

## Impact of Organization and Career Commitment on Clinical Nursing Competency

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### ABSTRACT

**Background** The majority of nurses are employed at medical institutions and acquire clinical competency through their work within their organization. Hands-on experience in the clinical setting is essential to enhance a nurse's clinical competence. The objective of this study was to determine the impact of commitment to the practical skills of nurses within Tottori prefecture.

**Methods** We studied data from 916 nurses employed at 7 publicly-funded medical facilities (national and other public institutions). Data on basic information, clinical nursing competence, and commitment were collected via an anonymous self-administered questionnaire.

**Results** A total of 672 valid questionnaires were analyzed. Mean clinical nursing competence scores showed a tendency to increase with years of experience. Scores increased from years 1 to 4, and then tended to plateau or decrease slightly thereafter up to around year 9. Mean commitment scores decreased from 1 to 2 years of experience to 3 to 4 years of experience. Other than "normative factors," mean scores tended to increase after 5 to 10 years of experience. Multiple regression analysis showed that "job involvement" at 1 to 2 years; "overall job satisfaction" at 5 to 9 years; "career commitment" at 10 to 19 years; and "job involvement" and "career commitment" at  $\geq 20$  years impacted results. No factors appeared to have an influence on nurses in their 3rd to 4th year of experience.

**Conclusion** Based on the concepts described above, self-assessment of nursing competence scores tended to improve with years of experience. Mean commitment scores tended to decrease after 3 to 4 years of experience and thereafter plateaued or increased. Organizational commitment has not clearly been shown to affect nursing competency, but the factors that affect this parameter changed with the length of experience. Results suggest support is needed in the 1st and 2nd years to help nurses adapt to the organization while in years 5 through 9, support that takes work-life balance into consideration is needed. This indicates support should change to meet the needs of each stage in a nurse's career. In years 3 to 4, it was suspected that the nurses' relationship with the organization weakened.

Helping nurses forge a good relationship with their organization is believed to be effective in improving clinical competency in nurses with 5 or more years of experience.

**Key words** career commitment; clinical nursing competence; organizational commitment; years of experience

Medical advances and enhanced awareness of the public towards health and healthcare have greatly impacted the nursing environment. Nurses must respond to these changes appropriately and be prepared to provide patients with safe and reassuring nursing practices. For this purpose, nurses are expected to be able to provide appropriate nursing based on a highly professional knowledge. To further advance nursing quality, management and training for nurses is handled at an organizational level. As of April 2010, revisions to the *Act on Public Health Nurses, Midwives and Nurses* and *Act on Assurance of Work Forces of Nurses and Other Medical Experts* have required organizations to make efforts to provide continuing education and train newly hired nurses. The content of such training is varied and relies primarily on hands-on training at individual facilities. New nursing employees are trained at their affiliated facilities and acquire clinical competency through guidance from preceptors and other experienced nurses and staff members in each department. Training for mid-career nurses includes seminars, including in-house offerings and also training for Certified Nurse Specialists, Nurse Specialist education, certification by academic societies and lectures at universities. The development of a clinical nurse's competency has been reported to show great growth between the 1st and 2nd years of experience.<sup>1</sup> However, clinical competency is largely affected by the individual clinical setting and content, and does not necessarily grow year over year, while some

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Abbreviations: CNCSS, Clinical Nursing Competence Self-assessment Scale; HRM, Human Resource Management

stagnation has also been shown.<sup>2, 3</sup> Some of the causes of stagnation include lack of autonomy, lack of approval from others, lack of provision of a role, and competing life events.<sup>2-5</sup> In addition, variations in medical needs and changes in the occupational awareness among the younger generation are said to influence outcomes.

Moreover, nursing competency requires an accumulation of practical experience in the clinical field. In 2016, a survey of nurse employees revealed “local government” was the most common place of employment for public health nurses.<sup>6</sup> For midwives, nurses, and nurse aides “hospital” was the most common answer accounting for 60.3%, 69.4%, and 38.7%, respectively.<sup>6</sup> Other workplaces included: “clinics” “caretaker facilities,” and “visiting nurse stations,” and others.<sup>6</sup> Thus, the majority of nurses were employed at some type of organization, and nurses had to enhance their clinical competency within those facilities.

Healthcare professions are said to have a directionality toward enhancing professional knowledge and skills, but if too much emphasis is placed on acquiring professional knowledge and skills, this could affect the operation of organizations in the form of personnel turnover or retirement, impacting the cultivation of human resources and organizational management.<sup>7-9</sup> To maintain and improve clinical competency, the relationship between the organization and individual is important, in addition to the individual’s aspirations and occupational identity. Organizational commitment is a concept that expresses the individual’s awareness as a member of that organization.<sup>10, 11</sup> Organizational commitment is believed to impact the individual’s likelihood to remain at the institution and enhance the quality of the organization’s performance.<sup>11-15</sup> Moreover, it also provides an indicator of whether there is fertile ground for various human resource management measures to be accepted by members of the organization and function effectively.<sup>10</sup>

Factors that impact clinical competency include professional autonomy, approval from others, provision of a role, and life events, but their impact on commitment has never been considered. The objective of this research was to determine how commitment impacts clinical competency of nurses in Tottori Prefecture. By clarifying the importance of a connection between the individual and the organization, a good relationship may be forged between the nurse and organization, and suggestions may be provided for organizational support that allows nurses to develop professional competency.

