

The Differences in Basic Social Competency and Relevant Factors Based on Years of Study Amongst University Nursing Students

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ABSTRACT

Background Basic social competency is defined as the fundamental ability necessary for working with diverse people in the workplace and community. This study aimed to clarify the differences in the basic social competency of university nursing students by year of study, and related factors.

Methods The subjects were 305 first- to fourth-year university nursing students. A survey was conducted using a self-completed questionnaire. Analyses were performed by comparing basic social competency amongst different years of study, calculating correlation coefficients of occupational readiness and development of personalization and socialization with basic social competency, and multiple regression analysis of factors influencing basic social competency.

Results The subjects analyzed were the 162 students who returned the questionnaire (the recovery rate was 53.1%, and the response rate was 100%). Basic social competency tended to decrease in second-year students and subsequently improved in fourth-year students. Specifically, the scores of Action and Teamwork were significantly high in fourth-year students. In addition, the correlation coefficient between occupational readiness and basic social competency was $r = 0.566$ ($P = 0.01$), $r = 0.615$ for the individual orientedness ($P = 0.01$), and $r = 0.542$ for the social orientedness ($P = 0.01$); and significant correlations were observed in these relevant factors. Multiple regression analyses revealed that basic social competency were influenced by occupational readiness, individual orientedness, and social orientedness ($R^2 = 0.47$, $F = 15.14$, $P = 0.00$).

Conclusion Basic social competency for university nursing students was significantly higher in fourth-year students, and the correlation with basic social competency was strong in the categories of occupational readiness and the development of personalization and socialization. It was suggested that clinical practice experiences promoted students' personal growth and socialization while preparing to take a nursing job and affected the development of basic social competency.

Key words basic social competency; relevant factors; university nursing students

The 21st century is defined as the age of the knowledge-based society, due to the increasing importance of new knowledge, information, and technologies that are becoming the foundation for activities in the political, financial, cultural, and social environments. In a knowledge-based society, change can occur rapidly and new issues often need to be addressed in a trial-and-error manner. In addition to the competencies required to navigate such a society, the importance of human capital, described as the stock of resources, abilities, knowledge, and skills of populations as a whole, has been recognized by many countries. Indeed, educational reform projects have been undertaken by countries to try to develop such competencies. Many terms exist in reference to these competencies depending on the country and include terms such as generic skills, key competencies, key skills, and common skills.¹ The various governmental Ministries of Japan have followed suit to advocate for the necessity of new skills in this changing society. The Ministry of Economy, Trade and Industry (2006) defined the fundamental capabilities required for working with diverse people in the workplace and in society as “basic social competency” and highlighted the necessity of nurturing these competencies. The educational and industrial sectors have made efforts to collaborate towards the development of these capabilities. It is believed that the fundamental competencies of working persons is improved cyclically through various clinical experiences, which interact with basic academic skills, expertise, human nature, and basic lifestyle habits.²

In response to the globalization of the needs and services of health care and medical welfare, as well as the complex variety of health-related needs in Japan, the development of “humanized” nurses able to adapt to a plethora of perspectives while maintaining their specialized knowledge is imperative. “Basic social competency” has received focused attention as the set of generic skills required to perform nursing care. University nursing students are able to advance their

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development as nursing students while acquiring the specialized knowledge and skills of nursing through lectures, exercises, and clinical training (hereinafter referred to as “practical training”). Practical training not only has the significance in integrating the theoretical contents of lectures and exercises but also served as an important learning environment in which to acquire the awareness and responsible behavior required as a working person and as a nurse.

Previous studies on the basic social competencies of nursing students has revealed differences in these competencies as a function of time (1 or 2 years of follow up)^{3,4} and year of study.⁵⁻⁷ Specifically, basic social competencies were higher in nursing students after practical training and in later years of study. A study by Kitajima *et al.* on the fundamental competencies in university nursing students reported that basic social competency was significantly higher in fourth-year students than in first-year students, and that there was a significant positive correlation between basic social competency and the ability to practice nursing.^{5,6} In addition, they also reported that there was a possibility that basic social competency might be developed as learning outcomes influenced by experiences from practical training. However, no previous study has examined the development of basic social competencies in nursing students using nursing students stratified by year of study and with a focus on practical training progress. Several studies outside of Japan have evaluated competency-based nursing education⁸ and examined changes in nursing students as a function of time,⁹ but none have evaluated generic competencies with a focus on practical training. In surveys by Shiratori¹⁰ and Sugama *et al.*¹¹ on psychological attitudes towards occupations, it was reported that the occupational readiness of nursing students was lowered in final-year students, and it was pointed out the possibility that interest in the occupation and motivation for the occupation may not increase as the level of schooling advances. Many of the students entering nursing educational institutions are adolescents, who are beginning to search for their identities, and at the same time are looking to society and aiming to coexist with others. In addition, they are in the process of seeking out their interests in the occupation or occupations that fit their aspirations; therefore, their occupational identity is in the developmental stage.

