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#### Original Article

# A Critical Discourse Analysis of Feminism in Katherine Mansfield's *Bliss*

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#### **ABSTRACT**

Critical Discourse Analysis (CDA) is a research paradigm that linguistically addresses the prevailing social problems by opposing dominant ideological positions. Women's status in society appears to be fixed in division in that Women are so trained to think and live in parts that they cannot pull themselves together. Choosing Katherine Mansfield's Bliss, the present study hypothesizes that man is portrayed as being superior, controller and dominant as opposed to the woman who is inferior, disadvantaged and devalued. This idea hints at the dialectic relation between language and social reality which constitutes the core of Norman Fairclough's model. The procedures followed in carrying out the present study consist mainly of two parts: the first focuses on the theoretical background in which a survey of past literature about CDA and feminism is done, the second part is the practical in which analysis of the chosen short story is conducted by adopting Fairclough's (2018) model of analysis. Analyzing Bliss and examining the contrastive analysis results show that man is portrayed as the superior gender. The author uses specific terminologies and structures that distinguish men's language, issues and concerns by exhibiting man as being dominant and powerful. Although on different dimensions, women's identity, power ideology and women's construction as man's other are textually realized in both cultures proving the issue that language is the carrier of ideologies and the recipe of life.

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#### I. Introduction

The present study supports the belief that people need to reconstruct values that allow them to accept each other on terms other than those of power and advantage. Feminist literary-writing is thought to be rich data to investigate how the hidden ideologies are conveyed within language and how language plays a role in generating and showing the affairs of power, social relations and gender ideologies. It is important to focus on feminist language since the language is the structure of significance through which we can understand others' view point. A linguistic point of view reflects and describes the knowledge underlying the ability to speak a given language. Previous studies reflect and reinforce women's social subordinate role, and language is used as a lens through which women view the social and political aspects of gender relations. The present study is a step forward to better understand how novels exhibit the feminist ideology in cultures.

This study is an attempt to explore feminist novel writing in Katherine Mansfield's *Bliss* as a sample of feminist writings. It also aims at exploring the language used by women, and what counter-linguistic means and strategies are utilized by women to cope with, and/or resist social subordination. It also aims at uncovering how the ideas of power imposition and social inequality are linguistically exhibited in the English culture. In the present study, it is hypothesized that man dominates and controls the human status pushing woman into a marginal position. There are identifiable common linguistic and discourse features that are clear in Katherine Mansfield's *Bliss*. In order to test the hypotheses put forward in the present study, the following procedures will be followed:

- 1. Presenting a theoretical account of both CDA from as well as a simple account of feminism as a critical stance
- 2. Presenting the model of analysis adopted.
- 3. Introducing and critically analyzing the short story Bliss: the plot, main characters
- 4. Giving and discussing the results arrived at from the analysis of the short story.
- 5. Drawing the relevant conclusions from step (4) above in order to test the validity of the hypotheses put forward.

#### 1.2 Limits of the Study

This study is limited to the investigation of aspects of feminist language that are present in the data which constitute Katherine Mansfield's *Bliss*. The analysis will cover certain extracts from this short story. The model for the analysis is that of the critical discourse analyst Norman Fairclough (1989,1995, 2012, 2018).

#### II. Literature Review

#### 2.1 The life of Katherine Mansfield

On October 14<sup>th</sup>, 1988, Katherine Mansfield was born in Wellington, New Zealand, in a socially and distinguished family. She left New Zealand and after few years she seemed back toward it and discover her self - imposed separation and her longing to return. She never saw New Zealand or got back to her native land again except in her afterglows and in some of her more successful short stories. "Her early literary years in London were filled with such bitter memories that she rarely spoke of them. She was alone, thousands of miles from home, struggling for recognition as an artist" (Middleton, 1966: 10). Her father, Harold Beauchamp, was a successful businessman then he became the superior of the bank of New Zealand. Katherine's mother, Annie Burnellne'e Dyer, was of genteel origins.

Mansfield lived with her family Thorndon but then they all moved to the country suburb of Karori because she has many health problems. At that place, she used some of her happiness memories of her childhood as muse for the Prelude story (Gordon, 1945: 17).

Unaffected by English-language modernist short stories modeled after Russian authors such as Anton Chekhov, Mansfield is the best.

Katherine Mansfield used the storied of women as victims at their society in her writings. She was very much interested with *the position of women in society* to clear to the world the hard conditions of women in the *western society* at their time and how she was concerned with the modern literature, especially with the *female culture*.

Katherine suffered a fatal pulmonary hemorrhage and died on 9 January, 1923 and was buried in France. The last words of her: "I love rain, I want the feeling of it on my face". (Horsefield, 1999: 1-9).

#### 2.2 Katherine Mansfield's Works

The title story from that collection, *Bliss*, which involved a similar character facing her husband's infidelity, also found critical acclaim. She followed with equally praised collection, *The Garden Party*, published in 1922. The final months of her life produced little fiction, though she did complete *The Fly*, a portrait of her father and her classic statement on the futility of war (Horsefield, 1999:1-10).

Katherine wrote her last story *Bliss* when she discovered that she has internal bleeding in her lungs. The period of the writing the story was only one week. Although the style of her writing seem to be mature, she wrote Murry that, after facing the prospect of death, her awareness of nature had intensified.

#### 2.2.1 The Plot

Mansfield wrote this short story to be concerned with dramatic structures. We follow the main character, Bertha, as she prepares for dinner party in her house with all of her friends, when things seem to deals mostly with what is going on within the characters more than with the external actions as it's not that not that much clear about what's going on around them.

Mansfield makes the readers think that somehow, we have a triangle of love as Bertha and her husband seem to be in love with same women, but Bertha doesn't know the nature of it (Hoffman, 2001:1-2).

#### 2.2.2 The Theme

There are three themes in the short story Bliss:

#### 1- Change and Transformation

Bertha has this extreme sense of bliss and desire for Harry, shows that she undergoing change in her life. At the end of the story we see that she changes to sexual state. She wants everyone to just leave so she can be alone with him but that feeling changes when she sees him with Pearl Fulton.

#### 2- Marriage and Adultery

Bertha believes (or make herself believes) that her marriage is complete. In the story she says that they are much in love as they are ever could be. Bertha later realizes that Harry and Pearl are having an affair. Then at the top of that all, Harry at the dinner acts as though he hates her.

#### 3 Modernity

A crucial element of the story is the idea of modernity. Bertha frequently describes the aspects of her life as modern, such as her marriage to her husband and her friendships. Bertha appears to favor shallow, superficial, and deceitful things, which contradicts her vision of modernity. Because she and her spouse are such close friends, she is aware of the *being modern* that her marriage lacks. Bertha believed that a modern marriage didn't have to be based on lust or passion, but rather might only be based on the ties that would bind two friends. Because he is unhappy with how their relationship is going, her perspective on the modern marriage harms her relationship. Even Bertha and Harry's approach to child rearing is seen as contemporary. (Wikipedia: 2017).

#### 2.2.3 The Main Characters

- Bertha Young is a thirty years old housewife and the main character in the short story *Bliss*. She believes that she is very lucky and blessed by having friends, her little baby and her husband. She decides to express about her blessed feelings by making a dinner

party for those who take care about them. She is autocrat and tries to shift focus to her. She has very unique look at things around her.

- **Harry Young** is Bertha's husband who is looking for grandeur everywhere. His relationship with Bertha seems to be *cold* as they couldn't make a meaningful conversation on the telephone. He seems that he has something towards Bertha's friend, Pearl Fulton, and it can be explained as adoration.
- Little B is a baby of Bertha who, is not close enough, to her because Bertha is concerned with the world around her and with her closest friends.
- **Pearl Fulton** is the mysterious friend and lady of Bertha and for the readers as well because we have not that information to identify her personality. Bertha thinks that they both have many great things in common, like their admiration of the garden, and she doesn't understand that she falls in love with Pearl, unnaturally and makes a triangle of love with Bertha's husband.
- Nanny is the women that "takes care for baby of Bertha, contrary to Bertha herself who cannot challenge Nany's authority" (Wikipedia: 2017).

#### 2.3 Feminism

The notion that men and women should be treated equally in terms of opportunities, treatment, respect, and social rights is referred to as gender. Feminists are often persons who work to recognize and end societal discrimination based on gender. Gender can be defined here as the accepted idea or behavior sits by society for the aim of separating women from men (Wikipedia, 2012).

'Les feminists' was the name given to the movement that came to be known as feminism or feminist in France and the Netherlands in 1872, Great Britain in the 1890s, and the United States in 1910. The words feminist and feminism first appeared in the Oxford English Dictionary in 1894 and 1895, respectively, see Cott (1977: 1).

The history of feminism includes the history of feminist movements and feminist thinkers. Feminists around the world sometimes have different causes and goals, depending on the time, culture, and country. Most Western feminist historians argue that any movement defending women's rights should be considered a feminist movement. These historians use the label *proto-feminist* to describe the early movement" (Cott, 1987).

#### 2.4 Discourse analysis

Crystal (1971: 201) defines discourse analysis as the sentences that concatenated to be seen as wider constituting on 'constructions' which might be called 'utterances',

'discourse', or 'paragraphs'.

On the other hand, Yule (1996: 139) says that discourse means to understand the hidden meaning of the speaker's speech, not withstanding what she or he says, realize the linked ideas as opposed to incoherent discourse that get part in this tingly activity.

Therefore, Aitchison (2003: 108) says that discourse analysis deals with different devices that used by speakers and writers when they associated some sentences into a coherent and *cohesive whole*.

Also he (2003: 428) introduces that some discourse analysts focus on many sides of communication and language as a mean that used to "do various actions and interactions".

So discourse analysis is designed as a term that is used by people in different academic departments and domains to explain what they do, whom they do and sometimes both. People also use discourse analysis to *pose* some kind of questions and find many sorts of answers. It's associated with language and communication between people.

Discourse analysis has used to shed light on the way of creating meaning through the order of *chunks of information* via a sequences of sentences or across the way that is used by the speaker or the *conversationalist* to take up the details and reply to what has just been said. Discourse Analysis is also used to focus light on how speakers refer to their semantic intentions and how the listeners understand what they hear, and on the ability to interpret the use of human symbol (Johnstone, 2017: 1-6). For classification of Discourse markers, see (Khuder et al., 2021).

#### 2.5 Stylistics

Stylistics is "the study of style in language, i. e. the analysis of distinctive linguistic expression and the description of its purpose and effect" Verdonk (2002: 4). Stylistics can also be defined as "a method textual interpretation in which primary place is assigned to language" (Simpson, 2004: 2). Thornborrow and Wareign (1998: 4) identify that stylistics is an emphasis on the aesthetic properties of language.

Stylistics can be also defined as the linguistic study of style (Leech and short, 1985: 13). According to Mills (1995) stylistics is "the analysis of the language of literary text talking its theoretical models from linguistics" (ibid,1995: 4). Widdowson (1975: 3) supports "by stylistics I mean the study of literary discourse from a linguistic orientation".

Fairclough (1989:16) states "stylistics is now using the knowledge and skills derived from those textual analyses of literary texts to investigate more fully the constructions and effect of non-literary texts".

#### 2.6 Critical Discourse Analysis CDA

Verdonk (2002: 75) states that CDA is a branch of linguistics which aims to reveal the implicit ideological forces at work in spoken and written texts. Furthermore, CDA can be defined as a program of social analysis that critically analyzes discourse, i.e. language in use, as a means of addressing social changes (Scollen, 2001: 140).

According to Taylor (2004: 436) CDA is "particularly appropriate for critical police analysis because it allows a detailed investigation of the relationship of language to other social processes, and of how language works within power relations. CDA provides a framework for systemic analysis-researchers can go beyond speculation and demonstrate how policy texts work".

CDA is "based upon a view of semiosis as an irreducible demand of all material social processes" (William, 1977). We can see social life as interconnected networks of social practices of diverse sorts (Political, cultural, family, etc.). The reason for centering the concepts of social practice is that it allows an association between perspective of social structure and perspective of social action and agency, both necessary perspectives in social research and analysis (Chouliaraki and Fairclough, 1999:1).

Van Dijk (1998) indicates that CDA is a field that concerned with studying and analyzing written and spoken text to reveal the discursive sources of power, dominance, inequality and bias. (*cf*, Van Dijk (2015) Ziółkowska, (2017); Galasiński, D., Ziółkowska (2012). Recently, Hazem and Kanaan state that Cognitive researchers and discourse specialists choose the expression *discourse markers* (Hazem and Kanaan, 2020:132).

#### 2.7 CDA and Stylistics

CDA is related to the "organization of language above the sentence or above the clause and therefore, larger linguistic units such as conversational exchanges and written texts" (Stubbs1983: 1).

Cluett and Kampeas (1979) refer to it as the study of real manifestation of style.

#### 2.8 Fairclough's Model (The Model Adopted)

Norman Fairclough is known as one of the signaler figures in the critiquing of language, discourse and society. He says that language is considered as an important part of society and they are internally related with each other. Language is a social process according to Fairclough.

He (1989: 78) says that there is a difference between text and discourse, in which discourse is a process of social interaction, where text is a part of it as "a form of product".

KO (2011: 55) agrees with him by says that discourse focuses on the social situations or conditions of the productive and interpretive processes of the text.

Fairclough (2001: 4) argues that the critical study of the text and discourse is important to discover thee hidden effect which may be furtive from people in social relationship system.

Wodak (1989: 27) states the critical study is used to achieve "the justice for the powerless and oppressed".

Fairclough (1995: 97) proposes that discourse can be seen as (i) a language text, spoken or written, (ii) discourse practice (text production and text interpretation), (iii) sociocultural practice.

Fairclough (2008: 26) calls his approach the relational-dialectic approach as there is dialectic relation between social reality and language.

Discourse, according to Fairclough, has three main functions:

- An identity function that concerns with the constructions of social self or identity.
- A relational function, which deals with the constructions of social relationships between people.
- An ideational function that is used with the constructions of systems of knowledge and belief.

#### III. Data Analysis

#### 3.1 A CDA of Bliss

In this paper the textual level is going to be analyzed. This level, in turn, involves three levels, namely, the vocabulary, and the grammar and the text structure.

#### 3.1.1 The Vocabulary Level

Within the vocabulary level the aspects below are going to be searched to identify the world of experience that is created throughout the story:

#### 3.1.1.1 Special use of vocabulary (extravagant adjectives)

Last study of feminist language has found out that women usually use extravagant adjectives because they tend to use Lavish improvident descriptions in expressing themselves. Example of such terms in *Bliss* include:

Adjectives Frequency Adjectives Frequency Young 2 Mystical 1 Dancing steps 1 Absurd 1 Absolute bliss 1 Dizzy drunk 1 Bright Tired 1 1 Blonde Unbearable 1 2 Big 1 Funny 2 Dark-eyes 1 Dear 3 Curious 2 Beautiful 2 2 Happy

<Table 1> Frequency of Adjectives

#### 3.1.1.2 Complex attributive adjectival phrases with hyphenation

In this story Mansfield utilizes different types of hyphenated expressions (phrases) as follows:

Absolute- bliss, Far-fetched, jade-green, friends-modern, middle-class, half-smile, tortoises hell- rimmed, child-like- pleasure, fried- fish, quiet-quiet.

In these, the writer adapts whole phrases and sentences to the use of modification. A combination of modifiers that needs more than on reading to get to its understanding. Writers use such types of modification for their imaginative and descriptive values. Complex attributive adjectives have the ability to add to a modified noun. Such feature or characteristic can create a vivid concrete image in the reader's mind.

#### 3.1.1.3 Adjectives Used in Describing a Character, a Thing, a Place, Food:

The short story is full of adjectives which reflect the nature of women in describing everything in detail.

### <Table 2> Story's Adjectives

Ī	\\ 1able \( 2 \rangle \)	19 × 114,0001,00	
Bright	Wollen	Alive	Darling
Late	Fine	Tall	Upset
Drunk	Funny	Slender	Large
Disorderly	Good	Fall	Creamy
Idiotic	Wrong	Perfect	Funnier
Rare	Sweet	Single	Intelligent
Dusky	Dangerous	Faded	Silk
Chilly	Poor	Red	Scraped
Cold	Rich	Heavy	Amber
Tight	Offend	Grey	Dangling
Divine	Precious	Black	Sad
Glass	Nice	Intent	Lean
Blue	Warm	Quick	Pale
Lovely	Fond	Creepy	Cute
Strange	Exquisite	Strong	Right
Pink	transparent	Wide	Dreadful
Yellow	Triumph	Adorable	Sinister
Smooth	Sound	Satisfactory	Faster
White	Young	Thrilling	Bizarre
Silver	Provoking	Wonderful	Flattened
Purple	Certain	New	Immense
$\operatorname{Big}$	Frank	Superb	Charming
Absurd	Blonde	Jade	Timeless
Dark	Dear	International	Glad
Light	Frozen	Amusing	Sorrowful
Low	Pure	Orange	Attractive
Little	Kidney	Stogy	Sure
Front	French	Still	Few
Open	Delicious	Round	Impulsive
Shut	Delightful	Unearthly	So simple
High	Decorative	Blissful	Beautiful
Great	Shameless	Slights	Moon beam
Cool	cold	unwritten	sleepy
Collected	Egyptian	romantic	hideous
Well	Admired	lowest	loud
Ridiculous	Tender	deepest	necessary
Mysterious	Whole	alone	lovely
Frightful	Brimming	warm	slender
Tiny	Microns	frank	banana
Heavy	Exactly	best	
Longest	Intensely	modern	
Intimate	Secret	ardent	
Weird	sleepy	awful	
Lie	Exquisite	old	
Bad	Long	top	
stomach	flowering	thankful	

#### 3.1.1.4 Any other use of adjectives

In order to support the analysis of the previous section, this section shows the different adjectives that recurred more than once in the story. This also reflects the feminist nature in detailed descriptions even in repeated.

<Table 3> Use of Adjectives

Adjectives	Recurrence	Adjectives	Recurrence
Rare	5	Lovely	7
Cold	3	Curious	2
Big	3	Young	5
Purple	2	Drunk	2
Bright	3	Green	4
Dusky	2	Black	2
Glass	2	Amusing	2
Blue	3	Full	2
Little	21	Sad	2
White	6	Silk	2
Dark	2	Dreadful	5
Good	3	Dean	2
Strange	7	New	5
Absurd	5	Blonde	3
Nice	3	Pale	3
Late	2	Cool	4
Idiotic	2	Beautiful	3
Divine	2	Silver	7
Certain	2	Red	4
Rich	2	Poor	3
Yellow	3	Dear	2
Warm	2	Well	2
Strong	2	Good	7
Нарру	3	Right	3
Funny	2	Wrong	2
Tiny	2	Terrifying	2
Cold	3	Alone	2
Tall	2	Pity	2
Wonderful	3	Dark	2
Grey	2	Collected	2

#### 3.1.2 The Grammar Level

The two processes as transitivity and modality are the chosen processes to be tackled under grammar within the current study as the following:

#### 3.1.2.1 Transitivity

Transitivity shows how the world is recognized. It refers to the analysis of language as a mode of reflection, of imposing order on the endless variation and flow of events

#### Conversation (1) between Harry and Bertha.

- "Oh, is that you, Ber? Look her, I'll be late. I will take taxi and come along as quickly as I can, but get dinner put back ten minutes- will you? All right?"
  - "Yes, perfectly. Oh, Harry".
  - "Yes?"
  - "Hasn't it been a divine day!"
  - "What is it "?
  - "Nothing, Intended".

<Table 4> Types of Verbs

Verbs used by Harry	Туре	Verbs used by Bertha	Type
Is 2	Static	Has been	Static
Look	Static		
Will be	Static		
Will take	Static		
Come	Dynamic		
Can			
Get	Dynamic		
Put	Dynamic		

#### Conversation (2) between Eddie and Bertha

- "It is the right house, isn't it?" he pleaded.
- "Oh, I think so I hope so," said Bertha brightly. "I have had such dreadful experience with a taxi-man; he was most sinister. I couldn't get him to stop. The more I knocked and called the faster he went. And in the moonlight this bizarre figure the flattened head crouching over the little wheel ...."

<Table 5> States and Dynamic Verbs

Verbs said by Eddie	Туре	Verbs said by Bertha	Туре
Is	Verb to be (static)	Think	Static
Have had	Static	Hope	Static
Was 2	Verb to be (static)		
Couldn't get	Dynamic		
Stop	Dynamic		
Knocked	Dynamic		
Called	Dynamic		
Went	Dynamic		
Crouching	Dynamic		
Saw	Static		
Driving	dynamic		

#### 3.1.2.2 Mood

Mood is a part of the interpersonal function that is expressed between the speaker and the hearer by choices between declarative, interrogative and imperative moods. Mood expresses the speaker's purpose to be achieved with his /her speech as the following in *Bliss*:

<Table 6> Conversation (1)

Sentences and phrases that are said by Harry	Its kind
1-is that you, Ber?	Non-assertion, interrogative and positive
2-I will be late	Assertion, declarative and positive
3- "I will take a taxi and come along as quickly as I can"	Assertion, declarative and positive
4- get dinner put back ten-minutes- will you?	Non-assertion, interrogative and positive
5- All right?	Non-assertion, interrogative and positive
6. Yes?	Non-assertion, interrogative and positive
7- What is it?	Non-assertion, interrogative and positive

We have two positive and declarative sentences, while five positive and interrogative sentences.

<Table 7> Conversation (2)

Sentences and phrases that are said by Bertha	Its kind
1- Yes, perfectly	Assertion, positive and declarative
2· Oh, Harry!	Non-assertion, positive and interrogative
2. Has not it been divine day!	Non-assertion, negative and
3-Has not it been divine day!	interrogative
4- Nothing, Entendu	Non-assertion, negative

#### We have:

- One positive and declarative sentence
- Two interrogative sentences (negative and positive)
- One negative sentence (non -assertion)

#### < Table 8 > Conversation (3)

Sentences and phrases said by Eddie	Its kind	
1. "It is the right house, isn't it?".	Non-assertion, negative and	
	interrogative	
2. "I have had such dreadful experience with	Assertion, positive and declarative	
taxi-man".		
3. he was most sinister	Assertion, positive and declarative	
4. I couldn't get him to stop	Non-assertion, negative	
5. The more I knocked and called the faster he went	Assertion, positive and declarative	
6. In the moonlight this bizarre figure with	Assertion, positive and declarative	
flattened head crouching over the little wheel		
7. Yes, it really was	Assertion, positive and declarative	
8. "I saw myself driving through eternity in a	Assertion, positive and declarative	
timeless taxi"		

We have one negative and interrogative sentence, one negative (non-assertion) sentences and six positive and declarative sentences.

Mood shows (demonstrates) the power relations between the participants. According to the table, the mood of the conversation shows that the male is the dominator of the speech.

#### **3.1.2.3 Modality**

Modality refers to the strength with which a particular proposition or statement is endorsed. It expresses the speaker's judgment of the possibility and frequency of propositions including rank of probability and rank of equality as the following in Mansfield's *Bliss*:

#### Conversation (1)

Harry has used only one model, which is (will) three times. While Bertha has not used any. One of the functions of *will* is willingness, volition and futurity and the male here uses the first two functions.

#### Conversation (2)

Eddie has used only one of model which is (couldn't), while Bertha has not used any.

#### 3.1.3 Text Structure

Text structure covers the two questions of which interactional conversations are used in texts as well as what large scale structures the text has.

This paper adopts these questions though the sense of checking the turn-taking system and the phenomenon of sentence length and complexity that are used within the text, mainly within dialogues between the female protagonist and a male character.

#### 3.1.3.1 The Turn Taking strategy

Turn-taking, the changing role of the speaker and hearer, is highly silent especially in male-female interactions. It would show the type of dominance practiced by the participants involved in the conversations, as in *Bliss*:

<Table 9> The Turn Taking Strategy Conversation (1)

Participants	Words spoken	Turn taken
- Harry	39	3
- Bertha	13	3

<Table 10> The Turn Taking Strategy Conversation (2)

Participants	Words spoken	Turn taken
- Eddie	70	4
- Bertha	10	2

According to the table above, the number of turns or roles taken by males is larger than that taken by Bertha. This also reflects the dominance and power of males and the weakness of women.

#### 3.1.3.2 Sentence Length and Complexity

Such feature can help in showing the text readability and decipher the author's intended meaning. The two linguistic features of length and complexity are concerned in trying to discover the ideology she/ he used in designing the text.

<Table 11> Sentence Length and Complexity

Paragraph No.	Sentence No.	Number of words	Sentence type
Taragraph 110.	1	7	Simple
	$\frac{1}{2}$	6	Simple
	3	33	Complex
1	4	11	Simple
	5	16	Simple
	6	16	Compound
	1	3	Simple
	$\frac{1}{2}$	14	Simple
	3	10	Simple
	4	10	Simple
2	5	15	Simple
	6	7	Simple
	7	10	Simple
	8	16	Compound
	1	9	Simple
	2	10	Complex
3	3	5	Simple
J	4	12	Simple
	5	10	Simple
	1	5	Simple
	2	18	Complex
	3	31	Compound
	4	10	Simple
4	5	13	Simple
	6	12	Complex
	7	10	Compound
	8	6	Simple
	9	11	Simple
	1	7	Simple
5	2	31	Compound
	3	4	Simple
	1	8	Simple
	2	9	Simple
	3	8	Simple
6	4	15	Simple
	5	9	Simple
	6	11	Compound
	7	18	Compound

#### IV. Results of Analysis

#### 4. The Results of Analysis

Being within the chick-lit writers, Catherine Mansfield tries to frame most of her novels around the self-reflexive questioning. She bravely goes where few have dared, allowing her character to challenge and to believe on the self whoever and whatever features one may have.

Having *Bliss* not been analyzed before by using a CDA model, the results of the current study are consistent with previous studies investigating feminist language. Analyzing the current novel according to Fairclough's textual level shows that the writer used a special lexicon to express herself. Modifications were distinctive in that the writer used it to describe people, things and events. The use of actual names and abbreviations was a clear signal for the writer's attempts to portray real life events. Taboos and swearwords were prevailing in a way that shows a penetration to the normal woman's language which maintains its elegance and delicacy. What is distinctive in the writer's lexicon is the focus on certain terminologies as they form the highest frequency within the novel. This shows that the main idea of the story focuses on such themes.

As to power relations between men and women, the extracts that have been chosen to be the data of analysis for each of the linguistic features of transitivity and modality (within the grammar level) as well as the turn-taking strategies (within the text structure) were variable in that all of them were dialogues between the heroine and one male character. The variability of the male character within these extracts was to see the way these (male) characters treat the heroine and the ideologies they followed in dealing with her. The transitivity analysis shows the masculine domination occupying the actor role. However, male's turns were more influential as they resort to whatever techniques (like: seizing the turn, silences and pauses) that may keep this positive face.

The writer's language shows a type of complexity mainly preferring the subordination type. Mansfield has loaded her sentences with as many subordinate clauses as the sentence may bear. This aspect characterizes most English speech indicating intelligence within the construction of the language's sentences. The thoughts are to be put in order of their importance. The most significant idea will receive the primary emphasis and hence give more unity and coherence to the connected elements.

