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Relationship between an amount of Key Tasks and Job Satisfaction among Caregivers and Nurses in Elderly Care Facilities

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Abstract

Objectives: The purpose of this study is to examine relationship between an amount of key tasks and job satisfaction among caregivers and nurses in elderly care facilities.

Methods: Questionnaires were mailed to the caring staff of elderly care facilities. After data collection (return rate 70%), information about work situations and health conditions were analyzed among 325 female workers, who were classified to 4 groups as follows; (1) caregivers under 40 years of age (2) caregivers of 40 years or over (3) nurses under 40 years of age (4) nurses of 40 years or over.

Results: Mean ages and length of career in caring sector were 37.2 ± 12.2 yr and 4.5 ± 3.0 yr for caregivers and 41.6 ± 9.2 yr and 16.8 ± 8.9 yr for nurses, respectively. A larger amount of care services were done on average by workers being dissatisfied with their job than by the satisfied workers in each of the 4 groups. The dissatisfied caregivers under 40 years showed significantly higher frequencies (as ratios of 1.4 - 2 to 1) in several care services such as "helping with showers or baths", "helping with eating", "changing diapers", "moving caretakers from bed or chair to wheelchair or vice versa", as compared with the satisfied caregivers under 40 years. Similarly, the 40 plus dissatisfied caregivers helped caretakers sit up in bed significantly more frequently. For nurses, on the other hand, "changing diapers" was found as the only service with a significant difference in frequency between the dissatisfied and the satisfied, but that was limited in the 40 plus age group. A frequency of "changing diapers" was associated with an increase in the risk of job dissatisfaction.

Conclusions: These results suggested that an appropriate amount of each key task in elderly care facilities should be set to prevent staff's dissatisfaction with their job from growing excessively.

Keywords: Elderly care, Job satisfaction, Amount of work, Caregiver, Nurse

Introduction

In Japan, as society ages, long-term care needs are increasing in terms of more elderly persons requiring long term care, longer periods of care, etc. Meanwhile, due to factors such as the trend towards nuclear families and the aging of caregivers, situations are changing for the families that have supported elderly persons needing long-term care [1]. Such situation changes demand more elderly-care workers in a variety of care services such as home-visit services, day services, short-stay service, residential services, and in-facility service. Therefore, a chronic shortage of care workers has been at issue [2-4]. Heavy workload is commonly considered as one of main reasons for the care-worker shortage in Japan and has been internationally taken up in many researches as one of key factors associated with low job satisfaction, turnover intention and burnout in human services including health-care services [5-10]. However, it is unclear about difference of workload indicated by an amount of each task between care workers with/without job satisfaction, in spite that those tasks primarily represent the character of the job. The purpose of this study is to examine association between an

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amount of each key task and job satisfaction among elderly-care personnel.

Materials and methods

A questionnaire for health-care workers was developed for the study and consists of questions about health status, working conditions including frequency of tasks and lifestyles [11]. The questionnaires were mailed to a total of 578 caregivers and nurses enrolled as a full-timer at 10 elderly care facilities in a prefecture of the Chubu region of Japan. The survey was carried from February to March in 2005 and of 402 respondents (return rate 70%), 325 female workers (186 caregivers and 139 nurses) were analyzed after exclusion due to gender (48 males), reduction of duties (n = 16), missing values of age (n = 12) or rejection (n = 1).

The questions about workload are those asking for frequency of shared key tasks among caregivers and nurses including "Helping with showers or baths", "Helping with eating (partly or fully)", "Changing diapers", "Moving caretakers from bed or chair to wheelchair or vice versa", and "Helping with sit-up". For job satisfaction, one of items (1–4) was responded, with 1 = strongly agree with a sentence of "I'm satisfied with my present job", 2 = partially agree, 3 = partially disagree and 4 = strongly disagree. For statistical analyses, workers with the item 1 or 2 were merged as the satisfied and workers with the item 3 or 4 were merged as the dissatisfied.