The purpose of this research is to clarify the factors related to the differences in basic social competency of university nursing students amongst years of study and basic social competency with a focus on awareness of career selection by nursing students and development of personalization and socialization. Confirming the

relationship of occupational readiness and human development with basic social competency is significant in considering the effect which nursing education has on nurturing basic social competency.

SUBJECTS AND METHODS

Subjects

The subjects were 305 students (79 first-year students, 76 second-year students, 80 third-year students, and 72 fourth-year students) who were enrolled at the School of Health Sciences Division of Nursing, A University in the School Year 2013-2014.

Methods

Anonymous self-completed questionnaires were distributed, and the consent for research participation was obtained by the posting of the questionnaire. The questionnaires were collected via collection boxes. The investigation period was from July 2013 to November 2013. In order to capture the development of basic social competency by clinical training, the timing of the investigation was set to begin before the start of basic nursing practical training I (July) for first year students, after the end of the basic nursing practical training II (September) for second-year students, before each domain of nursing practical training (September) for third-year students, and after all nursing practical training (November) for fourth-year students.

Date collection

Subject attributes

Attributes of the subjects including their grade, age, sex, household, extra-curricular activities, part-time job, and experiences of volunteer activities were surveyed. Furthermore, the subjects were asked to answer a question regarding the current priorities in their life (for example, study in the specialty, part-time job, extra-curricular activities, hobbies, volunteer activities, and interactions with friends and associates) in a five-point scale (“I place little importance”: 1 point” to “I place great importance”: 5 points).

Basic social competency

Basic social competency consisted of three abilities: the ability to step forward and try even with a risk of failure (action), ability to doubt and critically assess (thinking), and ability to cooperate towards a goal with other people (teamwork).¹² Twelve items were associated with competency elements (self-motivation, initiative, executive ability, problem solving ability, planning ability, creativity, ability to send information, listening skills, flexibility, circumstance-grasping ability, self-discipline,

resilience) for each of the above-mentioned three abilities. A measurement scale was created by using these 36 items and the experiences and logical analytical ability found in the educational design of the university. Questions on experiences and logical analytical ability were selected as follows. Using the experience learning scale developed by Kimura *et al.* (2011)¹³ for experiences, and the critical thinking attitude scale developed by Hirayama *et al.* (2004)¹⁴ for logical analytical ability, four items were selected for which the factor loading was high for each factor. A preliminary survey was conducted on 77 students of a neighboring nursing school using the prototype scale, and then three items were selected for each as questions for experiences and logical analytical ability based on the correlation between each item and the item content. The questions kept the components of basic social competency intact and also included the components of experiences and logical analytical ability as new competency elements. The subjects were asked to respond to questions of 42 items of the 14 ability elements in a five-point scale (“Not applicable”: 1 point to “Applicable”: 5 points). The higher the score, the higher basic social competency. Cronbach’s alpha coefficient for different abilities was 0.87 for action, 0.83 for thinking, and 0.88 for teamwork (Table 1).

Occupational readiness

The Occupational Readiness Scale^{15, 16} developed by Wakabayashi *et al.* (1983), which assesses readiness for occupation selection, was used. This measurement scale is composed of 30 items of five subordinate concepts (interest in selection of occupation, 6 items; limitation of selection range, 6 items; reality of selection, 6 items; subjectivity of selection, 6 items; objectivity of their own knowledge, 6 items) and was used as a comprehensive single measurement scale. The subjects were asked to answer to the items on a four-point scale (“Not applicable at all”: 1 point to “Very applicable”: 4 points), and a reversal process was employed for evaluation of values of reverse items. The higher the score, the more mature the subjects were with respect to entering a profession. Cronbach’s alpha coefficient of the entire scale was 0.86, and reliability was secured.

Development of personalization and socialization

The Individual and Social Orientedness Scale¹⁷ developed by Ito (1993), which captures human development from two perspectives, was used. This measurement scale was composed of two subscales: individual orientedness indicating the orientation to their own internal standards and social orientedness indicating

the orientation toward other people or societal norms. Questions included eight items including “I live based on my beliefs” and “I can insist that I believe that I am right even others around me disagree” for the individual orientedness, and nine items including “I want to be a helpful person for society” and “I value the connection with people” for the social orientedness. The subjects were asked to answer to these items on a five-point scale (“Not applicable”: 1 point to “Applicable”: 5 points), and a reversal process was employed for the evaluation values of reverse items. Higher scores represent the autonomous self-realization state for the individual orientedness and a good adjustment in society for social orientedness. Cronbach’s α coefficient of the subscale was 0.88 for the individual orientedness and 0.85 for the social orientedness, and the reliability was secured.