#### V. Conclusions

From the results of the analysis, the following conclusions have been arrived at:

The short story 'Bliss' shows many features concerning women in that culture. The feminist language of Katherine Mansfield (especially her vocabulary, transitivity, modality and turn-taking strategies) portrays men as the authority while women as the

disadvantaged since they gain their identity through reference to the other (superior gender). This finding has verified our hypotheses which reads as considering man as the superior gender while woman's whole life and existence are in the hands of man. Language is a reflection of social inequalities between genders. That is the way people choose to use language in their day-to-day lives denotes the bias that they have behind their minds. In a male society that followed a system of men dominating women, language is used to promote male oppression and prejudice against women. It reinforces male dominance in society and perpetuates female oppression. It is an ideology that creates a hierarchy of men and women for the sake of it. Women should not be judged on their usefulness and contribution to men in society. They must be judged on their abilities and creativity. The perception of women's personality, their strengths and weaknesses by the society and by themselves, is, among other things, the result of the way they are portrayed in the discourse. Hence, discourse can be seen as a means by which the individuals' characters may be shaped as belonging to different social classes such as gender, class, race, ethnicity and so on. Bliss exhibits similar linguistic features in portraying the female characters.

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#### Original Article

# A Japan-Korea Comparative Study on Welfare Professional Training;

Focusing on Grit and Self-esteem Scores

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#### **ABSTRACT**

The purpose of this study was to clarify the relationship between grit and self-esteem scores among university students taking welfare professional training courses in Japan and South Korea (Korea). The grit and self-esteem scores of 100 first- to fourth-year students at a Japanese university adopting a 4-year curriculum for certified social and care worker training and 100 first- to second-year students at a Korean college adopting a 2-year curriculum for social worker training were measured using the Japanese-version Short Grit Scale and Rosenberg's Self-esteem Scale to analyze the relationship between the 2 scores, as well as differences between Japan and Korea. An anonymous online questionnaire survey was conducted using Google Forms, and 92 and 93 responses were obtained in Japan (valid response rate: 92.0%) and Korea (93.0%), respectively. There was a weak positive correlation between the grit and self-esteem scores, and both scores were significantly higher in Korea, suggesting the necessity of assessing the trainability of Japanese university students with lower grit and self-esteem scores.

Future studies should examine whether these scores change as the school year progresses and whether grit and self-esteem scores improve with training.

Key-words: grit, self-esteem, welfare professional training, Japan-Korea comparison

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#### I. Introduction

As of 2022, Japan's aging rate is 29.1%, which is the highest in the world, followed by Italy (24.1%), Finland (23.3%), and other European countries<sup>1)</sup>. According to future projections, other Asian countries are also expected to face rapid aging in the future. The situation is especially serious in South Korea (Korea), where the population is rapidly declining. Korea's current aging rate is 17.5%, but it is estimated to far surpass that of Japan in the future, exceeding 46% by 2070, and become the highest in the world<sup>2)</sup>. Access to care services has already been guaranteed as a right in both Japan with a long-term care insurance system (established in 2000) and Korea with a long-term elderly care insurance system (2008)<sup>3, 4)</sup>. However, they are facing various challenges in operating these services, as reported in previous Japan-Korea comparative studies on care management<sup>5)</sup>, welfare marketing<sup>6)</sup>, care service support insitutions<sup>7)</sup>, and care costs and the evaluation of family caregiving<sup>8)</sup>. From a future perspective, care professional training is likely to become more important in the 2 countries. Certified care workers in Japan and care workers in Korea are institutionally defined as national qualifications, but the training curriculum markedly varies between them. The Japanese curriculum for certified care worker training requires 1,850 hours to complete, whereas the Korean curriculum for care worker training only requires 240 hours to complete. In the latter, specialty is a point to be addressed<sup>9)</sup>, and, therefore, it may be revised based on the former in the future.

Professionals need to have various qualities. The importance of comprehensive and specialized support provided by professionals in welfare settings has been emphasized in various reports<sup>10-13)</sup>, requiring welfare professionals to be capable of collaborating with medical and other professionals. In this respect, not only knowledge and skills, but also the ability to address the affective domain may be an important quality. Self-esteem is a concept corresponding to the affective domain. Self-esteem refers to self-perceptions, including self-respect and self-acceptance, and it represents one's senses and emotions about his/her own values and abilities 14). Rosenberg's Self-esteem Scale is the most widely used to measure self-esteem, defining it as the degree to which one can see him/herself as a respectable and valuable person, rather than self-confidence or superiority gained by comparison with others 14). Based on this, self-esteem may be a competency required for collaboration with other professionals. Additionally, in professional training, selfimprovement or the ability to maintain interest and concern is also required after graduation from a training school. These are defined as "perseverance and passion for long-term goals"15), which may be explained by the concept "grit". A previous study involving physical therapist school students reported that grit scores were higher among students with an established view on medical professionals 16. Furthermore, students with higher grit scores have been reported to be characterized by a lower dropout rate at the United States Military Academy<sup>17</sup>, and obtain excellent results in spelling contests<sup>18</sup>, but no studies have examined students at welfare professional training schools.

We will now discuss the reasons for conducting this Japan-Korea comparative study on welfare professional training. As mentioned above, Japan currently has the highest aging rate in the world, but Korea's aging population has been progressing remarkably, and it is estimated that the aging rate of Korea will surpass that of Japan by 2070. Korea once established a long-term elderly care insurance system based on the Japanese long-term care insurance system, but the system has recently been under consideration for revision<sup>19)</sup>. There, the content of care provided and the importance of multidisciplinary cooperation are also expected to be discussed. Furthermore, Korea may revise its training curriculum for care worker in the future, referring to the Japanese curriculum for certified care worker training.

Japan and Korea have different social and cultural backgrounds. In addition, religion and ethics also have an impact on field of care, so it is not clear whether the current situation in Japan can be directly used as a reference for curriculum revision in South Korea. However, even under such circumstances, a comparative study of the characteristics of Japanese and Korean students regarding self-esteem, one of the concepts in the affective domain that is thought to influence multidisciplinary cooperation, and grit, which is thought to influence self-improvement after graduation from training schools, would be valuable enough as basic data to consider in curriculum design. We believe that this comparison of the characteristics of Japanese and Korean students in terms of grit, which is thought to influence self-esteem and self-improvement after graduation from training schools, is of sufficient value as basic data for examining curriculum.

Furthermore, this is significant not only for Korea but also for Japan. In Japan, there are issues regarding the profession of care, and in particular, collaboration with medical professionals is considered an urgent issue<sup>20, 21)</sup>. In order to realize effective multidisciplinary collaboration, it is significant to understand the characteristics of students enrolled in Japanese welfare professional training programs regarding self-esteem and grit, and to examine the curriculum. Therefore, the present study examined grit levels and tendencies regarding self-esteem among university students taking welfare professional training courses in Japan and Korea, as well as differences between the 2 countries.

#### II. Subjects and Methods

#### 1. Subjects

In Japan, 100 students were randomly sampled according to the ratio of the number of students in each grade from the 1st to 4th grades in which the author is in charge of the classes. In South Korea, 100 students were randomly sampled according to the ratio of the number of students in each grade from the 1st to 2nd grades in which the co-author is in charge of the classes.

#### 2. Study period

For both Japan and Korea, the survey was conducted from September 1, 2022 to September 30, 2022.

#### 3. Methods

#### 1) Procedures to distribute a questionnaire and collect responses

An anonymous online questionnaire survey using Google Forms was conducted by the author in Japan and by the co-author in Korea. They sent a letter of request for cooperation with a Google Forms URL for response to the Japanese and Korean students, respectively. Each respondent directly accessed the URL.

#### 2) Study items

#### (1) Basic attributes

The questionnaire examined the school year (grade), sex, and national qualification/qualifications to be obtained before graduation.

#### (2) Grit Scale (Table 1)

To clarify the students' grit levels, the Japanese-version Short Grit Scale <sup>22)</sup> created by Nishikawa et al. was used. This scale consists of 4 items to measure <Perseverance of Effort> as perseverance and 4 items to measure <Consistency of Interests> as passion, a total of 8 items<sup>19)</sup>. The present study adopted a 5-point answering scale: "Not like me at all" (score: 1), "Not much like me" (2), "Somewhat like me" (3), "Mostly like me" (4), and "Very much like me" (5). The 4 items to measure <Consistency of Interest> (statements 3, 5, 6, and 8) are reverse scales.

#### <Table 1> Short Grit Scale

#### Perseverance of Effort

- 1. I finish whatever I begin.
- 2. I am a hard worker.
- 4. Setbacks don't discourage me.
- 7. I am diligent.

#### ${\bf Consistency\ of\ Interest}$

- 3. I have difficulty maintaining my focus on projects that take more than a few months to complete. (R)
- 5. I have been obsessed with a certain idea or project for a short time but later lost interest. (R)
- 6. I often set a goal but later choose to pursue a different one. (R)
- 8. New ideas and projects sometimes distract me from previous ones. (R)
- (R): reverse scale

#### (3) Self-Esteem Scale (Table 2)

To measure self-esteem, a Japanese version of Rosenberg' Self-Esteem Scale, created by Mimura & Griffiths<sup>23)</sup> was used, adopting a 4-point answering scale: "Strongly disagree" (score: 1), "Disagree" (2), "Agree" (3), and "Strongly agree" (4). Concerning Rosenberg's Self-Esteem Scale, Uchida & Ueno <sup>14)</sup> observe that among the many Japanese versions available, there are no differences in the translation of the statements, but the answering scale varies from 4- to 7-point, seeing this as a problem, while reporting that a 4-point answering scale is adopted in most cases overseas. Based on this, the present study adopted a 4-point answering scale. Statements 2, 5, 6, 8, and 9 are reverse scales.

#### (4) Translation of the statements

The co-author, Jong Uk BACK, translated the statements in the 2 scales into Korean. To increase the accuracy of the translation, a Korean researcher living in Japan translated these Korean versions back into Japanese, and the author and co-author confirmed that there were no differences between these and the original versions.

#### <Table 2> Short Grit Scale

- 1. On the whole, I am satisfied with myself.
- 2. At times I think I am no good at all. (R)
- 3. I feel that I have a number of good qualities.
- 4. I am able to do things as well as most other people.
- 5. I feel I do not have much to be proud of. (R)
- 6. I certainly feel useless at times. (R)
- 7. I feel that I'm a person of worth, at least on an equal plane with others.
- 8. I wish I could have more respect for myself. (R)
- 9. All in all, I am inclined to feel that I am a failure. (R)
- 10. I take a positive attitude toward myself.

(R): reverse scale

#### 3) Analytical methods

For the reverse scales, Cronbach's alpha was calculated after reverse scoring to measure the reliability (internal consistency) of the Grit Scale and Self-Esteem Scale. For the Grit Scale, consisting of 2 subscales, <Perseverance of Effort> and <Consistency of Interest>, Cronbach's alpha was calculated for each subscale. For the Self-Esteem Scale, which has been reported to have a one-factor structure<sup>14</sup>, Cronbach's alpha was calculated for all 10 statements as one factor. Subsequently, based on the findings of previous studies<sup>15, 24</sup>, grit scores were calculated by dividing the total Grit Scale score by 8 (number of statements). Then, to clarify the relationship between grit and self-esteem scores, Spearman's rank

correlation coefficient was calculated. Furthermore, for Japan-Korea comparison of grit and self-esteem scores, Mann-Whitney U-test was conducted. Statistical analysis was performed using IBM SPSS Statistics 28.0, with the significance level set at P < 0.05.

#### 4) Ethical considerations

When sending a letter of request for cooperation and URL for response by e-mail, the following notes were inserted into the top and bottom of the letter of request and questionnaire, asking respondents to check the box "I agree" if they agreed with these conditions before answering the questionnaire: cooperation in the study is voluntary; the researchers cannot identify respondents; responding/not responding or the contents of responses will not influence academic achievements in any way; and there will no disadvantageous treatment for those who do not cooperate.

This study was conducted with the approval of the Faculty of Human Life Design, Toyo University (approval number: L2022-007S).

#### III. Results

#### 1. Response rates and respondents' basic attributes (Table 3)

There were 92 and 93 responses in Japan (valid response rate: 92.0%) and Korea (93.0%), respectively. As there were no missing data, all responses were adopted for analysis.

#### 2. Grit scores (Table 4, Figure 1)

Cronbach's alpha representing internal consistency was 0.78 for both subscales of the Grit Scale, <Perseverance of Effort> and <Consistency of Interest>. On calculating grit scores by dividing the total Grit Scale score by 8 (number of statements), the median (first to third quartile) was 3.0 (2.8-3.5) overall, 2.9 (2.4-3.1) in Japan, and 3.4 (3.0-3.8) in Korea.

#### **3. Self-esteem scores** (Table 4, Figure 2)

Cronbach's alpha representing the internal consistency of the Self-Esteem Scale was 0.79. The median (first to third quartile) self-esteem score was 28 (23-33) overall, 24 (20-28) in Japan, and 31 (28-34) in Korea.

#### 4. Relationship between grit and self-esteem scores

The relationship between grit and self-esteem scores was explained by a Spearman's rank correlation coefficient of 0.319 (P < 0.01).

#### 5. Japan-Korea comparison of grit and self-esteem scores (Table 4, Figures 1&2)

Mann-Whitney U-test for the Japan-Korea comparison revealed that both the grit and self-esteem scores were significantly higher in Korea (P< 0.01 in both cases).

#### <Table 3> Respondents' Basic Attributes

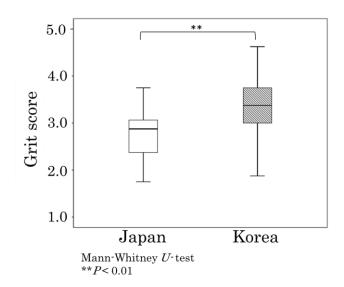
Item	Japan	(n=92)	Korea	(n=93)
Category	number (person)	rate (%)	number (person)	rate (%)
Sex				
Female	54	58.7	61	65.6
Male	36	39.1	32	34.4
Unknown (no answer)	2	2.2	0	0
School year (grade)				
1 <sup>st</sup> grade	31	33.7	34	36.6
2 <sup>nd</sup> grade	34	37.0	58	62.4
3 <sup>rd</sup> grade	11	12.0	0	0
4 <sup>th</sup> grade	16	17.4	0	0
Unknown (no answer)	0	0.0	1	1.1
National qualification/qualifications to be obtained before graduation (multiple answers allowed; the percentage is the ratio to 'n')				
Certified social workers	77	83.7	83	89.2
Certified care workers (care workers in Korea)	79	85.9	4	4.3
Others	2	1.1	11	11.8

<Table 4> Total Grit Scale Score, Grit and Self-esteem Scores in Japan and Korea

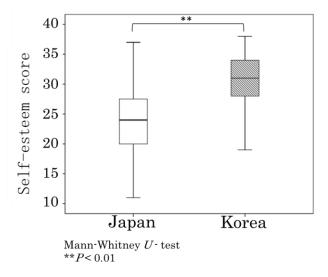
	Japan	Korea	P- value
Grit score	2.9 (2.4-3.1)	3.4 (3.0-3.8)	P < 0.01
Self-esteem score	24 (20-28)	31 (28-34)	P < 0.01

The values shown in the table are medians (first to third quartile). Grit score=Total Grit Scale score/8 (number of statements) Mann-Whitney U-test

<sup>\*\*</sup>P < 0.01



<Figure 1> Japan-Korea Comparison of Grit Scores



<Figure 2> Japan-Korea Comparison of Self-esteem Scores

#### **IV. Discussion**

Based on the results, the relationship between grit and self-esteem scores, characteristics of Japan and Korea, and their relationships with welfare professional training are discussed as follows: First, the value representing the reliability of the Grit Scale used in the study was 0.78 for both <Perseverance of Effort> with 4 statements and <Consistency of Interest> with 4 statements. Similarly, the reliability coefficient for the Self-Esteem Scale was 0.79. Thus, internal consistency was within the permissible range in both cases. The correlation coefficient between grit and self-esteem scores was 0.319,

revealing a weak positive correlation. As self-esteem is easily changeable in a short period<sup>25)</sup>, it is necessary to measure it several times and adopt a mean value as each person's intra-individual average, if possible. Nevertheless, as the values obtained in the present study were similar to those in previous studies involving physical therapist school students<sup>24)</sup> and 1,300 adults<sup>26)</sup>, the grit and self-esteem scores are likely to have a weak positive correlation.

As for the grit scores, they were significantly higher in Korea than in Japan. In both of the 2 previous Japanese studies involving physical therapist school students<sup>24)</sup> and 1,300 adults<sup>26)</sup>, the median grit score was 3.1. In the present study, the median was 3.4 in Korea and 2.9 in Japan, suggesting a tendency of grit scores to be low among Japanese students and high among Korean students. Takehashi et al.<sup>27)</sup> examined the relationship between grit scores and long-term goal achievement rates, and reported a rate of passing the second round of the teacher employment examination and being hired as a teacher was higher among students with higher grit scores. Based on the idea that higher grit scores are more desirable, as shown in these reports, it may be necessary to assess the trainability of Japanese students with lower grit scores, and if they are trainable, to consider appropriate training methods for them. Another challenge for future studies is to clarify whether the higher grit scores of Korean students result from education and experience or congenital factors.

Self-esteem scores were also significantly lower in Japan than in Korea. A previous study performed an international comparison of self-esteem, involving university students in Japan, Korea, Singapore (Chinese), Canada (Asian), and the USA (Caucasian), and reported that self-esteem was the highest in the USA, followed in order by Korea, Singapore, Canada, and Japan, revealing the lowest self-esteem of Japanese students<sup>28)</sup>. Self-esteem was also significantly lower in Japan in a study conducted by Furukawa et al.<sup>29)</sup> to compare Japanese and Korean care workers. Thus, low self-esteem may be characteristic of Japanese people, and this also indicates the necessity of assessing the trainability of those with lower scores in welfare professional training courses, similarly to the case of the above-mentioned grit scores.

The higher grit and self-esteem scores of Korean college students may have been a favorable outcome of professional training. On the other hand, there are some points to note about this. High self-esteem leads to the conviction that one is accepted by others, which may make him/her complacent with the status quo. Among welfare professionals, this is less problematic if they are providing highly specialized services, but if not, they may have the risk of continuing inappropriate care. In their training, it may be important to promote professional development while establishing appropriate education systems.

Finally, we discuss the limitations of this study and future issues to be addressed. This is a cross-sectional study at one point in time, and an element of chance cannot be excluded. It is also not clear at this time whether grit scores and self-esteem scores can improve with training.

Future work must be done to determine whether grit scores and self-esteem scores can improve with training by increasing the number of subjects surveyed and then investigating whether these scores change as the school year progresses and whether they change before and after practical training at a facility. The influence of academic performance and the educational environment on these scores should also be examined to determine whether they are related to the Grade Point Average (GPA: calculated by a specific method for the evaluation of student performance based on grade points for each subject).

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# ORIGINAL ARTICLE

# Relationship of "Tooth Condition" with Mobility and Cognitive Function of Residents in Special Elderly Nursing Homes Practicing Functional Recovery Care;

**Case-control Study** 

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# **ABSTRACT**

The world continues to struggle with the COVID-19 pandemic, and there is concern over the increase in the needs of older people for nursing care. In this study, the relationships of the "tooth condition" with mobility and cognitive function were investigated in 1,000 residents of 14 special elderly nursing homes. In those using well-fitting dentures, the percentage of those capable of independent indoor mobility was highest at 21.6%, and the percentages of those able to communicate (66.2%), understand routines (47.5%), state their own age (36.2%), remember recent events (45.0%), state their own name (85.7%), understand seasons (43.7%), and understand places (46.4%) were significantly higher than in those in other "tooth conditions". This study clarified the relationships of the "tooth condition" with mobility and cognitive function, and maintaining an adequate "tooth condition" was suggested to contribute to the prevention of a condition requiring long-term nursing care.

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# I. Introduction

The world has been facing the COVID-19 pandemic since 2020, and older people, who are at a higher risk of exacerbation of infection, are considered to have an increased risk of becoming care-dependent due to the decline of physical and cognitive functions and frailty caused by a worsening nutritional state.<sup>1)</sup> We have studied "malnutrition" and increased the necessity for care and clarified causes of the lack of improvement in "malnutrition" in older people by pointing out problems including the insufficiency of awareness of workers providing long-term care insurance survices,<sup>2)</sup> relationship between the nutritional state and decline of physical/mental functions in older people requiring nursing care,<sup>3)</sup> and the absence of nutritional education for care managers.<sup>4)</sup> Concerning cooperation for "improving nutrition", we proposed the necessity of organic cooperation by the standardization of assessment and utilization of ICT.<sup>5)</sup> We further clarified the relationship between "food type" and independence of physical/mental functions in older people requiring nursing care for the realization of "nutritional improvement" in the local comprehensive care system in Japan.<sup>6)</sup>

In this study, we hypothesized that the "tooth condition", which affects the "food type", is related to the independence of mobility and cognitive functions of older people requiring nursing care and examined the hypothesis in the residents of special elderly nursing homes. The term "food form" indicates "regular food" or "soft food". Among the preceding studies on oral function and physical/mental functions of older people, there have been a few studies concerning the relationships of mastication ability and occlusal force with physical/mental functions such as those on the association of mastication ability with physical functions and evaluation items of vital functions, 7) relationships of occlusal force with balance function, gait, and falling,8 and effects of occlusal force on brain function. 9 In addition, there has been a report suggesting that loss of teeth can be a risk factor for dementia and that the edentulous jaw is related to depression.<sup>10)</sup> We, therefore, conducted this study to clarify the relationships of the "tooth condition", which affects oral functions such as masticatory strength and occlusal force, with mobility and cognitive function. This study focused on the natural teeth or fit of dentures. A special elderly nursing home is a residential facility for older people requiring nursing care that helps in bathing, excretion, eating, etc., other care in daily living, functional training, health management, and recuperative care. 11) In this study, for validation, the "tooth condition" was classified as "retaining natural teeth", "using well-fitting dentures", "using poorly-fitting dentures", and "needing but not using dentures".

# II. Subjects and Methods

# 1. Study and Procedures

# 1) Study Design

A quantitative, descriptive study.

# 2) Study Period

From April 1, 2019, to March 31, 2020.

# 3) Subjects

# (1) Population of study subjects

The subjects were 1,000 residents of 14 special elderly nursing homes that participated in functional recovery care workshops with one of the authors serving as a lecturer. There were no dropouts during the investigation.

The special elderly nursing homes that participated in this study were facilities that learned theories of functional recovery care by holding an annual series of 6 training sessions in which an author was involved as a lecturer and were practicing basic functional recovery care. The special elderly nursing homes that are members of the Aichi Prefecture Council of Senior Citizens Welfare Facilities participated in the 6-session training course and practiced functional recovery care for all residents, and reported changes in their physical/mental functions using a scoring system, aiming to validate the effectiveness of the program.<sup>12)</sup> We considered that the relationships of the "tooth condition" with the independence of mobility and cognitive functions of older people needing nursing care can be clarified by conducting this study at the special elderly nursing homes participating in the training course. The authors also used the data collected at the workshops for the evaluation of the relationships of the "food type" with mental and physical functions in a previous study. (6) Basic functional recovery care taught in the training sessions means care aiming at improvement in the independence of physical/mental functions of older people requiring nursing care, which includes "basic care" consisting of care of "hydration", "diet", "excretion", and "exercise". 13)

# (2) Eligibility criteria

Facilities and residents who have consented to use the data collected in the workshop. Residents whose underlying diseases have not worsened.

# (3) Exclusion criteria

Facilities and residents who do not consent to this study. In addition, residents with worsening underlying diseases.

# 4) Study Items

# (1) Basic attributes

Age, sex, necessary care level, ADL independence level of disabled older people (J: capable of walking outdoors, A: capable of walking indoors, B: dependent on a wheelchair, C: bed-bound), and ADL independence level of demented older people (I: suspected to be demented, II: observation needed, III: occasional assistance needed, IV: full-time assistance needed, M: medical care needed)

# (2) Basic functional recovery care

Fluid intake/day, dietary intake/day, time spent out of bed/day, walking distance/day

# (3) The tooth condition

Retaining natural teeth, using well-fitting dentures, using poorly-fitting dentures, and needing but not using dentures

# (4) Mobility

Outdoor and indoor mobility and use of walking aids outdoors and indoors

# (5) Cognitive function

Communication, understanding of daily routines, telling age and name, immediate memory, understanding the season, and understanding the place

# 5) Ethical Considerations

After obtaining consent from the workshop organizer and managers of the study facilities, research information was made available to the public by opting out to the individual and his/her family, and the principle of voluntary participation was ensured by providing subjects with the opportunity to withdraw from participation in this study. The study was approved by the Institutional Ethics Committee (approval number: 1-06).

# 2. Data Collection

Data regarding the study items were extracted from those submitted in May 2019 during the workshops held with one of the authors as a lecturer.

# 3. Data Analysis

After simple tallying, cross tabulation and the  $\chi^2$  test were performed to examine the relationships of the "tooth condition" with mobility, and cognitive function. Statistical analysis was performed using IBM SPSS Statistics 26.0, with the significance level set at p<0.05.

# III. Results

# 1. Basic Attributes (Table 1)

The subjects had a mean age of  $85.9\pm7.8$  years and consisted of 227 males (22.7%) and 773 females (77.3%). Their mean necessary care level was  $3.7\pm0.99$ . The ADL independence level of disabled older people was J1 in 3 (0.3%), J2 in 16 (1.6%), A1 in 94 (9.4%), A2 in 215 (21.5%), B1 in 211 (21.1%), B2 in 320 (32.0%), C1 in 51 (5.1%), and C2 in 90 (9.0%), with B2 being the highest. The ADL independence level of demented older people was independent in 14 (1.4%), I in 40 (4.0%), IIa in 60, IIb in 140 (14.0%), IIIa in 422 (42.2%), IIIb in 92 (9.2%), IV in 179 (17.9%), and M in 53 (5.3%), with B2 being the highest. with B2 being the highest.

<Table 1> Basic attributes

Age			$85.9 \pm 7.8$
Care grade			3.7±0.99
		n	%
Sex	Male	227	22.7
	Female	773	77.3
Level of independence based on the ADL	J1	3	0.3
Independence Scale for Older People with	J2	16	1.6
Disabilities	A1	94	9.4
	A2	215	21.5
	B1	211	21.1
	B2	320	32.0
	C1	51	5.1
	C2	90	9.0
Level of independence based on the ADL	Independent	14	1.4
Independence Scale for Older People with	1	40	4.0
Dementia	ll a	60	6.0
	Шb	140	14.0
	Ⅲa	422	42.2
	ШЪ	92	9.2
	IV	179	17.9
	M	53	5.3

# 2. Basic functional recovery care (Table 2)

In the subjects receiving basic functional recovery care, the mean fluid intake/day was 392.9±381.2 ml, dietary intake/day was 1,361.6±272.4 kcal, time spent out of bed/day was 630.3±231.7 min, and walking distance/day was 118.4±280.4 m.

