

# Current state of nurses' social skills and critical thinking dispositions, and their relationships with nurse teaching styles in diabetes care

メタデータ	言語: eng 出版者: 公開日: 2017-10-04 キーワード (Ja): キーワード (En): 作成者: メールアドレス: 所属:
URL	<a href="http://hdl.handle.net/2297/46830">http://hdl.handle.net/2297/46830</a>

# Current state of nurses' social skills and critical thinking dispositions, and their relationships with nurse teaching styles in diabetes care

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## Abstract

This study was performed to clarify the current state of social skills and critical thinking dispositions of nurses in diabetes care, and their relationships with nurse teaching styles in diabetes patient education in Japan. The nurse teaching styles in diabetes patient education are divided into three categories depending on the characteristics of nurse awareness and behavior while providing diabetes patient education.

This study was performed using a self-administered questionnaire. The authors asked 223 facilities to participate in the questionnaire survey. Among 1115 responses received, 848 were valid (76.0%) : the mean age of the respondents was  $38.5 \pm 9.5$  years, with a mean of  $6.8 \pm 5.5$  years spent in diabetes care. The questionnaire included basic attributes, 27 items related to the nine subscale skills associated with social skills, 33 items related to the four subscale skills associated with critical thinking dispositions, and 18 items related to self-evaluation of nurse teaching style in diabetes patient education. Descriptive statistics were used to determine their current state, and the Spearman's rank-order correlation coefficient was used to examine relationships with nurse teaching styles in diabetes care.

None of the items associated with social skills and only four items associated with critical thinking dispositions received more than 80% agreement from the subjects. Critical thinking dispositions were correlated with age, number of years of experience in nursing care for diabetes, Certified Diabetes Educators of Japan (CDEJ) certification, and possession of diabetes nurse certification, while social skills were correlated only with number of years of experience in nursing care for diabetes. In addition, the scores in these two scales revealed the highest positive correlation with *a teaching style which shows an understanding of the realities of patient living conditions and attitudes*, but no correlation only with *emphasis on evidence*, a subscale of the critical thinking dispositions.

These results indicated that self-evaluation of nurses was not high, and suggested that the number of years of experience in nursing care for diabetes may have a greater impact on improvement of skill than certifications. The results also confirmed that *a teaching style which shows an understanding of the realities of patients' living conditions and attitudes* was desirable because it showed the highest correlation with the two scale scores.

## KEY WORDS

diabetes care, nurse, social skills, critical thinking dispositions, nurse teaching styles

## Introduction

Timely patient education by nurses as diabetes worsens is important for patients, both for their mind and body and as their quality of life deteriorates from both social and lifestyle points of view. We undertook a qualitative

research project in order to make clear what type of awareness and actions are involved in patient education by nurses engaged in diabetes care, and found that different nurses have different diabetes teaching styles<sup>1)</sup>. There were three such styles: *a teaching style which shows an*

*understanding of the realities of patient living conditions and attitudes, a teaching style which is attached firmly to an understanding of what the patient is feeling, and a teaching style which provides general knowledge.* Based on these, we asked nurses to look back on their own diabetes nursing by completing a self-assessment designed to specifically clarify their awareness and behaviors in their practice, from a teaching style perspective<sup>2)</sup>. Based on the results, we divided the nurses into two groups: the high-education-effectiveness group focusing on an understanding of the realities of patient living conditions and attitudes, and the low-education-effectiveness group focusing on general knowledge. When comparing self-efficacy, the former group scored significantly higher than the latter group. The average self-efficacy score across all nurses was 7.24, in the "slightly low" category.

For this study, we sought to hopefully grasp the characteristics of nurses engaged in diabetes nursing from a perspective other than these. Consequently, for this study, we turned our attention to two main skill sets: social skills such as communication and responsiveness, considered crucial when assisting people, as well as critical thinking dispositions, which include judgment and thinking skills, considered critical when assessing the necessity of nursing and assistance. With regard to social skills in diabetes nursing, nurses' stress self-management is also crucial when it comes to providing long-term nursing to diabetes patients and working with their families, enabling the patients and families to perform long-term self-management to prevent the worsening of the disease. Additionally, in order to promote team care beneficial to patients, it is crucial for us as nurses to develop the ability to cooperate with other specialists. On the other hand, critical thinking disposition is said to play a role in stimulating thought. Critical thinking ability — the ability to perceive things objectively, examine them multilaterally, and make decisions based on appropriate standards — is crucial for the appropriate selection and use of information.