Data analysis

The total score and score by ability were calculated for basic social competency, total score was calculated for the occupational readiness, and average scores were calculated for the individual and social orientedness. The Kruskal-Wallis test was used for comparison of basic social competency amongst different years of study, and a multiple comparison test was also used when a significant difference was found. The correlations of occupational readiness and individual and social orientedness with basic social competency were analyzed with Spearman’s rank correlation coefficient, and factors related to basic social competency were analyzed with the multiple regression analysis forcible loading method.

SPSS Statistics for Surveys 24 (IBM) was used as statistical analysis software. The significance level was set at 5%.

Ethical considerations

This study was approved by the Tottori University School of Medicine Ethics Committee (dated April 15, 2013, approval number 2163). Requests for research cooperation were conducted via written documentation and verbally in the lecture rooms where the subject students gather. In addition, it was explained to the subjects that participation in the research would have no impact on their academic record, and that they would not suffer any disadvantage if they did not participate in the research. The requests for research cooperation were made by a person different from the graders.

RESULTS

Of the 305 subjects, responses were obtained from 162 subjects (the return rate was 53.1%, and the response rate was 100%). The number of responses and the

Table 1. Fourteen items of competency elements and three abilities of basic social competency

Ability	Competency elements	Item
Action Cronbach α 0.87	Subjectivity	I identify what I should do and work on it spontaneously.
		I take advantage of my strengths even with difficult things.
		I act without being influenced by others' judgment of myself.
	Initiative	In order to gain cooperation from others, I inform others of the reasons and contents of cooperation so that they can convince.
		I utilize various means to obtain effective cooperation depending on the situation.
	Executive ability	I actively encourage people around me to achieve their goals.
		I persistently was towards achieving my goals.
		I don't let the fear of failure hold me back.
	Experience	I am working on things without running away from difficult situations.
		I am seeking opportunities for diverse experiences.
I analyze what I have experienced from various perspectives.		
Thinking Cronbach α 0.83	Logical Analytical ability	I apply the knowledge that I have learned through experiences.
		I break complicated problems down into smaller, ordered tasks.
		I am trying at all times to make judgments that are not biased.
	Problem solving ability	In the case of drawing a conclusion, I am particular about the existence of firm evidence.
		In order to achieve the goal, I accurately grasp what I should do at the present stage.
		I am collecting and analyzing information to correctly recognize the current situation.
	Planning ability	In order to clarify problems, I actively seek opinions from others.
		I can clarify the process to achieve the goal, prioritize it, and create a plan.
		I am paying attention to the difference between the plan and progress until the goal is achieved.
	Creativity	I am flexibly revising the plan according to progress and unforeseen circumstances.
I combine several things, ideas, techniques and others to create new things.		
I challenge my conventional common sense and ideas and create new things and solutions.		
Teamwork Cronbach α 0.88	Ability to communicate	When considering my goal, I am looking for hints to create new things.
		I communicate concretely in an easy-to-understand manner using concrete examples and objective data, and others.
		I communicate with an understanding of the kind of information the listener is seeking.
	Listening skill	I communicate after fully understanding what I want to say.
		While confirming the contents and asking questions, I understand the other's opinion accurately.
		I create a situation that makes it easier for me to talk to other people utilizing supportive responses and empathy.
	Flexibility	I listen to the other person respectfully without prejudice and assumption.
		While having my own opinion, I accept others' opinions with empathy.
		I understand the opponent 's feelings as to why the other person thinks like that.
	Circumstance grasping ability	I understand the background and circumstances of people with different positions.
I am acting by understanding my role based on expectations from the surroundings.		
I behave by judging exactly what I can and what other people can do.		
Discipline	Considering the circumstances of people around me (human relations, busyness, and others), I act towards a better direction.	
	I understand the behaviors that I must keep to the minimum so as not to disturb the other person.	
	I take appropriate action if I have troubled another person.	
Stress control ability	In a situation where discipline and courtesy are particularly required, I behave so that no clumsiness occurs.	
	I find out the cause of stress and resolve this by myself or with the help of others.	
	I temporarily relieve stress by talking to another person or working on another thing.	
		I think that feeling stress is transient, and I try not to take it too seriously.