## SUBJECTS AND METHODS

### Participants

Questionnaires were sent out to 916 nurses employed at 7 national and public medical institutions within Tottori prefecture. Questionnaires were collected from 842 respondents (recovery rate 91.9%), of which 672 were valid responses (valid response rate 79.8%), and analyzed.

### Data collection

This study was an anonymous self-administered questionnaire. The head of the nursing department at each cooperative facility was asked to hand out a request for cooperation and questionnaires to applicable personnel. Survey forms were collected as follows: Subjects were asked to place the questionnaires in envelopes and seal them. The nursing administrator would collect the questionnaires and send them back to the researcher. The survey was conducted in July 2017.

### Survey content

#### Basic information

Basic information on the subject was collected including sex, age, marriage status, licensure, vocational school graduated or highest degree, other qualifications, total number of years in nursing, number of years at the present place of employment, number of employment changes, position, type of employment, duration of employment or contract, type of working status, where employed, and whether the subject wishes to continue working at the present place of employment.

#### Clinical nursing competence

The Clinical Nursing Competence Self-assessment Scale (CNCSS) developed by Nakayama et al. was used with permission from the author.<sup>1</sup> The clinical nursing competence referred to here includes knowledge, skills, values and beliefs, ability to comprehensively use experience, and is expressed in integrated emotions, thoughts and judgment as a nursing professional.<sup>1</sup> Competence calls for knowledge, skills, and the ability to adequately fulfill duties, and also ethics, values, and the ability to reflect upon practice.<sup>14</sup> This scale is based on 4 concepts: 1) Basic nursing competency, 2) Competency in providing assistance commensurate with the patient’s health status, 3) Coordinating care environment and teamwork, and 4) Ability for professional growth in nursing practice. These are divided into 13 competence items which then comprise 64 items. 1) Basic nursing competency “Basic responsibilities” (4 items), “Ethical practice” (6 items), “Supportive relationships” (6 items). 2) Competency in providing assistance commensurate with the patient’s health status included “clinical

judgment” (7 items), “nursing plan development” (9 items), “care evaluation” (5 items), “health promotion (5 items), Coordinating care environment and teamwork included “risk management” (4 items), “care coordination” (3 items), “nursing management” (role fulfillment) (4 items).

4) Ability for professional growth in nursing practice included “improved specialization” (4 items), “improved quality” (3 items), and “learned continuance” (4 items). Questions were asked from 2 aspects: “Frequency of activity” and “Degree of achievement.” “Frequency of activity” was scored based on a 4-level scale “Always” (4 points), “Usually” (3 points), “Sometimes” (2 points), and “Not at all” (1 point). “Degree of achievement” of a task was scored as “Confident” (4 points), “Fairly confident” (3 points), “Hardly any confidence” (2 points), and “No confidence” (1 point). The higher the score, the higher the nursing competency.

### Commitment

The “Commitment” portion from the Human Resource Management (HRM) Checklist developed by The Japan Institute for Labour Policy and Training was used.<sup>10</sup> We confirmed that this scale has been published and was available for use. The “Commitment” on the HRM checklist comprises 4 concepts: “Organizational commitment,” “Job involvement,” “Career commitment,” and “Overall job satisfaction,” and is made up of 33 items. “Organizational commitment” (12 items) was evaluated on scales based on the Organizational Commitment Questionnaire (OCQ) and 3 items from Allen & Meyer for a total of 4 items. Based on the results of confirmatory factor analysis, the appropriateness of 7 factor construction was confirmed for HRM checklist commitment. “Organizational commitment” (12 items) comprises 4 factors. “Organizational commitment (staying, motivation)” (3 items) refers to active motivation and intent to stay at the current organization. “Affective organizational commitment” (3 items) expresses affection for and identification with the organization. “Continuance organizational commitment” (3 items) was based on the sense of paying a price when leaving the organization. “Normative organizational commitment” (3 items) refers to fidelity towards the organization based on obligation and indebtedness. “Job involvement” (7 items) refers to the degree of attachment to the job. “Career commitment” (8 items) refers to orientation towards life-long pursuit of professionalism. “Overall job satisfaction” (6 items) refers to satisfaction with the overall work life. Confirmatory factor analysis of HRM checklist commitment items confirms the 7 factor structure is appropriate.<sup>10</sup> All items are scored

as follows according to a 5-level scale: “No” (1 point), “Closer to No” (2 points), “Neither yes nor no” (3 points), “Closer to Yes” (4 points), and “Yes” (5 points). The higher the score, the higher the commitment.

### Analytical methods

CNCSS and HRM checklist results were studied based on years of experience.

A correlation was noted between “frequency of practice” and “degree of achievement” on the CNCSS and in this study we decided to focus primarily on the “Degree of achievement” as an indicator of clinical competency. Nurses were divided into 5 groups based on years of experience: 1 to 2 years, 3 to 4 years, 5 to 9 years, 10 to 19 years, and over 20 years.