There are reports that show, individually, the current states of student nurses' social skills<sup>3,4)</sup> and critical thinking dispositions<sup>5,6)</sup>. However, there are no reports that show the current states of both of these with regard to nurses engaged in diabetes care. We believe that the results of this study can be used to offer suggestions for education on how to improve the skills of nurses engaged

in diabetes education. We also believe that once the current states of these, as well as their relationships to nurse teaching styles, are understood, it may lead to a broadening of teaching style explanations.

To that end, the goal of this study is to make clear the current state of the social skills and critical thinking dispositions of nurses engaged in diabetes care, as well as their relationship with nurse teaching styles.

## Method

### 1. Subjects

Nurses in all 47 prefectures of Japan engaged in diabetes care who work at facilities authorized by the Japan Diabetes Society, as well as at facilities employing certified diabetes nurses.

### 2. Survey period

Data collection took place from March through May of 2013.

### 3. Survey method

#### 1) Data collection method

We used a self-administered questionnaire. We sent out letters inviting chief nurses at 770 subject facilities to participate in the study, and sent a total of 2,294 questionnaires to a total of 223 facilities that expressed their willingness to cooperate. We asked each chief nurse to distribute the questionnaires to individual nurses; the individual nurses were asked to then each send their responses directly to the researchers.

#### 2) Number of collected and valid responses

A total of 1,115 questionnaires were sent back directly to the researchers. Of those, 848, or 76.0%, were filled out completely and thus considered valid.

#### 3) Questionnaire contents

##### (1) Basic attributes

We collected the following information: gender, age, academic record, number of years of nursing experience, number of years of experience in nursing care for diabetes, whether each nurse possessed CDEJ (Certified Diabetes Educators of Japan) certification, whether each nurse possessed diabetes nurse certification, and posts and ranks, as well as the number of beds and the location of each facility.

(2) The 27 items included in the social skill scale (Higuchi et al, 2004)<sup>7)</sup>

Kikuchi's Scale of Social Skills (KiSS-18)<sup>8)</sup> is widely employed. The Social Skills Scale for Nursing (SSSN)<sup>9)</sup>

exists, as well. However, for this study, we focused on the social skills scale that was developed by Higuchi et al<sup>7)</sup> to be applied to human service professionals. This scale is designed to serve as an indicator of the social skills required to promote self-development of the recipients of assistive services and to prevent complacency in assistive behavior. It allows researchers to determine skills that increase self-reliability and skills to demonstrate affection, factors considered crucial when providing long-term care of the sort provided by diabetes nurses.

The fourteen skills related to increasing self-reliability include four related to *honest self-expression skill*, three related to *stress management skill*, three related to *self-counseling and -responsibility skill*, two related to *perseverant negotiation skill*, and two related to *presentation skill*. The thirteen skills related to demonstrating affection include three related to *counseling skill*, three related to *assertion skill*, five related to *skill in asking others for help to and providing help to others*, and two related to *skill in accepting others*. The reliability and validity of these has been established. The responses were provided on a five-point scale from "1: I never do so" to "5: I always do so." The higher the total score, the better the social skills.

(3) The 33 items included in the *critical thinking disposition scale* (Hirayama et al, 2004)<sup>10)</sup>

For critical thinking dispositions, we focused on the critical thinking disposition scale developed by Hirayama et al<sup>10)</sup>. Disposition in thought processes is a matter handled at the level of intent, and is considered something that can be modified through education. Hirayama et al created a scale that integrates disposition scales discussed in various previous studies to clarify the structure of critical thinking dispositions and measure them. For diabetes care, it is important to be emotionally close to the patient; however, specialized skills to objectively understand a diabetes patient's physical state, making judgments that incorporate psychological and social elements, are crucial to professional nurses.

The scale (the reliability and validity of which has been established) consists of thirteen items regarding *awareness of logical thinking*, ten items regarding *spirit of inquiry*, seven items regarding *objectivity*, and three items regarding *emphasis on evidence*. The responses were provided on a five-point scale from "1: Does not apply" to "5: Applies." The higher the total score, the better the critical

thinking disposition.

(4) The 18 items included in the self-evaluation tool for evaluation of nurse teaching styles in diabetes patient education (Tasaki et al, 2008)<sup>2)</sup>

These consisted of ten items corresponding to a *teaching style which shows an understanding of the realities of patient living conditions and attitudes*, four items corresponding to a *teaching style which is attached firmly to an understanding of what the patient is feeling*, and four items corresponding to a *teaching style which provides general knowledge*. The reliability and validity of these has been established. The responses were provided on a four-point scale from "1: Does not particularly apply" to "4: Applies very much." The higher the total score for a given style, the more the respondent exhibits that style.