Table 2. Subject Attributes

		1st year (n = 35)		2nd year (n = 29)		3rd year (n = 29)		4th year (n = 69)		All (n = 162)	
		n	(%)	n	(%)	n	(%)	n	(%)	n	(%)
Gender	Males	3	(8.6)	5	(17.2)	3	(10.3)	7	(10.1)	18	(11.1)
	Females	32	(91.4)	24	(82.8)	25	(86.2)	62	(89.9)	143	(88.3)
	Blank	0	(0.0)	0	(0.0)	1	(3.4)	0	(0.0)	1	(0.6)
Household	Living alone	27	(77.1)	21	(72.4)	21	(72.4)	59	(85.5)	128	(79.1)
	Living together with family	8	(22.9)	7	(24.1)	7	(24.1)	8	(11.6)	30	(18.5)
	Living together with non-family members	0	(0.0)	0	(0.0)	1	(3.4)	1	(1.4)	2	(1.2)
	Other	0	(0.0)	1	(3.4)	0	(0.0)	0	(0.0)	1	(0.6)
	Blank	0	(0.0)	0	(0.0)	0	(0.0)	1	(1.4)	1	(0.6)
Extra-curricular activities	Yes	28	(80.0)	28	(96.6)	23	(79.3)	51	(73.9)	130	(80.2)
	No	7	(20.0)	1	(3.4)	6	(20.7)	18	(26.1)	32	(19.8)
Volunteer activities	Yes	23	(65.7)	21	(72.4)	20	(69.0)	50	(72.5)	114	(70.4)
	No	12	(34.3)	8	(27.6)	9	(31.0)	19	(27.5)	48	(29.6)

recovery rate for each grade was 35 for first-year students (44.3%), 29 for second-year students (38.2%), 29 for third-year students (36.2%), and 69 for fourth-year students (95.8%).

Subject attributes

The gender of the respondents was 143 females (88.3%), 18 males (11.1%), and 1 was left as blank (0.6%). The average age was 20.9 ± 2.0 years old. For the household, 70% to 80% of the subjects in any grade were living alone. The proportion of participation in extra-curricular activities was the highest at 90% or more in second-year students and decreased after the third year to about 70% in the fourth-year students. The proportion of subjects with experiences of volunteer activities was about 70% in any of the grades (Table 2).

The answers to the questions about what is important in their university life were divided into three answer groups: “Neither agree nor disagree” (3 points), used as a reference; “I place importance,” for scores higher than the reference; “I do not place importance,” for scores lower than the reference. By year of study, the proportion of subjects categorized as “I place importance” was 90% or more for study in the specialty in all grades. For part-time jobs, the proportion of subjects categorized as “I place importance” was the highest in second-year students, and was the lowest in fourth-year students. For hobbies, there was no major difference

amongst year of study, and the proportion of subjects categorized as “I place importance” was 40% to 50%. For extra-curricular activities, the proportion of subjects categorized as “I place importance” was the highest in second-year students, and was the lowest in fourth-year students. For volunteer activities, the proportion of subjects categorized, as “I do not place importance” was 70% to 80% in all grades. For interactions with friends and associates, the proportion of subjects categorized as “I place importance” was the highest in third-year students and 70% to 80% in other grades (Table 3).

The difference amongst years of study and basic social competency

The total score of basic social competency was significantly high ($P = 0.02$) in fourth-year students when compared to second-year students. For comparison by ability, the score of action was significantly higher in fourth-year students when compared to third-year students ($P = 0.03$), and the score of teamwork was also significantly higher in fourth-year students when compared to second-year students ($P = 0.00$) (Table 4).

Correlations between basic social competency and occupational readiness and development of personalization and socialization

The scores for occupational readiness, individual and social orientedness were the highest in fourth-year

students. A significant moderate positive correlation was observed between basic social competency and occupational readiness in all grades ($P < 0.01$). Furthermore, a significant moderate positive correlation was observed between basic social competency and the individual orientedness in students other than second-year students ($P < 0.01$), and a significant, moderate to weak, positive correlation was observed between basic social competency and the social orientedness in all grades ($P < 0.01$) (Table 5).

Relevant factors of basic social competency

In order to investigate factors related to basic social competency including basic attributes and their influences, multiple regression analysis with the forcible loading method was performed by setting the total score of basic social competency as the objective variable, and the year of study and the scores of what is important in their university life, occupational readiness, individual orientedness and social orientedness as explanatory variables. Variance inflation factors were 1.06 to 1.68, and no multiple collinearity was confirmed. Occupational readiness ($\beta = 0.23$), individual orientedness ($\beta = 0.43$), and social orientedness ($\beta = 0.43$) were extracted as significant variables contributing to basic social competency ($R^2 = 0.47$, $F = 15.14$, $P = 0.00$) (Table 6). Furthermore, as a result of multiple regression analysis for each year using these three variables as explanatory variables, social orientedness ($\beta = 0.45$) and individual orientedness ($\beta = 0.42$) were significant in first-year students ($R^2 = 0.50$); occupational readiness ($\beta = 0.56$) was significant in second-year students ($R^2 = 0.33$); social orientedness ($\beta = 0.45$) and individual orientedness ($\beta = 0.44$) were significant in third-year students ($R^2 = 0.49$); and individual orientedness ($\beta = 0.58$) and occupational readiness ($\beta = 0.25$) were significant in fourth-year students ($R^2 = 0.58$) (Table 7).