Total scores for the 4 concepts in CNCSS in these 5 experience level groups and the 7 factor scores on the HRM checklist in the 5 groups were compared using Kruskal-Wallis. A stepwise multiple regression analysis was carried out with CNCSS as the dependent variable, and the 7 commitment factors of the HRM checklist as independent variables.

SPSS Ver 23.0 was used for the statistical analysis and the level of significance was < 5%.

### Ethical considerations

Study subjects were anonymous. Study instructions were attached to the questionnaire. The instructions described the purpose and method of the study, subjects are allowed to voluntarily answer the questions, and it is stated that the data is statistically processed and used only for the study. Return of the answer form was considered informed consent to participate in the study. This study was approved by the Institutional Review Board at Tottori University School of Medicine (1704A025).

## RESULTS

### Participant characteristics

Mean age was  $38.0 \pm 11.1$  to 2 years and 639 or 95.1% were women. “Nurse” was the main current occupation in 631 (93.9%). Professional education was vocational school education in 577 nurses (85.9%). Certified nurses accounted for 15 nurses. Mean years as a nurse was  $15.4 \pm 10.6$  years with  $\geq 20$  years as the most common answer from 234 (34.8%), followed by 201 (29.2%) in the 10 to 20 year category, 105 (15.6%) in the 5 to 10 years category, 68 (10.1%) in the 1 to 2 years category, and 64 (9.5%) in the 3 to 4 years category. Mean years as a nurse was  $15.4 \pm 10.6$  years, and they had been at their current job for a mean  $11.2 \pm 9.9$  years; history of job changes was “none” in 459 people (68.3%). Their

**Table 1. Respondent characteristics**

Nurse experience*	1–2		3–4		5–9		10–19		> 20			
	n = 672	(%)	n = 68	(%)	n = 64	(%)	n = 105	(%)	n = 201	(%)	n = 234	(%)
<b>Sex</b>												
Female	639	95.1	58	85.3	57	89.1	100	95.2	191	95.0	233	99.6
Male	33	4.9	10	14.7	7	10.9	5	4.8	10	5.0	1	0.4
<b>Marital status</b>												
Unmarried	260	38.7	64	94.1	52	81.3	57	54.3	55	27.4	32	13.7
Married	379	56.4	1	1.5	11	17.2	46	43.8	132	65.7	189	80.8
Divorced/Widowed	31	4.6	3	4.4	1	1.6	1	1.0	13	6.5	13	5.6
<b>Current duties</b>												
Nurse	631	93.9	67	98.5	60	93.8	97	92.4	195	97.0	214	91.5
Public health nurse	4	0.6	0	0.0	0	0.0	2	1.9	2	1.0	0	0.0
Midwife	17	2.5	0	0.0	3	4.7	4	3.8	3	1.5	16	6.8
Nursing assistant	19	2.8	1	1.5	0	0.0	2	1.9	1	0.5	4	1.7
<b>Professional education</b>												
3-year college	48	7.1	12	17.6	10	15.6	13	12.4	13	6.5	0	0.0
Junior college (2-year program)	32	4.8	1	1.5	1	1.6	1	1.0	13	6.5	16	6.8
Vocational school, training center	577	85.9	52	76.5	51	79.7	88	83.8	172	85.6	214	91.5
Other	13	1.9	3	4.4	2	3.1	2	1.9	2	1.0	4	1.7
<b>Highest degree</b>												
Master's degree	3	0.4	0	0.0	0	0.0	0	0.0	2	1.0	1	0.4
3-year college	61	9.1	15	22.1	13	20.3	18	17.1	12	6.0	3	1.3
Junior college	43	6.4	0	0.0	2	3.1	4	3.8	18	9.0	19	8.1
Vocational school	543	80.8	49	72.1	47	73.4	79	75.2	165	82.1	203	86.8
Other	12	1.8	4	5.9	2	3.1	2	1.9	2	1.0	2	0.9
<b>Current qualifications/licensure</b>												
Nursing administrator	4		0		0		0		2		2	
Certified nurse	15		0		0		0		10		5	
Nurse specialist	7		0		0		1		2		2	
Certified qualification	55		0		2		0		25		28	
<b>Current position</b>												
Staff member	573	85.3	67	98.5	64	100.0	105	100.0	178	88.6	146	62.4
Vice chief nursing officer or equivalent	65	9.7	0	0.0	0	0.0	0	0.0	9	4.5	55	23.5
Chief nursing officer or equivalent	29	4.3	0	0.0	0	0.0	0	0.0	14	7.0	28	12.0
Director of nursing, Vice director of nursing, Overall chief nurse, Vice president of hospital	3	0.4	0	0.0	0	0.0	0	0.0	0	0.0	3	1.3

\*year(s).

current position was “staff” in 573 (85.3%). Form of employment was full-time employee in 613 (91.2%) while 437 (65.0%) worked in shifts (Table 1).

In questions regarding the current workplace, ≥ 50% answered as either “tend to think so” or “I think

so.”

As to whether they would like to continue working at their current job, 522 (77.7%) replied “Yes,” while 139 (20.7%) replied “No” (Table 2).