For detailed analyses, they were divided into 4 groups as follows; (1) caregivers under 40 years of age, (2) caregivers of 40 years or over, (3) nurses under 40 years of age, and (4) nurses of 40 years or over.

A statistical software package (SPSS Statistics for Windows, Version 17.0. SPSS Inc., Chicago, IL, USA) was used for statistical analyses, and comparison between means for two groups (caregivers versus nurses; with versus without job satisfaction) was made by use of "The Independent-Samples *T* Test procedure". The difference in proportions was evaluated using Fisher's exact test. The multiple logistic regression method was used to select tasks significantly associated with job satisfaction after forcing job category, age and length of career in the model. Differences were assessed with two-sided tests, with a significance level of 0.05.

This study was approved by the ethics committee of Research Center of Health, Physical Fitness and Sports, Nagoya University, Nagoya, Japan.

Results

Mean ages and length of career were 37.2 ± 12.2 yr and 4.5 ± 3.0 yr for the caregivers and 41.6 ± 9.2 yr and 16.8 ± 8.9 yr for the nurses, respectively (Table 1). Significant differences were showed in the average age and career length between the caregivers and the nurses. No significant differences, however, were observed in frequency of key tasks and proportion of workers without job satisfaction between the caregivers and the nurses. Similarly, there were no significant differences in the proportion of dissatisfaction between every two subgroups divided by age and profession (58.0% for the caregivers under 40 years of age, 53.5% for the caregivers of 40 years or over, 60.4% for the nurses under 40 years of age, and 55.6% for the nurses of 40 years or over), respectively.

Except for "helping with eating" of the nurses of 40 years or over (Figure 1d), a larger amount of care services were done on average by workers being dissatisfied with their job than by the satisfied workers in each of the 4 groups (Figure 1), especially that was clearer among the caregivers. The dissatisfied caregivers under 40 years showed significantly higher frequencies (as ratios of 1.4 - 2 to 1) in several care services such as "helping with showers or baths", "helping with eating", "changing diapers", "moving caretakers from bed or chair to wheelchair or vice versa", as compared with the satisfied caregivers under 40 years (Figure 1a, 1c, 1e, 1g). Similarly, the 40 plus dissatisfied

Table 1 Averages and percentage of the subjects

		Caregiver			Nurse			P-value
Item		**N**	**Mean**	**(SD)**	**N**	**Mean**	**(SD)**	
Age	[yr]	186	37.2	(12.2)	139	41.6	(9.2)	0.000[b]
Length of career in caring sector	[yr]	163	4.5	(3.0)	136	16.8	(8.9)	0.000[b]
Helping with showers or baths	[Person/week]	179	74.8	(56.4)	105	88.2	(65.4)	0.070[a]
Helping with eating (partly or fully)	[Person/day]	180	10.0	(11.7)	131	11.2	(12.9)	0.411[a]
Changing diapers	[Person/day]	175	15.5	(21.2)	128	12.4	(17.2)	0.165[b]
Moving caretakers from bed or chair to wheelchair or vice versa	[Person/day]	175	32.5	(39.1)	128	36.4	(59.3)	0.522[b]
Helping with sit-up	[Person/day]	172	21.8	(32.8)	123	19.9	(28.3)	0.067[a]
Percentage of persons not having satisfaction with their job	[%]	186	55.9%		138	57.2%		0.822

[a]Equal variances assumed.
[b]Equal variances not assumed.