<Table 2> Basic functional recovery care

	n	Min	Max	Ave	SD
Fluid intake/day (mL)	997	50	3103	1393	381.2
Dietary intake/day (kcal)	1000	30	2300	1362	272.4
Time spent out of bed/day (minutes)	998	0	1080	630.3	231.7
Walking distance/day (m)	1000	0	5338	118.4	280.4

# 3. Tooth condition (Table 3)

The tooth condition was retaining natural teeth in 347 (34.7%), using well-fitting dentures in 453 (45.3%), using poorly-fitting dentures in 55 (5.5%), and needing but not using dentures in 145 (14.5%): those using well-fitting dentures accounted for the highest percentage.

<Table 3> Tooth condition

	n	%
Natural teeth	347	34.7
Well-fitting dentures	453	45.3
Poorly-fitting dentures	55	5.5
Needing but not using dentures	145	14.5

# 4. Relationship between tooth condition and mobility (Table 4)

Regarding the tooth condition and indoor mobility, 68 (19.6%) of those retaining natural teeth had independent mobility, 61 (17.6%) needed observation, 44 (12.7%) needed partial assistance, 172 (49.6%) needed total assistance, and 2 (0.6%) were not evaluated; 98 (21.6%) of those using well-fitting dentures had independent mobility, 86 (19.0%) needed observation, 114(25.2%) needed partial assistance, 151(33.3%) needed total assistance, and 4 (0.9%) were not evaluated; 6 (10.9%) of those using poorly-fitting dentures showed independent mobility, 15 (27.3%) needed observation, 7 (12.7%) needed partial assistance, 27 (49.1%) needed total assistance, and 0 (0.0%) were not evaluated; 21 (14.5%) of those needing but not using dentures had independent mobility, 16 (11.0%) needed observation, 20 (13.8%) needed partial assistance, 87 (60.0%) needed total assistance, and 1 (0.7%) was not evaluated. A significantly higher percentage of those using

well-fitting dentures were independent in indoor mobility compared with those retaining natural teeth, those using poorly-fitting dentures, and those needing but not using dentures.

Regarding the tooth condition and outdoor mobility, 7 (2.0%) of those retaining natural teeth showed independent mobility, 25 (7.2%) needed observation, 24 (6.9%) needed partial assistance, 145 (41.8%) needed total assistance, and 146 (42.1%) were not evaluated; 12 (2.6%) of those using well-fitting dentures had independent mobility, 43 (9.5%) needed observation, 33 (7.3%) needed partial assistance, 186 (45.5%) needed total assistance, and 179 (38.2%) were not evaluated; 3 (5.5%) of those using poorly-fitting dentures showed independent mobility, 2 (3.6%) needed observation, 4 (7.3%) needed partial assistance, 25 (45.5%) needed total assistance, and 21 (38.2%) were not evaluated; 4 (2.8%) of those needing but not using dentures showed independent mobility, 2 (8.3%) needed observation, 6 (4.1%) needed partial assistance, 75 (51.7%) needed total assistance, and 48 (33.1%) were not evaluated. No significant difference was noted in these results.

<Table 4> Relationship between tooth condition and mobility

		Tooth condition									
								Ne	eding		
		Nat	ural	Well-	fitting	Poorl	y-fitting	bu	t not		
		te	eth	den	tures	der	ntures	us	sing		
								den	itures		
		n	%	n	%	n	%	n	%	P-value	
Indoor mobility	Independent	68	19.6	98	21.6	6	10.9	21	14.5		
	Requiring observation	61	17.6	86	19.0	15	27.3	16	11.0		
	Partial assistance	44	12.7	114	25.2	7	12.7	20	13.8	<0.001	**
	Full assistance	172	49.6	151	33.3	27	49.1	87	60.0		
	Unable to move	2	0.6	4	0.9	0	0.0	1	0.7		
Outdoor mobility	Independent	7	2.0	12	2.6	3	5.5	4	2.8		
	Requiring observation	25	7.2	43	9.5	2	3.6	12	8.3		
	Partial assistance	24	6.9	33	7.3	4	7.3	6	4.1	0.454	
	Full assistance	145	41.8	186	45.5	25	45.5	75	51.7		
	Unable to move	146	42.1	179	38.2	21	38.2	48	33.1		

chi-square test, \*: P<0.05, \*\*: P<0.01

# 5. Relationship between tooth condition and cognitive function (Table 5)

Regarding the tooth condition and communication, communication was "possible" in 167 (48.1%) of those retaining natural teeth, "ocassionally possible" in 82 (23.6%), "nearly impossible" in 30 (8.6%), and "impossible" in 68 (19.6%); possible in 300 (66.2%) of those using well-fitting dentures, "occasionally possible" in 91 (20.1%), "nearly impossible" in 32 (7.1%), and "impossible" in 30 (6.6%); "possible" in 26 (47.3%) of those using poorly-fitting dentures, "ocassionally possible" in 14 (25.5%), "nearly impossible" in 5 (9.1%), and "impossible" in 10 (18.2%); and "possible" in 59 (40.7%) of those needing but not using dentures, "ocassionally possible" in 40 (27.6%), "nearly impossible" in 17 (11.7%), and "impossible" in 29 (20.0%). The percentage of those in whom communication was "possible" was significantly higher in those using well-fitting dentures compared with those retaining natural teeth, those using poorly-fiting dentures, or those needing but not using dentures.

Regarding the tooth condition and understanding of the situation, 121 (34.9%) of those retaining natural teeth could understand the daily routine, 92 (26.5%) could tell the age, 122 (35.2%) could understand the immediately preceding event, 243 (70.0%) could tell their names, 106 (30.5%) could understand the present season, and 126 (36.3%) could understand where they were; 215 (47.5%) of those using well-fitting dentures could understand the daily routine, 92 (36.2%) could tell the age, 204 (45.0%) could understand the immediately preceding event, 388 (85.7%) could tell their names, 198 (43.7%) could understand the present season, and 210 (46.4%) could understand where they were; 20 (36.4%) of those using poorly-fitting dentures could understand the daily routine, 20 (36.4%) could tell the age, 24 (43.6%) could understand the immediately preceding event, 39 (70.9%) could tell their names, 22 (40.0%) could understand the present season, and 24 (43.6%) could understand where they were; 35 (24.1%) of those needing but not using dentures could understand the daily routine, 23 (15.9%) could tell the age, 38 (26.2%) could understand the immediately preceding event, 85 (58.6%) could tell their names, 31 (21.4%) could understand the present season, and 41 (28.3%) could understand where they were. The percentage of those who "could" understand the situation was significantly higher in those using well-fitting dentures compared with those retaining natural teeth, those using poorly-fitting dentures, or those needing but not using dentures.

<Table5> Relationship between tooth condition and cognitive function

			Tooth condition								
			tural eth		l-fitting ntures		entures		ing but not	•	
		n	%	n	%	n	%	n	%	P-valu	.e
Ability to communicate	Always able	167	48.1	300	66.2	26	47.3	59	40.7		
	Sometimes able	82	23.6	91	20.1	14	25.5	40	27.6	<0.001	**
	Hardly able	30	8.6	32	7.1	5	9.1	17	11.7		
	Unable	68	19.6	30	6.6	10	18.2	29	20.0		
Understanding routines	Able	121	34.9	215	47.5	20	36.4	35	24.1	<0.001	**
Stating one's own age	Able	92	26.5	164	36.2	20	36.4	23	15.9	<0.001	ŵŵ
Remembering recent events	Able	122	35.2	204	45.0	24	43.6	38	26.2	<0.001	ŵŵ
Stating one's own name	Able	243	70.0	388	85.7	39	70.9	85	58.6	<0.001	ŵŵ
Understanding seasons	Able	106	30.5	198	43.7	22	40.0	31	21.4	<0.001	ŵŵ
Understanding places	Able	126	36.3	210	46.4	24	43.6	41	28.3	<0.001	**

chi-square test, \*: P<0.05, \*\*: P<0.01

# **IV. Discussion**

# 1. Basic attributes and functional recovery care

At the 14 special elderly nursing homes that participated in this study, theories of functional recovery care are learned, and basic functional recovery care is practiced for all residents. According to the data of the Ministry of Health, Labour and Welfare in October 2019, there were 10,502 special elderly nursing homes in Japan, service was provided to 619,600 persons, and their mean necessary care level was 3.95. <sup>14)</sup> Since the mean necessary care level was 3.7±0.99 in the facilities that participated in this study, their residents are considered to have been more independent than the national average. The implementation of functional recovery care shown in Table 2 is considered to be a factor of these results. Functional recovery care provided at these nursing homes is called

theory-based scientific care in Japan, and it is entitled to compensation by the newly established addition to the scientific care promotion system at the 2021 revision of payments for nursing care services.<sup>15)</sup> Takeuchi, the advocator of the theory of functional recovery care, observes, "There are 4 basic cares for older people, and most activities of daily living (ADL) can be made more independent by faithfully performing these cares."<sup>13)</sup>

# 2. Relationship between the "tooth condition" and mobility

Regarding the relationship between the "tooth condition" and mobility, the percentage of those independent in indoor mobility was higher in those using well-fitting dentures compared with those retaining natural teeth, those using poorly-fitting dentures, or those needing but not using dentures. Previous studies suggested the effects of the use of dentures on the body position and walking speed in older people, <sup>16)</sup> its relationships with occlusal force, balance function, and mobility, <sup>17)</sup> and its strong relationship with static balance including the head support and balance function. <sup>18)</sup> The results of this study also suggest that occlusal force maintained by the use of well-fitting dentures improves the body position and balance, which contribute to the independence of mobility, and indicate the relationship between the "tooth condition" and mobility.

# 3. Relationship between the "tooth condition" and cognitive function

Regarding the relationship between the "tooth condition" and cognitive function, the percentages of those who were "able" to communicate and understand the situation were higher in those using well-fitting dentures compared with those retaining natural teeth, those using poorly-fitting dentures, or those needing but not using dentures. A study of the effects of mastication on brain functions by comparison between using and not using dentures reported that the use of dentures that provide an appropriate occlusal contact area and ensure sufficient occlusal force promotes recovery of masticatory strength, increases sensory information from the periodontal membrane, masticatory muscles, and temporomandibular joint, and activates brain functions. 9) Also, Takeuchi, who regards denture adjustment as "a new method for functional recovery care", observed that the use of dentures made well-fitting by denture adjustment activates gait and overall brain activities, raises the arousal level of the brain, and improves the cognitive level.<sup>19)</sup> Furthermore, significant correlations of occlusal force with cognitive items of the Functional Independence Measure (FIM) have been reported.<sup>20)</sup> The results of this study also suggest that maintenance of masticatory strength and occlusal force by the use of well-fitting dentures contributes to activation of brain functions and indicate the relationship between the "tooth condition" and cognitive function.

# 4. Good denture fit and mental and physical independence

These results of this study do not contradict many previous studies on masticatory strength, occlusal force, and physical/mental functions of older people, clarified the the

relationships of the "tooth condition" with mobility and cognitive function of older people requiring care, and validated the hypothesis of this study. In addition, those using well-fitting dentures were suggested to be most independent. The finding that those using well-fitting dentures were mentally and physically more independent than those retaining natural teeth is considered to be related to the number of remaining natural teeth. When the efficiency of mastication in people with normal dentition is defined as 100%, it decreases to about half by the loss of one tooth and to about 30% by the loss of multiple teeth.<sup>21)</sup> It has also been reported that occlusal force is positively correlated to the number of remaining teeth and that occlusal force is higher as more natural teeth are retained.8) Users of well-fitting dentures are suggested to have higher independence of mobility and cognitive functions than those with natural dentition with defects because of higher masticatory strength and occlusal force. In addition, Takeuchi, who advocated the functional recovery care theory, reported activation of mastication by denture adjustment.<sup>19)</sup> It is also suggested that, in users of well-fitting dentures, mastication is activated by denture adjustment, and an adequate nutritional condition is maintained by intake of a regular diet. According to our study, a regular diet was closely correlated with the serum albumin (Alb) level, which is an index of nutritional condition.<sup>22)</sup> A study of the use of dentures in older edentulous patients also showed age-associated decreases in the percentages of those eating a regular diet and denture users with a decline in nutritional state and suggested that dentures play an important role in the maintenance of an adequate nutritional state.<sup>23)</sup> There is also a study that indicated the relationships of the number of remaining teeth, occlusal support, and use or no use of dentures with the nutritional state.<sup>19)</sup> Adequate fitting of dentures is considered to be related to a good nutritional state through activation of mastication and occlusal support. The nutritional state must be maintained at a reasonable level for the prevention of frailty, which is a risk factor for care-dependency. Maintaining an adequate "tooth condition" was suggested to contribute to the prevention of a condition requiring long-term nursing.

# 5. Limitations and conclusion of this study

This study suggests that the "dental condition" of older people requiring nursing care has the highest degree of autonomy in mobility and cognitive function with well-fitting dentures. However, the number of remaining teeth was not investigated in this study, and the theme remains to be addressed in future studies.

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# Original Article

# **Explaining Peers with Autism Spectrum Disorder to Others and Coping with Others' and Siblings' Negative Attitudes**

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# **ABSTRACT**

This study investigated support required by siblings of children with Autism Spectrum Disorder (ASD) after this referred to as "peers." We investigated words used by siblings for explaining school-aged peers and explored the siblings' attitudes, which were different from the negative attitudes of people around their peers. We conducted an interview survey with adult siblings of ASD children and inquired about siblings' perceptions about their peers, coping with questions about their peers, unpleasant experiences related to peers, and personal and environmental factors. The results indicated that supportive relationships between siblings and parents promoted siblings' knowledge and understanding of ASD and helped them develop the language for explaining their peer's condition to others. Moreover, positive experiences in environments that accepted their peers resulted in different attitudes to negative attitudes of others, regardless of support for siblings to manage negative experiences.

Key-words: Autism Spectrum Disorders, siblings of children with ASD, school age, perceptions of siblings towards children with ASD, siblings' environments and experiences

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# I. Introduction

The situation of brothers and sisters (after this referred to as "siblings") of people with disabilities (after this referred to as "peers") affects various aspects of their lives<sup>13).</sup> In particular, siblings in elementary and junior high schools have no choice but to identify with society's negative attitudes toward their peers<sup>11)</sup>. It is questioned about their peers by other people<sup>1)</sup>. On the other hand, siblings grow up without any problems if they do not share society's negative attitudes about their peers<sup>11)</sup>.

Several Japanese and international studies have investigated the effects of ASD peers on siblings and related factors. Parents' educational involvement, stressful life events and family climate<sup>2)</sup>, severe ASD symptomatology<sup>7)10)</sup> and behavioral problems, siblings' coping skills, knowledge about ASD, and lack of support networks<sup>3)</sup> negatively influence siblings' adjustment, behavioral problems, and prosocial behaviors. In contrast, Meyer et al. cited the "unusual opportunities" that siblings have in terms of the potential for personal growth by having a sibling with special needs<sup>6)</sup>, suggesting the need to also focus on the positive aspects when examining the impact of peers on siblings<sup>5)</sup>.

Fewer negative emotions have been reported when siblings have a supportive parent-child relationship compared to less supportive relationships<sup>1)</sup>. Sibling relationships tend to be more positive when siblings perceive their parents and friends as reacting positively to their peers<sup>4)</sup>. Furthermore, McHale et al. suggest that siblings' feelings and the value of their peers might be negatively affected when siblings perceive that their parents are busy caring for their peers and when siblings' friends and classmates have negative attitudes about their peers and disabilities<sup>4)</sup>.

The above discussion suggests that siblings have problems explaining and managing their peers. Factors such as their relationship with their parents, including expected and actual support from parents, satisfaction with parent's support, and siblings' perceptions of their parents and people around them might influence how siblings manage their peers, siblings' feelings about their peers, and siblings' perception of the value of their peers. This study focused on elementary and junior high school siblings.' We investigated "how siblings responded when they are asked about their peers by people around them, and when they experienced negative experiences, such as bullying and teasing by people that do not understand their peers," and factors related to the siblings' responses. We designed this study to identify the support required for instilling a resistant mindset in siblings against negative attitudes about their peers. This interview survey requested adult siblings to reflect on their past to avoid any psychological burden on young siblings.

# II. Participant and Methods

# 1. Participants

The participants were six adults aged between 21 and 24 years that had a peer with ASD or ASD and intellectual disability. The profiles of the siblings are shown in Table 1.

<Table 1> The profiles of participants

	Age/Gender	Peer's age/gender (relationship)	Family structure	whether siblings have been to the same school as peers
A	24/Male	28/Male (Older brother)	Father, Mother, Older brother, Older brother (peer), Myself	No
В	23/Female	20/Male (Younger brother)	Father, Mother, Myself, Younger brother (peer), Grandmother	No
С	21/Female	14/Male (Younger brother)	Father, Mother, Myself, Younger brother (peer)	No
D	21/Female	19/Male (Younger brother)	Father, Mother, Myself, Younger brother (peer)	Yes
Е	21/Female	25/Female (Older sister)	Father, Mother, Older brother, Older sister (peer), Myself	No
F	21/Female	19/Male (Younger brother)	Father, Mother, Myself, Younger brother (peer)	Yes

# 2. Survey Method

We conducted online, one-on-one semi-structured interviews with the siblings from July to August 2020. Each interview lasted approximately one to one and a half hours. We first asked the siblings to respond to a face sheet and a questionnaire related to the interview questions. The interview questions were prepared in advance based on the siblings' responses, and the interviews were conducted using these questions. The interviews' narratives were recorded directly on a PC with the siblings' prior consent. The author developed the content of the questionnaire and interview questions with reference to previous studies 1)11)8)4).

# 3. Questionnaire items

# 1) Face sheet

This inquired the siblings' name, age, relationship to the peer, family structure, peer's age, and disability, and peer's schooling history and duration (if any).

# 2) Questionnaire

This consisted of the following seven Categories. (1) Responses of people around siblings regarding peers, (2) Contact between peers and siblings' friends, (3) Status of consultation with parents, (4) Image of parents and their relationship from the siblings' perspective, (5)

Attitude of others toward peers from the siblings' perspective, (6) Understanding of peers' disabilities, and (7) Influence of the peers on siblings. There were 23 items in the questionnaire.

The method of responding to the questionnaire varied depending on the item. Responses using the rating methods consisted of a four-point scale, (1 "applies well," 2 "applies about right," 3 "does not apply much," 4 "does not apply at all"), a two-point scale ("yes" or "no"), a one-point scale, and free-responses. The content of the question items is shown in Table 2.

<Table 2> List of Question Categories

Category	Questionnaire items		
[Responses from people around you about your peer]	1. Have you ever been asked about your peer or his disability by people other than your family?		
	2. Have people other than your family ever said or done anything to you that made you feel uncomfortable about your peer?		
	3. Has anyone other than your family ever said anything to you that made you happy or made you feel good about your peer?		
[Contact between your friends and peers]	4. Have you ever had the experience of play or activities with your friends, including your peers?		
	5. Have you ever invited your friends to your home when your peers were present?		
	6. (If you attended the same school at one time or another), did you or your friends or classmates have opportunities to interact with your peers at school?		
[Support from parents, Relationship between sibling and parents]	7. Did you consult with your parents when you had problems with your peers outside home, for example, at school?		
	8. (Those who answered "Yes" to question 7) Did you consult your father or mother more often?		
	9. How satisfied were you with your parents'support?		
	10. Did your father or mother take care of your children more often than you did?		
	11. Were you satisfied with the way your father and mother treated and interacted with your siblings?		
【Attitudes of other people toward peers and siblings' attitudes toward their peers】	12. Do you think that there were people around you (other than you family) who had a negative view of your disability?		
	13. I think some people around me (other than my family) negative view "having a family member with a disability.		
	14. I think I had a negative view of "having a disability."		
	15. I think I had a negative view of having a sibling with a disabilit		
[Understanding disabilities of my peers]	16.Do you think you understood your peers' disabilities?		
	17. Have you ever received some explanation about your peers' disabilities from people around you?		
	18. (Those who answered "Yes" to 17) From whom did you receive the explanation?		
	19. Did you ever feel that you wanted to know more about your sibling's disability?		
[Influence of the presence of a compatriot on your sibling]	20. Did you ever feel lucky to have your peer (or not)?		
	21. Have you ever felt that your peers are excellent?		
	22. Have you ever felt pessimistic about peers?		
	23.Have you ever had any problems with your peer?		

# 3) Interview contents

The following questions inquired about "Experiences of being questioned about peers (referred to as "Experience A")" and "Experiences of being treated unpleasantly because of the peers (referred to as "Experience B"). The time of the experience, the specific situation, the sibling's feelings at the time of responding, the action taken, the reason for the action, and the impression of other people as a result of the experience. We also interviewed the siblings about their impressions of other people and their changes resulting from the experience. We asked the siblings about their relationship with their parents and how they consulted with their parents when they were in elementary and junior high school, how they perceived their parents and others around them, including friends, classmates, and relatives, among others, their level of knowledge and understanding about disabilities, how they obtained this knowledge, the advantages of having their peers in their opinion, and the impact of their peers' presence on them.

### 4. Ethical Considerations

We distributed a written request to the siblings before conducting the survey explaining the purpose of this study, its contents, methods, and research ethics. The siblings were also informed that their responses to the questionnaire and interview questions were voluntary. They could omit to respond to any questions they were unwilling or unable to answer. We also explained that they would face no disadvantages if they did not answer any questions. Moreover, we explained that the survey results would be used only for research purposes and that we would take care taken not to identify any individuals when the results of the study were published. We conducted this survey after obtaining the written informed consent of the siblings.

# 5. Method of Analysis

We analyzed the participant's responses using the procedure described by Tokuda<sup>9)</sup>.

Tokuda classified qualitative data according to narrative content and characteristics, and coded them with labels as appropriate. Then, he compared the labels among the data and generated categories by organizing and integrating the individual labels based on the similarities and differences among the narratives.

Experiences such as those focused on in this study (Experience A and B) have only been reported in previous studies in Japan as mere narratives that emerged during interviews with siblings.

However, no attempt has been made to typify the siblings' feelings or the actions they take when they have such experiences.

Therefore, by referring to Tokuda's method of analysis, the author attempted to create a typology of the feelings and behaviors that siblings have when they have Experience A or Experience B.

# 1) "Making sense of experiences" and experience generating process

First, we extracted "what I felt during the experience" and "the impact of the experience on siblings" from siblings' narratives about Experiences A and B, which we designated as "meaning making about the experience. Next, we categorized and coded these narratives as (1) the meaningfulness of the other person's response and (2) the meaningfulness of the experiences' impact. As a result of (1), we extracted one subcategory, "making sense of the other person's feelings" as "positive," "not positive or negative," or "negative. Moreover, as a result of (2), we extracted three categories: "Opportunity to understand," which referred to the experience as an opportunity to understand the disability and siblings' characteristics better; "difference in consciousness," which referred to the experience of feeling a difference in values and attitudes toward peers and their disability; "negative influence," which referred to the experience of siblings having a negative influence on their values and subsequent behavior toward their peers and their disability. Following this, the obtained categories were combined, and the sibling's coping behavior type during the experience was considered for categorizing the "meaning-making of the experience

# 2) Perspectives on the analysis capturing characteristics of other narratives and the process of their construction

The narratives other than those used to generate analytical categories, including "meaning-making of experience," were designated as other narratives and were analyzed to examine their relationship with the siblings' "meaning-making of experience." First, the participant's narratives were classified and organized according to the time series from the past to the present and the content. As a result, we generated 11 categories summarizing each narrative. The names of these categories included "the specific situation and reasons for coping," "peers' condition at that time," "awareness/knowledge of the disability," "relationship with parents," "relationship with people other than the peers' family members," "relationship with children with disabilities other than the peers," "perception of peers and disability," "narrative of peers' advantages," "impact of peers' on siblings," "concerns about peers," and "disclosure of peers' existence." The characteristics of the categories are discussed below. Then, we compared and examined the categories narratives to generate analytical perspectives to capture the characteristics of categories.

# 3) Typology of "meaning-making of experiences" and characterization of other narratives

We developed the "meaning-making of experience" typology based on the analytical categories described above. Then, we developed the typology of "meaning-making of experiences" by analyzing the siblings' narratives using these categories. The characteristics of the siblings' other narratives were identified based on the categories and analytical perspectives obtained from the above procedure and compared between individuals having each pattern based on similarities and differences from other patterns.

# III. Results and Discussion

We obtained five patterns with connotations from the typology of "meaning-making of experiences" and the corresponding characteristics of other narratives; three patterns from narratives of Experience A and two patterns from narratives of experience B. The summary of each pattern and characteristics of other narratives are shown in Tables 3 and 4. The following is a brief description of patterns for "meaning-making of the experience" and other narratives and specific characteristics of siblings' coping strategies. The siblings' coping strategies are classified into "active" and "passive," based on the author's criteria based on whether or not the siblings acted to resolve the situation or problem about which they were responding.

# <Table 3> The comparison of the characteristics of other narratives (Pattern1-3)

(1 person) I avoided disclosing the presence of my peers because of my experiences $\boldsymbol{\theta}$		(1 person) I only explained when it was necessary (e.g., when a friend came to visit me at home) $$	[Disclosure about peers' existence]
(Past) Unable to talk to my parents about my peers, often fighting with my peers	(Past) Doubts about parents' love for me (Present) Life with peers after parents' death, the relationship between the future partner and peers	(past/present) Worries about the future (life with peers after parents' death, and career, among others.)	[Worries related to peers (past/present)]
nt only. (2) Influence on my current career path.	(2) (3) Present onl	Past/present: Both narrated.	[Influence of the presence of peers on siblings]
t of (2)).	★Past/present: Both narrated. (except for part of (2)).		[Strengths of your peers (past/present)]
(Around early elementary school-age) I had experiences playing and going to school with my classmates. (High school) Volunteered at an after-school day program and experienced children with different handicaps.			[Relationship with children with disabilities other than my own]
atively:	$\bigstar$ I did not perceive my peers' disabilities negatively.		[How do you perceive your personality and your peers?]
reople with disabilities in general. wived negative reactions from others	$igstar{f x}$ I am aware that there are adverse reactions to my peer and people with disabilities in general Received negative reactions from others "negative influence" $igstar{f N}$ 0 "negative influence"		[Relationships with peers outside the family] [Feelings toward peers]
	(1) (2) None of my friends negatively viewed my peer or disabilities.	(1) (2) None of my friends negat	
h parent.  led knowledge about the disability  Relationship with parents → Not bad  I can't talk about peers	★There is a difference in the evaluation of each parent.  ★Highest rating for one parent who actively took care of the child/provided knowledge about the disability person in (1) and (2))  Relationship with pone parent as "inappropriate"  I can't talk about person in the evaluation of each parent.	★Highest rating for one pa  (One person in (1) and (2))  Evaluation of one parent as "inapp	[Relationship with parents]
No explanation from parents at the time of elementary school (did not know until high school that the peer had disabilities)	(1)-(2) Explained by parents around early elementary school days.	(1)-(2) Explained by parents ar	[Awareness and knowledge of disability]
a and relaxed	Spent most of his time at school and home in a calm and manner	Severe to most severe, almost no speech, and difficulty having a meaningful conversation	[The condition of peers at the time]
Pattern 3 (1 person)	Pattern 2 (2 persons)	Pattern 1 (2 persons)	
/55 (T BUGGITT 9)	בזמחוב 67. דווב נחווו מדופחו חד מוב רוומו מרובו ופרוצרוכי חד מחובו וומדו מרוגבי	Table of the comparison of me	

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# <Table 4> The comparison of the characteristics of other narratives (Pattern 4, 5)

(Before the experience) I avoided disclosing the existence of my peers.		[Disclosure about peers' existence]
(Past) I am harassed, and it is all my peer's fault (Present) Worries about the sibling's mother's physical and mental condition and the lives of peers	Worries about the	[Worries related to peers (past/present)]
Impact on the current career path		[Influence of the presence of peers on siblings]
Past/present narratives Present only	Past/presc	[Strengths of your peers (past/present)]
(At the time of elementary and junior high school) I had opportunities to get involved with them at school and in parent groups.  (From high school onward) I was involved in volunteer activities.		[Relationship with children with disabilities other than my own]
I rarely felt negative about my disability or my peers with disabilities.	I rarely felt negative about my di	[How do you perceive your personality and your peers?]
None of my friends around me had a negative view of peer  Many people around me had a negative view of my peers, including classmates, teachers, and classmates.  (One person in Patterns 4 and 5)  Presence of people who mention the merits and growth of their peers (friends, teachers in special classes, among others.)	None of my friends around	[Relationships with peers outside the family] [Feelings toward peers]
(1 person in pattern 4 and 5) Unable to talk to parents about p	(1 person) Relationship with parents' support ()	[Relationship with parents]
ent.  Low evaluation of both parents, dissatisfied with their relationship to their peers and	There is a difference in the evaluation of each parent.	
In elementary school, with explanation from people other than family	from	[Awareness and knowledge of disability]
Waves of condition		[The condition of peers at the time]
Pattern 4 Pattern 5	Pat	

- 1. Pattern 1: Meaningfulness others' responses: "Positive/Meaningfulness of experiences" impact: "Opportunity to be understood/Coping style; "Active"
- 1) Characteristics of "Making sense of an experience

The siblings classified into this pattern did not have any negative feelings about the other person's questions and made sense of it positively by responding, "I was happy." They also made sense of this experience as an opportunity to understand their peers' disabilities and characteristics from other people. One sibling expressed satisfaction that her explanation deepened her friend's understanding of her sibling and led to a good relationship between her peer and friend.