**Table 2. Working environment and wish to stay at current job**

Nurse experience*	1-2		3-4		5-9		10-19		> 20			
	n = 672	(%)	n = 68	(%)	n = 64	(%)	n = 105	(%)	n = 201	(%)	n = 234	(%)
<b>Situation at current workplace</b>												
1) Support from superiors and experienced nurses is available												
Yes	269	40.0	46	67.6	30	46.9	44	41.9	78	38.8	71	30.3
Closer to Yes	331	49.3	21	30.9	32	50.0	58	55.2	94	46.8	126	53.8
Closer to No	59	8.8	1	1.5	1	1.6	3	2.9	25	12.4	29	12.4
No	13	1.9	0	0.0	1	1.6	0	0.0	4	2.0	8	3.4
2) Working relationships are good												
Yes	169	25.1	29	42.6	17	26.6	26	24.8	52	25.9	45	19.2
Closer to Yes	391	58.2	32	47.1	37	57.8	67	63.8	112	55.7	143	61.1
Closer to No	93	13.8	7	10.3	8	12.5	9	8.6	32	15.9	37	15.8
No	19	2.8	0	0.0	2	3.1	3	2.9	5	2.5	9	3.8
3) Workplace has clear outlook												
Yes	132	19.6	19	27.9	11	17.2	16	15.2	25	12.4	61	26.1
Closer to Yes	362	53.9	39	57.4	34	53.1	65	61.9	115	57.2	109	46.6
Closer to No	147	21.9	8	11.8	15	23.4	23	21.9	49	24.4	52	22.2
No	30	4.5	2	2.9	4	6.3	1	1.0	12	6.0	12	5.1
4) HR evaluation and treatment (advances, promotions)												
Handled fairly												
Yes	102	15.2	26	38.2	11	17.2	19	18.1	18	9.0	28	12.0
Closer to Yes	366	54.5	35	51.5	36	56.3	75	71.4	114	56.7	106	45.3
Closer to No	158	23.5	7	10.3	13	20.3	10	9.5	55	27.4	73	31.2
No	45	6.7	0	0.0	4	6.3	1	1.0	14	7.0	26	11.1
5) Adequate education and training opportunities are available in the workplace												
Yes	128	19.0	30	44.1	12	18.8	21	20.0	28	13.9	37	15.8
Closer to Yes	388	57.7	33	48.5	39	60.9	73	69.5	117	58.2	126	53.8
Closer to No	137	20.4	4	5.9	9	14.1	11	10.5	47	23.4	66	28.2
No	19	2.8	1	1.5	4	6.3	0	0.0	9	4.5	5	2.1
6) Maternity and childcare leave support systems are sufficient and easy to apply for												
Yes	169	25.1	18	26.5	13	20.3	23	21.9	49	24.4	66	28.2
Closer to Yes	368	54.8	39	57.4	30	46.9	65	61.9	105	52.2	129	55.1
Closer to No	110	16.4	9	13.2	17	26.6	13	12.4	37	18.4	34	14.5
No	22	3.3	0	0.0	4	6.3	4	3.8	10	5.0	4	1.7
7) Easy to take paid leave												
Yes	96	14.3	13	19.1	11	17.2	15	14.3	25	12.4	32	13.7
Closer to Yes	268	39.9	33	48.5	24	37.5	42	40.0	74	36.8	95	40.6
Closer to No	235	35.0	19	27.9	22	34.4	36	34.3	78	38.8	80	34.2
No	72	10.7	2	2.9	7	10.9	12	11.4	24	11.9	27	11.5
Do you wish to remain at your currently job?												
Yes	522	77.7	55	80.9	46	71.9	67	63.8	159	79.1	195	83.3
No	139	20.7	12	17.6	18	28.1	36	34.3	38	18.9	35	15.0

\*year(s). HR, Human Resource.

**Table 3. Clinical nursing competence by years of experience**

Nurse experience†	Basic nursing competency		Competency in providing assistance commensurate with the patient's health status		Coordinating care environment and teamwork		Ability for professional growth in nursing practice	
1–2	42.0	(36.25–48.0)	63.0	(52.0–72.75)	25.5	(22.25–30.0)	25.0	(22.0–30.0)
3–4	44.0	(41.0–48.0)	66.5	(59.0–76.75)	27.0	(23.25–32.75)	27.0	(24.0–33.0)
5–9	45.0	(40.0–48.0)	67.0	(59.5–76.5)	28.0	(24.0–31.0)	27.0	(24.0–30.0)
10–19	47.0	(41.5–50.0)	73.0	(64.0–79.0)	30.0	(26.5–33.0)	29.0	(25.0–33.0)
> 20	48.0	(44.0–52.0)	75.0	(65.0–81.0)	31.0	(27.0–34.0)	31.0	(25.0–33.0)

Median (quartile range). †year(s).

**Table 4. Clinical nursing competence by years of experience**

	Nurse experience†	Basic nursing competency	Competency in providing assistance commensurate with the patient's health status	Coordinating care environment and teamwork	Ability for professional growth in nursing practice
Mean rank	1–2	241.49	220.23	232.92	245.38
	3–4	269.54	283.91	280.38	304.91
	5–9	290.88	284.00	278.66	279.44
	10–19	347.91	359.26	356.15	348.79
	> 20	393.10	388.68	391.03	386.67
Chi-Squared		50.44	56.52	54.85	42.40
<i>P</i> -value		< 0.001	< 0.001	< 0.001	< 0.001

Kruskal-Wallis test. †year(s).

