0.99    | 4.13 0.97            | 4.17 0.75          | 3.94 0.95           | 4.10 1.00                        | 3.43** 0.87         |
| 11  | Physicians/nurses greet me when they see me.                            | 4.33 0.88    | 4.42 0.77            | 4.09* 0.85         | 4.05** 0.91         | 4.43 0.75                        | 4.29 1.01           |
| 12  | If I feel pain, physicians/nurses treat my pain promptly.                | 4.48 0.86    | 4.35 0.99            | 4.35 0.71          | 4.18 0.98           | 4.33 0.91                        | 4.10 1.04           |
| 13  | Physicians/nurses respect the time my family spends visiting me in hospital. | 4.30 0.92    | 4.40 0.82            | 4.32 0.74          | 4.38 0.72           | 4.33 0.80                        | 4.24 0.77           |
| 14  | Physicians/nurses treat me patiently and unhurriedly                     | 4.27 0.96    | 4.32 0.93            | 4.22 0.88          | 4.27 0.92           | 4.24 0.83                        | 3.71* 0.78          |
| 15  | Physicians/nurses provide treatment or care at my own pace.             | 4.26 0.93    | 4.23 1.06            | 4.22 0.79          | 4.05 0.92           | 4.10 0.89                        | 3.57** 0.75         |

(Continues)
| No. | Question                                                                 | Patients |                      | Family members |                      | Nurses for 20 years or longer |                      |
|-----|--------------------------------------------------------------------------|----------|----------------------|----------------|----------------------|-----------------------------|----------------------|
|     |                                                                          | Expectations for dignity (with 5 as the maximum possible score) | Mean | SD | Expectations for dignity (with 5 as the maximum possible score) | Mean | SD | Expectations for dignity (with 5 as the maximum possible score) | Mean | SD |
| 16  | Physicians/nurses are aware of my suffering and treat me with sympathy and compassion. | 4.31 | 0.93 | 4.25 | 0.97 | 4.27 | 0.83 | 4.08 | 1.00 | 4.24 | 0.70 | 3.80* | 0.62 |
| 17  | Physicians/nurses are always smiling and cheerful when they interact with me. | 4.42 | 0.82 | 4.49 | 0.91 | 4.29 | 0.83 | 4.20** | 0.96 | 4.38 | 0.74 | 4.20 | 0.77 |
| 18  | Physicians/nurses do not discriminate against me (expectation only). | 4.53 | 0.77 | 4.47 | 0.69 | 4.45 | 0.69 | 4.43 | 0.81 |
| 19  | Physicians/nurses do not treat me unfairly (expectation only). | 4.45 | 0.85 | 4.45 | 0.69 | 4.43 | 0.81 |
| 20  | The nurses speak on my behalf about things worrying me. | 4.17 | 0.99 | 4.00 | 1.05 | 4.20 | 0.78 | 4.04 | 1.00 | 4.00 | 0.84 | 3.50 | 0.89 |
| 21  | Physicians/nurses allow me to participate in the process of deciding my treatment plan. | 4.01 | 0.98 | 4.07 | 0.93 | 3.96 | 0.95 | 3.83 | 1.04 | 4.05 | 0.80 | 3.50* | 1.00 |
| 22  | Physicians/nurses express the options available to me in a way that I can understand and decide them in consultation with me. | 4.03 | 0.98 | 4.04 | 1.01 | 4.02 | 0.87 | 3.87 | 1.03 | 4.00 | 0.77 | 3.58 | 0.96 |
| 23  | Physicians/nurses understand whether I desire treatment for my illness (expectation only). | 4.36 | 0.89 | 4.28 | 0.74 | 4.05 | 0.86 |
| 24  | Physicians/nurses talk to me privately about my issues without allowing others to hear. | 4.14 | 0.98 | 3.95 | 1.08 | 4.23 | 0.78 | 4.00 | 0.89 | 4.10 | 0.77 | 3.71 | 0.78 |
| 25  | Physicians/nurses keep me protected with coverings or cloths, etc., while providing medical treatment or nursing care. | 4.15 | 1.02 | 4.13 | 0.93 | 4.22 | 0.82 | 4.08 | 0.81 | 4.05 | 0.86 | 3.62 | 0.97 |
| 26  | Physicians/nurses draw the bedside curtain or close the door to protect my privacy during medical treatment or nursing care (expectation only). | 4.37 | 0.95 | 4.49 | 0.64 | 4.24 | 0.77 |
| 27  | Physicians/nurses ask for my permission before opening bedside curtain or the door. | 4.24 | 1.05 | 4.38 | 0.89 | 4.39 | 0.69 | 4.26 | 0.78 | 4.14 | 0.79 | 3.90 | 0.85 |
| No. | Question                                                                 | Patients | Family members | Nurses for 20 years or longer |
|-----|---------------------------------------------------------------------------|----------|----------------|-------------------------------|
|     |                                                                           | Expectations for dignity (with 5 as the maximum possible score) | Satisfaction with dignity (with 5 as the maximum possible score) | Expectations for dignity (with 5 as the maximum possible score) | Satisfaction with dignity (with 5 as the maximum possible score) |
|     |                                                                           | Mean     | SD             | Mean                         | SD               | Mean                         | SD               | Mean                         | SD               |
| 28  | Physicians/nurses protect my personal information in such a way that it will not be leaked to other people (expectation only). | 4.39     | 0.95           | 4.73**                       | 0.49             | 4.38                         | 0.74             |
| 29  | Physicians/nurses do not collect information that is unnecessary for my medical treatment or nursing care (expectation only). | 4.29     | 0.99           | 4.60                         | 0.53             | 4.33                         | 0.73             |
| 30  | Physicians/nurses give me the information I need to know in a manner that is easy to understand (expectation only). | 4.36     | 0.97           | 4.53                         | 0.58             | 4.29                         | 0.72             |

Mean 4.30 4.27 4.29 4.16 4.23 3.84
Standard deviation (SD) 0.12 0.16 0.17 0.16 0.13 0.24
Max 4.53 4.49 4.73 4.38 4.48 4.29
Min 4.01 3.95 3.96 3.83 4.00 3.43

Note: Significant difference in the patient's response based on t tests. *p < .05. **p < .01.
confirmed. Thus, this questionnaire is somewhat reliable and valid as a proxy evaluation questionnaire for patients with dementia.