# 2) Characteristics of siblings' coping

The siblings were asked questions about their peers by their friends who visited them at home, including questions on their siblings' peculiar behaviors, reasons for their inability to speak, or specific details of their siblings' disabilities. During this experience, Pattern 1 siblings stated that they explained the situation to their friends using words and expressions that were easiest to understand. In addition, one sibling asked her parents in advance about what her friends might ask about her peer and her peer's disabilities, which the parents explained.

- 2. Pattern 2: Meaningfulness of others' responses: "Neither negative nor positive" / Meaningfulness of the experiences' impact: "Difference in consciousness" / Coping style: "Active"
- 1) The siblings classified into this pattern did not have a high awareness of their peers' disabilities. Their sense of the value of their peers and their disabilities were not negatively affected. However, they were exposed to values about their peers' disabilities that differed from their own. They made sense of this experience as "differences in consciousness" between themselves and their friends.

  The questions that two siblings were asked included those about the nature of the disability of their peers and the reason for their peers being enrolled in special needs classes rather than regular classes. Both siblings gave specific explanations in
- 3. Pattern 3: Meaning-making from others' responses "Negative" / Meaning-making from the experiences' impact: "Negative" / Coping style: "Passive"

explanation made by his parents and his experiences with his peer his friends.

response to these questions similar to those in Pattern 1. One of the siblings gave the

The siblings classified into this pattern told us they were aware of negative impressions about their peer's disability. In addition, they made sense of this experience as harming their perception of their peers' disability and their subsequent behavior.

- 2) The sibling classified into this pattern said that a friend asked her whether her peer had a disability. Still, she gave a vague explanation because she did not know that her peer had a disability, although she was aware that her peer was different from other children of the same age.
  - The siblings also said they did not discuss this experience with their parents because they were uncomfortable discussing it.
- 4. Pattern 4: Meaning-making of others' responses "Negative" / Meaning-making of the experiences' impact: "Difference in consciousness" / Coping style: "Active or passive"
- The narratives of both siblings were pessimistic about the experiences' content. One of them was shocked, and the other felt that others had biased views about her peer and low regard for her peer's abilities. The siblings complained about the negative experience.
- 2) The siblings classified into this pattern told us of being teased about their peers at school and relatives' unkind words about their peers. In contrast to other patterns, these siblings took both active and passive measures. One of the siblings talked to their parents about the experience, but as mentioned earlier, they did not get the support they expected from their parents. On the other hand, the other sibling said that she did not discuss the experience with her parents because the parents were nearby when she had the experience. She did not want to remind them of her negative feelings by discussing them.
- 5. Pattern 5: Meaning attached to the others' responses: "Negative/Meaning attached to the experiences' impact: "Negative" / Coping: "Active → passive"
- 1) As seen in Patterns 3 and 4, meaning-making is based on negative feelings toward people that responded unpleasantly. They clearly expressed these negative feelings by saying, "My friends and classmates became my enemies." In addition, statements such as, "I disliked my peer (because of the experience)" and "I thought that my peer was the cause of all the things I cannot do" indicated that the siblings gave meaning to negative values about their peers and their disabilities.
- 2) One sibling talked about her experience of being bad-mouthed and harassed by her classmates because of her peer. The siblings with this pattern once spoke to their grandmother, who was living with them at the time. However, the siblings' expectations of their grandmother decreased, and they did not talk to her again even when they had other similar experiences because they did not get enough support from their grandmother. They also found it difficult to talk to their parents.

# 6. Results and discussion

# 1) Factors in siblings' language acquisition to explain their peers

The results showed that siblings with Patterns 1 and 2 had prior knowledge of ASD or good relationships with their parents, which facilitated them obtaining adequate support when they had questions and concerns. We suggest that these factors resulted in acquiring the language for explaining their peers.

In addition, the results indicated that siblings refer to three primary sources for explaining their peers and their peers' disabilities: (1) Prior explanations from parents, (2) personal experiences, and (3) parents' interactions with peers. The content of (1) was often based on the siblings' everyday life. Explanations from parents might have the advantage of being readily adopted by siblings as skills for interacting with their peers and facilitating young siblings' understanding of required behaviors for specific situations with others. This finding suggests that siblings must first have explanations from their parents or other adults for developing words to describe their peers to others. In addition, the content of explanations should be specific to the sibling's daily life to facilitate the sibling's understanding and verbalizations to others. Furthermore, parents must support siblings' verbalization in formal situations and encourage them to make appropriate and satisfactory meanings from daily interactions with their peers. Therefore, parental support is required to develop siblings' verbalization.

# 2) Factors necessary for siblings' preparation for negative attitudes about their peers

This study suggested that siblings' knowledge and understanding of ASD and the relationship with their parents for obtaining these are helpful for siblings' explanations. They also contribute to the sibling's resistance to others' negative attitudes. Consistent with the findings of this study, Jones et al. also reported that more positive perceptions of the sibling relationship were associated with more knowledge about ASD<sup>9)</sup>.

The two experiences (Experience A: experiences of being questioned about peers and Experience B: experiences of being treated unpleasantly because of the peers) that were the focus of this study differed significantly in their content. However, most siblings felt negative rather than positive reactions to their peers from people they encountered in their daily lives, regardless of specific negative experiences. When they felt negative attitudes about their peers from people in their daily lives, siblings that responded actively felt no adverse consequences, whereas those that responded passively experienced negative consequences. On the other hand, specific siblings taking passive action did not experience any adverse effects on their values toward their peers and their disability. Some of them had experienced a negative impact in the past but maintained positive feelings toward their peers at the time of the study.

Why were siblings able to grow up without being affected by the negative attitudes about their peers? We might find the answerer to this question in the siblings' environment their own experiences. There might be negative factors in the environment,

including people with negative views of their peers and their peers' disabilities, The time of associating with others with negative opinions, and positive factors, including people focusing on the merits and growth potential of their siblings. It might be challenging to mitigate these negative factors through intentional interventions. Therefore, it is critical to provide positive and accepting places for peers and children with disabilities, such as opportunities to participate in events in which children with disabilities gather and promote sibling awareness of peers' strengths and growth. These opportunities include providing speech-language pathologists (SLP) and special classes with teachers for teaching siblings about their peers' strengths and abilities.

Simultaneously, we expect siblings' experiences of living with their peers to play an essential role. Siblings develop their sense of values about their peers and their disabilities through the experiences investigated in this study (Experience A and B). These include what siblings learn from their parents, such as their peers' disabilities and how to interact with them, among others, and what they see and hear in their daily lives from their parents, peers, and other people with whom they interact daily. In addition, as mentioned above, the siblings' experiences might also include visiting places providing positive attitudes about the siblings and their peers that might increase their understanding of their peers' disabilities, facilitate interactions with other children with disabilities, and provide learning opportunities about the peers' strengths and growth potential.

We suggest that siblings develop relationships with their parents and family members and discuss their questions and concerns about their siblings to develop positive experiences. These relationships will increase the likelihood that siblings will better understand ASD and their peers. Simultaneously, they will learn to take proactive measures such as explaining the situation to others and discussing their questions and concerns. Moreover, the results of this and Quintero et al. indicate that siblings perceive maternal stress; and it is challenging for siblings to discuss with their peers, which makes them vulnerable to cumulative risks? These findings suggest the need to develop relationships between siblings and their family members rather than merely design interventions for siblings.

# **IV. Conclusion**

We investigated episodes in which siblings of children with ASD faced questions and unpleasant situations related to their peers. The results indicated that the supportive relationship with parents and knowledge of ASD were closely related to the siblings' values and explanatory ability. On the other hand, this study's results suggested that regardless of positive factors described above, siblings can gradually develop a mindset unaffected by negative evaluations of surrounding people from developing a positive and

supportive environment for siblings and peers, and accumulating "experiences," including an understanding of their peers and recognizing peers' positive potential. Therefore, this study suggests that changing elementary and junior high schools' environments for siblings to experience positive meanings in their daily lives is supportive. It is necessary to consider disseminating programs such as Sibshops<sup>5)</sup> (Meyer & Vadasy, 2009) practiced in the U.K. to give more positive experiences to siblings in Japan. In Sibshops, experts teach disabilities and peer interaction methods geared to siblings' developmental stages. In addition, there is a need to improve the support provided for parents for explaining and supporting siblings and stabilizing the entire family.

# V. Research Issues and Future Directions

Specific limitations constrain the findings of this study. The first limitation of this study is the control of personal and environmental factors of target siblings. Previous studies have indicated that various personal and environmental factors around siblings determine the effects of peers. It might be necessary to conduct another survey that further controls conditions such as age, gender, and birth order of siblings. The second limitation is that this study is based on retrospective narratives of adult siblings. Retrospective narratives of adult siblings do not always accurately reflect what they felt and experienced at the time of interest for the study. Examining support for elementary and junior high school siblings based on retrospective narratives has limitations. Therefore, it is necessary to develop surveys and methods that reduce the psychological burden of elementary and junior high schools' siblings in the future. In addition, it is necessary to focus on positive experiences while taking the issues identified in this study into account. Specifically, it is necessary to examine the possibility of experiences that positively impact siblings' feelings and values about their peers, as suggested in this study. We recommend that future studies also examine factors maintaining siblings' ability to have positive experiences.

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# Original Article

# Information Sharing for Collaborative Care of Older Patients with Heart Failure;

Perspectives of Nurses in Hospitals, Home-visiting, and Long-term Care Insurance Facilities

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# **ABSTRACT**

This study aimed to clarify the information required by hospital nurses (HN), home-visiting nurses (HVN), and long-term care insurance facility nurses (LFN) for continuous home care support for community-dwelling older patients with heart failure (HF).

Semi-structured interviews with HN, HVN, and LFN involved in HF nursing were used to collect empirical data during August 2019–March 2020. The interview data were organized as narratives about the information necessary for continuing home-care support for older patients with HF, and categories were generated by content analysis.

A total of 13 categories were discovered. Among these, 6 were in common for HN, HVN, and LFN: disease management, medication management, activities, diet, family/supporters, and cognitive function. The other 7 categories included 1 in common for HN and HVN, hopes of the patient/family; 1 in common for HVN and LFN, anxiety/stress; 1 for HN, social resources; 1 for HVN, cooperation status of medical institutions; and 3 for LFN, sleep, defectaion, and difficult behaviors.

This study found that HN, HVN, and LFN had common information items determined necessary for continuous home care support for community-dwelling patients with HF, and each type of nurse also had different informational item requirements.

Key-words: Older patients, heart failure, information needs, nurse to nurse, transitional care

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# I. Introduction

Heart failure (HF) is a progressive heart disease, with steadily increasing morbidity and deaths worldwide, estimated to reach 1.3 million in Japan by 2030. <sup>1)</sup> Furthermore, the readmission rate after 1 year due to exacerbation of HF symptoms in patients with chronic HF in Japan is as high as 35%<sup>2)</sup>; hospitalization for HF requires longer hospital stays than other illnesses, putting pressure on the medical economy and social burdens.

Efforts to reduce readmission for HF have been reported, such as the effectiveness of multidisciplinary team disease management programs and home-visiting nursing.<sup>3-6)</sup> However, these efforts were interventions centered on education for hospitalized patients with HF and an average age in the 70s. The largest increase in patients with HF will be for those aged 85 years and older,<sup>1)</sup> and the readmission rate in 2 years will reach 45% for patients aged 80 years and older.<sup>7)</sup> Many of these older adults with HF in Japan are often admitted to a long-term care insurance facility or treated at home while receiving homevisit nursing care, and the number of these patients is estimated to increase in the future. Therefore, to prevent readmission and enable patients to continue their daily lives with peace of mind, appropriate care is required not only in hospitals but also in long-term care facilities and at home. To accomplish this, nurses involved in HF nursing should obtain appropriate information and seamlessly cooperate and collaborate with nurses across facilities; this arrangement is indispensable.

Nurses involved in HF nursing mainly include hospital nurses (HN), home-visiting nurses (HVN), and long-term care insurance facility nurses (LFN). HN work in hospital wards and primarily care for patients from the acute phase to discharge, whereas HVN are based in home-visiting nursing stations in the community and visit patients in their homes to provide nursing care, including post-discharge care. LFN practice in long-term care insurance facilities and provide nursing care with a focus on assistance with daily living. These categories of nurses mainly belong to different organizations, which hinders effective sharing of detailed information about patients. In addition, they handle different patients with varied care needs and thus require different information about the patient.

In previous studies and case reports, continuous nursing between wards and the outpatient department in the same hospital and cooperation between outpatient nursing and home-visit nursing were reported.<sup>8)</sup> However there have been few reports on collaboration with nurses from long-term care insurance facilities. Moreover, HVN decry difficulties in caring for patients with HF, such as difficulty in sharing information and lack of confidence in knowledge about disease management.<sup>9, 10)</sup> In addition, there is a report about information sharing between hospital and nursing home staff, but contents of the information have not been scrutinized. <sup>11)</sup> Therefore, it is necessary to first clarify what information is required by HN, HVN, and LFN and consider measures to facilitate information sharing among nurses in order for nurses involved in HF nursing to cooperate and practice.

The purpose of this study was to clarify the information required by HN, HVN, and LFN for continuous home care support for community-dwelling older patients with HF.

### II. Methods

# 1. Study design and participants

This qualitative descriptive study used semi-structured interviews. Study participants were nurses involved in HF nursing who worked in a hospital (heart center of a special functioning hospital), home-visit nursing station, or long-term care insurance facilities. Their clinical experience in the field of HF nursing was 5 years or longer. We explained the study to the facility director or the person in charge of the department and asked them to select the participants. Interviews were conducted after explanation to the participants, and their consent was obtained.

# 2. Data collection procedures

Interviews were conducted from August 2019 to March 2020 and followed an interview guideline. Participants were asked: "What care do you provide for older patients with HF?"; "What information do you require to care for older patients with HF?"; and "What type of collaboration is needed between nurses to care for older patients with HF?" The interviews were recorded on a digital voice recorder with consent from the participants. In addition, data were collected on basic attributes of the participants: gender, age, years of clinical experience, years of clinical experience in HF nursing, number of patients with HF in charge.

### 3. Analysis

All interviews were transcribed, and a content analysis <sup>12-13)</sup> was performed. As an initial step, interview data were organized as narrative records, which were carefully read and divided into minimum paragraphs with semantic contents as units for analysis. These units were encoded, focusing on the information necessary for care of older patients with HF. Then, while repeating similarity from code contents, the degree of abstraction was increased, and subcategories and categories were generated. To enhance their validity, repeated discussions were held between the authors. This analysis process was performed with interview data of HN, HVN, and LFN.

# 4. Ethical Considerations

The procedures of the study were conducted according to the Declaration of Helsinki and approved by the Ethical Committee of Department of Medicine, Saga University (approval number R1-10), Saga, Japan. All the participants provided written informed consent before participating in this study.

# III. Results

# 1. Participant characteristics

A total of 18 nurses participated in this study. As shown in Table 1, there were 5 HN, 9 HVN, and 4 LFN; 16 females and 2 males; average age ( $\pm$  standard deviation),  $47.4 \pm 10.2$  years; clinical experience of  $21.3 \pm 9.6$  years; experience in HF nursing field,  $14.5 \pm 7.4$  years; and number of patients with HF in charge of per month,  $46.1 \pm 60.2$ . Each interview lasted  $48.1 \pm 8.0$  minutes. HN belonged to 1 facility, HVN belonged to 7 facilities, and LFN belonged to 1 facility.

<Table 1> Participant characteristics

Workplace	No.	Gender	Age (years)	Years of clinical experience	Monthly number of patients with	Interview length (min)
****				(years)	heart failure	
HN	1	Female	33	10	10	51
(nurses working in	2	Female	33	9	10	54
hospitals)	3	Female	49	26	10	67
	4	Male	30	8	15	52
	5	Male	45	13	15	47
HVN	6	Female	56	25	5	38
(nurses working in home-	7	Female	49	25	172	47
visiting nursing station)	8	Female	49	23	24	50
	9	Female	55	30	200	42
	10	Female	40	20	16	51
	11	Female	57	34	15	37
	12	Female	60	35	10	50
	13	Female	56	22	23	51
	14	Female	30	6	4	56
LFN	15	Female	52	17	30	51
(nurses working in long-term	16	Female	52	31	100	50
care insurance facility)	17	Female	61	35	120	33
	18	Female	46	15	50	39
Mean ± standard deviation		4'	$7.4 \pm 10.2$	$21.3 \pm 9.6$	$46.1 \pm 60.2$	$48.1 \pm 8.0$

# 2. Information nurses require to continue home care for older patients with HF

Regarding information necessary for care of older patients with HF, a total of 198 codes and 38 subcategories were extracted, and 13 categories were generated. Table 2 presents the categories and subcategories for each nurse type.

There were 6 common categories generated: disease management, medication management, activities, diet, family and supporters, and cognitive function. In addition, 2 categories for HN: hope of the patient / family, and social resources; 3 categories for VHN: hope of the patient / family, anxiety / stress, and cooperation status of medical institutions; and 4 categories for LFN: anxiety / stress, sleep, defectaion and difficult behaviors were generated.

# 1) Information required for HN

Regarding information required by HN, 59 codes were extracted, and 22 subcategories and 8 categories were generated. The categories and subcategories are presented in Table 2.

Type of	Categories	Subcategories			
nurse HN	Disease	C	Target value for	V:+-1 -:	
	management	Symptoms of HF	HF management	Vital signs	
	Medication management	How to medication	Self-management of medication	Person who manages medicine	
	Activities	Activity status	Activity		
		Dietary intake	restrictions Salt restriction		
	Diet	status	status		
	Family / supporter	Family structure and key persons	Relationship with family/supporters	Support contents of family / supporters	Family/supporter visit status
	Tumily , supported	Support status for families			
	Cognitive function	Degree of cognitive function	Understanding of disease		
	Hope of the patient / family	Living conditions desired by patient	Meaning of life	Living conditions desired by family	
	Social resources	Reasons for getting long-term care insurance	Usage of social resources		
HVN	Disease	Symptoms of HF	Target value for disease management	Vital signs	HF exacerbation factor
	management	Severity of HF	Causes of HF	Course of HF	
	Medication management	How to medication	Self-management of medication	Contents of medication	Person who manages medicine
	Activities	Activity status	Activity restrictions		
	Diet	Dietary intake status	Salt restriction status		
	Family / supporter	Family structure and key persons	Relationship with family/supporters	Support contents of family / supporters	Family situation
	Cognitive function	Degree of cognitive function	Understanding of disease		
	Hope of the patient / family	Decisions related to ACP	Acceptance for death		
	Anxiety / stress	Situation of Anxiety / stress	uoum		
	Cooperation status of medical institutions	Cooperation status of medical institutions			
LFN	Disease	Symptoms of HF	Target value for HF management	Vital signs	HF exacerbation factor
	management	Education content for HF			
	Medication management	How to medication	Contents of medication		
	Activities	Activity status	restrictions		
	Diet	Salt restriction status			
	Family / supporter	Family structure and key persons			
	Cognitive function	Degree of cognitive function			
	Anxiety / stress	Situation of Anxiety / stress			
	Sleep	Sleep status	Use situation of sleeping drug		
	Defecation	Defecation control status			
	Difficult behaviors	Difficult behaviors during admission	Behaviors of refusal to care		

HN: hospital nurse, HVN: home-visit nurse, LFN: long-term care insurance facility nurse, HF: heart failure, ACP: advance care planning

# (1) Disease management

In this category, 3 subcategories were summarized. The following is a typical narrative of the participants:

"Points to observe every day, like physical condition, no edema now, how many times a day they urinate, can walk without HF symptoms, etc. Current patient weight and weight to be managed; the target weight. About patient's blood pressure and pulse rates"

# (2) Medication management

In this category, 3 subcategories were summarized. The following is a typical narrative of the participants:

"If they know about taking medicine, I want that information. Did he/she take it properly? Management status of the patient, and family management status. Whether the patient can manage medicine by himself/herself or family manages it. Whether they use a calendar or not. If someone is not watching him/her, he/she may forget."

# (3) Activities

In this category, 2 subcategories were summarized. The following is a typical narrative of the participants:

"How they spend their daytime or nighttime. I think it's important to know what kind of activities they are doing and how their time is spent. The level of activity intensity. I think it's difficult to understand at Mets. So specifically, what patients can do for a level of exercise."

# (4) Diet

In this category, 2 subcategories were summarized. The following is a typical narrative of the participants:

"I would like them to tell me the contents and amount of food they eat. Such as meals and salt."

# (5) Family / supporter

In this category, 5 subcategories were summarized. The following is a typical narrative of the participants:

"How is the family involved with the patient, whether it be supplying food, medicine, or whatever? Is the situation completely no-touch, or estranged, what family relationships are included, is someone visiting them every day? For example, the family lives in patient's neighborhood, only meals are brought by the neighbor's daughter etc. About visiting hours and how involved the family is. I want the patient to let me know if they have any support from family."

# (6) Cognitive function

In this category, 2 subcategories were summarized. The following is a typical narrative of the participants:

"I think because they are elderly I want information about their cognitive function. We want to know they are able to take their medications or not. Some people's cognitive function declines after hospitalization, so we need to know how much they understand about their disease."

# (7) Hope of the patient / family

In this category, 3 subcategories were summarized. The following is a typical narrative of the participants:

"I want them to clearly indicate what they want to do at this point. Example, I want to go home and continue working, etc. I try to confirm how they feel about themselves, what they look forward to, what they want to do with their lives, and how they want to live their lives. If the patient and family are heading in the same direction, it will go smoothly, so I want to know what the patient and family want."

# (8) Social resources

In this category, 2 subcategories were summarized. The following is a typical narrative of the participants:

"I need information, a reason for getting long-term care insurance. When they are leaving hospital to go home, I want to know what kind of social resources they are using now."

# 2) Information required for HVN

Regarding information items required by HVN, 87 codes were extracted, and 25 subcategories and 9 categories were generated. The categories and subcategories are presented in Table 2.

# (1) Disease management

In this category, 7 subcategories were summarized. The following is a typical narrative of the participants:

"It would be helpful if they could tell us the patient's target weight, approximate daily water intake, weight, edema status, etc., before they leave the hospital. Vital signs range, shortness of breath, etc. In fact, HF caused by valvular disease is a cause, so if we know that, we'll pay attention to that. The severity level, such as how bad HF is. I most commonly use NYHA classification."

# (2) Medication management

In this category, 4 subcategories were summarized. The following is a typical narrative of the participants:

"What medications, how is the patient taking them, and are they taken properly or not? Can the patient take medications? Include swallowing function. And who manages the medications?"

# (3) Activities

In this category, 2 subcategories were summarized. The following is a typical narrative of the participants:

"I would like to know about patient living conditions. They are old, so I would like to know how much they can move now and how much we can move them."

# (4) Diet

In this category, 2 subcategories were summarized. The following is a typical narrative of the participants:

"Dietary status, content, and quantity. If they are on a restricted diet, such as low-sodium, how many grams, etc."

# (5) Family / supporter

In this category, 4 subcategories were summarized. The following is a typical narrative of the participants:

"Knowing about the family is important information. Key person. Even if the patient herself/himself doesn't realize something, if family can say something is wrong, we can take care of it immediately. Family relationships; for example, like you're not allowed to contact the daughter. For example, if there is a person with a mental illness in the home, I would like that information."

# (6) Cognitive function

In this category, 2 subcategories were summarized. The following is a typical narrative of the participants:

"I want the results of the cognitive function tests. I can make comparisons in a few months or years. First of all, I need the most information about whether the patient understands her/his disease. The symptoms are totally different between those who think they need to take medicine and those who think they don't need medicine."

# (7) Hope of the patient / family

In this category, 2 subcategories were summarized. The following is a typical narrative of the participants:

"If they have decided about ACP, we would love to know what they know about that. I would like to know how they feel about death, how much they know about it, and how much they accept it."

# (8) Anxiety/Stress

This category had 1 subcategory. The following is a typical narrative of the participants: "I think that it will not be good for the heart if stress is applied too much, so I would like to know the stress factors."

# (9) Cooperation status of medical institutions

This category had 1 subcategory. The following is a typical narrative of the participants: "Emergency response and coordination. Like when the patient is admitted, is there appropriate cooperation between the home doctor and hospital doctor?"

# 3) Information required for LFN

Regarding information items required by HVN, 52 codes were extracted, and 18 subcategories and 10 categories were generated. Categories and subcategories are presented in Table 2.

# (1) Disease management

In this category, 5 subcategories were summarized. The following is a typical narrative of the participants:

"I want to know about their physical condition, such as wheezing due to exertion, because I would be confused if there were any abnormalities in the patient's condition. I want to know if there are any special restrictions, like weight control, fluids. How much is good?" I'd like to have information on how they were provided guidance on heart failure."