DISCUSSION

The results of this study demonstrate that basic social competency of university nursing students improved in fourth-year students after falling in second-year students; and that students have higher abilities as their grade level advances. By ability, fourth-year students were significantly high in action and teamwork. Kitajima *et al.* (2011) reported that basic social competency was higher in fourth-year students compared to first-year students, and there was a significant difference in thinking and teamwork in their cross-sectional survey in university nursing students.⁵ Similar results were obtained in our study, and there were differences in the three abilities of basic social competency amongst

different years of study.

One of the reasons why there was a difference in basic social competency in second- and fourth-year students was the difference in experience of nursing practice. In practicing nursing, it is necessary to grasp not only the health condition of the patient, but also the whole person such as their life history and the role that this plays in their present situation. In addition to this understanding, critical thinking abilities such as assessing the subject's situation, discovering the problems, finding the required care, and developing a plan would be required. These abilities are in common with the three abilities that constitute the "basic social competency" advocated by the Ministry of Economy, Trade and Industry, and basic social competency has a reciprocal relationship with nursing practice.¹⁸ Nursing students are required to be able to perform with appropriate attitudes and behaviors as a "Novice,"¹⁹ which is the first stage of Benner's skills-mastery process. During the practical training period, nursing students develop their own responses to each issue that arises during one-on-one interactions with patients, based on nursing experience and techniques mastered throughout their studies. At A university, students take charge of following patients for the first time in the practical training as second-year students. It is inferred that the reason why basic social competency decreased in second-year students was because the students were more interested in nursing jobs, but also realized the deficiencies and immaturity of their own knowledge and skills concerning medical care and nursing in a variety of situations in the clinical setting.

In evaluations of caring behaviors in nursing students carried out by Loke *et al.*, (2015)²⁰ and Murphy *et al.*, (2009),²¹ the caring behaviors inventory score of final year students resembled that of nurses in clinical practice. This would be the result of students learning to cope with the increasingly complex nursing responsibilities related to patient care. A study by Abe *et al.* (2011)²² reported that the motivation for nursing students' achievement remained high although they are fluctuating due to the anxiety accompanying the learning of nursing. For students, having nursing-related goals directly affected their goals as a nursing professional; thus, a nursing student's growth is defined through the achievement of these goals. Kitajima *et al.* (2011)⁶ suggest the possibility of reciprocal growth between basic social competency and practical nursing skills. Our study revealed a trend whereby basic social competency decreased in the second year but increased in the fourth year of study. Differences in basic social competency are thought to reflect nursing students' psychological

Table 3. Percentages of what is important for nursing students in their university life by year of study

		1st year (n = 35)		2nd year (n = 29)		3rd year (n = 29)		4th year (n = 69)		All (n = 162)	
		n	(%)	n	(%)	n	(%)	n	(%)	n	(%)
Study in the specialty	I do not place importance	1	(2.9)	0	(0.0)	0	(0.0)	0	(0.0)	1	(0.6)
	Neither agree nor disagree	2	(5.9)	1	(3.4)	0	(0.0)	0	(0.0)	3	(1.9)
	I place importance	31	(91.2)	28	(96.6)	29	(100.0)	69	(100.0)	157	(97.5)
Part-time job	I do not place importance	19	(54.3)	7	(24.1)	17	(58.6)	49	(71.0)	92	(56.8)
	Neither agree nor disagree	6	(17.1)	9	(31.0)	1	(3.4)	6	(8.7)	22	(13.6)
	I place importance	10	(28.6)	13	(44.8)	11	(37.9)	14	(20.3)	48	(29.6)
Hobbies	I do not place importance	6	(17.1)	4	(13.8)	6	(20.7)	21	(30.9)	37	(23.0)
	Neither agree nor disagree	14	(40.0)	10	(34.5)	10	(34.5)	17	(25.0)	51	(31.7)
	I place importance	15	(42.9)	15	(51.7)	13	(44.8)	30	(44.1)	73	(45.3)
Extra-curricular activities	I do not place importance	10	(28.6)	4	(13.8)	10	(34.5)	31	(44.9)	55	(34.0)
	Neither agree nor disagree	4	(11.4)	6	(20.7)	3	(10.3)	10	(14.5)	23	(14.1)
	I place importance	21	(60.0)	19	(65.5)	16	(55.2)	28	(40.6)	84	(51.9)
Volunteer activities	I do not place importance	25	(71.4)	22	(75.9)	23	(79.3)	61	(88.4)	131	(80.9)
	Neither agree nor disagree	7	(20.0)	4	(13.8)	5	(17.2)	7	(10.1)	23	(14.2)
	I place importance	3	(8.6)	3	(10.3)	1	(3.4)	1	(1.4)	8	(4.9)
Interactions with friends and associates	I do not place importance	2	(5.7)	3	(10.3)	1	(3.4)	4	(5.8)	10	(6.2)
	Neither agree nor disagree	4	(11.4)	3	(3.4)	1	(3.4)	11	(15.9)	19	(11.7)
	I place importance	29	(82.9)	23	(79.3)	27	(93.1)	54	(78.3)	133	(82.1)