### Clinical nursing competency by years of nursing experience

For each of the 4 higher concepts in CNCSS, scores were determined for each group based on years of experience.

“Clinical competency in basic nursing” median scores increased from 42.0 after 1 to 2 years with an interquartile range (IQR) of (25 percentile: 36.25 to the 75 percentile 48.0) to > 20 years experience median score of 48.0 and IQR of (44.0 to 52.0). “Competency in providing assistance commensurate with the patient's health status” median scores increased from 63.0 IQR (52.0 to 72.75) at 1 to 2 years to 75.0 IQR (65.0 to 81.0) after > 20 years. “Development of nursing care: Coordinating care environment and teamwork” median scores increased from 25.5 IQR (22.25 to 30.0) at 1 to 2 years to 31.0 IQR (27.0 to 34.0) after > 20 years. “Ability for professional growth in nursing practice” median scores increased from 25.0 IQR (22.0 to 30.0) at 1 to 2 years to 31.0 IQR (25.0 to 33.0) after > 20 years. A statistically significant difference was noted between groups based on years of experience for the 4 higher

concepts (Tables 3 and 4).

### Commitment based on years of nursing experience

Total scores were compared for each of the 7 HRM factors.

“Willingness to remain” median scores were 9.0 with IQR (8.0 to 11.0) at 1 to 2 years and 9.0 with IQR (8.0 to 11.0) after > 20 years. “Affective factor” median scores were 9.0 with IQR (8.0 to 11.0) at 1 to 2 years and 10.0 with IQR (9.0 to 11.0) after > 20 years. “Continuance factor” median scores were 9.5 IQR (8.25 to 11.0) at 1 to 2 years and 10.0 IQR (8.0 to 12.0) after > 20 years. “Normative factor” median scores were 10.0 with IQR (9.0 to 11.75) at 1 to 2 years and 9.0 with IQR (7.0 to 10.0) after > 20 years. “Job Involvement” median scores were 21.0 with IQR (15.25 to 23.0) at 1 to 2 years and 20.0 with IQR (16.0 to 22.0) after > 20 years. Career commitment median scores at 1 to 2 years of experience were 24.0 with an interquartile range (19.25 to 28.0), while it was 24.0 with an IQR (21.0 to 28.0) after > 20 years. General job satisfaction median scores were 18.0 with IQR (16.0 to 22.0) at 1 to 2 years and 19.0 with IQR

**Table 5. Commitment score by years of experience**

Nurse experience†	Organizational commitment								Job involvement	Career commitment	Overall job satisfaction
	Will to stay	Affective	Continuance	Normative							
1–2	9.0 (8.0–11.0)	9.0 (8.0–11.0)	9.5 (8.25–11.0)	10.0 (9.0–11.75)	21.0 (15.25–23.0)	24.0 (19.25–28.0)	18.0 (16.0–22.0)				
3–4	8.0 (6.0–10.0)	9.0 (7.0–10.0)	9.0 (7.0–11.0)	9.0 (8.0–11.0)	16.0 (12.25–21.0)	22.0 (17.0–25.75)	16.5 (13.0–20.75)				
5–9	8.0 (6.0–10.0)	9.0 (7.5–11.0)	9.0 (7.0–11.0)	9.0 (7.0–11.0)	17.0 (12.0–21.0)	23.0 (17.0–26.5)	18.0 (15.0–21.0)				
10–19	9.0 (7.0–10.0)	9.0 (7.0–10.5)	11.0 (8.0–12.0)	9.0 (7.0–11.0)	18.0 (13.0–22.0)	24.0 (19.0–27.5)	18.0 (16.0–22.5)				
> 20	9.0 (8.0–11.0)	10.0 (9.0–11.0)	10.0 (8.0–12.0)	9.0 (7.0–10.0)	20.0 (16.0–22.0)	24.0 (21.0–28.0)	19.0 (17.0–22.0)				

Median (quartile range). †year(s).

**Table 6. Commitment score by years of experience**

Nurse experience†	Organizational commitment				Job involvement	Career commitment	Overall job satisfaction
	Will to stay	Affective	Continuance	Normative			
1–2	377.43	370.27	336.26	413.68	385.12	357.94	333.38
3–4	283.99	301.54	295.71	355.30	287.49	287.64	273.97
Mean rank	291.91	305.64	298.19	329.03	276.97	299.87	324.80
10–19	318.62	306.16	358.61	338.10	328.00	341.30	338.15
> 20	374.33	376.15	345.92	310.91	369.79	355.95	358.35
Chi-Squared	24.20	22.00	10.20	15.84	25.58	11.13	10.09
<i>P</i> -value	< 0.001	< 0.001	< 0.05	< 0.05	< 0.001	< 0.05	< 0.05

Kruskal Wallis test. †year(s).

(17.0 to 22.0) after > 20 years. A statistically significant difference was noted between groups in these 7 factors (Tables 5 and 6).