# (2) Medication management

In this category, 2 subcategories were summarized. The following is a typical narrative of the participants:

"All medicines are managed by nurses and given to residents, but some can just take them, and some can't. In such cases, do I have to put them in their mouths, can they take it if it is a tablet, or can they not take it without crushing it? I need such information. I'd like to know the contents of the medicines."

#### (3) Activities

In this category, 2 subcategories were summarized. The following is a typical narrative of the participants:

"Activity status. How much they can move? I don't think they have restrictions on rest levels, but if they need restrictions, I want to know."

#### (4) Diet

This category had 1 subcategory. The following is a typical narrative of the participants: "I want to know if they need a low-salt diet."

# (5) Family / supporter

This category had 1 subcategory. The following is a typical narrative of the participants: "Who is the primary key person? I try to make it clear who to contact if something happens."

# (6) Cognitive function

This category had a subcategory. The following is a typical narrative of the participants: "I also ask about cognitive function and their MMSE scores."

# (7) Anxiety / stress

This category had 1 subcategory. The following is a typical narrative of the participants: "Details of anxiety; I try to ask what kind of situations make them anxious."

# (8) Sleep

In this category, 2 subcategories were summarized. The following is a typical narrative of the participants:

"I would like to know about insomnia; like the status of falling asleep and use of sleeping pills."

#### (9) Defecation

This category had 1 subcategory. The following is a typical narrative of the participants: "Residents with HF must not exert effort due to constipation, so defecation is controlled. I want to know that information."

# (10) Difficult behaviors

In this category, 2 subcategories were summarized. The following is a typical narrative of the participants:

"Even if it was written that a patient shouted in a strange voice while in a hospital, it may be different when he/she comes here, so I want various information to some extent. I want to have information such as refusal of excretion assistance, or if they had."

#### IV. Discussion

In this study, we conducted a survey of HN, VHN, and LFN to identify subjectively the information that nurses felt that they needed for continuous home care support for community-dwelling older patients with HF. The 6 common information needs of nurses working in each of the 3 nursing settings were disease management, medication management, activities, diet, family and supporters, and cognitive function. These 6 categories were commonly extracted as basic information necessary for patient support. The 5 categories other than cognitive function are content normally provided in

management and nursing care for patients with chronic HF.<sup>14-15)</sup> Another key issue for older patients with HF is cognitive impairment, which has an estimated incidence between 3.1% and 90.0% (average 41.4%) in patients with HF.<sup>16-18)</sup> It is widely known that patients with HF are vulnerable to cognitive impairment with serious consequences in healthcare and outcomes due to the interplay of poor self-care, incapacity of adhering to treatment regimens, and weakening daily living due to decreased attentions, memory, and execution abilities;<sup>19)</sup> thus, taking care of these patients becomes complex and requires individual ingenuity.<sup>20, 21)</sup> Cognitive function was extracted as one of the common concerns among nurses in this study and is consistent with findings of previous studies.

Among the categories common to all the 3 types of nurses, there were different subcategories in disease management and family and supporters. In the category of disease management, HN required only the 3 subcategories: symptoms of HF, target value for HF management, and vital signs, whereas HVN required 4 more subcategories: HF exacerbation factor, severity of HF, causes of HF, and course of HF, and LFN required 1 more subcategory: education content for HF, including information such as how the patient is educated about the disease. Previous studies have reported that HVN find it difficult to obtain necessary information about the patients' illnesses. <sup>10)</sup> Another related study has reported the need for LFN and long-term care facility administrative staff to share patient information, especially among multiple facilities. <sup>11)</sup> The present study also found a lack of opportunities to obtain such information on patients' illnesses. Our survey findings revealed that HVN resorted to detecting disease progression by themselves from changes in the patient's appearance rather than from laboratory data <sup>22)</sup> and lacked more detailed information compared to the HN.

The common category extracted for HN and HVN was the hopes of the person/family. To provide support for home care, HN required information on the personal hopes of the patient/family, such as desired living conditions, the meaning of life, and living conditions desired by the family. In contrast, HVN wanted information related to end-of-life care decisions, such as advance care planning (ACP) and acceptance of death. In Japan, the overwhelming majority of patients still receive end-of-life care in hospitals, <sup>23)</sup> although with progress being made in establishing a regional comprehensive medical care system, the number of patients with HF receiving end-of-life care at home is increasing. Our survey showed that HVN were actively involved in ACP, consistent with previous findings, <sup>24)</sup> and primary care physicians recognized that collaboration with HVN was important to promote ACP. HN and HVN also required information on social resources and cooperation status of medical institutions, and it can be considered that this information was extracted because it is necessary to promote cooperation between facilities for continuation of patients' home care.

The only categories extracted for LFN were sleep, defecation, and difficult behaviors. Patients who reside in long-term care facilities have a high complication rate of ADL decline and dementia, and behavioral and psychological symptoms of dementia prevalence

is as high as 64·100%. <sup>25)</sup> As a result, nurses will be required to provide more living support, and will be required to handle symptoms associated with dementia. To provide this kind of support, LFN in our survey reported the need for information concerning sleep, such as sleeping status and use situation of sleeping drugs; information about defecation, such as defecation control status; and information about difficult behaviors, such as those noted during admission.

The limitations and issues of this study are that the participating nurses belonged to 1 hospital and 1 long-term care insurance facility. Therefore, future studies are warranted to replicate this survey in a larger number of participants.

In conclusion, this study showed that HN, HVN, and LFN shared some common information items deemed necessary to support continuing home care, and each category of nurses had own information needs. As home care nursing develops, there is increasing need for individualized care, which consequently raises complex information needs. The findings in the present study suggest that sharing information among HN, HVN, and LFN could effectively improve the health of geriatric patients transitioning from institutional to home care.

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# Original Article

# A Study on Awareness of Young Peer Supporters in a Japanese Secondary School Through Thematic Analysis

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#### **ABSTRACT**

This study explored the nature of peer support activities in Japan through the experiences of young Japanese peer supporters in a secondary school. Participants, aged 13 to 14 years, were drawn from a secondary school in Osaka, Japan. Semi-structured interviews were conducted, and data were analysed using thematic analysis, aiming to explore their lived experiences of being peer supporters. Four main themes emerged from the peer supporters' lived experiences; 1) Perceived generation gap, 2) Disconnection between training and practice, 3) Self-improvement, and 4) Cultural mismatch. These specific themes greatly assisted to explore the unrevealed children's views and some critical issues of peer support practices in Japan, and also confirmed the findings of quantitative studies (prior studies). In conclusion, some practical recommendations (e.g. "new classification for Japanese style peer support") for the peer support activities were suggested in terms of the findings.

Key-words: Peer support, counselling skills, social skills, thematic analysis, Japanese style peer support

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altered or transformed in any way, and that the work properly cited.

# I. Introduction

Peer support, a relatively new concept in Japan, is an approach that builds on the helpfulness and altruism characteristic of friendship by extending it beyond friendship to the wider peer group. This often encourages children to offer other children strong emotional and behavioural support. In Japan, the peer support approaches were introduced to the school education in the 1990s when several children's issues had been exacerbated such as bullying, youth suicide, class disruption and school non-attendance. Peer support is very flexible in its use of activities and broadly relates to existing Japanese moral approaches and activities that encompass behavioural and emotional support. In a sense, peer support itself is the umbrella term, which allows its activities to suit various school needs, depending on the situations (James, 2014). This means that peer support programmes can be adopted to suit individual practices within schools that incorporate cultural and moral differences.

To a large extent, the willingness to develop peer support methods in Japan has arisen from a deepening concern about the increase in social and emotional difficulties currently experienced by Japanese children within the educational system (Nakano, 2004). Evidence suggests, that, bullying, school non-attendance, school violence, are related to insufficient interpersonal relationships among, which are caused by their poor ability to communicate with other children (Nakano & Sato, 2013; Edahiro et al., 2012; Igarashi, 2011; Makino, 2011, 2009; Miyahara & Koizumi, 2009; Katsuya & Kawamura, 2004; Iida, 2003; Emura & Okayasu, 2003; Fujieda & Aikawa, 2001). For example, Nakano and Sato (2013) explored the relationships between children's perceived quality of school life (the level of school adjustment) and their social skills among the lower secondary school children aged 12-15 years (256 boys and 273 girls). These researchers found that children who have a lower level of school adjustment, showed significantly lower level of social skills (pro-social behaviour, hesitation to take action and managing aggressive behaviours) over the children who have a higher level of school adjustment. This implies that children, who have a lower level of social skills, tend to have difficulties developing relationships with others. The studies indicate that there is a complex set of interactions amongst these characteristics. Of course, it may not be concluded that there is a direct causal link between lack of social skills and relationship difficulties. However, due to cultural and educational backgrounds, interrelationships among children (peers) seem to be related to their social skill levels in Japan where this is strongly influenced by the collectivism. In short, it seemed to be important for children to keep good peer relationships in their group and societies. In this sense, their social skills seemed to play a critical role in that purpose.

Several studies (Harada, 2011; Otsui & Tanaka-Matsumi, 2010; Arihara et al., 2009; Enai et al, 2006), designed to explore the relationship between children's social skills and their peer relations in school, have demonstrated similar results as other studies have

descried above. In this vein, Nakahara (2012) summarised that various causes seemed to operate together to cause the current educational issues. He suggested that the issues need to be tackled from various points, which are education at school, at home and in local society. In terms of education at school, many researchers appear to place emphasis on children's level of school adjustment. Thus, researchers and educators have paid attention to Social and Emotional Learning programmes as a prevention method against such issues as bullying, school violence and school non-attendance.

As mentioned, the peer support is an approach that builds on characteristics of friendship such as helpfulness and altruism and extends it beyond individual friendships to the wider peer group. Children seem to benefit from receiving and delivering peer support activities; emotional and behavioural support, development of social skills, and enhancing altruistic attitudes and behaviours. It appears to be an effective approach to tackle the children's issues described, hence these approaches have been developed and implemented in recent years in Japan (Cowie & Kurihara, 2009). Although peer support has been quite extensively researched in the West using both quantitative and qualitative methods, which explored children's' views and their behaviours, Japanese researchers mainly employed quantitative approaches with various assessment sheets and questionnaires to examine how peer support systems have a positive influence on children (e.g. the improvement of their social skills and the satisfaction levels in school life). In short, very little Japanese research explored the experiences of young people who practiced peer support by employing qualitative methods that captured their thoughts and feelings in depth. This resulted in a very limited knowledge about children's own views and insights, including their views on the peer support systems, their difficulties, feelings and motivations for the peer support activities. For these reasons, this study aims to explore the awareness of peer supporters based on their experiences through a thematic analysis. The present study has contributed to deepening the knowledge in these unrevealed research topics and issues.

# II. Methodology

# 1. Aim & Objectives

To explore Japanese pupils' perspectives on the experience of being peer supporters in a school.

- 1. To explore the experiences of peer supporters
- 2. To explore any difficulties that children might experience in their role as a peer supporter
- 3. To explore why children adopt the role of peer supporter and whether they perceive any personal benefits in adopting this role

- 4. To identify differences in peer support practices between Rogers' model approach and the citizenship orientated approach.
- 5. To investigate how strongly cultural factors (e.g. collectivism) give influence on peer supporters' attitudes, thoughts and behaviours in their practices.

As stated, very little Japanese research has explored the experiences of young people who practice peer support. Also, since the Japanese educational system is very different from the system in the West, the present research aims to fill the gaps in the literature.

# 2. Thematic analysis

Thematic analysis is one of the methods of analysing qualitative data. Thematic analysis provides a rich, thematic characterisation of its data set whilst taking into account some differences or divergences between individual participants or cases. The author used a 'bottom-up' analytical process which made it easier to take these individual differences into account and the author identified its themes at a semantic rather than a latent level (Braun & Clarke, 2006). Braun and Clarke (2006) outlined six stages to approaching thematic analysis of data which were adhered to in this study: becoming familiar with the data; generating initial codes; searching for themes; reviewing codes and themes; defining and naming themes; producing narrative results. The strength of thematic analysis is that an anecdotal approach to analysis is avoided, the themes identified require analysis rather than simple description and there must be coherence and balance between the quotes extracted and the analytical narrative, claims and interpretation.

#### 3. Research sample

The samples were 14 lower secondary school pupils (year 8 and year 9) from a junior high school in Osaka. All of the peer supporters (in total 35 peer supporters) were invited to participate and eventually 14 (7 males and 7 females) took part in the present study.

#### 4. Interviews

The one-to-one semi-structured interviews were conducted in the beginning of the April 2013. Each interview took 30 to 60 minutes, and was digitally recorded. Before starting the interviews, all participants were orally given a brief explanation about the study. This includes their rights of withdrawing from the study. It took 4 days to complete 14 interviews (7 males and 7 females), where 3-4 interviews were conducted each day. After the interviews, each participant was given a UK scenery postcard as a token of gratitude for their time.

### 5. Transcript, data analysis and NVivo

After the interviews, the verbatim transcripts of 14 interviewees (peer supporters) were formed within 2 months. The data analysis was based on Japanese transcripts by thematic analysis, then these were translated into English by the author. In short, the data analysis was based on original data (Japanese transcripts), which allowed the author to access rich data and examine it in depth by looking at patterns in each interview. This meant it was important not to lose any information through the process of the translation work from Japanese to English. However, through the analysis process, all Japanese transcripts were translated into English, thus the author's supervisors (two native English speakers in the UK) managed to read and check the process of coding. Both supervisors were specialised in health psychology and were well familiar with thematic analysis. This means both full English and Japanese transcripts (14 participants' interview data) are available for the supervisors and the author to read. NVivo (version 10) software was used to analyse the data. As a result, the author was able to import rich data (documents) into NVivo's database, allowing the author to create a database of responses in NVivo, edit code, search the responses and find the frequency of the usage of each coding.

#### 6. Research setting

The present study was set in a lower secondary school in Osaka. This lower secondary school has around 700 pupils studying in the school and each year consists of 6 classes. There are 36 municipal primary and lower secondary schools (24 primary and 12 lower secondary schools) in this city, and in the last few years, all these schools have been employing peer support programmes. In 2007, all 12 lower secondary schools agreed to have the lower secondary school pupils' summit meeting, then, school council members from all the lower secondary schools occasionally gathered to hold meetings to discuss various pupils' issues. In the summit meeting, pupils shared their own peer support activities with other school pupils and also they made some joint projects such as "bullying prevention drama", "the pupils' summit training camp", and "the fund raising campaign for earthquake victims". In this lower secondary school, peer support activity has been organised as one of the club activities, and the selected volunteers were trained in peer support programme and took a lead for various peer-led activities. This research was conducted during three semesters (one year) and consisted of one-to-one semi-structured interview with the pupils (7 males and 7 females) and implementation of peer support training and activities. In Japan, the new school year generally starts in April, therefore, the commencement of peer support training and supporting activities was in May 2012, and one-to-one semi-structured interviewing was conducted at the beginning of April 2013, which was 11 months after the peer support scheme started. All the peer support training sessions and supporting activities were led by teachers who are qualified as a peer support trainer from the Japan Peer Support Association (JPSA).

# III. Result and Discussion

Four main themes and a number of sub themes emerged from the findings (see Figure 1). These findings explain the nature of Japanese peer supporters from their perspective as well as critiquing this approach in Japan.

# Perceived generation gap

\*Pupils' views vs. Teachers' view

\* Pupils' closeness and teachers' blind spots

\*Friendships among pupils and negative attitudes toward teachers.

# Disconnection between training and practice

\*Person-centred approach vs. Speaking in front of others

\*One-to-one peer support vs. Group activities

\*Lack of empathy and judgemental attitudes

\*Disapproval of emotional problems

# **Self-improvement**

\*Overcoming own weakness

\*Improving own ability

\*Dealing with pressure

\*Dealing with time management

# **Cultural mismatch**

\*Aims to create a supportive environment \*Believing other pupils' potentials

<Figure 1> Main themes & Sub themes
(Main themes in bold text, Sub themes are marked with an asterisk)

The following list summarises the characteristics of the peer supporters interviewed. To protect participants' confidentiality, all names have been changed into assumed names.

<Table 1> The characteristics of the peer supporters interviewed.

Participant 1 (girl, age 14) Lucy	Participant 8 (boy, age 13) Ken
Participant 2 (girl, age 14) Ellie	Participant 9 (boy, age 14) John
Participant 3 (girl, age 14) Helen	Participant 10 (boy, age14) Dan
Participant 4 (girl, age 14) Michelle	Participant 11 (boy, age 13) Alex
Participant 5 (girl, age 14) Sally	Participant 12 (boy, age 13) Ben
Participant 6 (girl, age 13) Cathy	Participant 13 (boy, age 14) Paul
Participant 7 (girl, age 14) Natalie	Participant 14 (boy, age 13) Graham

# 1. Perceived generation gap

The first theme is "Perceived generation gap". Peer supporters often mentioned their superiority over the teachers, and their perceived superiority seemed to be strongly related to a generation gap between teachers and pupils. The sub themes and some selected transcripts are presented below.

#### 1) Pupils' view vs. Teachers' views

Peer supporters strongly believed they were in a good position to understand pupils' views over the teachers. Several peer supporters mentioned how important it was for them to carry on peer support activities, in terms of pupils' views.

"Well, there are age differences between the pupils and the teachers. Then, there are some gaps between teachers' views are pupils' views. Pupils are from the same generation, therefore I think pupils share similar views." (John)

"Ummm.....sure enough, pupils' views are different from teachers' views...

Um....peer supporters are pupils as well....so I think it is
nicer to speak and take actions in terms of pupils' views. Pupils
listen to other pupils' words more than teachers' words, don't
they?" (Lucy)

"Teachers tend to mention they feel the same ways as we (pupils) feel. But in terms of pupils' views, pupils doubt whether teachers just pretend to share the same feelings as pupils feel or not." (Ken)

In the present study, peer supporters were not directly questioned about their strengths and effectiveness as a peer supporter, instead, they were questioned about "why do you

think we need peer support systems in school?". Then, they kept mentioning how accurately they could understand pupils' views, compared to the teachers' ability of perception. This implied that peer supporters highly valued their role as a peer supporter because of their good understanding of pupils' views over teachers.

# 2) Pupils' closeness and Teachers' blind spots

The peer supporters emphasised their superiority in communication with reference to their perception of "Teachers' blind spots". The interview data clearly indicated the fact that due to time constraints, communication between pupils and teachers was generally limited, which meant, peer supporters were able to spend more time with other pupils than teachers did.

"....in our school......there are not much.....but bullying happens somewhere teachers cannot see.." "When some pupils smoke cigarettes, they smoke somewhere the teachers cannot see them. But pupils know their deeds because we pupils usually share the same space in school." "Except in special circumstances, we pupils stay in a class. When something bad happens, pupils can see and understand the issues. But teachers do not stay in a class room (they stay in a staff room)...." (Ellie)

"I think teachers cannot see some parts of pupils' life and views. Thus, we need to have peer support systems in school to work for pupils.""....There are a few hundred pupils in the school, but there are about 40 teachers. Therefore, it is very difficult for the teacher to see and understand the whole school." (Paul)

As described by Ellie, some pupils went to somewhere beyond sight of the teacher before they engaged in forbidden activities such as smoking a cigarette. Despite this, peer supporters were often able to witness their engagements in forbidden activities. This kind of episode highlighted the teacher's blind spots and confirmed that peer supporters had superiority over teachers in that there were more opportunities for peer supporters to see what was going on behind the scenes. As prior bullying studies (The Japanese Ministry of Education Japan, 2014; Yamawaki, 2006; Morita & Shimizu, 1994, etc.) mentioned, one of the characteristics of school bullying was "the invisibility of bullying". Most bullying tended to occur out of eyeshot of teachers and school staff. This resulted in long delays in tackling bullying and offering support to children who were involved.

### 3) Friendships among pupils and negative attitudes toward teachers

The peer supporters believed that they had an advantage in relationships and friendships over teachers, which were reflected in various ways. The relationships sometimes seemed to be an important factor for peer supporters to smoothly encourage other pupils to join and take the lead in their activities. Especially, peer supporters believed they gained trust from other pupils, thus as a friend, they managed to encourage other pupils to join the activities successfully.

"Pupils are more motivated by other pupils' encouragements than adults' encouragements." "Especially when the pupils were encouraged by reliable pupils, they would take actions." (Cathy)

"Well...because pupils are easily inspired by other pupils' encouragements, rather than the teacher's encouragements." (John)

In addition, the majority of peer supporters described that pupils tended to have negative views about their teachers because pupils were at the rebellious age (period of negativism), which has been recognised as a set of behavioural traits, especially for teenagers (Kokubu, 2003). Pupils often negatively perceived the teachers' words, and also they tended to feel a sense of compulsion when teachers gave them advice. In terms of facilitating emotional and behavioural well-being in school, this tendency, typical of adolescents, made it difficult for pupils to follow teachers' advice.

"Some noisy pupils do not care about the teacher's words. They make light of teachers. They have negative feelings like "leave me alone" "kill you"...Therefore, when the teachers ask noisy pupils to be quiet, sometime they do not listen to teacher's words. In this case, peer supporters try to settle an awkward situation pleasantly." "Sometimes, (pupils' words) are very influential.", "Generally, pupils' encouragements are more influential." (Ben)

".....some pupils have rebellious attitudes toward teachers, because they reached the rebellious age. There is no rebellious age between pupils. Thus, when pupils give some advice to each other, most times pupils listen to their friends' advice. "Pupils' words are more influential" "Because many pupils are at a rebellious age and they tend to show rebellious attitudes towards teachers." (Dan)

Moreover, peer supporters explained other reasons, which made it difficult for teachers to ask the pupils to do something and to communicate with pupils.

"when pupils join the activity, pupils do not want others think they are a teacher's pet....." (Graham)

Some pupils mentioned they do not want to be regarded as a teachers' pet, thus they hesitated to follow the teachers' orders. In terms of culture influence (collectivism), in Japan, social groups and peer pressure seemed to be critical factors for children to follow their friends' behaviours and opinions. Pupils appeared to be keen on the power of peer pressure and social groups, and these strongly influenced individuals as well as groups in their daily life.

# 2. Disconnection between training and practice

The second theme is "disconnection between training and practice'. The present study indicated that there were major gaps and disconnections between peer supporters' actual activities and their training sessions, which have not been reported as an issue in Japanese peer support studies.

#### 1) Person-centre approach vs. Speaking in front of others

The interview data revealed that peer supporters did not use or adopt the personcentred approach for their daily activities. None of the peer supporters mentioned their experiences of being involved into one-to-one support in their school. Rather, peer supporters actively were engaged in other group activities, such as the greeting campaign, cleaning activities, volunteering activities (fund-raising activities) and anti-bullying dramas at both group support level and the whole-school support level. For example, peer supporters mentioned they often needed to give feedback in front of other pupils as one of peer supporter duties.

"....we give feedback of peer support activities in morning assembly. We let other pupils know how peer supporters are doing activities." (Graham)

Generally peer supporters were trained to develop their basic counselling skills (i.e. active listening skills). Thus, they were supposed to provide one-to-one support with children who are in distress or have emotional difficulties. However, peer supporters did not mention any experiences of providing one-to-one support and did not demonstrate a person-centred approach with other pupils.

"Well, other pupils did not consult me much." (Ken)

### 2) One-to-one peer support vs. Group activities

Peer supporters reported their various activities, which were mainly related to group activities. These group activities are widely used in Japanese schools as a method for enhancing responsibility for one's environment and for strengthening the norms of the group.

"Generally, class rooms were messy with waste papers. When we had a campus clean-up campaign, pupils kept the class rooms very clean and tidy. After the campaign, the class rooms remain as clean. (Alex)

"When I greet pupils, they reply to me as well. Thus everyone become brighter." "When I said "good morning" to other pupils, some pupils bowed to me, but other pupils ignored me....." "Ahhh....yes, little by little. At the beginning, when I said "good morning" to them, many pupils ignored me. But gradually pupils started to bow to me, and also said "good morning" in a small voice. They are getting better, I think" (Paul)

Regarding the types of peer support approach used in the UK, Houlston et al (2009) indicated that many secondary schools were engaged in individual support level activities, such as "Befriending" (73.2%), "Mentoring" (84.5%), "Mediation" (45.4%), "Counselling" (30.9%), and "Others" (8.2%). Unfortunately, no Japanese studies have investigated the breakdown of the types of peer support, therefore, it is difficult to make even a wild guess about the extent to which Japanese peer supporters engage in helping behaviours, whether with individuals or groups. However, the present study indicated that there was no reported evidence that any one-to-one peer support actually took place. In terms of Hofstede's theory (2005), school activities and schemes have been influenced by the cultural context directly and indirectly, thus it is natural that peer support activities have also been linked to and affected by the cultural values and social contexts (e.g. collectivism). However, by no stretch of the imagination can their observed group activities be defined as a part of peer support activities which are commonly used in the West. A more accurate definition of these activities would be that they form part of citizenship education and/or personal and social development (PSD) for the pupils. Otherwise, it may be necessary to specify its styles and definitions as Japanese style peer support activities in order to avoid confusion.

# 3) Lack of empathy and judgemental attitudes

The present study found that the peer supporters did not have much opportunities to adopt the person-centred approach for their daily activities. Thus, it appears that they did

not need to adopt some specific qualities and attitudes, such as "respectful", "non-judgemental", and "willing to admit to mistakes", which were gained by most peer supporters to follow Rogers' model of peer support. In terms of their activities, peer supporters needed to take the lead for the activities, which seemed to encourage them to play a role as one of monitoring and policing deviant pupils rather than providing emotional support for pupils with relationship difficulties. In fact, the present study found that Japanese peer supporters tended to show their negative and judgemental views about other pupils and also their attitudes and comments seemed to lack empathy. There were some pupils who did not want to join and follow the peer support activities. Peer supporters tended to show their negative views and judgemental attitudes towards other pupils easily.

"....on the other hand, pupils who do not actively join, stick at nothing and lack endurance. They tend to do something different one after another. They focus only their enjoyable things." (Ben)

"They (pupils) are reluctant to.....because they think other pupils should do it...." (Sally)

# 4) Disapproval of emotional problems

The early detection of children's emotional and behavioural problems is essential for tackling the issues more effectively and successfully. Peer support, as an anti-bullying method, is widely viewed in the literature as playing a critical role in providing support for victims of bullying and identifying bullying incidents at an early stage. Since all peer supporters had received the training sessions, they were supposed to be sensitive to pupils' emotional and behavioural issues, especially bullying. However, the present study showed that only one peer supporter (Helen), out of fourteen interviewed reported that there was any bullying in their school.

"...in my class, everyone has good relationships.....currently peer support activities focus on bullying issues. However, we do not have bullying in my class. Pupils from other schools mentioned there are some bullying issues, but there is no bullying in our school..." (Ellie)

"No, we do not have it (bullying). Everyone speak to others very friendly." (John)

"Bullying.....well......what can I say.....well......to tell the truth, some pupils in my grade are involved in bullying. Well......ummmm....some teachers know some pupils who are bullied." "......teachers have been asking the pupils who are bullied, about bullying. But these pupils do not tell the truth. Because they think if they tell the truth about bullying, bullies may revenge on them. Thus, these pupils do not tell the truth and this do not help to solve the bullying issues." (Helen)

Japanese peer supporters seemed to focus on some other duties and roles (peer-led group activities), rather than engaging with individual emotional and behavioural problems. Thus, the majority of peer supporters clearly stated that there was no bullying without hesitation. These results may also suggest that the school already has a supportive environment and good school ethos, which prevented the school bullying.