#### 4. Analytical method

Basic attributes, responses of each items in two scales were summarized using descriptive statistics. In order to explore the relationship of social skills and critical thinking dispositions with basic attributes and teaching styles, we performed analysis using Spearman's rank-order correlation coefficient ( $p < 0.01$ ).

#### 5. Ethical considerations

The questionnaire was anonymous, featuring neither the respondents' names nor where they work; the questionnaire forms were distributed to the respondents' workplaces that had expressed their consent, and respondents who individually returned their questionnaires to the researchers were deemed to have consented. We obtained approval from the Kanazawa University Ethical Committee (Approval No. 434).

## Results

### 1. Basic attributes (Table 1)

Of our subjects, 819 (96.6%) were women, and their mean age was  $38.5 \pm 9.5$  years old; the majority were between 30 and 50, with 268 (31.6%) in their thirties and 267 (31.5%) in their forties. Subjects had a mean of  $6.8 \pm 5.5$  years' experience in nursing care for diabetes: 192 (22.6%) had less than three years' experience, 161 (19.0%) had 3–5 years' experience, 255 (30.1%) had 5–10 years' experience, and 240 (28.3%) had ten or more years' experience. Of the subjects, 330 (38.9%) had CDEJ certification, 71 (8.4%) were certified diabetes nurses, and 334 (39.4%) worked in medical establishments with fewer than 300 beds.

2. Responses to each of the 27 items in social skills (Figure 1)

None of the items received a total of 80% or more "I always do so" and "I usually do so" responses. Three items received a total of 70% or more for these: one item under *stress management skill* ("I act according to priorities.") and two items under *counseling skill* ("I try to gather information beyond words during a conversation." and "I try to understand the actual feelings and emotions behind of the person who is speaking.") .

On the other hand, five received a total of less than 40% of those two responses: one item under *honest self-expression skill* ("I can show who I am.") , one item under *self-counseling and self-responsibility skill* ("I make decisions by myself without being influenced by others.") , two items under *perseverant negotiation skill* ("I thoroughly discuss things with others before I make a decision." and "I attempt to communicate my position

when it conflicts with the position of others.") , and one item under *assertion skill* ("I always express what I feel is necessary for the person even if it is hard to tell the person.") . Of those, the lowest proportion, at less than 30%, was "I attempt to communicate my position when it conflicts with the position of others." For four of these five items, roughly half of the responses, at 46.2% to 51.7%, were "sometimes I do, and sometimes I don't."

3. Responses to each of the 33 items in critical thinking dispositions (Figure 2)

Four items received a total of 80% or more "applies" and "applies somewhat" responses: two items under *spirit of inquiry* ("I want to learn many things through interactions with many people." and "I would like to keep learning something new throughout my life.") and two items under *objectivity* ("I listen to others' views even if they differ from mine." and "I use an objective attitude when deciding things") . One additional item received a

Table 1. Attributes of the nurses (n=848)

Attribute classification		Number of respondents (nurses)	Rate(%)
Gender	Male	29	(3.4)
	Female	819	(96.6)
Age (mean : 38.5±9.5)	20~29	186	(21.9)
	30~39	268	(31.6)
	40~49	267	(31.5)
	50~59	123	(14.5)
	60< (years)	4	(0.5)
The number of years of experience in nursing care for diabetes (mean : 6.8±5.5)	< 3	192	(22.6)
	3 ≥ n < 5	161	(19.0)
	5 ≥ n < 10	255	(30.1)
	10 ≤ (years)	240	(28.3)
Certified Diabetes Educators of Japan (CDEJ) certification	Certified	330	(38.9)
	Uncertified	518	(61.1)
Certified diabetes nurses	Certified	71	(8.4)
	Uncertified	777	(91.6)
The post and rank	Chief nurses	56	(6.6)
	Associate chief nurses	187	(22.0)
	General staff	590	(69.6)
	Other positions	15	(1.8)
Location of individual facilities	Hokkaido	40	(4.7)
	Tohoku	79	(9.3)
	Kanto	183	(21.6)
	Chubu	167	(19.7)
	Kinki	166	(19.6)
	Chugoku	51	(6.0)
	Shikoku	63	(7.4)
Kyushu (contained Okinawa)	99	(11.7)	

