

Original Research

Learning effects of communication skills education provided for nursing students during clinical training

Yayoko TAKEMI

Lecturer, Department of Nursing, Faculty of Health Science, Aino University

Nobuko SEKINAGA

Associate Professor, Department of Nursing, Faculty of Allied Health Science, Yamato University

Mikiko HIROTA

Associate Professor, Department of Nursing, Faculty of Health Science, Aino University

Sachiko MATSUI

Lecturer, Department of Nursing, Faculty of Health Science, Aino University

Abstract

A questionnaire survey was conducted after the first and second courses of Fundamental Nursing Training I with the aim of clarifying the learning effects of communication skills education. During the training courses, students communicated with patients in an individualized manner and using communication skills that they had already learned; however, it was challenging for them to interact with silent patients and those with communication difficulties. In addition, using patient-oriented communication approaches and necessary information, students made more effort to understand patients in the second course than in the first course. The results of our study indicate that professors need to educate students in a manner enabling them to make individually-tailored approaches to silent patients while understanding the reasons for and meaning of being silent based on their expressions and words. Furthermore, we suggest that on-campus seminars need to involve actual cases in order to help students deepen their understanding.

Key words: clinical training, communication skills, basic nursing education

I. Introduction

The “Development of Practical Nursing Skills in Universities” reported by the Ministry of Education, Culture, Sports, Science and Technology in 2003 included nurturing interpersonal relationships in support processes, dealing with anxiety, support for expressing an individual’s intentions, communication, consultation-related skills, and counselling. In particular, it was suggested that nursing students must develop communication skills under the guidance of nursing professionals and become able to interact with patients independently.

Because communication skills are regarded as essential in nursing settings, there is a need to improve basic nursing education in a manner enabling students to develop these skills. Therefore, universities have provided them with

on-campus lectures and seminars on communication skills in order to meet this need. However, in recent years, a decrease in students’ communication skills have been reported and, hence, it is necessary to establish the basis for nursing support, particularly that in the field of fundamental nursing which is based on interpersonal relationships.

The learning effects of communication skills education have yet to be investigated. Previous studies clarified seminars’ effects and students’ learning in class, but no studies have investigated the effects of communication skills education provided during practical training. Therefore, we investigated first-year nursing students who had learned communication skills through classes and seminars, with the aim of clarifying the learning effects of Fundamental Nursing Training I, and improving communication skills education.

II. Aims

To investigate the learning effects of on-campus communication skills education provided for nursing students, and evaluate the effects of the lesson of Fundamental Nursing Training I.

III. Methods

1. Subjects: A total of 101 first-year undergraduate nursing students
2. Period: After the first course of Fundamental Nursing Training I (August 29, 2014)
After the second course of Fundamental Nursing Training I (December 19, 2014)
3. Study design: Quantitative study using a self-completed questionnaire
4. Survey and Analysis methods

- 1) Analyzing the assessment items of communication skills

We investigated the communications skills that were efficiently used, and those that were insufficient or difficult to use. In addition, we used the following 30 items of the "Communication Skills Evaluation Scale", which was developed by Ueno, after the first and second courses of training: 13 items regarding basic communication skills, 3 items regarding nonverbal communication skills, 4 items regarding the understanding of personal growth achieved through communication, 3 items regarding the clarification of patients' feelings, 2 items regarding the understanding of communication-related views, and 5 other items. These 30 items were rated on a 5-grade scale (5: strongly agree, 4: somewhat agree, 3: agree, 2: agree a little, and 1: disagree), and subjects freely wrote down the communications skills that they could efficiently use, and those that were insufficient or difficult to use.

- 2) Analysis methods

Factor analysis was performed on the 30 communication-skill assessment items, and the t-test was performed to confirm the presence or absence of significant differences between the first and second training courses. SPSS 22.0 was used for all analyses.