# 3. Self-improvement

The third theme is "Self-improvement". In particular, the findings highlighted four major benefits, which were "Overcoming own weakness", "Improving own ability", "Dealing with pressure", and "Dealing with time management".

#### 1) Overcoming own weakness

Many peer supporters explained their attitudes and feelings about how they were able to overcome their shyness and nervousness.

"I need to practice again and again, then I gain confidence ... Eventually I can dispel my feeling of uneasiness." (Michelle)

"Umm...I believe, if I was not a peer supporter, I could not have experienced to speak in front of people..." "I could overcome my shyness. Now I am not nervous to speak in front of people." (John)

"...I was a shy person." "I am still shy when I speak in front of many people" "In days gone by, I was able to speak only in front of my friends unashamedly. However, now I am able to speak in front of all my class mates when I need to speak to them." "Also I am able to behave with confidence." (Cathy)

Since peer supporters tended to retain their strong wills, these struggles seemed to be opportunities to foster their inner strengths and encourage their emotional and behavioural developments.

# 2) Improving own ability

Several peer supporters shared similar experiences, which they were able to make efforts or work harder for something in their daily life, outside peer support activities. They believed that these changes were accelerated as a result of being a peer supporter, and it seemed that their experiences as a peer supporter enriched their resilience, which gave positive influences on their life in various ways. As an example, many peer supporters reported that their school records have been improved after being a peer supporter, even though they have faced time management issues. Also some peer supporters mentioned that they regarded the experience as a process to grow up to be a fine adult. In fact, several peer supporters felt they became matured.

"..I feel less nervous...so I think when I am grown up in the future, I am able to do it.. "I believe I became a little more grown-up. So I think my attitude has changed...what can I say, I became fearless" (Alex)

"....at first I was nervous to stand in front of people, gradually I get used to it now. I think this experience will be useful when I become an adult." (Paul)

".....before becoming a peer supporter, if I was tired, I tended to go to bed easily. But now I make an effort to study even for 5 minutes (before sleeping), and also I try to study in break time in school. I can wisely use free time, then my studies are going well. Eventually this makes it easier for me to attend ballet class as well" (Helen)

"I could improve my ability to memorise something." "Also, I improved my school records." "At the exams, I really used to gain only about 200 points in total, but now I can gain about 400 points." "I was praised by the teachers. I was happy about it." (Ellie)

Peer supporters highlighted that their experiences of being a peer supporter helped them improve their school records and other achievements. They believed these improvements were strongly connected to their positive attitudes and tireless efforts, which seemed to be developed through peer support activities.

### 3) Dealing with pressure

Many peer supporters felt pressure from both pupils and teachers, which generally made peer supporters feel uncomfortable. "Pressure" was seldom raised as a research topic in Japanese peer support literature. Only a few papers reported it from peer supporters' feedback after the training sessions and activities (e.g. Kamiya, 2007). Peer supporters described that they felt pressurized to behave in an appropriate manner and meet the high expectations of being a peer supporter. Several peer supporters shared their experiences of this pressure, where other pupils and teachers said, "Because you are a peer supporter, so you should make effort to..." Peer supporters thought they were still pupils and they did not want to be regarded as something different from other pupils. However, they were used to being seen as a special figure in the school.

"Sometimes I am told by other pupils, "you can manage to do anything" I do not like this. Pupils said "because you are a peer supporter, you can do it......" I do not like this." (Ben)

"Uh...the teacher asked me to answer the questions because I was a peer supporter...In my class, there were three peer supporters. The teachers often asked us to answer the questions, then we needed to speak......it happened. This means I needed to be in front of people and feel tense...." (Lucy)

In a sense, these expectations amplified their nervousness and shyness. However, peer supporters tirelessly made efforts to challenge their own pressured situations. From the prior studies, the experiences of being a peer supporter seemed to contribute to their social, emotional and behavioural developments (Yamada & Mori, 2010; Kamigaki, 2009; Takahasi & Kurihara, 2006). This implied that even under the pressured situations, peer supporters developed their own skills through their activities.

# 4) Dealing with time management

Most peer supporters were struggling with time management, which was an unexpected result as a difficulty of peer supporters. The literature hardly showed any issues related to time management of peer supporters as a topic. Peer supporters were often required to spend time during their break and before/after school started on peer support activities. Consequently, this impacted on the time they had to participate in club activities, go to cram school (Juku), and to participate in social activities with friends.

"So, that is......I could not attend the club activities. Because I need to attend the peer support activities, I missed many opportunities to attend the club activities." (Alex)

".....peer supporters often need to do their activities after school. The volunteer activities are generally carried out during the lunch break, thus it is fine. But peer supporters need to do some preparations and activities after school, thus it would be late to go home. Therefore, pupils do not want to be a peer supporter." (Ben)

There are two possible reasons why the peer supporters' time management issue has not appeared on the centre stage of the literature. Firstly, most Japanese research was conducted in terms of adult's perspectives, meaning these did not consider the pupils' feelings and experiences in deeper levels. A few studies (e.g. Kondo, 2008; Okada, 2005) mentioned time consuming or time management issues with peer support programmes. However, these studies simply explained supervisors' time issues, which showed supervisors struggled to secure a time-slot for skill training and supervisions. Accordingly, the previous studies seldom discussed peer supporters' time issues in deeper levels (in terms of children's perspectives). Secondly, pupils did not consider time management as a difficulty. The results of the present study showed that peer supporters tend to positively challenge their difficulties and overcome them. This finding seems to be consistent with previous research, which found that training and supporting activities, developed peer supporters' communication skills, amplifying their self-esteem and self-efficacy to actively challenge their issues and difficulties (Okada, 2005). Thus, peer supporters tend not to think of time management as a difficulty, rather, they think of it as the inevitable process to carry out their peer support activities. Several peer supporters mentioned that the time dedicated to their extra responsibilities was a good opportunity for them to learn how to use time wisely.

"In order to effectively work for both peer support and club activities, I have tried to use time wisely." "I would take measures suited to the occasion." (Paul)

# 4. Cultural mismatch

The fourth theme is "Cultural mismatch". As Hofstede et al. (2010) argued, there are cultures in which children and young people from the earliest years are integrated into strongly cohesive in-groups. This might explain why the Japanese interpretation of peer support seemed to appear completely different from the Western style approach, based on Carl Rogers' individualistic model. Probably the researchers in the Western nations would

not believe these Japanese style peer support practices were classified as the peer support approach. Rather they may think these were a kind of citizenship education or social skills training. This study found two cultural tendencies of peer supporters as sub themes that seemed to strongly influence the interpretation of the Western style approach: "aim to create supportive environments", and "believing other pupils' potential".

# 1) Aims to create a supportive environment

Because of the culture influences, peer supporters potentially think supportive environments would strongly give positive influences to each individual. In this sense, rather than providing one-to-one support to a pupil, it seemed to be more beneficial to make behavioural changes in peer relationships among pupils.

"....in some groups......thus if the central person changed himself, then other pupils around him follow him and they also change themselves." (Helen)

".....we pupils plan the things and take actions...this would raise our morale as a whole......also there are some pupils who are supportive... what can I say.....peer supporters.....each peer supporter receives support from pupils around them. Morale of the whole school would be raised." (Michelle)

"......even I cannot join the cleaning activities, I thought someone else would do that. But I saw some senior peer supporters were working very hard to encourage other pupils to join the activities. When I saw someone is working hard for us, I thought I wanted to give some help. In my point of view, this kind of episode made me join peer support activities..." (Ellie)

Peer supporters seemed to wisely use peer pressure and the power of group norms in order to give positive influences to other pupils and a whole school.

"... two particular girls were always chatting during class. Most of the time some other pupils also were chatting in a small voice during class, therefore these girls did not care about this lesson and others...... But one day, the classroom was so quiet. Nobody talked at all. Then these girls, who used to chat, did not chat at all and tried to be quiet"...... "Therefore, if we can wisely use friends' influences, this may be applied to improve a whole school. (Helen)

### 2) Believing other pupils' potentials

Most peer supporters were able to overcome their own weakness, therefore, they believe other pupils are also able to challenge their own issues.

"Because when we started doing the peer support activities, we could not do well....which means we have the same potential as other pupils have. Through the peer support activities, we could grow, therefore we believe other pupils would grow as well. That's the reason why, there are no differences." (Lucy)

Because of their own experiences, peer supports tended to believe other pupils could develop themselves both emotionally and behaviourally. In this sense, even peer supporters encouraged pupils who were in distress, to join the activities. This view seemed to be accepted in Japanese schools, and eventually keep the peer support approaches away from the Western style approach. In Japan, even though scholars and researchers had been learning its concepts and approaches from the western style peer support approach, they had developed their own views and approaches due to the educational needs and cultural backgrounds. Cowie and Kurihara (2009) stated that peer support programmes had been developed with influence of two different views; 1) "Counselling model view" whose emphasis is to emotionally care and look after children in distress and 2) "Educational model view" which is to provide children with social skills for preventing them from being in troubled situations. In Japan, peer supporters were often involved in activities at group and whole-school support levels. This had been reflected by "Educational model view" which support the desire that children have the opportunity to receive and participate in the beneficial training and group activities. Salmivalli's participant role theory (1999) is also useful in understanding the impact of peer support in Japan. Essentially, the peer supporters in the role of defenders are helping the whole school, in particular the bystanders, who have the potential to influence whether children are bullied or whether they are protected. The defender role is expressed differently in Japan as compared to the West. For example, as the interviews showed, rather than supporting individuals with difficulties, the peer supporters created structures for the groups and social networks within the school so that the group would challenge bullying and other forms of discrimination. Participant role theory emphasises the power of the group in understanding the phenomenon of bullying and thus peer supporters in the defender role play a critical part in activating other people's potential for prosocial behaviour. The majority of children are bystanders (in the outsider participant role) so the social activities of the peer supporters in the present study are very influential in changing behaviour and attitudes in a positive way. This process is likely to be sustained over time as the impact is on the group rather than the individual.

# **IV. Conclusion**

The present study revealed and discussed some critical key issues in Japanese peer support practices. Four main themes and several sub themes greatly assisted to explore the unrevealed children's views, and some critical issues of peer support practices in Japan and also confirmed the findings of quantitative studies (prior studies). Some practical recommendations for the peer support activities are suggested in terms of the findings below.

# Suggestions

Firstly, in terms of differences in key features (types of training, attitudes and skills, types of main activities, and main objectives), Japanese style peer support and the Western style peer support should be clearly recognised as differing in philosophy, approach and content. Some Japanese style peer support did not match the Western style peer support at all. These citizenship orientated approaches (e.g. greeting campaigns, clearing campaign, fund-raising activities, and anti-bullying drama) are unique to the Japanese peer support practices (still classified as peer support in Japan), which allows peer supporters to have an active role as a facilitator in peer-led activities. In this vein, two different qualities of peer support activities exist in Japan; one is based on the personcentred approach (role as a counsellor) and the other is based on citizenship orientated approach (role as a group leader). For this reason, it may be necessary to specify a more accurate definition of these activities as Japanese style peer support activities in order to avoid confusion.

Secondly, the teachers and the researchers (from JPSA) need to reform the contents of the training session, which match the requirements for these peer-led activities. As mentioned above, because of the differences in key features, it seems to be necessary to modify its training contents, which suit to its main activities and main objectives.

Thirdly, it is necessary for schoolteachers (peer support coordinators) to pay more attention to children's challenges and difficulties, especially, peer supporters' time management and peer pressure issues.

The present study, although small, demonstrates the nature of peer support in Japan and peer supporters' views, which would contribute to a better understanding of knowledge in prior studies.

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# Original Article

# Effectiveness of a Short Program to Improve Emotional Management of Nurse Managers in Japan

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#### **ABSTRACT**

The purpose of this study was to develop a short program to improve emotional management abilities of nurse managers and verify its effectiveness. We conducted an interview survey of nurse managers (n = 11) and clarified the challenges perceived by them. We, then, developed a short program to improve emotional management abilities based on findings from the qualitative analysis of the interview survey responses and emotional intelligence, which is a measure of emotional management abilities. This program was tested on 78 nurse managers working in medical institutions in Japan, and its effectiveness was evaluated based on statistical analysis of scores of the emotional intelligence scale (EQS), Anger Arousal and Lengthiness Scale (AALS), and Japanese version of the Five Facet Mindfulness Questionnaire (J-FFMQ) scores measured before, immediately after, and 1 month after the intervention. A total of 38 participants completed the questionnaire surveys at all the three time points. The "Situational" domain score of the EQS (p < 0.01), the "AALS total" score (p < 0.01), and the AALS "anger lengthiness" subscale score (p < 0.01) immediately after the intervention significantly differed from the respective scores before the intervention. The J-FFMQ scores showed significant improvements immediately after the intervention (p < 0.01) and 1 month after the intervention (p < 0.01). The findings of this study demonstrated the effectiveness of our program in improving mindfulness skills, which are crucial for effective emotional management, and prevent the persistence of anger in nurse managers in Japan, thereby indicating that it can be considered a practical program.

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# I. Introduction

Nurse managers (NMs) are expected to play an important role in improving nursing care, improving patient satisfaction, fostering a healthy work environment, reducing the turnover rate of nurses<sup>1-5)</sup>, and contributing to achieve the best results for organizations and patients<sup>5)</sup>. However, complex challenges and expectations, such as shift work, long working hours, harassment, low wages, personnel downsizing, and technological stress, have doubled the role of NMs in the past 10 years, consequently exposing NMs to substantial stress related to the occupational responsibilities<sup>2,4,6-8)</sup>. Furthermore, the stress experienced by NMs is related to conflicts associated with their position at a level between staff nurses and upper-level management positions<sup>9)</sup>, inadequate social support<sup>7)</sup>, loneliness, and conflicts among medical care teams<sup>2)</sup>.

NMs must appropriately manage emotions to attenuate their stress, improve their mood, and improve the work environment. Emotional intelligence (EI) has garnered attention as a measure of emotional management abilities 10). EI is defined as the ability to recognize one's own and others' emotions, control one's own emotions, and build appropriate relationships with other individuals<sup>11)</sup>. Emotional management is the most important element of healthcare leadership<sup>8,12)</sup>, and increasing EI of NMs is expected to improve chronic issues in medical settings<sup>13</sup>). Studies have suggested that NMs need to better understand their own emotions and improve their ability to manage negative emotions such as anger to demonstrate effective leadership<sup>8,14,15)</sup>. Shirey et al. (2008) reported that NMs with unresolved stress have negative emotions such as anger, guilt, and frustration, among which a feeling of anger has particularly diverse effects ranging from insomnia to physical health troubles such as shortness of breath and muscle tightness<sup>1)</sup>. Persistent exposure to work stress and inadequate stress management during work can cause burnout syndrome <sup>7,10</sup>. NMs with burnout syndrome have negative effects on the morale of organizations, nurses' satisfaction with work, retention rate of nurses, and patient outcome, which together adversely affect organizations 16).

EI is an intellectual capacity that can be increased through learning<sup>11)</sup>. EI has been associated with subjective happiness, business performance, mental and physical health, development of healthy relationships, anger control, problem-solving skills, and effective leadership<sup>17-19)</sup>. Training programs based on the EI theory have been examined in the fields of education, business, and sports to improve EI<sup>20)</sup>. In the field of medicine, multiple programs to improve EI have been developed. Specific examples include programs for physicians<sup>21-24)</sup>, nursing students<sup>25-29)</sup>, nurses<sup>30)</sup>, and NMs<sup>31)</sup>; however, studies on programs for NMs are considerably fewer than that on the others. Among these programs, an EI education program for nursing students with the validated effectiveness requires student participation for 8 months<sup>29)</sup>. Sharif et al. conducted a randomized controlled study on effects of EI education on health status in 25 ICU nurses. They evaluated participants' EI scores and general health conditions before, immediately after, and 1 month after a 2-day

workshop based on a characteristics model of the EI theory and demonstrated the effectiveness of the workshop through improved EI scores and general health conditions immediately and 1 month after the intervention<sup>30)</sup>. Previously, Frias et al<sup>31)</sup>. Provided a 2-hour training program session to 45 NMs. In this session, EI experts delivered lectures on EI and instructed the participants on how to develop action plans to incorporate acquired skills into daily operations. Furthermore, e-mails were sent by researchers for 4 months to ensure that EI is effectively established. The result showed that although there was a tendency for the EI score to increase after the intervention, the difference was not statistically significant. This finding indicated that the 2-hour EI program for NMs was not sufficiently effective.

To summarize, strategies to improve EI of healthcare professionals have been studied; however, concrete strategies to improve emotional management abilities of NMs including EI require further elucidation. Furthermore, the previously reported programs to improve EI required healthcare professionals to attend multiple sessions over several days to weeks. When taking the work conditions of NMs into consideration, it is conceivable that NMs find it difficult to complete a program requiring participation for a long term. Therefore, a program to achieve the desired effects in the shortest time possible needs to be developed.

In the present study, we report the development of a short program to improve emotional management abilities of NMs and verification of its effectiveness. A short program effective to improve emotional management abilities of NMs is expected to contribute not only to stress relief and prevention of burnout syndrome in NMs but also to quality improvement of nursing through improved work environment and staff nurse performance.

In the present study, we aimed to develop a short program (the program) to improve emotional management abilities of NMs and verify its effectiveness.

# II. Methods

# [Phase 1: Development of the program]

# 1. Theoretical foundation of the program

The theoretical foundation of the program was the EI theory most commonly examined in a literature review on EI education of nursing students<sup>26)</sup>. As part of the theoretical framework, we adopted a mixed model of Goleman et al., which was used for the programs proven effective for improving EI as described above<sup>21,24,32,33)</sup>. According to Goleman, EI includes the following four domains: "self-awareness," "self-management," "social awareness," and "relationship management" (11). "Self-awareness" involves identifying and understanding the emotion experienced by an individual, thereby forming the foundation of EI<sup>32)</sup>. "Self-management" involves the control of destructive impulses and moods<sup>34)</sup>, and

emotional control is the core of EI. "Social awareness" refers to consider others' emotions, understand others' perspectives, and show an active interest in others' situations<sup>34)</sup>. The "self-awareness," "self-management," and "social awareness" domains are prerequisites for the remaining "relationship management" domain<sup>34)</sup>. Therefore, these four domains were adopted to form the framework of the program.

# 2. Identification of challenges in emotional management that NMs are aware of

To draft the program, we planned to develop an effective program by first clarifying emotional management related challenges perceived by NMs and then developing a program reflecting such challenges. After making a request for cooperation at an annual conference of The Japan Academy of Nursing Administration and Policies, an event where many NMs had gathered, we recruited the study participants through the snowball sampling method. A total of 11 NMs working in general hospitals, psychiatric hospitals, and geriatric facilities subsequently consented to participate in the study. We conducted an interview survey of 11 NMs. Questions in the survey included "What challenges do you see in handling emotions, such as anger, while working?" We identified challenges associated with emotional management from the verbatim transcript, and the challenges were then coded and categorized. The identified challenges in emotional management for NMs while working were categorized as follows: [misunderstanding emotions, inappropriate handling of emotions, and lack of skills to express emotions appropriately]

15). Therefore, we included contents beneficial for solving these problems in the program.

# 3. Preparation of the program and its details

We designed the program components to encompass the Goleman's theory, educational contents in previous studies on EI programs, and all challenges clarified in the interview survey. The program contents were reviewed repeatedly through expert meetings conducted by a researcher with extensive experience as an anger management instructor and in the field of nursing management education, a researcher specializing in psychiatric nursing and occupational health nursing, and a researcher experienced in program development. The final draft of the program, which included the abovementioned four modules, was prepared through lectures and group work, and it was estimated to take 6 hours to complete (Table 1).

Module 1 is the program introduction. In continuing education, participants are assumed to be aware of the necessity of learning to effectively fulfill a role in a workplace<sup>35)</sup>. The interview survey showed that NMs processed emotions inappropriately, such as "impulsively expressing emotions"<sup>15)</sup>. Therefore, Module 1 included emotion-related challenges in medical settings, the reasons for NMs to control their emotions, and harmful effects of impulsively expressing emotions that aided in completing the program.

The theme of Module 2 is "self-awareness." In emotional management, it is important to know characteristics of perception and expression of emotions of oneself. "Self-awareness"

is the first stage of the four components of EI and is useful to effectively connect emotions, behavior, and reaction of nurses<sup>32)</sup>. Although suppressing negative emotions was considered a virtue<sup>36)</sup>, suppression of negative emotions is related to rumination, in which unpleasant events are recalled repetitively, ultimately causing symptoms of depression and anxiety<sup>37)</sup>. A typical example of negative emotion is anger, which is an emotion experienced by nurses frequently<sup>38)</sup>. The interview survey of NMs identified expression and management of anger as a challenge<sup>15)</sup>. Therefore, Module 2 was designed to help participants understand negative emotions including anger, learn processes through which emotions are evoked and irrational cognition that can cause negative emotions, and explore characteristics of self-perception. Module 2 also included group work, in which all participants had opportunities to discuss their experiences with work-related negative emotions and their cognitive characteristics.

The theme of Module 3 was "self-management," which is a core component of EI to control one's own emotions<sup>10)</sup>. Challenges related to emotional control experienced by NMs include inappropriate handling of emotions, such as impulsive expression of emotions, deflecting attention from issues, and dwelling on emotions<sup>15)</sup>. Therefore, Module 3 was composed of a lecture on mindfulness<sup>39)</sup>, cognitive transformation<sup>40)</sup>, and stress management<sup>29)</sup>, which appeared to be effective for emotional control and avoidance of impulsive reactions. This was followed by group work to share emotions. In particular, mindfulness is considered an important skill for the overall EI beyond "self-management"; this attributable to the fact that mindfulness is related to awareness of emotional states, emotional stability such as the ability to concentrate, and adjustment of emotions<sup>41)</sup>.

The themes of Module 4 were "social awareness" and "relationship management." NMs are professionally required to possess skills to understand their own emotions and others' emotions, clearly convey intent, and handle negotiations well<sup>34</sup>. Although these skills are essential for NMs to demonstrate their leadership, the interview survey revealed an emotion management-related issue. NMs were confused regarding this issue owing to the fact that they did not know how to express emotions appropriately<sup>15</sup>. Thus, we introduced assertiveness communication to help participants acquire skills to avoid impulsive behavior and appropriately express intents instead of suppressing emotions<sup>42</sup>.

<Table 1> Overall outline of the short program to improve emotional management abilities.

Lecture/practice/ group work (40 minutes)	0	0		· Reference 34)	Basic knowledge and practice of assertiveness communication (Avoidance of impulsiveness and non-suppressive communication)	To acquire skills to appropriately express emotions	"Social awareness" "Relationship management"	4
				· Reference 29)	· Significance of stress management and strategy review	3. To expand the range of stress management strategies		
			'	· Reference 40)	· Cognitive transformation (Sharing cognitive transformation)	2. To change one's own irrational cognition		
Lecture/practice/ group work (180 minutes)	0	0		· Reference 39)	· Basic knowledge and practice of Mindfulness	1. To be aware of changes in one's own thinking, emotions, and body	"Self- management"	ယ
				· Reference 37)	<ul> <li>Irrational cognition and one's own tendencies (Sharing negative emotions experienced during work)</li> </ul>	2. To know characteristics of perception and expression of emotions of oneself		
Lecture/practice (120 minutes)		0	· •	· Reference 38) · Reference 32)	<ul> <li>Role of negative emotions including anger</li> <li>Process through which emotions are evoked</li> </ul>	1. To understand emotions that form the foundation of communications	"Self- awareness"	12
Lecture (20 minutes)		0	0	· Reference 35) · Reference 8)	· Emotion-related challenges in medical settings (Harmful effects of impulsively expressing emotions)	To understand the significance of NMs and medical settings emotional control (Harmful effects expressing emotional)	Introduction	Ľ
(time)	Lack of skills to appropriately express emotions	Inappropriate processing of emotions	Misunderstand ing about emotions	Previous studies	Contents	Goal	EI domain	Module
Teaching method	Reference 15)	Issues identified in Phase 1. Reference 15)	Issues iden	PAT.				

# [Phase 2: Program implementation]

### 1. Study design

Uncontrolled before-after study design.

### 2. Participants

In the present study, NMs were defined as those in positions to supervise staff nurses, such as the director of nursing as an administrative position, head nurse, and chief nurse. After making a request for cooperation at an annual conference of The Japan Academy of Nursing Administration and Policies where many NMs had gathered, we recruited participants in this study using the snowball sampling method. A total of 78 NMs working in medical institutions and nursing care facilities consented to participate and were included in the study.

G\*Power<sup>43)</sup> was used to calculate the sample size, assuming the use of one-way analysis of variance (for repeated measures), an effect size of 0.25, a significance level of 5%, and a power of 0.8; the resulting sample size was 28.

#### 3. Summary of the EI improvement program implementation

Between June 2016 and February 2017, we conducted anonymous, self-administered questionnaire surveys before the program (baseline) and immediately and one month after the program. Three sets of the survey forms were distributed at the time of the baseline survey. The responses immediately after the intervention were collected via the leaving method at the program venue. The responses 1 month after the intervention were collected via postal mail.

#### 4. Survey items

#### 1) Participant background

As part of the background of participants, we collected the following pieces of information: sex, age, total years of service as a nurse, total years of experience as an NM, type of facility in which the respondent works and number of beds available therein, and job position.

# 2) Psychological scales used to measure the program effectiveness

We used the following psychological scales as indices to measure the program effectiveness.

#### (1) Emotional intelligence scale

To measure EI, we used emotional intelligence scale (EQS) unique to Japan, which was developed by Uchiyama. The EQS was designed according to the EI theory proposed by D. Goleman<sup>44</sup>. In addition to "intrapersonal" and "interpersonal" components, the "situational" component constitutes the concept of EI including social skills to handle

situations appropriately<sup>45)</sup>. This scale has a clear definition of the concept and structure, with the confirmed reliability and construct validity. As part of the constructs, the following three domains have been defined: intrapersonal, interpersonal, and situational. The scale has a total of 65 questions, and responses are scored on a 5-point scale from "not true at all (0)" to "very true (4)." A higher score indicated a better understanding of emotional challenges and a higher capacity to act.

# (2) Anger Arousal and Lengthiness Scale

We focused on anger which was a negative emotion discussed in the semi-structured interview. This scale has been developed in Japan to measure anger in individuals while considering the characteristics of anger expression by Japanese people<sup>46)</sup>. It consists of two factors, proneness to anger arousal and tendency toward persistence of anger. There are 13 questions, and the responses are scored on a five-point scale from "not true at all (1)" to "very true (5)." A higher score indicated that a person is more prone to anger arousal and has a higher tendency to maintain anger.

#### (3) Japanese version of the Five Facet Mindfulness Questionnaire

As discussed above, mindfulness is an important skill pertinent to the overall EI. Therefore, we included a scale that measures the effect of mindfulness in a panel of scales to measure the effectiveness of the program.