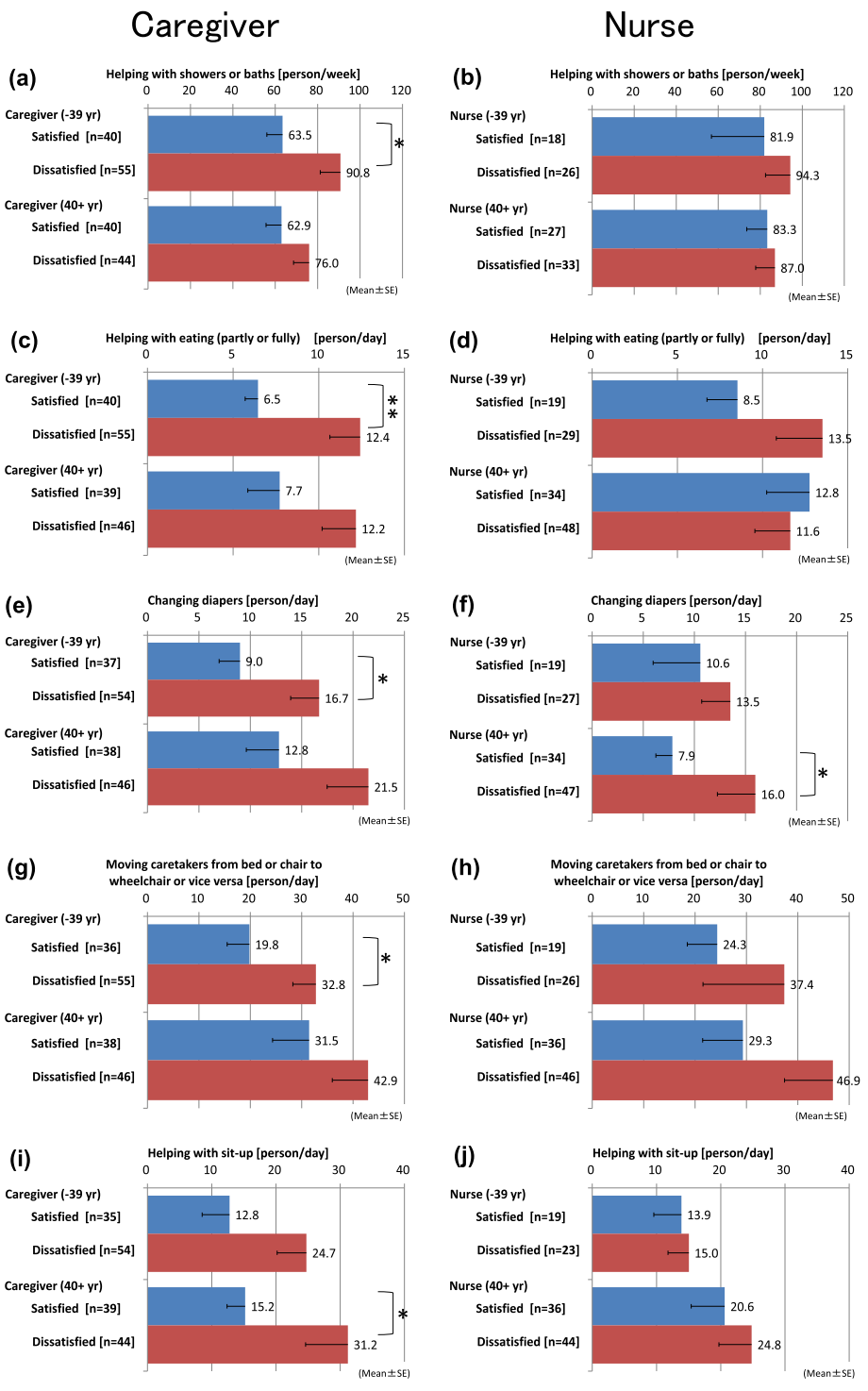

Figure 1 Unpaired t tests for differences in mean amounts of key tasks between age groups of caring staff with and without job satisfaction. (*P < 0.05, **P < 0.01). Left panels [**(a)**,**(c)**,**(e)**,**(g)** and **(i)**] are for caregivers and right panels [**(b)**,**(d)**,**(f)**,**(h)** and **(j)**] are for nurses. Five key tasks are as follows: "Helping with showers or baths" on **(a)** and **(b)**, "Helping with eating (partly or fully)" on **(c)** and **(d)**, "Changing diapers" on **(e)** and **(f)**, "Moving caretakers from bed or chair to wheelchair or vice versa" on **(g)** and **(h)**, and "Helping with sit-up" on **(i)** and **(j)**.

