International Journal of Gerontology 9 (2015) 161–165

Contents lists available at ScienceDirect

International Journal of Gerontology

journal homepage: www.ijge-online.com

Original Article

Burnout of Long-term Care Facility Employees: Relationship with Employees' Expressed Emotion Toward Patients☆

Koji Tanaka [1,2 *], Naoki Iso [3,5], Akira Sagari [4,5], Akiko Tokunaga [1,2], Ryoichiro Iwanaga [2], Sumihisa Honda [5], Hideyuki Nakane [1], Yasuyuki Ohta [6], Goro Tanaka [1]

[1] *Department of Psychiatric Rehabilitation Science, Unit of Rehabilitation Sciences, Nagasaki University Graduate School of Biomedical Sciences, Japan,* [2] *Department of Occupational Therapy, Unit of Physical Therapy and Occupational Therapy, Nagasaki University Graduate School of Biomedical Sciences, Japan,* [3] *Miharadai Hospital, Japan,* [4] *The Japanese Red Cross Nagasaki Genbaku Hospital, Japan,* [5] *Department of Community-based Rehabilitation Sciences, Unit of Rehabilitation Sciences, Nagasaki University Graduate School of Biomedical Sciences, Japan,* [6] *Nishikyusyu University, Japan*

ARTICLE INFO

Article history:
Received 21 November 2014
Received in revised form
23 March 2015
Accepted 16 April 2015
Available online 1 September 2015

Keywords:
burnout,
expressed emotion,
long-term care facility employees

SUMMARY

Background: This study determined factors related to the burnout of long-term care facility employees, including employees' expressed emotion (EE) toward patients.
Methods: A survey of 411 long-term care facility employees was conducted. Employee burnout was evaluated using the Maslach Burnout Inventory (MBI). EE levels were evaluated using the Nurse Attitude Scale (NAS).
Results: The percentage of high scorers on the MBI's three subscales of emotional exhaustion, depersonalization, and low personal accomplishment were as follows: emotional exhaustion, 197 people (51.6%); depersonalization, 122 people (31.4%); and low personal accomplishment, 301 people (83.8%). Results of multiple logistic regression analysis using presence of a high score on the MBI subscales as dependent variables confirmed significant relevant factors. For emotional exhaustion, this was criticism [odds ratio (OR): 1.74, $p = 0.046$], for depersonalization, male (OR: 1.99, $p = 0.021$), younger than 40 years (OR: 1.84, $p = 0.038$), and hostility (OR: 2.99, $p < 0.001$).
Conclusion: Results indicate that employees' EE of criticism and hostility toward patients is related to burnout.

1. Introduction

According to the World Health Organization, in 2010 there were 35.6 million people with dementia in the world and that number is estimated to reach 115.4 million people by 2050.[1] In 2013, the prevalence of dementia in the elderly, aged ≥ 65 years, in Japan was estimated to be 15%, with an estimated 4.62 million people, and the prevalence of mild cognitive impairment was calculated to be 4 million people.[2] Therefore, dealing with dementia is an urgent issue.

The long-term care (LTC) facility (*Roken*) is a new facility for the elderly, established in 1986 as a transitional facility between hospital and home. The number of elderly patients with dementia in *Roken* is rising, and an improvement in dementia care quality is needed.[3] However, at *Roken*, the turnover of nursing staff is high, securing staff is difficult, and chronic staff shortages are serious problems.[4] Prior to this, there have been various reports on factors related to employee burnout in providing the elderly LTC, although it is easy to become exhausted with elderly dementia patients.[5] This is due to the fact that within dementia, there is a high rate of behavioral and psychological symptoms of dementia (BPSD), and this places a heavy burden on employees.[6] In addition, employees' burden and poor interpersonal relationships between elderly dementia patients and employees exacerbate BPSD.[6]

The best index for evaluating relationships between patients and employees is expressed emotion (EE).[7,8] Katsuki et al[9,10] developed the Nurse Attitude Scale (NAS) to evaluate nurses' EE and studied the factors influencing nurses' EE.[11] However, there are

☆ Conflicts of interest: All contributing authors declare that they have no conflicts of interest.

* Correspondence to: Dr Koji Tanaka, Department of Psychiatric Rehabilitation Sciences, Nagasaki University Graduate School of Biomedical Sciences, 1-7-1 Sakamoto, Nagasaki 852-8520, Japan.
E-mail address: kojicbr@nagasaki-u.ac.jp (K. Tanaka).

http://dx.doi.org/10.1016/j.ijge.2015.04.001

no studies investigating EE and related factors of *Roken* staff. Therefore, this study elucidated the factors related to the burnout of LTC facility employees, including the employees' EE.

2. Materials and Methods

2.1. Participants

The participants are nurses and caregivers employed at *Roken*. We distributed 30 surveys to each of the 49 *Roken* staff belonging to the Nagasaki Association of Geriatric Health Services Facilities (a total of 1470 surveys), and received responses from 411 people (response rate, 28.0%). The survey period was from October 2008 to December 2008. The survey was conducted anonymously, and respondents were asked to post the survey directly after sealing the questionnaire in an envelope. This study received approval from the Nagasaki University Graduate School of Biomedical Sciences Department of Health Ethics Committee (approval number: 08092576).