### Factors that impact nursing competency by years of experience

To investigate how commitment affects clinical nursing competency depending on years of experience, a multiple regression analysis (step-wise procedure) was performed with CNCSS as dependent variables and HRM 7 factor as independent variables.

A positive correlation was found between clinical competency of nurses with 1 to 2 years of experience and “job involvement”. In those with 3 to 4 years of experience, no significant correlations were noted. A statistically significant positive correlation was noted between clinical competence in those with 5 to 9 years of experience and “overall satisfaction with duties” ( $\beta = 0.346$ ,  $P < 0.001$ , coefficient of determination ( $R^2$ ) = 0.120). In those with 10 to 19 years of experience, a positive correlation was observed between nursing competency and career commitment ( $\beta = 0.215$ ,  $P < 0.01$ , coefficient of determination ( $R^2$ ) = 0.046). A positive correlation was observed in those with more than 20

years of experience between nursing competency and job involvement ( $\beta = 0.306$ ,  $P < 0.001$ , coefficient of determination ( $R^2$ ) was 0.094 (Table 7).

### DISCUSSION

A tendency was noted for nursing competency to be enhanced with longer years of nursing experience for all 4 of the upper level concepts.

A plateau or even decrease in total scores was noted from 3 to 4 years and 5 to 9 years for the 4 upper level concepts. Tsuji et al. found that a plateau phenomenon was noted in those with 5 to less than 20 years of experience and that acquiring autonomy in professionalism was useful in enhancing the nursing competency of mid-career nurses.<sup>2,3</sup> Although there was a difference in the actual number of years, similar findings proved that nursing competency did not increase linearly. One of the characteristics of those with 3 to 9 years of experience is that none of the nurses with qualifications other than nursing, public health nursing or midwifery responded to the question for “qualifications” and that their position was listed as “staff member.” The percentage of married nurses increased to 43.8% of those with 5 to 9 years of experience. It is believed this was due to better comfort

**Table 7. Commitment (as an independent variable) by years of experience [multiple regression analysis (step-wise method)]**

Nurse experience†	$\beta$							R <sup>2</sup>
	Organizational commitment				Job involvement	Career commitment	Overall job satisfaction	
	Will to stay	Affective	Continuance	Normative				
1–2	–0.157	0.024	–0.164	–0.15	0.34**	0.182	0.151	0.116
3–4 ‡								
5–9	0.068	0.115	0.066	0.031	–0.054	–0.217	0.346***	0.120
10–19	–0.021	–0.058	–0.03	–0.043	0.091	0.215**	0.011	0.046
> 20	0.038	0.037	–0.121	–0.115	0.306***	0.157	0.127	0.094

\* $P < 0.05$ . \*\* $P < 0.01$ . \*\*\* $P < 0.001$ . † year(s). ‡ no significant correlations were noted.

with work after the 3rd year and being in a more stable condition. For major changes in a nurse's life cycle such as marriage and parenthood, cooperation from family members is essential to career development.

Total scores for "Commitment" based on years of nursing experience decreased at 3 to 4 years of experience and then tended to plateau or increase thereafter. Suzuki studied the relationship between institutional commitment and years of continued employment and found a decrease at 5 to 6 years after entering the workplace which increased thereafter in a J-shaped curve. Reality shock and back-burnering issue solutions were listed as causes for this decrease in institutional commitment.<sup>16</sup> Uchizumi et al. report the presence of a U curve in affective organizational commitment.<sup>17</sup> Both show a nadir of the curve at around the 7th year and promotion or advances in career have been pointed out as possible causes.<sup>16, 17</sup> The results from this study have shown that the results for "staying, motivation" and "affective factors" are almost identical. Reality shock refers to the sense of disappointment with the organization at the gap between the respondent's expectations and the reality of the workplace. Few opportunities tend to be available for practical clinical training during a basic nursing education. The low commitment score for nurses with 3 to 4 years of experience is believed to be due to the reality shock that these nurses experience when they encounter difficulties and realities they had not expected from their basic training experience. Clinical competency among nurses only grows with each passing year. As they become more used to the work and organization, they become better at handling work, lowering their awareness toward work and stagnating organizational commitment. Organizations should provide regular opportunities for training and movement between departments thus creating a chance for such nurses to contemplate the relationships between

themselves and the organization and to heighten awareness towards nursing.

In addition to "job involvement," results for "career commitment" and "overall job satisfaction" were similar to those for "institutional commitment." Preceding research suggests that by remaining at a single institution for a long period of time, the nurse becomes accustomed to the job possibly making it more difficult to feel satisfaction or dedication towards nursing.<sup>10</sup>

The results from this study suggest that with increasing years of experience, the nurse develops a better sense of satisfaction with the job and continues to be dedicated to nursing. It is possible to acquire more specialized knowledge and skills with increased experience, due to the fact that after being given a position of responsibility, the nurse's sense of responsibility and self-respect are enhanced.