Table 2 Logistic regression analysis for the job dissatisfaction of the elderly-care workers by job category, age, length of career and key tasks

Variables		OR	95% CI*
Job category	Caregiver	1	
	Nurse	.855	0.386-1.892
Age	[Per 1 yr]	.982	0.955-1.010
Length of career in caring sector	[Per 1 yr]	.997	0.945-1.052
Helping with showers or baths	[Per 1 person/week]	1.003	0.998-1.008
Helping with eating (partly or fully)	[Per 1 person/day]	1.014	0.987-1.043
Changing diapers	[Per 1 person/day]	1.023	1.003-1.044
Moving caretakers from bed or chair to wheelchair or vice versa	[Per 1 person/day]	1.003	0.995-1.011
Helping with sit-up	[Per 1 person/day]	.999	0.984-1.014

n = 221 (135 for caregiver, 86 for nurse).
OR odds ratio.
*95% confidence interval.

caregivers helped caretakers sit up in bed significantly more frequently (Figure 1i). For nurses, on the other hand, "changing diapers" was found as the only service with a significant difference in frequency between the dissatisfied and the satisfied, but that was limited in the 40 plus age group (Figure 1f).

Results of the final logistic regression model with key task variables included are summarized in Table 2. A frequency of "changing diapers" was associated with an increase in the risk of job dissatisfaction.

Discussion

In general, in-facility caregiving jobs for the elderly are undertaken not only by caregivers but by nurses working at the same workplace. In this study, most of caregivers and nurses shared key tasks in the in-facility elderly care service (Table 1). However, each of the jobs has its individual system of license, pay scales, and composition of age and length of career. Accordingly, comparison of a frequency of each task was made between workers with/without job satisfaction by age for each job category in this study.

Overall, an amount of each key care service done by the workers without job satisfaction was larger than that done by those with job satisfaction, regardless of profession or age in this study. This relation between heavy workload and low job satisfaction agreed with the results of previous studies with factor analyses [5-10]. From these, it is considered that a too large amount of each task imposed on a part of the dissatisfied staff should be leveled to improve the degree of job satisfaction as a whole.

For the caregivers in this study, especially younger workers, the clearer differences in an amount of care services were observed between workers with/without job satisfaction, as compared with the nurses. As a reason for the low job satisfaction, a lower wage for caregivers (approx.75% of nurses' wage [12]) can be given, and even lower wage for younger workers in general. According to previous reports and researches, younger workers were easier to burn out than older workers [13-17]. As reasons for that, a higher sensitiveness of the gap between ideal and reality about their job and a lower level of stress management skill for younger workers can be given [18-20]. The clearer negative relation observed between an amount of work and job satisfaction for the younger caregivers in this study may be accountable similarly. By contrast, for the nurses, there was only one significant difference in frequency of key tasks between workers with/without job satisfaction (Figure 1f) although the similar trend of difference in the average frequency of key tasks was observed. That may indicate the nurses' job satisfaction should be investigated more closely.

It is important to notice that our study has some limitations. First, in this study, the job satisfaction was binarized for statistical analysis, that is, having or not having it. Therefore, for more detailed analysis, it is necessary to adopt more levels of job satisfaction and more factors related to job satisfaction. Second, it is a survey of ten facilities in only one prefecture of total 47 prefectures in Japan. We suggest further studies on the topic in wider reason, ideally national-wide. On the other hand, more closely analyses should be made for a minute comparison between caregivers and nurses co-working in every single facility. Third, this study was conducted by use of a cross-sectional analysis, and so longitudinal studies are needed to consider dynamic changes about job satisfaction. Finally, our study was conducted in 2005 and the validity of the results has become weaker since that time, therefore a new study should be carried out to know the influence of time and situation change on the topics.

Competing interests
The authors declare that they have no competing interests.

Authors' contributions
SH, MS, and AT designed this study and collected the data. YO, TI, and FH advised the design of this study. SH and MS performed the statistical analyses. All authors interpreted the data, wrote the manuscript, and read and approved the final manuscript.

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