2.2. Questionnaire

The questionnaire items included the Maslach Burnout Inventory (MBI),[12] NAS,[9] and the participants' basic attributes.

MBI is a scale developed by Maslach et al[12] to measure burnout, and consists of 22 items evaluated on a 7-point Likert-type scale ranging from never (0 points) to every day (6 points). The scale is composed of three subscales: emotional exhaustion (9 items), depersonalization (5 items), and personal accomplishment (8 items). High burnout is defined as an emotional exhaustion score of 27 points or higher, depersonalization score of 10 points or higher, and personal accomplishment score of 33 points or lower.[12] The reliability and validity of the Japanese version of MBI have been proven in several references.[10,13,14]

NAS evaluates staff EE and it has a 30-item version[9] and a 12-item version.[10] It was created by Katsuki et al[9,10] by revising the phrasing of the Japanese version[15] of the Family Attitude Scale,[16] a questionnaire for evaluating families' EE. The 30-item version used in this study has a total score of 120 points rated on a 5-point scale (very much applies: 4 points; to does not apply at all: 0 points), and is composed of three subscales: positive remarks (10 items), criticism (12 items), and hostility (8 items).[11] The NAS obtained high reliability and validity in a study of psychiatric nurses.[9–11] When determining the total scores of NAS, the 10 items for positive remarks were reverse calculated. Thus, a high total score on the NAS indicates a high EE of the participants. For the NAS responses, we used the same method of Katsuki et al,[11] asking participants to recall one difficult patient from the past 2 months and then respond.

For basic attributes, we inquired about sex, age, job, work department, night shifts, years of service at current workplace, and length of time dealing with the recalled patient.

2.3. Statistical analyses

For comparison between the two groups, we used a Mann-Whitney test, and for comparison between three or more groups we used a Kruskal–Wallis test. In order to study the magnitude of the independent effects on each factor of the MBI, we performed multiple logistic regression analysis (forced entry method) with the presence of a high score on the MBI subscales as dependent variables. We used SPSS (version 17; SPSS Inc., Chicago, IL, USA) statistical software and a statistical significance level of 5%.

3. Results

3.1. Sociodemographic characteristics

Of the 411 participants, 107 were male (26.0%), 303 were female (73.7%), and one person did not respond (0.2%). In age, 115 people were in their 20s (28%), 114 people were in their 40s (27.7%), and 110 people were in their 30s (26.8%), which were the most common ages respectively, and the average age was 37.5 years [$N = 410$, standard deviation (SD) = 10.8]. For jobs, 112 people (27.3%) were nurses, 291 people (70.8%) were caregivers, nine people were other (2.2%), and one person did not respond (0.2%). For work departments (location), 384 people (93.4%) were responsible for patients living in facilities, 24 people were responsible for home-care patients' outpatient rehabilitation services, and five people were other (1.3%). With regards to night shifts, 343 people (83.5%) worked night shifts, 61 people (14.8%) did not, five people were other (1.5%), and one person did not respond (0.3%). Average years of clinical experience was 10.1 years (SD = 8.3), and average years of service at current workplace was 5.8 years (SD = 4.6). Ninety (21.9%) people had a dementia specialty ward established in their workplace, 315 people did not have one established (76.6%), and six people did not respond (1.5%).

3.2. Factors related to burnout and mental health

The percentages of high scorers for each scale were as follows: emotional exhaustion, 197 people (51.6%); depersonalization, 122 people (31.4%); low personal accomplishment, 301 people (83.8%). Cronbach α coefficients for emotional exhaustion, depersonalization, and personal accomplishment were 0.85, 0.76, and 0.79, respectively. The mean score on the NAS was 44.28 ($N = 371$, SD = 18.27). The mean scores on the NAS subscales were positive remarks, 21.9 ($N = 389$, SD = 6.19, median 22); criticism, 14.86 ($N = 397$, SD = 9.25, median 14); and hostility, 11.53 ($N = 397$, SD = 11.53, median 11). Cronbach α coefficients for positive remarks, criticism, and hostility were 0.81, 0.91, and 0.81, respectively. Table 1 shows the relationship between the MBI subscales and basic characteristics. For emotional exhaustion, a significant difference was seen with the presence of night shifts. For depersonalization, a significant difference was seen with sex, age, and the presence of night shifts. For personal accomplishment, significant differences were seen with the presence of night shifts, years of clinical experience, and the number of years of service at current workplace.

Table 2 shows the results of multiple logistic regression analysis (forced entry method) performed with scores on the MBI subscales. The NAS subscales were divided into two groups based on the median and analyzed. Significantly correlated factors were: for emotional exhaustion, the NAS subscale of criticism; for depersonalization, male, younger than 40 years, and the NAS subscale of hostility.

4. Discussion

According to Juthberg et al,[17] the percentage of high burnout among nurses working at Sweden's elderly tenant facilities for emotional exhaustion was ($N = 131$) 22.1%, depersonalization ($N = 141$) 9.2%, and low personal accomplishment ($N = 136$) 14.7%. By contrast, results of Asai et al's[13] survey targeting 697 Japanese clinical oncologists found the percentage of high burnout to be 23% for emotional exhaustion, 10% for depersonalization, and 65% for personal accomplishment. In addition, in Umeno-Nakano et al's[14] survey targeting 704 Japanese psychiatrists, the percentage of high burnout for emotional exhaustion was 21%, depersonalization