status including anxiety, feelings of growth through learning, and feelings of accomplishment, in the process of anticipatory socialization.

A significant relationship between occupational readiness and the individual and social orientedness with basic social competency were found. In particular, it was shown that individual and social orientedness had a significant positive influence on basic social competency in third-year students, and the individual orientedness and occupational readiness in fourth-year students. A study of Wakabayashi *et al.* (1983)¹⁵ reported that those who wish to become professionals tend to have high occupational readiness and employment confidence. In addition, it was reported that if the occupational readiness was high, the relationship orientedness would also be higher in childcare and nursing students. Furthermore, a study on the acquisition type of basic social competency in university students by Iseri *et al.* (2015)²³ reported that many of those who have high basic social competency had achieved the ego identity status. Students who aspire to becoming a nurse

enroll in university with the goal of learning about the occupation. This expert knowledge is acquired through lectures, exercises, and practical training. The age of university nursing students is around 20 years old and it is considered that they are greatly influenced by the characteristics of the psychological developmental stages in late adolescence.

Ito (1993)²⁴ described that involvement with other people diversifies in adolescence and they will seek to position themselves in society, and that since it is time to explore yourself with the rise of self-consciousness, two orientations, which are the processes of establishing yourself while focusing on society and others and establishing yourself acts mutually and complementarily. From the third year onwards, practical training begins in earnest, and students spend more time in clinical practice. The reason why basic social competency increased in fourth-year students was because the students began to understand nursing by becoming involved with patients and engaging in nursing, and they also developed their awareness as a member of a team. Simpson²⁵

Table 4. Differences in scores of basic social competency by years of study

	Basic social competency Total score	Action Total score	Thinking Total score	Teamwork Total score
Range	Max 210.0–Min 42.0	Max 60.0–Min 12.0	Max 60.0–Min 12.0	Max 90.0–Min 18.0
1st year	146.0 (153.0–137.0)	43.0 (46.0–38.0)	38.0 (41.0–35.0)	65.0 (70.0–63.0)
2nd year	137.0 (151.0–127.0)	40.0 (44.0–36.0)	36.0 (41.5–34.5)	62.0 (66.0–55.0)
3rd year	141.0 (154.0–133.5)	39.0 (43.0–35.5)	36.0 (40.5–33.0)	66.0 (70.5–63.0)
4th year	152.0 (164.5–136.0)	44.0 (47.5–39.0)	40.0 (44.5–34.0)	68.0 (73.0–63.0)

Median (75th–25th percentiles). Kruskal-Wallis test. * $P < 0.05$

Table 5. Relationship between basic social competency and occupational readiness or development of personalization and socialization

		Occupational readiness	development of personalization and socialization	
			Individual orientedness	Social orientedness
Basic social competency	1st year	0.41*	0.53**	0.55**
	2nd year	0.68**	0.25	0.38*
	3rd year	0.46*	0.61**	0.63**
	4th year	0.55**	0.70**	0.49**

Spearman's rank correlation coefficient. * $P < 0.05$ ** $P < 0.01$

Table 6. Factors related to basic social competency by multiple regression analysis with forcible the loading method

	β	<i>t</i> -ratio	<i>P</i> -value
Occupational readiness	0.23	3.06	0.00*
Individual orientedness	0.43	6.09	0.00*
Social orientedness	0.23	3.39	0.00*
Years	0.05	0.85	0.40
Study in the specialty	–0.08	–1.38	0.17
Part-time job	–0.01	–0.24	0.81
Hobbies	0.02	0.40	0.69
Extra-curricular activities	0.09	1.46	0.15
Volunteer activities	–0.03	–0.54	0.59
Interactions with friends and associates	–0.02	–0.38	0.70

Dependent variable: Basic social competency. * $P < 0.05$

Table 7. Relevant factors of basic social competency by multiple regression analysis by years of study