We categorized the subjects' descriptions regarding: the communications skills that were efficiently used, and those that were insufficient or difficult to use.

IV. Ethical considerations

In both written and oral forms, we informed the subjects of the study objectives and methods, and explained that their privacy would be protected, study participation was optional, non-participation would not receive any disadvantage, and they were entitled to withdraw from the study at any time. The submission of a completed questionnaire was interpreted as having consented to participate in the study.

V. Results

1. Communication-skill assessment items

Factor analysis performed on the communication-skill assessment items after the first training course led to the extraction of the following five factors: understanding communication-related views (Factor 1), understanding personal growth achieved through communication (Factor 2), nonverbal communication skills (Factor 3), clarifying the feelings of patients when communicating with them (Factor 4), and communication skills (Factor 5). The reliability coefficients (alpha coefficients) for Factors 1, 2, 3, 4, and 5 were 0.909, 0.904, 0.831, 0.795, and 0.751, respectively. The other items of the scale were included in these five factors (Table 1). Factor analysis performed after the second training course led to the extraction of the following three factors: understanding personal growth achieved through communication (Factor 1), understanding communication-related views (Factor 2), and basic communication skills (Factor 3). The reliability coefficients (alpha coefficients) for Factors 1, 2, and 3 were 0.945, 0.782, and 0.764, respectively. The components of "communication skills", "nonverbal communication skills", and "clarifying patients' feelings" were included in Factor 1 (Table 1). In addition, the t-test was performed to determine the presence or absence of significant differences in the communication-skill assessment items between the first and second training courses. As a result, significant differences were noted in communication skills (Items 1, 2, 6, 9, 10, 11, and 12), nonverbal communication skills (Item 15), understanding personal growth achieved through communication (Items 17 and 18), clarifying patients' feelings (Items 22 and 23), communication-related views (Item 25), and others (Items 27, 28, and 29) [Table 2].

2. Communication skills that were efficiently used

Regarding the communication skills that were

Table 1 Results of performing pre-training factor analysis on communication skills assessment