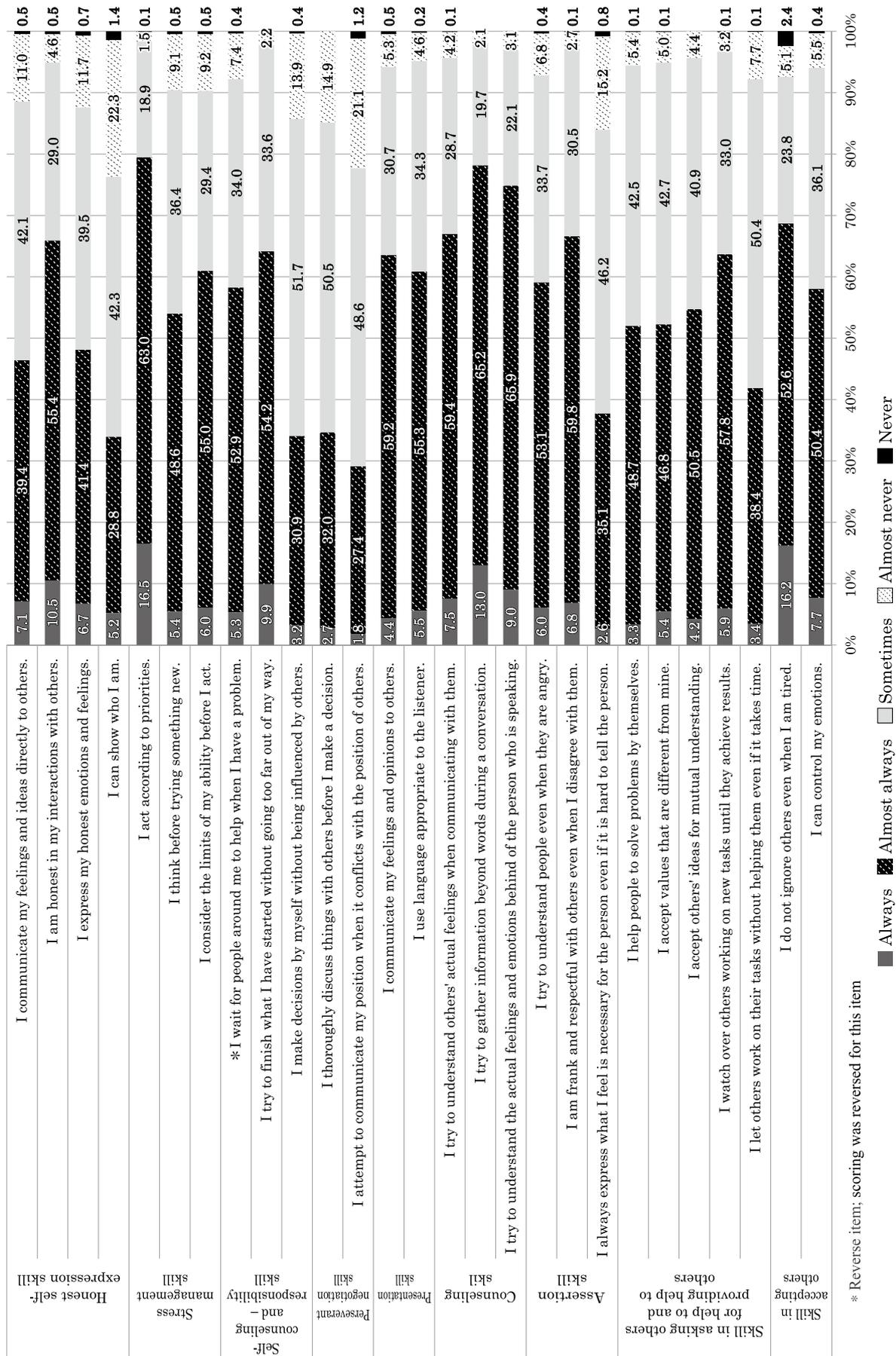
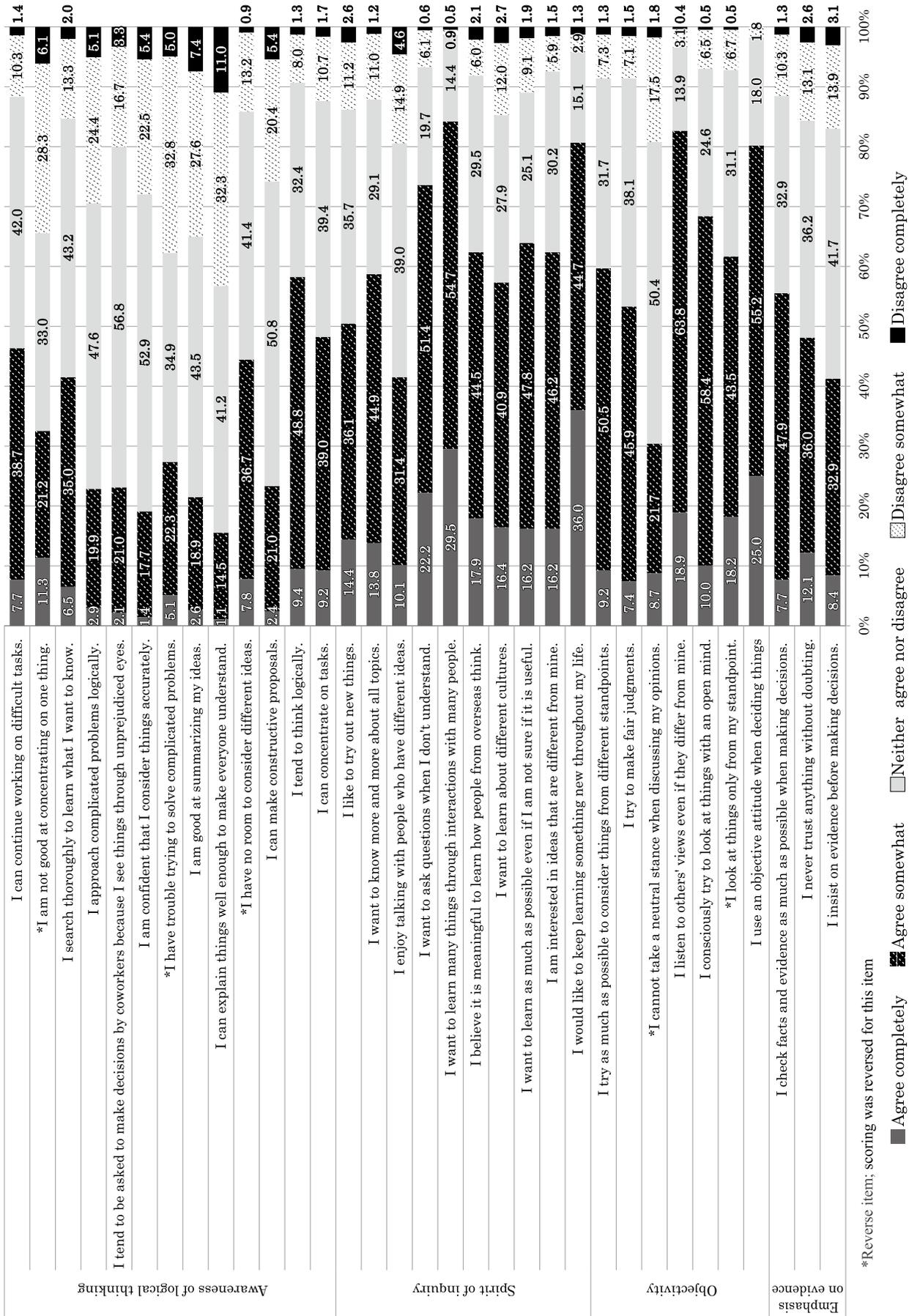