### 4.2 Possibility of proxy evaluation of patients’ dignity expectations and satisfaction

More responses from family members displayed a correlation with patients’ responses to expectations for dignity than those from nurses’ responses. Limited to nurses with clinical experience of 20 years or more, the number of items for which a correlation was observed for expectations for dignity increased. Fujimoto (2000) has cited experience as a factor influencing the processes through which nurses empathize with patients and has reported that accumulating significant experience leads to increased empathy with patients. Katsuki (2009) has also mentioned that in the evaluation of nurses in the field of psychology, the extent of experience reduces the psychological distance from the patient. Nurses with clinical experience of 20 years or more show a higher ability to empathize with patients and form a closer psychological connection, making it easier for
them to infer patient’s responses, leading to increased correlation with the patient’s responses. Moreover, the results of the interview survey indicated “difficulty in third parties making inferences,” and the influence of individual nursing beliefs and evaluations of nursing assistance on the response may also be an obstacle to making correct inferences. Meanwhile, for family members, although responses of “I confuse their feelings with those of older patients with dementia” were obtained in the first stage of the interview survey, responses such as “satisfaction is clear and easy to answer” were also obtained, suggesting that they have learned to pick up patient reactions expressing their satisfaction based on their experiences in their daily lives with the patient.

The difference in mean of responses regarding expectations for dignity was within 10% between patients and their family members; nurses with clinical experience of 20 years or more, and difference in mean of responses regarding satisfaction with dignity was 10% between patients and their family members; thus, there were not so big differences. However, the difference in mean of responses for satisfaction with dignity between patients and nurses was 10%–20%, and nurses rated the patients’ responses considerably lower, indicating that nurses underestimated the patient’s satisfaction with dignity. Oosterveld-Vlug et al., (2015) reported that in a survey in which the dignity of residents at older care institutions was assessed by their family members, nurses, and physicians using the MIDAM-LTC, nurses and physicians gave low scores to items related to themselves, which is consistent with the trend seen in this study. Evaluation of nursing practice of the nurses themselves was also reflected in the patient’s responses in the interview survey in the first stage. Thus, it is important for nurses to understand that patients rate satisfaction with dignity higher than their evaluation.

In this study, it was not possible to accurately capture the concept that constitutes satisfaction with dignity based on exploratory factor analysis. The investigation items must be modified to demonstrate the construct of dignity.

A proxy evaluation of patients’ expectations for dignity by family members and nurses with clinical experience of 20 years or more proved to be feasible. These results indicate the possibility of proxy evaluations of dignity even for older patients who experience difficulties in expressing expectations for dignity due to reasons such as dementia.

5 | STUDY LIMITATIONS

While developing the questionnaire, participants were selected only as “family members with good relationships.” This is likely to be a selection bias.

In the study, three groups were asked to respond as a set to evaluate the correlation between patients’ and their family members’ responses as well as between patients’ and responses of nurses in charge. The target participants were older patients without dementia; thus, the results of this study cannot clearly demonstrate whether the perspectives of dignity of patients with dementia were actually captured. Since the survey was conducted in older patients without dementia but with similar attributes, the possibility of proxy evaluation was indicated. The number of respondents decreased since three groups were asked to respond as a single set. Differences such as those observed in comparisons based on characteristics may have not been clarified.

In this study, questionnaire items were extracted while confirming content validity; however, a correlation with RSES-J used to evaluate external validity was not observed. Moreover, it was not possible to maintain construct validity with respect to the degree of satisfaction with dignity. In the future, further evaluations are necessary to ensure these types of validity.

6 | CONCLUSION

In this study, a reliable and valid proxy questionnaire, which has a 3-factor structure and 13 items, was created for evaluation of dignity expectations of patients by family members and nurses with clinical experience of 20 years or more. Although issues with criterion-related validity remain, the questionnaire in this study showed high internal consistency and the appropriateness of sampling could be confirmed. Additionally, content validity was ensured using the CVI standard, and to some extent, the constitutive concept of dignity was confirmed. Thus, this questionnaire is somewhat reliable and valid as a proxy evaluation questionnaire for patients with dementia. Using this questionnaire, it is possible to grasp the expectations of patients with cognitive decline concerning dignity and provide dignified nursing assistance.

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CONFLICTS OF INTEREST
The authors of this article do not have conflicts of interest to report.

AUTHOR CONTRIBUTIONS
Study design: EO, KO, CS, and YN; data analysis: EO, KO, CS, YN, and SY; preparation of draft article: EO, KO, YN, CS, SY, JM, and MM.

ETHICAL APPROVAL
This study was approved by the ethics committee of the Bioethics Review Board of the Graduate School of Medicine and Nagoya University Hospital in Nagoya, Japan (approval number: Interview survey No. 14–137, Questionnaire survey No. 16–133).

DATA AVAILABILITY STATEMENT
The data that support the findings of this study are available from the corresponding author, EO, upon reasonable request.
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