Continuance factors decrease in those with  $\geq 20$  years of experience, and mean scores for normative factors are highest in those with 1 to 2 years of experience. Thereafter, those numbers show a tendency to decrease and those with  $\geq 20$  of experience have the lowest means. Few studies have looked at continuance factors and normative factor changes, but in this study, 34.8% had experience of  $\geq 20$  years. This is believed to be an expression of the commitment of highly experienced nurses to the institution. In this years of experience group, the will to continue at the current workplace is lowest of all the experience groups. However, in terms of career commitment, job involvement, and overall job satisfaction, there is no decrease. They are satisfied with their jobs as nurses, but are not that dedicated to working at the same institution where they are currently employed. This is thought to be a result of the availability of more career choices other than working at a medical facility, such as home nurses, visiting nurse stations, and elderly patient care facilities that offer opportunities



within the community for nurses.

The results of multiple regression analysis showed that the factors by which commitment impacts clinical competence were job involvement, career commitment, and overall job satisfaction. Although the influence of organizational commitment to clinical competency is unclear, it did become clear that the factors that affect this differ depending on years of experience.

Job involvement expresses how involved the individual is with their work, and how interested or dedicated they are to a specific duty or job in which they are currently employed. In the 1st to 2nd years of experience when job involvement is shown to affect clinical competency, new nurses have entered the field of nursing full of expectations and hope regarding the profession and are enthusiastically involved in the work. Mean “overall job satisfaction” scores were found to be associated with competence in those with 5 to 9 years of experience and general satisfaction with work translates to satisfaction as an individual throughout their professional life. Unlike those in their 1st to 2nd years of work, satisfaction with both work and life is believed to affect competency.

Most nurses are employed at medical institutions after completing their basic education. There, they receive on-the-job training such as training sessions for new nurse employees as well as education that reflects the needs of each organization. The programs are tailored to reflect regional or community needs, the functions of the individual hospital, and cooperation with other professionals to enable them to work as a member of the organization. In addition, preceptors and other support systems are in place for the organization as a whole to try and keep order. Those who have 5 to 9 years of experience are generally in their late 20s. While they are at the age to encounter life events such as marriage and parenthood, they are also at the stage where they begin to take on leadership roles and may have an opportunity to become certified nurses. We conducted a survey of nurses who were employed at public medical facilities. These institutions are believed to be well-organized with established systems in ensuring personnel placement, education and training in the workplace, and maternity leave and other support systems. It is believed that various measures are in place to support adaptation to the organization depending on years of experience and support that takes work-life balance into consideration. This should lead the nurse to a sense of fulfillment and satisfaction with their jobs which should also impact clinical competency.

Those with 3 to 4 years of experience did not show any impact of organizational commitment, nor

any influence of convictions regarding their profession or work. As nurses grow used to their work and are able to avoid issues, their relationship with the organization becomes weak. However, competency is acquired through an accumulation of clinical experiences. Those in the 5th year of nursing and beyond are most likely playing important roles as experienced nurses who guide younger nurses, lead clinical practice rotations, and are team leaders. To fulfill these roles, improved professional knowledge and skills and a better relationship with the organization to accumulate more experience become necessary. For this reason, those with 3 to 4 years of experience are at an important point in their careers when they must nurture those factors. The organization tries to create a good relationship with its employees by providing an environment conducive to career development with opportunities to enhance specialization that lead to solidification and acquisition of good nursing staff.

To improve the quality of clinical nursing competence, providing directionality towards nursing professionalism is essential. Career commitment is an expression of that directionality and was associated with clinical competence with experience of 10 to 19 years. Those with  $\geq 10$  years of experience have opportunities for advancement but those are limited to only select employees. The mean “years of nursing experience among current employees” was 11.2 years. This appears to be the stage at which nurses begin to consider career advances. Other factors affecting career commitment include awareness of the possibility for career growth within the organization and reliability of the nursing department system, and so awareness that one can further one’s own career plays a major role. The organization must confirm the employee’s future directionality at the turning points in his/her career.<sup>9</sup> There was a negative correlation between continuance factors and commitment in those with  $\geq 20$  years’ experience. These continuance factors are known to have a negative correlation with high performance and supportive organizational behavior within an organization,<sup>10, 12, 13</sup> and our results agree with these findings. Acquisition of professional nursing knowledge and skills should be emphasized and will lead to an improvement of competence, and also result in better nursing quality within the organization. However, stressing the professionalism of a nurse increases the risk that the organization will be impacted when losing these clinically competent nurses with broad clinical experience to job retirement. There are jobs that allow nurses to use their licenses in places other than medical facilities and choices are broadening. The fact that continuance factor has a negative

correlation to experience means that while it has a good effect on nursing quality, in terms of acquiring and training human resources, it has a negative impact on nursing quality.

By clarifying career directionality, it is possible to imagine the future, and this leads to realization of proactive career development. Autonomy of the nursing profession impacts enhancing clinical nursing competence and requires support from others. The organization must provide an education and training system and provide an opportunity for nurses to acquire professional skills and knowledge allowing them to face job challenges with enhanced professionalism. Various factors such as the stage of competency development, and life events such as marriage and parenthood, or other transitional stages should be taken into consideration and support provided as needed at that stage.

In this study, commitment to the institution did not clearly affect clinical competency. Another study is needed to investigate other factors that would affect clinical competency. Moreover, since this study was a cross-sectional survey, results were analyzed based on years of experience. A longitudinal survey would be needed to review the effects of changes over time.