	1st year		2nd year		3rd year		4th year	
	β	R^2	β	R^2	β	R^2	β	R^2
Occupational readiness	0.04		0.56*		0.03		0.25*	
Individual orientedness	0.42*	0.50	0.11	0.33	0.44*	0.49	0.58*	0.58
Social orientedness	0.45*		0.04		0.45*		0.12	

Dependent variable: Basic social competency. * $P < 0.05$

has suggested that professional socialization changes over time from a focus on broad social goals to a focus on professional goals. In the process, students find role models and take on the values, attitudes, and behaviors they come to associate with being a member of the profession. The challenges involved in nursing patients are a catalyst for a developing a deeper understanding of themselves as well as promoting socialization. The accumulation of experiences in clinical practice will contribute to the development of the ability to manage patients, the ability to identify patients' issues, construct management plans, and learn to work as a team with other occupations. The impact that nursing education has on professional socialization will depend on the students' past experiences, the reflective nature of the process, and the beliefs and values promoted in the course.²⁶ In order to promote the socialization of nursing students, support to enable students to self-reflect on their nursing experiences, to evaluate their actions and attitudes and the underlying values powering those actions and attitudes, and to identify new self-development goals will be necessary.

This study suggests that basic social competency for nursing students were cultivated while learning through clinical practice, and integrating an understanding of their own interests, aptitudes, and abilities. Further study of the students through a follow-up survey post-graduation would help to further our understanding of their continued development.

Study limitations

This research was limited by the difficulty of generalizing the results as the number of subjects varies by each year, so there is the possibility that some statistically significant results were obtained between the fourth-year students who had many subjects and the year of students who had few subjects. Also, the subjects were limited to nursing students at a single university and a cross-sectional survey at a single time point. Our challenge for the future is to expand the study to include different universities, to clarify the characteristics of basic social competency for university nursing students, and to grasp basic social competency for university nursing students from a developmental perspective through a longitudinal study.

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REFERENCES

- 1 Matsuo T. Competencies for the 21st Century and National Curriculum Reforms around the World and Japan. National Institute for Educational Policy Research Bulletin. 2017;146:9-22. NAID: 120006424349. Japanese with English abstract.
- 2 Ministry of Economy, Trade and Industry. Yotetsu H, Yasuaki U, Syuichi T editors. [Basic Social Competency Training Guide -To foster youth who entrust the future of Japan - from education practice site]. Tokyo: Asahi Shinbun; 2010. p. 2-3. Japanese.
- 3 Kiriake M, Mibu H. The current status of nursing ethics in nursing basic education. Hachinohe Gakuin University Departmental Bulletin. 2018;56:133-9. NAID: 120006455845. Japanese.
- 4 Ichikawa Y, Yamauchi S. Self-evaluation and change by grade of nursing students of Fundamental Competencies for Working Persons. Hachinohe Gakuin University Departmental Bulletin. 2018;56:161-6. NAID: 120006455848. Japanese.
- 5 Kitajima Y, Hosokawa Y, Hoshi K. Components of undergraduate nursing students' basic skills for being a member for society and an investigation into their differences by attribute. Osaka Furitsu Daigaku Kango Gakubu Kiyo. 2011;17:13-23. NAID: 40018777269. Japanese with English abstract.
- 6 Kitajima Y, Hosokawa Y, Hoshi K. The Relationship between Nursing Undergraduate Students' Basic Skills to Be Members of Society and Their Practical Nursing Skills as Well as Their Experience in Everyday Life. Nihon Kangogaku Kyoiku Gakkaishi. 2012;22:1-12. NAID: 10030789847. Japanese.
- 7 Kojima N, Ochiai N. An Investigation of into Their Differences by Attribute of Fundamental Competencies for Working Persons of Undergraduate Nursing Students. Bulletin of the University of Shimane Izumo Campus. 2017;12:19-28. Japanese.
- 8 Fan JY, Wang YH, Chao LF, Jane SW, Hsu LL. Performance evaluation of nursing students following competency-based education. Nurse Educ Today. 2015;35:97-103. PMID: 25064264, DOI: 10.1016/j.nedt.2014.07.002
- 9 Wu CTI, Hsieh SI, Hsu LL, Hu Li Za Zhi. Self-evaluation of core competencies and related factors among baccalaureate nursing students. 2013;60:48-59. PMID:23386525, DOI: 10.6224/JN.60.1.48.
- 10 Shiratori S. Study regarding Professional Socialization of Nursing Students. Yamanashi Ika Daigaku Kiyo. 2002; 19: 25-30. NAID: 110004705550. Japanese with English abstract.
- 11 Sugama M, Inoue E, Imai H, Tkayasu M, Horinouchi W. Vertical Research on Occupation Readiness of Nursing Students. Chiba Kenritsu Eisei Tanki Daigaku Kiyo. 2008;26:99-104. NAID: 110007126433. Japanese.
- 12 Ministry of Economy, Trade and Industry. Yotetsu H, Yasuaki U, Syuichi T editors. [Basic Social Competency Training Guide -To foster youth who entrust the future of Japan - from education practice site]. Tokyo: Asahi Shinbun; 2010. p. 39-61. Japanese.
- 13 Kimura M, Tateno Y, Sekine M, Nakahara J. Development of the Experiential Learning Inventory on the Job. Nihon Kyoiku KouGakai Kenkyu Houkokusyu. 2011;11:147-52. NAID: 10029782312. Japanese.
- 14 Hirayama R, Kusumi T. Effect of Critical Thinking Disposition on Interpretation of Controversial Issues: Evaluating Evidences and Drawing Conclusions. Kyoiku Shinrigaku Kenkyu. 2004;52:186-98. NAID: 110001889133. Japanese with English abstract.