The original version of the Five Facet Mindfulness Questionnaire (FFMQ) was developed by Bear et al. (2006) to measure mindfulness, and its Japanese version (J-FFMQ) was prepared by Sugiura et al. (2012) <sup>47)</sup>. The FFMQ is commonly used to measure the effect of mindfulness and consists of the following five factors: observing and describing experiences, acting with awareness, nonjudging attitude, and nonreactive attitude. There are 39 questions, and the responses are scored on a five-point scale from "never true (1)" to "always true (5)." Scores for reverse score questions are reversed before calculation of the total score. A higher score indicates a more mindful state.

# 5. Analysis methods

Program participants who completed all three surveys (at baseline and immediately after and 1 month after the program) with no missing variables were included in analyses. For the summary of participants, we calculated the basic statistics. The statistical method used was the Shapiro–Wilk test to check whether each variable followed a normal distribution prior to each test. We conducted the non-parametric Friedman tests for EQS, anger arousal and lengthiness scale (AALS), and J-FFMQ scores at three time points: before the intervention, immediately after the intervention, and 1 month after the intervention. The **Bonferroni** procedure was used as a post hoc test. We used IBM SPSS Statistics Ver.28 for the statistical analysis with a statistical significance level of less than 5%.

#### 6. Ethical considerations

The study was approved by the research ethics committee of the facility with which the investigators were affiliated at the time (Approval number: H28-006). Participants provided informed consent after they received an explanation on the objective, methods, voluntary nature of participation, freedom to withdraw at any time, protection of personal information to ensure anonymity of participants, and publication of the findings in writing and verbally. Furthermore, we obtained informal consent to the use of EQS, AALS, and the J-FFMQ in this study from the developers of the respective scales. The program was conducted in a pilot test beforehand to confirm considerations necessary to allow subjects to participate in the program comfortably and ensure the psychological safety of participants.

#### **III.Results**

#### 1. Program implementation results

The mean number of participants per program session was 15.6 (range, 4–38), and a total of 78 NMs participated in the program. No one dropped out from a program in progress. A total of 38 participants completed all surveys at the baseline, immediately after the program, and 1 month after the program (valid response rate, 48.7%).

#### 2. Participant background

The mean ( $\pm$  SD) number of years of service as a nurse was 23.89 ( $\pm$ 6.18) years, whereas the mean number of years of NM experience was 5.97 ( $\pm$ 5.01) years. There was only one male participant, and the remaining 37 participants were female (97.4%). The most common age range was 41–50 years (n = 18; 47.4%), the largest number of participants was working in general hospitals and private hospitals (n = 28; 73.7%), and the number of beds available was most commonly in a range of 201–500 (n = 26; 68.4%). The most common job position was the assistant head nurse (n = 17; 44.7%), followed by the head nurse (n = 15; 39.5%) (Table 2).

#### 3. Changes in the scores of the evaluation scales in the program participants

We calculated Cronbach's  $\alpha$  values to determine the reliability of the three scales used in the surveys. The alpha was 0.895–0.947 for the EQS, 0.765–0.799 for the AALS, and 0.779–0.862 for the J-FFMQ, showing sufficient levels of reliability.

#### (1) Changes in the EQS score

The comparisons among the EQS scores at the baseline, immediately after the program, and 1 month after the program showed that scores for factors corresponding to the interpersonal domain, "empathy" (p < 0.01) and "altruism" (p < 0.01), 1 month after the

program were significantly lower than the respective scores immediately after the program. For the situational domain, the "situational total" score (p < 0.01), "situational awareness" (p < 0.05), and "flexibility" (p < 0.001) scores immediately after the program were significantly higher than the respective baseline scores. For the "situational awareness" (p < 0.01), the score significantly increased immediately after the program and then significantly decreased 1 month after the program. However, no significant changes were observed in the "EQS total" score and scores for other factors (Table 3).

<Table 2> Summary of study participants

Table 27 Bullinary of study part	Mean	SD	Range
Total number of years of experience as a nurse	23.89	6.18	13~39
Total number of years of experience as an NM	5.97	5.01	1~21
	N		%
Sex			
Female	37	9	7.4
Male	1	2	2.6
Age			
30 or younger	0		0
31–40	7	1	8.4
41-50	18	4	7.4
51–60	12	3	1.6
61 or older	1	:	2.6
Type of hospital			
University hospital	4	1	0.5
General hospital	15	3	9.6
Private hospital	13	3	4.2
Specialty hospital	4	1	0.5
Clinic	1	:	2.6
Nursing care facility	1		2.6
Number of beds			
200 or less	7	1	8.4
201 to 500	26	6	8.4
501 or more	5	1	3.2
Position	_		
Director of nursing	6	1	5.8
Head nurse	15	3	9.5
Assistant head nurse	17	4	4.7

#### (2) Changes in the AALS score

The comparisons among the AALS scores at the baseline, immediately after the program, and 1 month after the program revealed that the "AALS total" score (p < 0.01) and the "anger lengthiness" subscale score (p < 0.01) immediately after the program were significantly lower than the respective baseline scores. However, there were no significant changes in the "anger arousal" score (Table 3).

<Table 3> Changes in the mean assessment score of program participants

		Before the intervention	e the ention	Immedia the inte	Immediately after the intervention	One mo	One month after the intervention	X <sup>2</sup> 1)		Multiple comparison
		Mean (SD)	(SD)	Mear	Mean (SD)	Mear	Mean (SD)			
$\mathrm{EQS}^{2)}$	Total	134.3	(36.32)	142.5	(39.32)	135.3	(38.10)	4.200		
	Intrapersonal	45.1	(13.01)	47.3	(13.69)	45.5	(13.27)	3.257		I
	Self-awareness	13.1	(4.47)	13.4	(4.58)	12.9	(4.05)	4.394		
	Self-motivation	14.1	(4.17)	14.5	(4.39)	14.1	(4.38)	0.127		I
	Self-control	17.9	(5.83)	19.4	(5.55)	18.5	(5.87)	4.482		1
	Interpersonal	46.0	(12.42)	48.1	(14.26)	45.1	(13.39)	5.096	<b>→</b> +	1
	$\operatorname{Empathy}$	15.5	(4.17)	15.9	(4.69)	14.8	(4.33)	10.707	* *	b>c * *
	Altruism	13.7	(4.10)	14.5	(4.73)	13.3	(4.44)	9.521	* *	b>c*
	Interpersonal relatio	16.9	(5.99)	17.7	(6.13)	17.0	(6.19)	3.796		1
	Situational	43.2	(15.40)	47.1	(15.45)	44.8	(14.77)	6.584	*	a <b* *<="" td=""></b*>
	Situational awarene	19.5	(6.23)	21.0	(6.25)	19.8	(6.48)	9.434	* *	a <b*, b="">c**</b*,>
	Leadership	11.5	(5.33)	12.6	(5.18)	12.1	(4.70)	4.563		
	Situational control	12.2	(4.56)	13.6	(4.59)	12.8	(4.33)	12.144	* *	a <b***< td=""></b***<>
$\mathrm{AALS}^{3)}$	Total	38.1	(7.60)	36.3	(7.49)	37.2	(8.96)	7.141	*	a>b* *
	Proneness to anger arous	18.6	(4.27)	18.2	(4.16)	18.0	(4.66)	1.376		I
	Anger lengthiness	19.5	(4.30)	18.1	(4.22)	19.2	(5.04)	11.245	* *	a>b * *
$J ext{-}\mathrm{FFMQ}^{4)}$	Total	122.5	(14.34)	123.3	(15.65)	128.1	(15.06)	7.750	*	a <c**, b<c**<="" td=""></c**,>
	Observing	24.6	(4.24)	25.4	(3.52)	25.3	(4.27)	0.181		I
	Nonreactivity	21.7	(3.90)	22.0	(4.09)	22.5	(3.84)	1.358		
	Nonjudging	24.6	(4.51)	24.7	(4.94)	26.7	(5.42)	4.514		I
	Describing	23.6	(5.11)	23.6	(5.99)	24.6	(4.99)	4.075		I
	Acting with awarene	28.0	(4.60)	27.5	(4.72)	29.0	(4.45)	3.014		1
	*** <i>P</i> < 001 *	** <i>P</i> <.01	* <b>p</b> <	<.05	$^\dagger P$ < . 1					

#### (3) Changes in the J-FFMQ score

The comparisons among the J-FFMQ scores at the baseline, immediately after the program, and 1 month after the program showed that the "FFMQ total" score 1 month after the program was significantly higher than the scores at the baseline (p < 0.01) and immediately after the program (p < 0.01). No significant changes were found in scores for the "observing," "nonreactivity," "nonjudging," "describing," and "acting with awareness" subscales (Table 3). There was a gradual but not significant upward trend in scores on the subscales of "observing," "unresponsive," "uncritical," "describing," and "acting consciously" (Table 3).

#### **IV. Discussion**

#### 1. EI and anger in NMs

The participants' mean baseline total score of the EQS, which measures EI, was higher than those in previous studies. Specifically, in a survey of 1,566 society members in Japan<sup>45)</sup>, the mean scores for total EQS and "intrapersonal," "interpersonal," and "situational," subscales were 118.34 ( $\pm$ 35.21), 42.1 ( $\pm$ 12.26), 39.2 ( $\pm$ 12.54), and 36.6 ( $\pm$ 13.13), respectively. In a survey of 701 nurses working in general hospitals,48) the mean scores for "intrapersonal," "interpersonal," and "situational" subscales of the EQS were 38.2 ( $\pm$ 10.65), 40.9 ( $\pm$ 12.14), and 32.8 ( $\pm$ 12.37), respectively, whereas the mean EQS total score was not reported. These differences show that the participants in this study had a higher level of EI as a group than a population comprising university students and working people or a population of nurses working in general hospitals in Japan.

In this study, the participants' score of the AALS, an index of emotional control which measures a person's anger in terms of the proneness to anger arousal and tendency to maintain anger as a negative emotion, was higher, indicating that they maintain their anger over a long term. Specifically, the mean total AALS scores in 94 Japanese university students<sup>49</sup>, 446 healthcare professional course university students<sup>50</sup>, and 48 society members<sup>46</sup> were 36.16 (±8.35), 36.9 (±9.0), and 36.15 (±6.87), respectively. The higher mean AALS score of the participants in this study than those of the other populations cited above indicated that NMs are more prone to anger arousal and anger lengthiness than university students and working people in Japan.

#### 2. The effectiveness of the program

Immediately after the short program developed in this study to improve emotional management skills of NMs with a focus on the emotional control-related issues identified via the survey of NMs in Phase 1, significant improvements from the baseline were observed in the anger and EQS "situational" domain scores. Furthermore, a significant improvement a month after the program was noted in the FFMQ total score despite the

fact that the participants underwent the short program only once.

The mean total score for the "situational" domain and mean scores for "situational awareness" and "flexibility" of the EQS increased and decreased the most immediately after the program and 1 month after the program, respectively. The "situational" domain of the EQS measures the ability to withstand changes in situations around a group that include self and others, and this ability is an essential skill for group leaders <sup>45</sup>. Negative emotions such as anger have been reported to narrow the ranges of thinking and actions <sup>51</sup>. Certain relevant contents in this program, such as training on skills to manage anger and focused learning on self-awareness and self-management, may have contributed to improvement of situational awareness skills. However, the decrease in the "situational" domain scores 1 month after the program helped elucidate the issues related to persistence of program benefits.

However, the score for the "intrapersonal" domain of the EQS after the program remained unchanged from that before the program. No changes were observed owing to the fact that the baseline intrapersonal score of NMs was higher than that of society members or nurses as described above. It is possible that intrapersonal and self-awareness skills of NMs were improved through experience of working at a management position. It is also possible that our program did not allow for self-reflection sufficiently. A literature review on the EI and leadership of NMs has reported that NMs with less than 2 years of experience were less competent in emotional management than NMs with longer experiences<sup>52)</sup>. We need to verify the program effectiveness in novice NMs who have lower scores on these scales.

Among the EQS items, the "empathy" and "altruism" scores in the interpersonal domain one month after the program were decreased compared to those immediately after the program. The "interpersonal" domain is to evaluate skills to maintain appropriate relationships with others based on the awareness of and empathy with others' emotions <sup>45)</sup>. Empathy is the ability to empathize with others; for example, one feels happy when others are happy and cannot ignore problems of someone who discussed the problems together. Altruism means considerations and voluntary assistance, such as not wanting to say anything that would hurt others feelings or willing to participate in volunteer activities. This program did not increase scores of these indices; however, the scores appeared to decrease 1 month after the program. This is the biggest issue of the program. In this study, we placed our focus on the emotional control, of anger in particular, based on the interview survey results. We included contents related to assertive communications; however, we might have placed too much focus on contents related to self-awareness and self-management. To improve the program, we need to incorporate contents designed to improve empathy and altruism.

The scores for questions on mindfulness, which affect the overall EI, were significantly increased immediately after the program and were further increased one month after the program. This is the primary strength of this program. Previous studies have

demonstrated that training intervention based on mindfulness was effective to maintain emotional balance, perceive emotions, accept emotions, and control emotional expressions<sup>38, 53)</sup>. Our results demonstrated that the AALS total score and the anger lengthiness score were significantly improved immediately after the program and that the improvements were maintained 1 month after the program. In addition to participants' capability of maintaining mindfulness, the incorporation of emotional challenges perceived by NMs based on the results of the interview survey to identify anger-related issues further improved the effectiveness of the program.

The limitations of this study are as follows. First, the program developed in this study was designed for a small number of survey participants, therefore, the results cannot be generalized. Additionally, large number of responses in the survey may have made it burdensome for NMs to return the survey forms.

Second, there was insufficient information on the background of NMs regarding attributes, such as whether they were certified nursing managers or not and what their educational background was.

Finally, the program developed in this study was limited to short-term effects, with follow-up available only up to 1 month after program completion; as reported by Gorgas et al<sup>21)</sup>, in some cases there were no significant differences immediately after the short-term intervention and significant improvements after 6 months. Future studies should examine longer-term effects.

Based on the results of the present study, it is necessary to improve the program by utilizing online and other means, analyze the results based on the educational background of NM, review the content of the effectiveness measurement, and verify the effectiveness of the program.

#### V. Conclusions

We developed a short program to improve emotional management skills of NMs and verified its effectiveness. The findings of this study suggested that one-time intervention might be effective in improving mindfulness skills and preventing persistent anger.

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#### SHORT PAPER

# Association between Autistic Traits and Maladaptive Behaviors in Preschool Children Using the Child Development Support Center in Japan

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#### **ABSTRACT**

The aim of this study aimed to examine the association between autistic traits and maladaptive behaviors in preschool children using child development support center in Japan. Thirty-two children using the services of "A" child development support center, in "B" prefecture in Japan, participated this study. The results showed that children diagnosed with autism spectrum disorder (ASD) tended to have fewer maladaptive behaviors than those without a diagnosis but other developmental problems. In addition, children with high autistic traits had more peer problems but fewer conduct problems and prosocial behaviors than those with low autistic traits. These results indicate the importance of early diagnosis of ASD and the usefulness of providing support based on autistic traits.

Key-words: Child development support center, autism spectrum disorder, maladaptive behavior, social communication and interaction, restricted interests, repetitive behavior

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#### I. Introduction

The child development support centers in Japan are a support facility for children with disabilities as stipulated by the Child Welfare Act. This center's role is to support child development and provide consultation and assistance to local children with disabilities and their families. In particular, preschool children with disabilities or children with developmental problems are sent to this center, and the staff teaches them basic movements, knowledge, and skills necessary for daily life, training them to adapt to communal living.<sup>1)</sup> The Center plays a major role in Japan for the permeation of "early detection and early support for children with disabilities and their families."<sup>1)</sup>

The center aims to decrease maladaptive behavior of preschool children with disabilities Hence, it is important to assess the maladaptive behaviors of children who use the services of this center. <sup>1)2)</sup> However, no previous studies have examined the characteristics of maladaptive behaviors in children who use the child development support center in Japan.

Therefore, it is important to examine the factors that influence maladaptive behaviors among children when formulating a support plan for preschool children who use the services of this center. The traits of autism spectrum disorder (ASD) in children are known to influence maladaptive behaviors.3 ASD is a neurodevelopmental disorder characterized by deficits in social communication and interaction, restricted interests, and repetitive behavioral patterns.<sup>4)</sup> Rodrigue et al. showed that children with ASD displayed not only significant and pervasive difficulty in acquisition of adaptive social skills but also a greater variability in adaptive skills, as compared to children with Down syndrome or typically developing children.<sup>3)</sup> Further, Iizuka et al. demonstrated that children with ASD scored significantly higher on emotional symptoms and peer problems, which form the subscales of the Strengths and Difficulties Questionnaire (SDQ),51 thus indicating that children with ASD are more likely to engage in maladaptive behaviors. Kenworthy et al. showed that there were significant and negative associations between autistic traits and adaptive behavior in children without an ASD diagnosis. 6) Sari et al. observed that higher levels of autistic traits predicted maladaptation in peer relationships, such as lower peer acceptance and higher peer rejection. 7) These results suggest the utility of the assessment of autistic traits in children with or without a diagnosis of ASD. However, previous studies have not examined the association between the diagnosis of ASD or autistic traits and maladaptive behavior in preschool children who use child development support center in Japan.

Based on these findings, this study aimed to examine the association between the diagnosis of ASD or autistic traits and maladaptive behavior in preschool children using child development support centers in Japan. Clarifying this will be helpful when considering support for preschool children at the child development support center.

#### II. Method

#### 1. Participants

This cross-sectional study included 32 preschool children (23 boys and 9 girls) using the services of "A" child development support center, located in "B" prefecture in Japan. Participants' mean chronological age (CA) was  $57.344 \pm 9.237$  (41-74) months. All participants used the services of this center because their developmental delay was diagnosed in the one and a half to three year old children's health checkups. Of the 32 participants, 10 had been diagnosed with ASD at a medical institution, while others had no ASD diagnoses. All children who had been diagnosed with ASD were confirmed to have Autism Spectrum Disorder by DSM-5. Further, one of the children who did not belong to the ASD group was found to have Attention Deficit Hyperactivity Disorder by DSM-5. In Japan, many children are found with high ASD characteristics but no ASD diagnosis. Such children, who have not been diagnosed with ASD but show high ASD characteristics, are eligible for support at child development support centers. Therefore, even children without a diagnosis of ASD were included in this study. No significant difference in age was found between participants with and without an ASD diagnosis (t (30) = 0.549, t.8).

#### 2. Questionnaire

#### a) Maladaptive behaviors

To measure participants' maladaptive behaviors, we used the Strength and Difficulty Questionnaire (SDQ)<sup>8)</sup>, a 25-item scale. The SDQ has shown satisfactory psychometric properties for identifying children with emotional and behavioral difficulties. The items are divided into five subscales of five items, each generating scores for emotional symptoms, conduct problems, hyperactivity/inattention, peer problems, and prosocial behaviors. Each item is scored on a three-point scale. The total score of the four subscales, excluding prosocial behavior, is calculated as the total difficulty score (TDS).

#### b) Autistic Traits

To measure the autistic traits of participants, we used the Social Responsiveness Scale Second Edition (SRS-2).9 SRS-2 is a 65-item quantitative measure of children's autistic traits. Each item is scored on a 4-point scale, with total scores. SRS-2 has two types of subscales: the DSM-5 Compatible Subscale and Treatment Subscale. The DSM-5 Compatible Subscale consists of two scales: Social Communication and Interaction (SCI), and Restricted Interests and Repetitive Behavior (RRB). The Treatment Subscale consists of five scales: social awareness, social information processing (social cognition), capacity for reciprocal social communication, social motivation (anxiety/avoidance), and restricted interests and repetitive behavior. Specifically, we used the 65-item total raw scores, SCI, RRB, social awareness, social cognition, social communication, and social motivation scores in the analyses. No specific cut-off value has been established for the SRS-2 raw score.

#### 3. Procedure

Written requests for participation in the study were made to the caregivers of children in "A" child development support center. For children who consented to participate in the study, the nursery teachers who interacted with them daily, filled out the questionnaires. This study was conducted in July, 2022.

#### 4. Ethical Consideration

This study protocol was approved by the Bioethics Committee of Yamaguchi Prefectural University (Approval Number:2021-12). All participants were informed that their privacy and responses would be strictly protected, that their participation was not mandatory, and that they could withdraw from the study at any time. All participants provided their written informed consent.

#### III. Results

#### 1. Descriptive Statistics

Table 1 presents the descriptive statistics for the SRS-2 and SDQ scores.

<Table 1> Descriptive Statistics of the score of SRS-2 and SDQ

	Mean Score	SD	Min	Max	kurtosis	skewness
SRS-2						
total score	89.750	24.486	37	135	539	198
SCI	74.969	19.468	31	107	519	309
RRB	14.781	5.791	4	28	488	.096
social awareness	12.875	3.415	6	19	567	151
social cognition	20.156	4.594	8	27	.242	874
capacity for reciprocal social communication	29.219	9.833	11	47	715	066
social motivation	12.719	4.129	6	20	-1.193	065
SDQ						
$ ext{TDS}$	18.000	4.806	7	26	310	500
emotional symptoms	3.406	2.474	0	10	003	.631
conduct problems	3.500	2.095	0	7	-1.096	.427
hyperactivity/inattention	6.375	2.745	0	10	.040	660
peer problems	4.719	2.372	0	8	-1.098	508
prosocial behavior	3.031	2.957	0	10	363	.726

SRS-2 = Social Responsiveness Scale 2nd ed; SDQ = Strength and Difficulties Questionnaire SD = Standard Deviation; Min = Minimum Values; Max = Maximum Values

n = 32

#### 2. Comparison of Autistic Traits in Children with and without ASD Diagnoses

To examine the difference between overall autistic traits in participants with and without ASD diagnoses at the center, a t-test was performed with the presence or absence of an autism diagnosis as the independent variable, and the total SRS-2 score as the dependent variable. No significant difference was found between the mean total scores of SRS-2 in participants with and without ASD diagnosis (t (30) = 0.973, n.s, Cohen's d = 0.41).

To examine the difference between difficulty in social communication and interaction and restricted and repetitive behavior in participants with and without ASD diagnoses, t tests were performed with the presence or absence of an ASD diagnosis as the independent variable and the SCI and RRB scores as the dependent variables. No significant differences between the mean scores of SCI (t(30) = 0.892, n.s, Cohen's d = 0.34) and RRB (t(30) = 0.973, n.s, Cohen's d = 0.42) in participants with and without ASD diagnoses, were revealed.

To examine the differences in the difficulties of social communication and interaction in participants with and without ASD diagnoses, t-tests were performed with the presence or absence of ASD diagnosis as the independent variable and the score of social awareness, social cognition, capacity for reciprocal social communication, and social motivation as the dependent variables. No significant differences were found between the mean scores of social awareness (t(30) = 0.413, n.s, Cohen's d = 0.16), social cognition (t(30) = -0.363, n.s, Cohen's d = 0.14), capacity for reciprocal social communication (t(30) = 1.260, n.s, Cohen's d = 0.48), social motivation (t(30) = 1.326, n.s, Cohen's d = 0.51), and restricted interests and repetitive behavior (t(30) = 0.973, n.s, Cohen's d = 0.42) in participants with and without ASD diagnoses. The results are presented in Table 2 and Table 3.

<Table 2> Mean total scores of SRS-2 and those of the DSM-5 Compatible Subscales in children with and without ASD diagnoses

	total score	SCI	RRB
Children with the diagnosis of	83.500	70.400	13.100
ASD (n = 10)	(SD = 22.741)	(SD = 17.665)	(SD = 6.027)
Children without the diagnosis of	92.591	77.046	15.546
ASD (n = 22)	(SD = 25.226)	(SD = 20.280)	(SD = 5.655)

<Table 3> Mean scores of the Treatment Subscale in children with and without ASD diagnoses

	social awareness	social cognition	capacity for reciprocal social communication	social motivation	restricted interests and repetitive behavior
Children with the diagnosis of ASD (n = 10)	12.500 (SD = 2.799)	20.600 ( $SD = 3.062$ )	26.000  (SD = 9.321)	11.300 (SD = 4.596)	13.100 ( $SD = 6.027$ )
Children without the diagnosis of ASD (n = 22)	13.064 (SD = 3.709)	19.955 (SD = 5.196)	30.682 (SD = 9.916)	13.364 (SD = 3.836)	15.546 (SD = 5.655)

## 3. Comparison of Maladaptive Behaviors in Preschool Children with and without ASD Diagnoses

To examine the difference between adaptive and maladaptive behaviors in participants with and without ASD diagnoses, t tests were performed with the presence or absence of ASD diagnosis as the independent variable and the score of TDS, emotional symptoms, conduct problems, hyperactivity/inattention, peer problems, and prosocial behavior as the dependent variables. As a result, a marginally significant difference in TDS scores was observed between the groups, with a lower TDS score in the group with ASD diagnosis than in the group without ASD diagnosis at the center (t (30) = 1.994, p< .10, Cohen's d = 0.76).

In contrast, t-tests revealed no significant differences between the mean scores for emotional symptoms (t(30) = 1.092, n.s, Cohen's d = 0.42), conduct problems (t(30) = 0.908, n.s, Cohen's d = 0.35), hyperactivity/inattention (t(30) = 1.526, n.s, Cohen's d = 0.58), peer problems (t(30) = 0.188, n.s, Cohen's d = 0.07), and prosocial behavior (t(30) = -0.342, n.s, Cohen's d = 0.13). The results are presented in Table 4.

<Table 4> Mean scores of SRS-2 in children with and without ASD diagnoses

	TDS	Emotional Symptom	Conduct Problem	Hyperactivity/ inattention	Peer Problem	Prosocial Behavior
Children with the diagnosis of ASD (n = 10)	15.600 (SD = 5.358)	2.700 (SD = 2.312)	3.000 (SD = 1.764)	5.300 (SD = 2.214)	4.600 (SD = 2.271)	3.300 (SD = 3.302)
Children without the diagnosis of ASD (n = 22)	19.091† (SD= 4.219)	3.727 (SD = 2.529)	3.727 (SD = 2.229)	6.864 (SD = 2.867)	4.773 (SD = 2.468)	2.909 (SD = 2.860)

†: *p* < .10

#### 4. Classification of Preschool Children by Autistic Traits

To classify participants by autistic traits, hierarchical cluster analysis using squared Euclidean distance measures and Ward's minimum variance method was performed. Clustering was based on SCI and RRB scores. Two clusters were adopted because of clear differences in SCI scores and possible interpretations. Thirteen participants (40.6%) were classified into Cluster 1, while nineteen (60.4%) were classified into Cluster 2. t-tests were performed with the cluster of participants as the independent variable and the SCI and RRB scores as the dependent variables. As a result, significant differences in the scores of SRS-2 and SCI were observed between the clusters, and the scores of SRS-2 (t (30) = -2.109, p < .05, Cohen's d = 2.86) and SCI (t (30) = -2.157, p < .05, Cohen's d = 3.21) were higher in Cluster 2 than in Cluster 1. Nevertheless, a t-test revealed no significant differences between the mean RRB scores (t (30) = -1.648, t s, Cohen's t = 1.54).