Figure 1. Responses to each of the 27 items in Social Skills



\*Reverse item; scoring was reversed for this item

■ Agree completely   ■ Agree somewhat   □ Neither agree nor disagree   □ Disagree somewhat   ■ Disagree completely

Figure 2. Responses to each of the 33 items in Critical Thinking Dispositions

total of 70% or more: "I want to ask questions when I don't understand." under *spirit of inquiry*.

On the other hand, seven items under *awareness of logical thinking* received a total of less than 30% of "applies" and "applies somewhat": "I approach complicated problems logically.", "I tend to be asked to make decisions by coworkers because I see things through unprejudiced eyes.", "I am confident that I consider things accurately.", "I have trouble trying to solve complicated problems." (scoring was reversed for this item), "I am good at summarizing my ideas.", "I can explain things well enough to make everyone understand.", and "I can make constructive proposals." Of these, two received a total of less than 20%: "I am confident that I consider things accurately." and "I can explain things well enough to make everyone understand." However, for four of these items, roughly half of the responses, at 47.6% to 56.8%, were "cannot say either way."

#### 4. Correlation of social skills and critical thinking dispositions with basic attributes (Table 2)

##### 1) Social skills

Number of years of experience in nursing care for diabetes was the only item that revealed a correlation with the total score for social skills ( $r=0.237$ ). However, among nine subscale skills, only two items, *counseling skill* ( $r=0.273$ ) and *self-counseling and -responsibility skill*

( $r=0.207$ ), showed correlation. In addition, although the total score failed to show correlation, CEDJ certification ( $r=0.224$ ) and certified diabetes nurses ( $r=0.211$ ) showed correlation with *counseling skill*. There was no correlation with age.