- 15 Wakabayashi M, Goto M, Shikanai K. OCCUPATIONAL READINESS AND OCCUPATIONAL CHOICE STRUCTURE: on relationships between self concept and occupational attitudes among female junior college students. Nagoya Daigaku Kyoiku Gakubu Kyo Kyoiku Shinri Gakka. 1983;30:63-98. Japanese with English abstract.
- 16 Hori H, Yamamoto M, Matsui Y. [Psychological scale file -Measure human and society- 3 Occupation·Workplace·Group]. Tokyo: Horiuchi Shuppan; 1994. p. 483-8. NCID: BN10589530. Japanese.
- 17 Ito M. Construction of a individual and social orientedness scale and its reliability and validity. The Japanese journal of psychology. 1993;64:115-22. Japanese with English abstract. DOI: [10.4992/jjpsy.64.115](https://doi.org/10.4992/jjpsy.64.115)
- 18 Minoura T, Takahashi K. [How to raise fundamental skills for society as a nurse: Three abilities to support expertise 12 capability elements]. Tokyo: Nihon Kango Kyokai Shuppankai; 2012. p. 6-12. NCID: B26410053.
- 19 Benner P. From Novice to Expert: Excellence and Power in Clinical Nursing Practice Commemorative Edition: the Dreyfus model of skill acquisition applied to nursing - Stages Novice. Menlo Park: Addison – Wesley: Prentice Hall; 1984. p. 20-2.
- 20 Loke JCF, Lee KW, Lee BK, Mohd Noor A. Caring behaviours of student nurses: Effects of pre-registration nursing education. Nurse Educ Pract. 2015;15:421-9. PMID: [26059429](https://pubmed.ncbi.nlm.nih.gov/26059429/), DOI: [10.1016/j.nepr.2015.05.005](https://doi.org/10.1016/j.nepr.2015.05.005)
- 21 Murphy F, Jones S, Edwards M, James J, Mayer A. The impact of nurse education on the caring behaviours of nursing students. Nurse Educ Today. 2009;29:254-64. PMID: [18945526](https://pubmed.ncbi.nlm.nih.gov/18945526/), DOI: [10.1016/j.nedt.2008.08.016](https://doi.org/10.1016/j.nedt.2008.08.016)
- 22 Abe T, Shigematsu T, Hattori Y. A study of characteristic of nursing students' intention to be a nursing professional: changes during the first year at A University. Konan Joshi Daigaku Kenkyu Kyo. Kangogaku / Rihabirigaku Hen. 2011;5:33-40. NAID: 40018767775. Japanese with English abstract.
- 23 Iseri M, Kawamura S. The Relationship between Types of Acquiring Fundamental Competencies for Working Persons and Ego Identity in University Students. Waseda Daigaku Daigakuin Kyoikugaku Kenkyuka Kyo Bessatsu. 2015;23: 61-71. NAID: 120005775209. Japanese.
- 24 Ito M. A STUDY ON THE DEVELOPMENTAL PROCESS OF INDIVIDUAL ORIENTEDNESS AND SOCIAL ORIENTEDNESS. Nihon Shinrigaku Kenkyu. 1993;41:293-301. NAID: 110001892903. Japanese with English abstract.
- 25 Simpson IH. Patterns of socialization into professions: the case of student nurses. Sociol Inq. 1967;37:47-54. DOI: [10.1111/j.1475-682X.1967.tb00637.x](https://doi.org/10.1111/j.1475-682X.1967.tb00637.x)
- 26 Howkins EJ, Ewens A. How students experience professional socialisation. Int J Nurs Stud. 1999;36:41-9. PMID: [10375065](https://pubmed.ncbi.nlm.nih.gov/10375065/), DOI: [10.1016/S0020-7489\(98\)00055-8](https://doi.org/10.1016/S0020-7489(98)00055-8)