Analysis items	Factor 1	Factor 2	Factor 3	Factor 4	Factor 5	
Items, First course, Differences between the first and second training courses						
Understanding communication-related views	0.733	0.123	0.126	0.191	0.285	
17. Understand that self-actualization is humans' strongest desire	0.733	0.240	0.065	0.230	0.008	
25. Understand that humans influence each other	0.645	0.205	0.145	0.222	0.149	
20. Able to achieve personal growth through communication	0.571	0.135	0.315	0.192	-0.015	
18. Understand that humans continue growing and changing	0.553	0.216	0.281	0.115	0.280	
4. Able to accept patients' feelings and attitudes as they are	0.543	0.426	0.437	0.200	0.011	
13. Able to value what a patient is currently experiencing and changes in their feelings	0.467	0.464	0.014	0.230	0.126	
24. Understand that humans consider and act voluntarily based on their ideas	0.467	0.134	0.229	0.456	0.116	
5. Able to listen to patients intently	0.428	0.292	0.290	0.370	0.143	
27. Able to talk to patients using honorific words	0.407	0.416	0.348	0.020	0.309	
19. Able to respect oneself	0.404	0.146	0.398	0.123	0.220	
16. Able to use nonverbal communication, such as rubbing patients' back when necessary	0.121	0.807	0.136	0.151	0.224	
Understanding personal growth achieved through communication						
22. Able to clarify the feelings that a patient has expressed in an ambiguous manner	0.121	0.807	0.136	0.151	0.224	
23. Able to understand the meaning of patients' silence and deal with it appropriately	0.200	0.763	0.142	0.049	0.124	
21. Able to summarize what a patient has described or asked	0.282	0.671	0.139	0.226	0.252	
8. Able to establish a trusting relationship (rapport) with patients	0.287	0.590	0.353	0.200	0.056	
12. Able to place more emphasis on communication process than on problem-solving during communication	0.360	0.516	0.253	-0.200	0.194	
26. Able to introduce oneself to new patients	0.180	0.495	0.313	0.367	0.002	
24. Understand that humans consider and act voluntarily based on their ideas	0.467	0.464	0.014	0.230	0.126	
13. Able to value what a patient is currently experiencing and changes in their feelings	0.543	0.426	0.437	0.200	0.011	
19. Able to respect oneself	0.407	0.415	0.348	0.020	0.309	
29. Able to refrain from carelessly encouraging patients and giving them advice	0.014	0.407	0.479	0.117	0.043	
Nonverbal communication skills						
14. Able to refrain from saying things that may make patients have false desires	0.143	0.117	0.726	0.047	0.254	
28. Able to refrain from changing the subject before patients finish talking	0.201	0.180	0.675	0.390	0.003	
15. Able to pay attention to changes in patients' feelings	0.393	0.196	0.626	0.059	0.194	
29. Able to refrain from carelessly encouraging patients and giving them advice	0.014	0.407	0.479	0.117	0.043	
13. Able to value what a patient is currently experiencing and changes in their feelings	0.543	0.426	0.437	0.200	0.011	
Clarifying the feelings of patients when communicating with them						
9. Able to support patients' positive ideas	0.301	0.279	0.206	0.532	0.046	
3. Able to repeat what a patient has described or asked	0.313	0.247	0.048	0.532	0.311	
30. Understand that each human is irreplaceable and unique	0.393	0.220	0.323	0.488	0.022	
5. Able to listen to patients intently	0.467	0.134	0.229	0.456	0.116	
Basic communication skills						
10. Able to interact with patients using consistent words/actions and without lying about oneself	0.300	0.228	0.188	0.208	0.710	
1. Able to ask patients open questions	-0.024	0.369	0.085	0.119	0.651	
2. Able to tell patients using appropriate words that their privacy is protected	0.227	0.169	0.342	0.225	0.472	
	Cumulative contribution rate	15.80%	12.81%	9.20%	8.79%	4.745
	Reliability alpha coefficient	0.909	0.904	0.831	0.795	0.751

efficiently used, we extracted three categories (the [usage of communication skills], [usage of nonverbal communication skills], and [basic communication attitudes]) and four subcategories ("verbal communication skills", "body language", "understanding patients' feelings", and "approach behavior"). The category of the [usage of communication skills] included : communication

using open questions (n=7) ; changing the form of questions according to the circumstances (n=6) ; as well as talking with a smile in a loud voice, the tone of voice, and face-to-face communication (n=5). The category of [nonverbal communication skills] included : nodding, using gestures, using facial expressions, and holding hands (n=22) ; as well as providing patients with

Table 2 Significant differences in the communication-skill assessment items between the first and second training courses

Items	First course	Second courses	Differences between the first and second training courses
Communication skills	1. Able to ask patients open questions		
	2. Able to tell patients using appropriate words that their privacy is protected		
	3. Able to repeat what a patient has described or asked		
	4. Able to accept patients' feelings and attitudes as they are		
	5. Able to listen to patients intently		
	6. Able to respect patients' ideas		
	7. Able to focus on and sympathize with patients' inner feelings		
	8. Able to establish a trusting relationship (rapport) with patients		
	9. Able to support patients' positive ideas		
	10. Able to interact with patients using consistent words/actions and without lying about oneself		
	11. Able to respect patients' self-determination		
	12. Able to place more emphasis on communication process than on problem-solving during communication		
	13. Able to value what a patient is currently experiencing and changes in their feelings		
Nonverbal communication skills	14. Able to refrain from saying things that may make patients have false desires		
	15. Able to pay attention to changes in patients' feelings		
	16. Able to use nonverbal communication, such as rubbing patients' back when necessary		
Understanding personal growth achieved through communication	17. Understand that self-actualization is humans' strongest desire		
	18. Understand that humans continue growing and changing		
	19. Able to respect oneself		
Clarifying patients' feelings	20. Able to achieve personal growth through communication		
	21. Able to summarize what a patient has described or asked		
	22. Able to clarify the feelings that a patient has expressed in an ambiguous manner		
Communication-related views	23. Able to understand the meaning of patients' silence and deal with it appropriately		
	24. Understand that humans consider and act voluntarily based on their ideas		
Others	25. Understand that humans influence each other		
	26. Able to introduce oneself to new patients		
	27. Able to talk to patients using honorific words		
	28. Able to refrain from changing the subject before patients finish talking		
	29. Able to refrain from carelessly encouraging patients and giving them advice		
	30. Understand that each human is irreplaceable and unique		