##### 2) Critical thinking dispositions

The total score revealed correlation with age ( $r=0.235$ ), number of years of experience in nursing care for diabetes ( $r=0.296$ ), CDEJ ( $r=0.232$ ), and certified diabetes nurses ( $r=0.248$ ). Four subscale skills showed no correlation between *emphasis on evidence* and attributes. The other three subscale skills revealed correlation with the number of years of experience in nursing care for diabetes and certified diabetes nurses ( $r=0.225-0.287$ ). Age showed a correlation with *awareness of logical thinking* alone ( $r=0.278$ ) and CEDJ showed a correlation with *spirit of inquiry* only ( $r=0.226$ ).

#### 5. Correlation of social skills and critical thinking dispositions with nurse teaching styles (Table 3)

##### 1) Social skills

*A teaching style which shows an understanding of the realities of patient living conditions and attitudes* showed correlation with total score ( $r=0.480$ ). Additionally, it showed correlations with all nine skills thereof, ranging from  $r=0.303$  to  $r=0.405$ . *A teaching style which is attached firmly to an understanding of what the patient is feeling*

Table 2. Correlation of social skills and critical thinking dispositions with basic attributes

scale	subscale	Age	The number of years of experience in nursing care for diabetes	Certified Diabetes Educators of Japan (CDEJ) certification	Certified diabetes nurses
Social skills	Honest self-expression skill	.114**	.152**	.098**	.105**
	Stress management skill	.089**	.135**	.111**	.100**
	Self-counseling and -responsibility skill	.183**	.207**	.111**	.172**
	Perseverant negotiation skill	.174**	.170**	.101**	.143**
	Presentation skill	.087*	.197**	.124**	.163**
	Counseling skill	.153**	.273**	.224**	.211**
	Assertion skill	.092**	.149**	.108**	.129**
	Skill in asking others for help to and providing help to others	.045	.139**	.108**	.129**
	Skill in accepting others	.075*	.098**	.069*	.084*
<b>Total</b>		<b>.159**</b>	<b>.237**</b>	<b>.165**</b>	<b>.190**</b>
Critical thinking dispositions	Awareness of logical thinking	.278**	.287**	.179**	.216**
	Spirit of inquiry	.110**	.239**	.226**	.225**
	Objectivity	.172**	.225**	.192**	.206**
	Emphasis on evidence	.106**	.068*	.051	.053
<b>Total</b>		<b>.235**</b>	<b>.296**</b>	<b>.232**</b>	<b>.248**</b>

Spearman's rank-order correlation coefficient \* $p<.05$  \*\* $p<.01$

Table 3. Correlation of social skills and critical thinking dispositions with nurse teaching styles

scale	subscale	A teaching style which shows an understanding of the realities of patient living conditions and attitudes	A teaching style which is attached firmly to an understanding of what the patient is feeling	A teaching style which provides general knowledge
Social skills	Honest self-expression skill	.303**	.193**	-.056
	Stress management skill	.316**	.219**	-.050
	Self-counseling and - responsibility skill	.289**	.128**	-.131**
	Perseverant negotiation skill	.311**	.221**	-.162**
	Presentation skill	.360**	.181**	-.122**
	Counseling skill	.405**	.246**	-.232**
	Assertion skill	.337**	.191**	-.145**
	Skill in asking others for help to and providing help to others	.370**	.217**	-.181**
	Skill in accepting others	.318**	.169**	-.106**
	<b>Total</b>	<b>.480**</b>	<b>.308**</b>	<b>-.180**</b>
Critical thinking dispositions	Awareness of logical thinking	.395**	.303**	-.216**
	Sprit of inquiry	.455**	.280**	-.222**
	Objectivity	.463**	.204**	-.273**
	Emphasis on evidence	.198**	.119**	-.046
	<b>Total</b>	<b>.513**</b>	<b>.325**</b>	<b>-.267**</b>

Spearman's rank-order correlation coefficient \*p<.05 \*\*p<.01

also showed correlation with total score ( $r=0.308$ ), and it showed correlation with four items, *stress management skill* ( $r=0.219$ ), *perseverant negotiation skill* ( $r=0.221$ ), *counseling skills* ( $r=0.246$ ), and *skill in asking others for help to and providing help to others* ( $r=0.217$ ). A teaching style which provides general knowledge showed no correlation.

## 2) Critical thinking dispositions

Among the four subscale skills, *emphasis on evidence* showed no correlation with any teaching styles. The other three subscale skills showed positive correlation with a teaching style which shows an understanding of the realities of patient living conditions and attitudes ranging from  $r=0.395$  to  $r=0.463$ , and with a teaching style which is attached firmly to an understanding of what the patient is feeling, ranging from  $r=0.204$  to  $r=0.303$ , while these three subscale skills showed negative correlation with a teaching style which provides general knowledge, ranging from  $r=-0.216$  to  $r=-0.273$ . Those three styles showed correlation with the total score,  $r=0.513$ ,  $r=0.325$ , and  $r=-0.267$  in order.