## 5. Comparison of Maladaptive Behaviors in Preschool Children with Severe and Mild Difficulties in Social Communication

To examine whether adaptive and maladaptive behaviors differ according to autistic traits of preschool children, *t*-tests were performed with the cluster of participants (Cluster 1: the group of mild social communication difficulty; Cluster 2: the group of severe social communication difficulty) as the independent variable and the score of TDS, emotional symptoms, conduct problems, hyperactivity/inattention, peer problems, and prosocial behavior as the dependent variables.

As a result, a significant difference in the scores of peer problems and prosocial behavior was observed between the two clusters. The scores of peer problems were higher in Cluster 2 than in Cluster 1 (t (17.432) = -3.079, p < .01, Cohen's d = 1.22), while the scores of prosocial behavior was higher in Cluster 1 than in Cluster 2 (t(30) = 4.144, p < .01, Cohen's d = 1.49).

Contrarily, a marginally significant difference in the scores of conduct problems was observed between the clusters as the score of conduct problems was higher in Cluster 1 than in Cluster 2 (t (30) = 1.876, p < .05, Cohen's d = 0.68). t tests revealed no significant differences between the mean TDS scores (t (16.929) = -1.158, n.s, Cohen's d = 0.46), and scores of emotional symptoms (t (30) = 0.103, n.s, Cohen's d = 0.04) and hyperactivity/inattention (t (30) = -1.171, n.s, Cohen's d = 0.42) between the two clusters. Table 5 presents the results.

Conduct Hyperactivity/ Prosocial Emotional Peer TDS Symptom Problem inattention Problem Behavior Cluster 1 16.692 3.462 4.308† 5 692 3.231 5 154\*\* (n = 13)(SD = 6.250)(SD = 2.295)(SD = 2.175)(SD = 2.594)(SD = 2.651)(SD = 2.340)Cluster 218.895 3.368 2.9476.8425.737\*\* 1.579 (SD = 3.414)(SD = 2.650)(SD = 2.814)(SD = 9.916)(n = 19)(SD = 1.900)(SD = 2.434)

<Table 5> Mean scores of SRS-2 in children of Cluster 1 and Cluster 2

<sup>\*\*:</sup> *p* < .01; †: *p* < .10

#### IV. Discussion

This study examined the association between the diagnosis of ASD or autistic traits and adaptive or maladaptive behavior in preschool children who have been utilizing the services of a child development support center. In this section, we first discuss the relationship between the presence or absence of an ASD diagnosis and adaptive or maladaptive behaviors, followed by a discussion on the relationship between autistic traits and adaptive or maladaptive behaviors.

#### 1. Relationship Between Autistic Traits and Diagnosis of ASD in Children using the Services of the Child Developmental Support Center

The results of the *t*-tests showed no significant differences between the total scores of SRS-2 and the subscale scores of SRS-2 in children with and without ASD at the center. This result differed from that of previous studies, <sup>10)</sup> wherein higher scores of SRS were observed in children with ASD than in children without ASD. <sup>10)</sup> This result suggests that there are children with high autistic traits, even among children without a diagnosis of ASD, who use child development support centers. This may indicate toward difficulties of diagnosing ASD before children enter school. To diagnose ASD in preschool children with developmental problems, parents must take them to a medical facility. However, parents of children with developmental problems are known to face struggles in doing so. <sup>11)</sup> Yamane pointed out that parents of children with developmental problems are motivated to seek medical attention to determine the cause of the problem after experiencing anxiety about the child's problem and conflicting emotions that counteract that anxiety. <sup>11)</sup> It is speculated that the parents of the participants of this study may have faced a similar conflict. Therefore, their children were not diagnosis with ASD, despite having autistic traits.

#### 2. Relationship Between Maladaptive Behaviors and Diagnosis of ASD in Children Using the Services of the Child Developmental Support Center

The results of the *t*-tests showed that the TDS scores of children with ASD tended to be lower than that of preschool children without ASD but other developmental problems. This result differed from that observed in previous studies, wherein the scores of emotional symptoms and peer problems in children with ASD were higher than that of children without ASD.<sup>5)</sup> This result suggests that children diagnosed with ASD tended to have fewer difficulties and lesser maladaptive behaviors that those who have not been diagnosed with ASD but may have other developmental problems. Having a child diagnosed with ASD not only leads to support from relevant organizations but also encourages parents to raise their children mindful of their ASD traits. Previous studies have that parents raising children with ASD become increasingly involved in their child's treatment, and in some cases, may also serve as the primary persons delivering the

treatment.<sup>12)13)</sup> Hence, the diagnosis of ASD in children may lead to fewer maladaptive behaviors through appropriate childcare, as compared to in children where ASD remains undiagnosed.

#### 3. Relationship Between Maladaptive Behavior and Autistic Traits in Children Using the Services of the Child Developmental Support Center

The results of the cluster analysis showed two cluster groups of participants (Cluster 1: the group of mild social communication difficulty; Cluster 2: the group of severe social communication difficulty). Since the SRS-2 and SCI scores in Cluster 2 were higher than those in Cluster 1, Cluster 2 was considered to be a group with strong autistic traits, especially difficulty in social communication and interaction. Cluster 1 was considered a group with weak autistic traits. Cluster analysis showed that peer problems in Cluster 2 were significantly higher than those in Cluster 1, while conduct problems in Cluster 1 were higher those in Cluster 2. These results suggest that children with strong autistic traits are more likely to have peer relationship problems, whereas children with weaker autistic traits are more likely to have behavioral problems. This result is partly similar to that observed in previous studies, wherein the score of peer problems in children with ASD was found to be higher than that of children without ASD.<sup>5)</sup> Preschool children with high autistic traits are less interested in others and have low social skills. 14)15) Hence, Cluster 2, which had participants with stronger autistic traits, especially difficulty in social communication, seems to have more peer problems than those in Cluster 1. Contrarily preschool children who are interested in interacting with others are known to have difficulty in regulating their behavior due to their lack of linguistic abilities when conflicts arise in relationships. 16) Therefore, participants in Cluster 1, who had weaker autistic traits, seems to have more conduct problems than those in Cluster 2.

Additionally, prosocial behavior score in Cluster 1 tended to be higher than that in Cluster 2. This result suggests that children with weaker autistic traits are more likely to engage in prosocial behavior. Prosocial behavior is usually defined as voluntary behavior intended to benefit others.<sup>17)</sup> Previous studies have indicated that children with ASD have deficits in prosocial behavior and empathy.<sup>18)</sup> Deschamps et al. suggested that impairment in cognitive empathy leads to reduced prosocial behavior in children with ASD.<sup>19)</sup> Based on these studies, children in Cluster 2 may have had reduced prosocial behavior due to impaired cognitive empathy.

#### 4. Limitations of the Study

This study had several limitations that must be considered. First, since children's intellectual abilities cannot be controlled, and they tend to influence their maladaptive behaviors, the results of this study may have been influenced by participants' intellectual abilities. Therefore, it is necessary to clarify the relationship between autistic traits and maladaptive behaviors after controlling for intellectual abilities. Second, this study had a

small sample size, and the number of participants is related to the statistical power of the analysis. Thus, it is necessary to examine this relationship by increasing the number of participants.

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SHORT PAPER

## **Questionnaire Survey on the Prevalence of and Support for Selective Mutism at High School in Akita Prefecture**

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#### **ABSTRACT**

This study aims to identify the prevalence of selective mutism (SM) in high school students and the level of support provided to them. We sent a questionnaire by post to 52 high schools in Akita Prefecture, Japan. The questionnaire asked if they had students who showed symptoms of SM, and, if so, to describe the type of support provided at the school for these students. Thirty-nine schools responded, reporting that 0.11% of their students showed symptoms of SM. Additionally, the schools reported they were providing student support focused on speech difficulties. The results found that the prevalence of students with SM symptoms in high school was similar to that in elementary and middle schools. Moreover, the results identified the need not only for support focused on speech but also the need to adapt the students' environment to help alleviate their anxieties.

Key-words: Selective Mutism, High School, Questionnaire Survey, Prevalence, Support

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#### I. Introduction

Selective mutism (SM) refers to a state in which an individual, despite having no problems with the physical ability to talk, experiences difficulty speaking in social situations. The American Psychiatric Association's Diagnostic and Statistical Manual of Mental Disorders, 5th edition (DSM-5), classifies SM as an anxiety disorder <sup>1)</sup>. The general procedure for improving SM symptoms is to provide behavioral therapy and other treatments at specialized institutions. However, it has been suggested that SM appears to carry a high risk of association with developmental disorders <sup>3, 5)</sup>. Therefore, it is necessary to actively investigate the ideal method of support provided to students within the context of school education.

Studies in Japan targeted elementary and middle schools to investigate the enrollment status of children with SM symptoms. Muramoto investigated elementary and middle schools within the jurisdiction of Kamikawa County in Hokkaido and noted the prevalence of SM to be 0.04% in elementary schools and 0.03% in middle schools <sup>4)</sup>. Hisada et al. surveyed elementary schools in Kobe City and reported the prevalence to be 0.15% <sup>2)</sup>. The authors of this study have investigated the prevalence of SM at special needs schools in Akita Prefecture <sup>6)</sup>. Our results showed that SM prevalence in special needs schools (1.05%) was higher than in elementary and middle schools. It is worth noting that SM is more prevalent in high schools (1.36%), with many students exhibiting SM symptoms after reaching high school age among those enrolled in a special needs school. From these results, the prevalence of SM in high school students can be predicted to be lower than in elementary and middle school students. However, the actual percentage of SM is not known, and no investigations have yet focused on high school students.

In the field of education, behaviors that disrupt the class, such as leaving one's seat, and other harmful behaviors are often considered as "problems." However, since the main problem with SM is that the student cannot speak, the students are sometimes regarded as "problem-free" by teachers. Currently, support for SM is left to the discretion of teachers; therefore, students who cannot receive the support they need are not egligible. Gaining more knowledge about the kind of support that is provided is essential for considering the school adaptation of students have SM symptoms.

This study conducted a questionnaire survey with high schools in Akita Prefecture to determine the enrollment status of students with symptoms of SM and the level of support being provided to them in schools.

#### II. Methods

#### 1. Participants

The participants of our study were special support education coordinators (or the vice principal, if a coordinator was not available) at high schools in Akita Prefecture.

#### 2. Procedures

In early June 2022, a questionnaire was sent by post to 52 high schools (excluding evening high schools) in Akita Prefecture. To encourage their understanding of SM, we included information about the disorder and referred to the DSM-5's diagnostic criteria. Our survey aimed to gain a broad grasp of the actual state of students who showed SM symptoms. Therefore, we did not inquire as to whether they had been medically diagnosed. The deadline for answering the questionnaire was early July.

#### 3. Ethical considerations

This study was implemented after obtaining the approval of the Ethical Committee of the author's affiliated institution. In the survey request form, we clearly stated that the responses would be statistically processed, and that the privacy of the school and their students would be rigorously protected. The decision to take part in the survey was left to the discretion of each school.

#### 4. Content of the questionnaire

#### 1) Overall questionnaire

#### (1) The number of students enrolled

We asked for the total student enrollment in every school according to grade.

#### (2) Presence or absence of students who showed SM symptoms

We asked the respondents (the schools) if they had students who showed SM symptoms. If their answer was "yes," we asked how many students were identified as such, their grade, and their sex and sought further answers using the individual questionnaire that follows below. If there were multiple students, we asked the respondents to fill in one sheet per student. If the respondents (the schools) answered "no," the survey ended at that point.

#### 2) Individual questionnaire

#### (1) How the students were doing in school

The respondents were asked to describe, in their own words, how the students who showed SM symptoms were performing during class and while engaged in club activities, school events, and other similar activities.

#### (2) Method of communication

The respondents were asked to describe the method of communication used by students who showed SM symptoms (e.g., nodding and written communication).

#### (3) The teachers' feelings of facing a problem

The respondents were asked to rate the teachers' feelings of facing a problem when dealing with students who showed SM symptoms using a four-point scale (1: no problem; 2: not much of a problem; 3: something of a problem; and 4: facing a difficult problem).

#### (4) Support provided at school

The respondents were asked to describe, in their own words, the types of support the school provided to students who showed SM symptoms.

#### (5) Tasks and challenges

The respondents were asked to describe, in their own words, the difficulties they faced or things they were worried about when providing support.

#### 5. Analysis

A total of 39 out of 52 schools returned the questionnaire, bringing the overall response rate to 75.0%. One school only provided answers to the overall questionnaire and did not return the individual questionnaires, citing protection of privacy as their reason. Considering there were no missing values, all the data in the overall and individual questionnaires were made the subject of analysis.

The responses for questions (1), (4), and (5), in the individual questionnaire, which were submitted in the respondent's own words, were classified into categories using Yamaura's integrated qualitative method (the KJ method) as a reference <sup>7)</sup>. The KJ method is a method of qualitative data analysis that provides a way to interpret at a by recording the information on cards and grouping it based on what can be read from the cards.

In this study, the contents of the free descriptions in (1), (4), and (5) were carded, and major, minor, and sub-minor categories were generated and classified by discussing objectivity and validity among the authors (four researchers specializing in the fields of psychology and education). Whenever a discrepancy was found in the categorization, categories were generated after consultation.

The answers for item (5) were very few in number, and therefore, they were not classified into a category.

#### III. Results

#### 1. Overall questionnaire

#### 1) Enrollment status of students showing SM symptoms

Nine out of 39 schools (23.1%) answered that they had students who showed SM symptoms. A total of 14,131 students were enrolled in the 39 schools, of whom 15 showed SM symptoms, giving a prevalence rate of 0.11% (Table 1). Prevalence by sex was 0.14% for boys (10 out of 7,016) and 0.07% for girls (five out of 7,115).

<Table 1> No. of students who showed SM symptoms and their prevalen

	Male	Female	Total
1st grade	5/2355	1/2379	6/4734
	(0.21%)	(0.04%)	(0.13%)
2nd grade	2/2281	2/2302	4/4583
	(0.09%)	(0.09%)	(0.09%)
3rd grade	3/2380	2/2434	5/4814
	(0.13%)	(0.08%)	(0.10%)
Total	10/7016	5/7115	15/14131
	(0.14%)	(0.07%)	(0.11%)

#### 2) Enrollment status by school grade

Of the 4,734 first-grade students (2,355 boys and 2,379 girls), six (five boys and one girl) showed SM symptoms, a prevalence of 0.17%. Of the 4,583 second-grade students (2,281 boys and 2,302 girls), four (two boys and two girls) showed SM symptoms, a prevalence of 0.09%. Of the 4,814 third-grade students (2,380 boys and 2,434 girls), five (three boys and two girls) showed SM symptoms, making the prevalence 0.10%.

#### 2. Individual questionnaire

We received 12 sheets of answers from eight of the nine schools that answered they had students who showed SM symptoms. The results of those answers are shown below.

#### 1) How the students were doing in school

There were 34 cards pertaining to how the students were doing in school. As a result of the classification, which was discussed among the authors for objectivity and validity, the content was divided into three main categories: when communicating with others (n=17), during class (n=12), and club and committee activities (n=5) (Table 2).

In the "When communicating with others" section, items were categorized into three

minor categories: teachers (n=9), friends (n=5), and common or shared (n=3). The following answers regarding the students were cited for the teachers category: Appears paralyzed when spoken to (n=3); will talk if engaged on a one-on-one basis (n=2); is unable to talk if engaged with one-on-one (n=1); talks actively only to teachers (n=1); talks a little after becoming used to it (n=1); and stops talking completely when in the wrong, but surprisingly talkative when not in the wrong (n=1). The following answers were cited for the Friends category: talks with selected friend(s) (n=4) and will talk with classmates but is mostly quiet (n=1). "No communication possible at all (n=3)" was cited for the Common/Shared category.

The items of the "During class" section were classified into two minor categories: responses to questions (n=7) and behaviors while giving presentations and doing group work (n=4). The following answers were cited for the "Responses to Questions" category: Cannot respond at all (n=3), responds but is not audible (n=2), and can respond although it takes time (n=2). The following were cited as the "Behaviors during presentations and group work" category: can respond, although it takes time (n=2); cannot talk at all (n=1); and there are times when the student can talk and times when they cannot (n=1).

The items in the "Club and committee activities" section were classified into two categories: Speech during activities (n=3) and expression of their personal wishes during activities (n=2). "Talks actively (n=3)" was cited for the former category, and "no expression whatsoever of personal wishes (n=2)" was cited for the latter category.



<Table 2>How the students (n = 34) were doing in school

Major category	Minor category	Sub-minor category
I. When communicating with others (n = 17)	1. Teachers (n = 9)	1) Appears paralyzed when spoken to (n = 3)
		2) Will talk if engaged on a one-on-one basis (n = 2)
		3) Becomes unable to talk if engaged with one-on-one (n = 1)
		4) Talks actively only to teachers (n = 1)
		5) Talks a little after becoming used to it (n = 1)
		6) Stops talking completely when in the wrong but becomes talkative when not in the wrong (n = 1)
	2. Friends (n = 5)	1) Talks with selected friend(s) $(n = 4)$
		2) Will talk with classmates but is mostly quiet (n = 1)
	3. Common or Shared (n = 3)	1) No communication possible at all (n = 3)
II. During class (n = 12)	1. Responses to questions (n = 7)	1) Cannot respond at all (n = 3)
		2) Responds, but not audible (n = 2)
		3) Can respond although it takes time (n = 2)
	2. Behaviors while giving presentations and doing group	1) Can respond although it takes time $(n = 2)$
	work $(n = 4)$	2) Cannot talk at all (n = 1)
		3) There are times when the student can talk and times when they cannot (n = 1)
	3. Others $(n = 1)$	
III. Club and committee activities (n = 5)	1. Speech during activities (n = 3)	1) Talks actively (n = 3)
	2. Expression of their personal wishes during activities (n = 2)	1) No expression whatsoever of personal wishes (n = 2)

#### 2) Method of communication

The most frequently cited method of communication (Table 3) was nodding and shaking of the head. The other recorded methods were oral conversation, conversation via selected friend(s), and choosing from the options given.

<Table 3> Method of communication (n = 18)

Nodding and shaking of the head (n = 7)

Oral conversations (n = 6)

Conversations via selected friend(s) (n = 4)

Choosing from the options given (n = 1)

#### 3) The teachers' feelings of facing a difficult problem

Two teachers (16.7%) were not having any problems; six (50.0%) were not having too much of a problem; two (16.7%) were facing something of a problem; and two (16.7%) were facing a difficult problem.

#### 4) Support provided at the school

There were 20 cards pertaining to support provided at the school. As a result of the classification, which was discussed among the authors for objectivity and validity, the content was classified into four major categories: support for engaging in communication (n=8), adaptations made during class (n=7), implementation of individual interviews (n=3), and no support provided (n=2) (Table 4).

The following answers were cited for the "Support for engaging in communication" category: asking questions that are easy to answer (n=3), having selected friend(s) sit close by them (n=3); communicating in writing (n=2), and waiting until the student begins talking (n=1). The following categories were cited for the "Adaptations made during class" section: avoiding calling on the student (n=4), not requiring presentations to be made individually (n=1), having a friend sitting next to the student to speak for them (n=1), and informing the student beforehand that they will be called on (n=1). The following categories were cited for the "Others" section: inquiring about the student's thoughts by conducting regular one-on-one interviews (n=3) and no particular support being provided (n=2).



<Table 4>Support boing provided at the school (n = 20)

Major category	Sub-minor category
I. Support for engaging in communication (n = 8)	1) Asking questions that are easy to answer (n = 3)
	2) Having selected friend(s) sit close by them (n = 3)
	3) Communicating in writing (n = 2)
	4) Waiting until the student begins talking $(n = 1)$
II. Adaptations made during class (n = 7)	1) Avoiding calling on the student $(n = 4)$
	2) Not requiring presentations to be made individually (n = 1)
	3) Having a friend sitting next to the student to speak for them $(n = 1)$
	4) Informing the student beforehand that they will be called on $(n = 1)$
III. Implementation of individual interviews (n = 3)	1) Inquiring about the student's thoughts by conducting regular one-on-one interviews (n = 3)
IV. No particular support being provided (n = 2)	1) No particular support being provided (n = 2)

#### 5) Tasks and challenges

There were six cards pertaining to tasks and challenges. As a result of the classification, which was discussed among the authors for objectivity and validity, the following categories were cited for the same: academic and career guidance and counseling (n = 3), the fact that the student made no requests whatsoever (n = 2), and lack of shared understanding among the teachers (n = 1).

#### IV. Discussion

Suzuki et al. surveyed the enrollment of students with symptoms of SM in special needs schools and pointed out that the prevalence of SM was highest at the high school level,

with most students having entered such schools after starting high school <sup>6)</sup>. Because of this, we anticipated that the prevalence of SM in high school students would be lower than that of elementary and middle school students. However, our results showed that the prevalence of SM in high school students was 0.17%. This is close to the ratio seen in earlier studies that investigated the prevalence of SM in elementary and middle schools. Therefore, it can be inferred that approximately similar percentage of children with symptoms of SM are enrolled in high school as in other schools.

However, Suzuki et al. did not examine the circumstances of students' entry from high school, and the degree of SM and the presence or absence of coexisting developmental disabilities in the students that were in question were not clarified. As such, it may be that students with relatively mild symptoms of SM and whose condition does not cause problems in school may enter high school. Future research should be conducted to determine which students have SM symptoms conditions choose to attend special needs schools (or high schools) when entering high school.

When asked about how the students were doing in school, the respondents cited not only the students' difficulties in speaking but also the situations in which they found themselves able to talk. When asked about the method of communication, none of the respondents cited "none whatsoever." Instead, they cited strategies such as verbalization and gestures. Regarding the teachers' feelings of facing difficulties, approximately 70% answered that they were not having any problems or were not having too much of a problem. However, the results do not indicate that most children with symptoms of SM enrolled in high school do not face challenges in school lives. We must keep in mind that the teachers' "feelings of facing difficulties" are not necessarily the same as those of the students.

The support provided in school focuses mainly on the student difficulties with speaking. It was divided into two types: support to encourage the students to speak, such as asking them questions that are easy to answer, and support that offers methods that enable the students to express their wishes without speaking, such as having a friend speak for them. These instances of support may be effective in ensuring that students with SM symptoms have their own means of expressing their intentions. Suzuki et al. revealed that special needs schools offered two types of support: support for difficulty speaking and support for adapting to the school environment. The researchers added that the latter type of support was aimed at alleviating student anxiety, such as by carrying out the same activity repeatedly <sup>6</sup>).

In consideration of the characteristics of SM, support tends to focus on speech difficulties. However, in order for students to engage in school activities safely, it is necessary not only to secure a means of expressing their will but also to improve their living environment to reduce anxiety. Because of the unique characteristics of SM, support tends to be focused on speech difficulty. However, to ensure that students can lead their lives at school in a stress-free frame of mind, it is necessary to offer assistance that is

designed to alleviate anxiety by adapting their living environment.

This study investigated the number of children with symptoms of SM in high school and found that the prevalence of SM was approximately the same as in other school types. In addition, the school's support activities revealed that priority is given to helping students secure a means of expressing their will. Our study used a small sample of high schools in Akita Prefecture. There remains a need to gain a better picture of the prevalence of SM by conducting a larger-scale investigation in the future.

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- At the end of the quoted sentence, the appropriate number of the bibliographic list is given in "Upper half- brackets". When multiple documents are cited, the references cited should be numbered separated by "(comma)". If the numbers of the cited documents are consecutive, they are linked by "-(hyphen)" and the first and last numbers are given.
  - e.g.) This sentence was written by editor of Asian Journal of Human Services.<sup>1)</sup> This sentence was written by editor of Asian Journal of Human Services.<sup>1,3,7)</sup> This sentence was written by editor of Asian Journal of Human Services.<sup>1-3)</sup>
- When referring to a particular author's report, the year should not be filled in, but only the family name of the first author should be filled in, and "et al." should be added.
  - e.g.) 1 person: Smith reported that further research is needed. 1)
    2 or more: Smith et al. reported that further research is needed. 1)
- 10. The reference should be followed below provisions. Parentheses, commas, periods, spaces, and hyphens used in the literature list are unified in half-width.
- ① Yamauchi M & Hirakawa M. Issues in spousal bereavement support for elderly men in Japan. *Asian J Human Services*. 2020, 1, 1-19. DOI: 10.14391/ajhs.18.33
- ② Park LT & Zarate CA Jr. Depression in the primary care setting. N Engl J Med. 2019, 380, 559-568. DOI: 10.1056/NEJMcp1712493
- ③ Yano N, Han CW & Kohzuki M. Construction Concept of Quality of Life Scale for Evaluation of Educational Outcomes. Abstract Journal, 2018 Asian Society of Human Services Congress in KYOTO, 2018, 28.
- ④ American Psychiatric Association. *Diagnostic & Statistical Manual of Mental Disorders,5th edition.* (DSM-5). 2013, American Psychiatric Association Publishing, Washington DC.
- S Cabinet Office (2016) Annual Report on the Aging Society. February 2016.
- © Cabinet Office (2011) Public opinion poll on nursing care insurance system. URL: http://survey.gov-online.go.jp/h22/h22-kaigohoken/(14, December 2017).
- The order of reference articles should be in the order of citation in the main text and should be numbered consecutively in single parentheses.

- If the editor and the author are the same, the first name and last name should be followed by a "(edit)". If the editor and author are different, enter the name and name of the editor (edit) after the title.
  - e.g.) Lemke T. Foucault, politics and failure. In Jakob Nilsson & Sven-Olov Wallenstein (Eds.), Foucault, biopolitics and governmentality. 2013, Sodertorn University. 35-52.
- In the case of a translation, it must be defined original document (original author name, title, year, publisher). Then the translator name, translated year, translated page should be clearly defined.
- Reference: Indication of the person name should conform to the original reference. In the case of coauthorship, up to six persons should be listed.
  - Up to 6 authors: Separate with "," and "&".
     e.g.) Plavnick BJ, Tiffany K, & MacFarland CM. Effects of a School-Based Social Skills Training Program for Adolescents with Autism Spectrum Disorder and Intellectual Disability. J Autism Dev Disord, 2015, 45(9), 2674-2690. DOI: 10.1007/s10803-015-2434-5
  - 2) More than seven authors: After separating them with "," and add "et al." e.g.) Zhi Z, Zachary W, Amy W, Qiang F, Huan Z, Amy S et al. Brief Report: Evaluation of an Intelligent Learning Environment for Young Children with Autism Spectrum Disorder. J Autism Dev Disord, 2016, 46(11), 3615-3621. DOI: 10.1007/s10803-016-2896-0
- If different documents are cited and Author's name and year of publication are the same, distinguish them with alphabets after the year of publication. It should be combined with the notation in the text.
  - e.g.) Japan Association of Geriatric Health Services Facilities. White Paper on Care in FY2016 -From the Standpoint of Geriatric Health Services Facilities -. 2016a, 78, Office TM Co., Ltd. e.g.) Japan Association of Geriatric Health Services Facilities. White Paper on Care in FY2016 -From the Standpoint of Geriatric Health Services Facilities -. 2016b, 10-13, Office TM Co., Ltd.

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