effective support while considering their feelings, understanding the feelings of patients based on the facial expressions and attitudes shown by them during conversations, and understanding patients (n=9). The category of [basic communication attitudes] included: listening to patients intently (n=6), and respecting them (n=4) [Table 3]

3. Communication skills that were insufficient or difficult to use

Regarding communication skills that were insufficient or difficult to use, we extracted three categories (the [insufficient usage of communication skills], [insufficient usage of nonverbal communication skills], and a [lack of effort to deal with silent patients]), and three subcategories (the [insufficient usage of verbal communication skills], [insufficient usage of nonverbal communication skills], and [difficulty dealing with silent patients]) [Table 4]. The category of the [insufficient usage

of communication skills] included: having difficulty communicating with patients when meeting them for the first time, being unsure of what to talk about, having difficulty communicating one's thoughts to patients (n=7); changing expressions depending on the patient (n=4); having difficulty with the choice of words (n=3); and the insufficient usage of nonverbal communication (n=1). The category of the [insufficient usage of nonverbal communication skills] included: not understanding patients' feelings or ideas, having difficulty communicating one's thoughts to patients, deciding what to talk about, providing topics, and nodding. The category of a [lack of effort to deal with silent patients] included: actions to take when patients remained silent, patients becoming silent due to a lack of topics despite one's effort to keep up a conversation, and being unable to understand the feelings of patients when they were silent.

Table 3 Communication skills that were efficiently used during the training

Categories	Subcategories	Details
Usage of communication skills	Verbal communication skills	<ul style="list-style-type: none"> -Asking patients open questions -Talking slowly with a smile in a loud voice -Communicating with patients face-to-face -Collecting information through conversations -Changing the form of questions according to the circumstances -Tone of voice -Talking to patients on a daily basis -Communicating with patients using open questions -Asking patients closed questions when they were in an unfavorable conscious state -Keeping up a conversation with patients by repeating what they have said
Nonverbal communication skills	Body language	<ul style="list-style-type: none"> -Using gestures -Using facial expressions -Smiling -Deepening one's relationship with patients by holding their hands -Making eye contact
	Understanding patients' feelings	<ul style="list-style-type: none"> -Nodding -Understanding not only the physical state of patients, but also their mental state by communicating with them -Having an opportunity to consider the feelings of patients based on their words/actions, as well as how to support them effectively -Understanding the feelings of patients based on the facial expressions and attitudes shown by them during conversations -Understanding patients' facial expressions -Better understanding patients
Basic communication attitudes	Approach behavior	<ul style="list-style-type: none"> -Helping patients feel refreshed by intently listening to them -Intently listening to patients -Respecting patients' wishes