## Discussion

No items regarding social skills revealed 80% or more "I always do so" and "I usually do so" responses, and there

were only four items regarding critical thinking disposition skills that revealed 80% or more "applies" and "applies somewhat" responses. This showed that the nurses' self-evaluations were not especially high. Below, we will discuss the current state of two skills, their relationships to attributes, and their relationships to nurse teaching styles.

### 1. Current state of social skills

With regard to social skills, it became clear that the highest proportion was for "I act according to priorities," suggesting a high skill level of nurses in relation to the need to handle multiple patients through various types of work when working as a nurse. This was followed by subscale skills for *counseling skill* ("I try to gather information beyond words during a conversation." and "I try to understand the actual feelings and emotions behind of the person who is speaking.") and *skill in accepting others* ("I do not ignore others even when I am tired."), showing a high level of communication skills that are required of nurses.

On the other hand, the lowest agreement was for *perseverant negotiation skill*, which include "I attempt to communicate my position when it conflicts with the position of others." with the lowest proportion. A lack of confidence was also suggested by the large number of "sometimes I do, and sometimes I don't" responses.

The next-lowest-rated skills were *honest self-expression skill*, which include "I can show who I am." Nurses tend to respect the other party, and often make concessions to them in order to maintain favorable relationships; as a result, they are not thought to be good at directly expressing themselves. This result can be considered as an example for a report by Koizumi et al (2014)<sup>11)</sup>, which states that the fact that nurses' patient education does not have a direct influence on blood sugar level improvement would make it difficult for nurses to be evaluated as good by others and gain self-confidence. This is a concern for nurses.

#### 2. Current state of critical thinking dispositions

With regard to critical thinking dispositions, it became clear that the high average value of subscale scores was for *spirit of inquiry* and *objectivity*. Items such as "I want to learn many things through interactions with many people." and "I listen to others' views even if they differ from mine." are thought to show nurses' passion and earnest attitudes. It is said that, when there are two conflicting pieces of information, greater cognitive desire will lead one to an appropriate conclusion. Tsuzuki<sup>13)</sup> mentions the importance of spirit of inquiry. It is important to have self-confidence in these aspects as strength of nurses engaged in diabetes care.

However, it also became clear that the average of *awareness of logical thinking* was ranked low on positive responses. Items such as "I can explain things well enough to make everyone understand." and "I am confident that I consider things accurately." ranked around 20%, with 40–50% of responses being "cannot say either way." Despite the fact that nurses had learned the nursing process through taking care of patients in clinical practice during basic nursing education, these skills received low results. We believe that a factor in this is the diversification and complexification of nursing work. Disposition in thought processes is a matter handled at the level of intent, and is considered something that can be modified through education; consequently, it was suggested that it would be important for nurses to deliberately train themselves to use logical thinking even during busy moments.

#### 3. Relationships with attributes

We found an intriguing result: the only positive correlation for the total score for social skills was a slight positive correlation with number of years of experience in nursing care for diabetes. For the total score for social

skills, no correlation was found even for certified nurses with a specialty in diabetes nursing. Slight positive correlations were found between *counseling skill* and number of years of experience in nursing care for diabetes, CDEJ certification, and being a certified diabetes nurse. The only correlation found for *self-counseling and self-responsibility skill* was with number of years of experience in nursing care for diabetes. Hashimoto reported that social skills were higher among older nurses, but we were unable to find any such correlation in this study. We believe that this was due to our use of different scales for this study in order to broadly make clear social skills used not only with patients, but with family members and other specialists. We suggest these skills could not be obtained neither longer experience nor age.

On the other hand, slight positive correlations were found between the total score for critical thinking dispositions and all attributes. However, among the subscale skills, correlations for *awareness of logical thinking*, *spirit of inquiry*, and *objectivity* were found only with number of years of experience in nursing care for diabetes and being a certified diabetes nurse. These results suggested that gathering experience and acquiring qualifications would improve critical thinking disposition skills. However, the subscale skill that showed no correlation with any items was the *emphasis on evidence*, suggesting that there were some issues to be solved by nurses.