A tendency was noted for clinical competency to increase with years of experience. Commitment by years of experience showed a tendency to decrease after 3 to 4 years of experience and thereafter plateaued or increased. Although the impact of organizational commitment on clinical competency is not clear, it was clear that factors that affected this indicator did differ depending on how long the individual had been a nurse.

In conclusion, after 1 to 2 years, support is needed to alleviate reality shock and help nurses adapt to the organization. After 5 to 9 years, support is needed with consideration for work-life balance, providing opportunities for promotion and advancement to increase specialized knowledge and techniques. Results indicate that those who have been nurses for 20 years or more require support in creating a workplace environment that allows them to use the expertise they have acquired and that is also suitable for seasoned nurses. However, we can speculate that nurses in their 3rd to 4th years of experience tend to have a poorer relationship with the organization. By helping these nurses forge a good relationship with the organization, it should be possible to enhance their clinical competency in their 5th year of practice and beyond.

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## REFERENCES

- 1 Nakayama Y. [Research on the developmental process and evaluation method of nursing practical skills: A cross-sectional survey of clinical experience on the practical ability of nursing college graduate nurses from the first year to the fifth year]. 2010. NCID: BB01819103. Japanese.
- 2 Tsuji C, Ogasawara C, Takeda C, Katayama Y, Imura K, Nagayama H. The plateau phenomena and factors related to the development of nurses' practical abilities. *Nihon Kango Kenkyu Kai Zasshi*. 2007;30:31-8. Japanese with English abstract.
- 3 Hasebe N, Masuda Y. [Clinical nursing competence of mid-career nurses and factors that influence the competence]. *Nihon Kangogaku Kyoiku Gakkai Zasshi*. 2017;27:15-26 Japanese.
- 4 Seki M. A consideration on stagnation in career development of mid-career nurses. *Nihon Kango Kagakukai Zasshi*. 2015;35:101-10. Japanese with English abstract.
- 5 Sasa N, Takeuchi T, Sasaki M. Association between clinical competency, gaining recognition from others, and job satisfaction among mid-career nurses. *Tokyo Iryo Hoken Daigaku Kiyo*. 2016;11:25-31. Japanese.
- 6 Japanese Nursing Association Publishing Company. *Statistical Data on Nursing Service in Japan*. 2017;2018:2-13. Japanese.
- 7 Gregg M. Clinical nurses' experiences which facilitate organizational commitment. *Gifu Kenritsu Kango Daigaku Kiyo*. 2005;6:11-8. Japanese with English abstract.
- 8 Mochimatsu S. Relationship between organizational and career commitment at medical institutions. *Kawasaki Iryo Fukushi Gakkai Zasshi*. 2017;26:258-63 Japanese.
- 9 Ishida M, Kashiwagura E. Determinants of organizational & career commitment of nurses—comparison between nurses in two hospitals—. *Tohoku Daigaku Igakubu Hokengakka Kiyo*. 2004;13:3-10. Japanese with English abstract.
- 10 Labor Policy Research and Training Organization. *Recruitment and Retention of Human Resources in Small and Medium-sized Enterprises – Hiring people, active workplace / eye tracking, HRM Checklists, etc—*. The Japan Institute for Policy and Training. 2012; 147: 218-62. Japanese.
- 11 Meyer JP, Stanley DJ, Herscovitch L, Topolnysky L. Affective, continuance, and normative commitment to the organization: A meta-analysis of antecedents, correlates, and consequences. *J Vocat Behav*. 2002;61:20-52. DOI: [10.1006/jvbe.2001.1842](https://doi.org/10.1006/jvbe.2001.1842)
- 12 Mathieu JE, Zajac DM. A review and meta-analysis of the antecedents, correlates, and consequences of organizational commitment. *Psychol Bull*. 1990;108:171-94. DOI: [10.1037/0033-2909.108.2.171](https://doi.org/10.1037/0033-2909.108.2.171)
- 13 Meyer JP, Allen NJ, Smith CA. Commitment to organizations and occupations: extension and test of a three-component conceptualization. *J Appl Psychol*. 1993;78:538-51. DOI: [10.1037/0021-9010.78.4.538](https://doi.org/10.1037/0021-9010.78.4.538)

- 14 Fukuma T. [Impact of Human Resource Management Measures on Job Performance - Mediation Effect of Organizational Commitment and Adjustment Effect of Individual Job Adaptation]. *Nihon Keiei Gakkai Keiegakuronshu*. 2014;84:1-12. Japanese.
- 15 Nishiwaki N. [Organization commitment of professional employees - comparison of organizational commitment between research and technical positions and relationship with performance-]. *Nihon Daigaku Keizai Gakubu Working Paper Series*. 2010;9:1-15. Japanese.
- 16 Suzuki R. *Individuals in the organization as an arena for personal career development and deepening organizational commitment*. Tokyo: Hakuto Shobo; 2002.
- 17 Uchizumi H, Hazu T, Ogo Y, Kondo M, Hirakimoto H. An investigation of relation between career development and organizational commitment. *Osaka University Knowledge Archive*. 2018;68:116-31. Japanese.