Table 4 Communication skills that were insufficient or difficult to use

Categories	Subcategories	Details
		<ul style="list-style-type: none"> -Having difficulty communicating with patients when meeting them for the first time -Unsure of what to talk about -Having difficulty communicating one's thoughts to patients -Unsure of when to ask a patient to repeat what they have said -Having difficulty communicating with patients -Having difficulty intently listening to and understanding patients -Having difficulty talking to patients -Hesitating to talk about patients' family relationships -Patients feeling uncomfortable around strangers -Smiling -Changing expressions depending on the patient -Having difficulty with the choice of words -Having difficulty using honorific words -Insufficient usage of nonverbal communication -Keeping up a conversation by brief response
Insufficient usage of nonverbal communication skills	Insufficient nonverbal communication skills	<ul style="list-style-type: none"> -Not understanding patients' feelings or ideas -Having difficulty communicating one's thoughts to patients -Deciding what to talk about, and providing topics -Having difficulty understanding the feelings of patients without talking to them
Lack of effort to deal with silent patients	Having difficulty dealing with silent patients	<ul style="list-style-type: none"> -Actions to take when a patient was silent -Patients becoming silent due to a lack of topics despite one's effort to have a conversation -Unable to understand the feelings of patients when they were silent

VI. Discussion

Communicating with patients is one of the first-year students' learning goals in Fundamental Nursing Training I, but students often have difficulty in acquiring its ability. On the basis of actual cases, students were provided with communication skills seminars with the aims of understanding: 1) the characteristics of the ways in which they communicate with others, 2) individuality and values of other people through communicating with them, and 3) appropriate communication approaches in nursing settings. In the first course of training, which was provided in the form of observation practice, although the duration of interacting with patients was short, students often encountered difficulty communicating with patients when meeting them for the first time, finding opportunities to have conversations with them, and responding to what they said. Nara (2009) reported that, on the basis of early-stage communication skills education alone, it is challenging for students to participate in clinical training as it involves patients of various ages and with various diseases/living conditions. Thus, the results of our study suggested that patients became silent as students were unsure of what to talk about and how to respond to them due to a lack of patient information, which made mutual understanding even more difficult. In the second course of training, students collected information regarding patients in whom they were in charge, and communicated with them based on this information. In addition, because students had a clear purpose of collecting additional information through communication, they actively talked to patients. The significant differences noted in verbal communication between the first and second courses suggested that, in the latter course, students interacted with patients by means of both verbal and nonverbal communication skills they had already learned, as well as other communication approaches, including respectful attitudes/words and nodding. According to Okuyama et al., who investigated the learning effects of communication seminars, compared with other scale items, students showed higher scores for paying respectful attention to patients, efforts to respect them, appropriate attitudes/words, feeling familiar with them, and nodding, suggesting that students tried to focus on their lives. In the present study, students reported that they could use communication skills effectively in the second training course, indicating that they aimed to successfully

support patients in whom they were in charge, and made a conscious effort to understand their feelings and anxiety. In addition, it was suggested that students consciously tried to use their communication skills when interacting with patients, which helped them to understand their own characteristics and achieve personal growth.

On the other hand, concerning the communication skills that were insufficient or difficult to use, students became nervous when interacting with patients, did not use their communication skills sufficiently, and had difficulty with communication approaches when mutual understanding was hard to achieve, or when patients became silent as these students were unsure of how to respond to them. In communication seminars by Okuyama et al., students showed the lowest average score for the item of "Understanding the meaning of silence" among all items. Thus, according to the researcher, silence involves various meanings, and patients use it when they desire to deny/avoid their current situations, are unsure of how to express it, or deliberate their own ideas and, therefore, sophisticated skills are required when dealing with silent patients (Okuyama, 2007).

Although students learn basic skills during lectures and seminars, their knowledge and skills to deal with silent patients remain insufficiently developed, which suggests that patients become silent as these students have difficulty assessing their situations. Yamamoto et al. (1990) described the roles/meanings of silence as follows: 1) performing linguistic activity, 2) making one's counterpart talk, 3) organizing, denying, or rejecting the statements of one's counterpart, 4) organizing one's own statements, 5) denial or rejection, and 6) being overwhelmed by one's growing feelings. When patients remained silent, students might have thought that what they said was not interesting, become desperate for topics in an effort to keep up a conversation, or blamed themselves. It may be important for professors to educate students in a manner enabling them to understand the meaning of silence and reasons for patients being silent, clarify what patients are trying to indicate based on their facial expressions and attitudes, and deal with them appropriately. In addition, we suggest the need to provide on-campus lectures/seminars involving actual cases, through which students can understand the various meanings of silence and develop their skills to address silent patients in an individualized manner.