#### 4. Relationships with nurse teaching styles

For all subscale skills related to social skills and critical thinking dispositions except *emphasis on evidence*, slight positive correlations of  $r=0.2$  to  $r=0.4$  were found with *a teaching style which shows an understanding of the realities of patient living conditions and attitudes* (which is deemed to be the most desirable style). A slight correlation was also found for some skills with *a teaching style which is attached firmly to an understanding of what the patient is feeling*, which is consistent with the classification as focusing on an understanding of the realities of patient living conditions and attitudes distinguished in our previous study<sup>2)</sup>. This result is also understandable based on the fact that, in our previous study, it was difficult to distinguish between *a teaching style which shows an understanding of the realities of patient living conditions and attitudes* and *a teaching style which is attached firmly to an understanding of what the patient is feeling*; they were then classified into integrated

styles: a teaching style which is calm and keeps distance from patients, and shows an understanding of the realities of patient living conditions and attitudes and a teaching style which is attached firmly to an understanding of what the patient is feeling, and shows an understanding of the realities of patient living conditions and attitudes. On the other hand, *a teaching style which provides general knowledge* was found to have mainly negative correlations with critical thinking dispositions, and mainly no correlations with social skills, so the characteristics of this style are believed not to lead to improved skills. Based on the above, we can state that, due to its having the highest correlations of the three main teaching styles with the social skills and critical thinking disposition that are considered desirable for nurses to improve their skills in, it is important to make progress in the characteristics of *a teaching style which shows an understanding of the realities of patient living conditions and attitudes*. However, even *a teaching style which shows an understanding of the realities of patient living conditions and attitudes* showed no correlation with *emphasis on evidence*, making this a concern about diabetes nursing. It will be necessary to be more aware of judgment based on facts and evidence in the future.

#### **Limitations of the Study**

Nearly 40% of subjects had CDEJ certification; combined with their ages and number of years of experience in nursing care for diabetes, these results were obtained from a fairly skilled group of diabetes nurses. There is a possibility that these results will not apply to groups with differing attributes.

#### **Conclusion**

1. There were no items regarding social skills that revealed 80% or more agreement, and there were only four items regarding critical thinking dispositions that revealed 80% or more agreement. This suggested that the nurses' self-evaluations were not especially high.

2. Correlations were found between critical thinking dispositions and age, number of years of experience in nursing care for diabetes, CDEJ certification, and being a certified diabetes nurse. However, the only attribute that showed a correlation with total score for social skills was number of years of experience in nursing care for diabetes.

3. For correlations between the two skill sets and teaching styles, the greatest positive correlations found for both skill sets were for *a teaching style which shows an understanding of the realities of patient living conditions and attitudes*. However, even in terms of teaching styles, there was no correlation for *emphasis on evidence* within critical thinking dispositions; we believe this is a concern with regard to diabetes nursing.

#### **Acknowledgement**

We would like to express our appreciation to all nurses for their understanding and cooperating with this study. This study was presented at the World Diabetes Congress 2015. Additionally, this study was a part of research subsidized by the Japan Society for the Promotion of Science's Grants-in-Aid for Scientific Research (Fundamental Research C) (25463400) .

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## 糖尿病ケアにおける看護師のソーシャルスキルおよび批判的思考態度の実態と糖尿病教育スタイルとの関係

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### 要 旨

本研究の目的は、糖尿病看護に携わっている看護師のソーシャルスキルおよび批判的思考態度の実態と看護師の糖尿病教育スタイルとの関係を明らかにすることである。糖尿病教育スタイルとは、糖尿病看護に携わっている看護師の患者教育における意識や行動の特徴であり、3つのスタイルで識別される。

糖尿病看護に携わっている看護師を対象に自記式質問紙調査を実施した。223施設に質問紙を送付し、返送された1115名中、有効回答848名（有効回答率76.0%）を分析対象とした。基本属性、ソーシャルスキル9下位尺度27項目、批判的思考態度4下位尺度33項目、糖尿病教育スタイル自己評価18項目について調査した。

その結果、あてはまるとの回答が80%以上だった項目は、ソーシャルスキルでは皆無であり、批判的思考態度においてもわずか4項目であった。また、批判的思考態度においては、年齢、糖尿病看護経験年数、CDEJ、糖尿病看護認定看護師と相関がみとめられた。しかしソーシャルスキルにおいて相関のみとめられたのは糖尿病看護経験年数のみであった。また、糖尿病教育スタイルとこれら2つのスキルとの相関においては、いずれも生活心情がみえているスタイルとの正の相関が最も高かったが、批判的思考態度の下位尺度「証拠の重視」にのみ相関はみとめられなかった。

以上より、看護師のソーシャルスキルおよび批判的思考態度の自己評価は高いとはいえないことが明らかになった。また、資格よりむしろ糖尿病看護経験年数がスキルの高さに関与する可能性が示された。さらに、これら2尺度の得点と最も相関が高かった生活心情がみえている教育スタイルがのぞましいことが確認された。