Because communication skills are important for nursing support, it may be necessary to provide step-by-step education for students of all grades in a manner enabling them to develop their communication skills

VII. Conclusion

1. Analyses of the communication-skill assessment items led to the extraction of five and three factors for the first and second training courses, respectively. In the latter, for which nonverbal communication skills and the clarification of patients' feelings were included in the usage of communication skills, students interacted with patients in an individualized manner using the communication skills that they had already learned.
2. As a result of analyzing the communication-skill assessment items, significant differences were noted in the following factors between the first and second training courses: communication skills (Items 1, 2, 4, 6, 9, 10, 11, and 12), nonverbal communication skills (Item 15), understanding personal growth achieved through communication (Items 17 and 18), clarifying patients' feelings (Items 22 and 23), and communication-related views (Item 24).
3. The communication skills that were used effectively during training were divided into three categories and four subcategories. In addition, communication skills that were insufficient or difficult to use were divided into three categories and three subcategories.

The results suggest that, although students had difficulty communicating with patients, they collected necessary patient information through interaction and by using their support skills in a patient-oriented manner.

References

Hirose H, Ohta T, Inoue M, Nakamura H: Study on

- communication behavior of nursing student. Yamaguchi Prefectural University Academic Journal 4 (Nursing & Nutrition Science Annual Journal 4: 47-53, 2011 (in Japanese)
- Iwawaki Y, Takishita S, Matsuoka T: Traits change by each grade of communication skill for nursing students-target of the 3-year curriculum of nursing. Medical Science Education 38: 309-319, 2007 (in Japanese)
- Iwawaki Y, Takishita Y, Matsuoka T, Yamamoto Y, Murota Y, Murase Y: Study effect of communication skill education with text tools: Kyoto Prefectural University, School of Nursing Journal 21: 17-28, 2011 (in Japanese)
- Kayama Y, Togo H, Sadakane N: Facts of nursing skill experience in basic nursing practice The 2nd report. Asahikawa-so Annual Research 44: 29-36, 2015 (in Japanese)
- Nagata T: Communication skill in adult nursing practice—effect of adopted self-evaluation by multi-baseline. Osaka Prefectural University School of Nursing Annual Journal 12: 49-57, 2006 (in Japanese)
- Narra T: Effect and problems of communication skill education for nursing students. Hirosaki University of Medical Welfare Science 1: 63-65, 2009 (in Japanese)
- Okuyama M, Higo S, Hagi S, Murakami I: Study effect of communication workshop adopted by SP. Okayama Prefectural University, School of Health & Welfare Science 1 Periodical Journal 14: 87-88, 2007 (in Japanese)
- Sekido K: Learning of nursing student in communication skill education —small group discussion—: Kawasaki Medicine & Welfare Association journal 17: 237-241, 2007 (in Japanese)
- Suzuki M, Shimohira N, Iwasaki K, Ito Y: Learning process of communication for nursing students on basic nursing practice I. Iida Women Junior College Journal 28: 49-58, 2011 (in Japanese)
- Yamamoto K, Matsuo N, Utsumi K: silence 《1》 : nursing skills 36(8), 910-91, 1990
- Ueno R: development of communication skill evaluation scale and its confidence/adequacy : Japan journal of nursing science education 14: 1-12, 2004 (in Japanese)
- Yasuki J: Communication change of nursing students in basic nursing practice-by text mining analysis. Kanagawa Prefectural University of Health and Welfare Science Practice Education Center, Nursing Education File 38: 135-142, 2013 (in Japanese)