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The word ‘Human Services’ is used when someone faces social challenges for ‘help’ or ‘support’people.

Human Services’ is expanding rapidly its area such as field of social welfare, medical ・nursing,psychology clinical related mental care, health promotion for aging society, assist family for infant and child care, special supporting education corresponding to vocational education, education support sector corresponding to era of lifelong learning and fluidization of employment corresponding to the area of career development.

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Human
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ORIGINAL ARTICLE

Provision of a family-care seminar for 64 demented individuals using Takeuchi's theory : A family-led dementia-alleviation program

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ABSTRACT

In recent years, programs aimed at relieving dementia symptoms have been implemented nationwide. In these programs, dementia patients are cared for by their family members using Takeuchi's theory. The authors have provided education for these caregivers. In the present study, we held a 6-month family-care seminar for 64 dementia patients and their family caregivers at 3 sites.

Of the 141 dementia symptoms exhibited by these patients before the seminar, 92 (65.2%) were resolved and 15 (10.6%) almost completely disappeared after the seminar (total: 75.8%). According to a questionnaire survey involving their family caregivers, 57.8% of them felt that patients showed very or slightly favorable changes in their dementia symptoms; this percentage was lower than that of actually resolved symptoms (75.8%). Thus, the disappearance of dementia symptoms did not lead to family caregivers' positive evaluation of symptom changes. Our findings suggest that dementia symptoms can be resolved or relieved depending on care, and that there is a need to adopt continued approaches in a manner so that the anxiety of family caregivers will be reduced, and they will recognize changes in their patients' symptoms.

〈Key-words〉
Takeuchi's theory, family care, dementia

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Ⅰ. Background

In Japan, elderly people comprise 24.1% of the total population, and the country's population aging rate is the highest in the world. As elderly dementia patients numbered approximately 4.62 million in 2012, the Ministry of Health, Labour and Welfare(2015) established a 5-year dementia countermeasures promotion plan (Orange Plan). However, as the population is aging, it is expected that the number of dementia patients will rise to approximately 7 million in 2025. Against this background, the ministry established the "Comprehensive Dementia Countermeasures Promotion Plan: Development of an Ideal Community for Demented Elderly People" [New Orange Plan]. In this plan, it is recommended that such individuals continue to live in the community (their hometown) as usual. On the other hand, according to a survey involving 1,130 family members of dementia patients conducted by the Japan National Health Insurance Clinics and Hospitals Association(2011), only 8.1% of the subjects had been taught skills or knowledge regarding nursing care for dementia. Nose, Noto, Senba, et al.(2013) was investigated of 162 set dementia elderly and primary caregiver. The primary caregiver's mental health of "stereotypy and aggressiveness type" was worst in five types. Thus, although it has been proposed that elderly dementia patients live in the community, effective approaches (e.g., family education) to achieve this goal have yet to be adopted.

Takeuchi(2008) published a book entitled: "Let's Treat Dementia by Family", using a dementia care theory that he formulated based on numerous studies regarding dementia.

Takeuchi's theory is based on the basic idea that: 1) dementia is caused by cognitive impairment, and 2) similar to other diseases occurring in the senile period, dementia is caused by various factors present in the body, rather than by brain abnormalities. This theory focuses on "exercise" and "nutrition", both of which have been suggested by many studies as factors related to dementia due to cognitive decline, as well as "fluids" and "regular defecation". The factor "fluids" influences consciousness levels that are the basis of cognition, and the factor "regular defecation" has been conventionally and empirically focused on. According to the theory, care is provided based on these 4 factors in order to restore cognition and resolve cognitive symptoms. In addition, by taking a volume of 1,500 ml/day of fluids and 1,500 kcal/day, and by walking for 30 minutes or a distance of 2 km, constipation and cognitive symptoms can be resolved or alleviated.

On the basis of this theory, in recent years, we have provided family education at the request of municipalities in order to relieve the dementia symptoms of target individuals. Family-led dementia-alleviation programs have been increasingly conducted nationwide in a manner so that dementia patients can continue to live in their hometown (Kobayashi city, 2014; Kawasaki city, 2015).

In the present study, we provided an education seminar for 64 dementia patients and their family caregivers, and investigated changes in these caregivers' views regarding care for dementia patients in order to obtain an insight into improving countermeasures against the disease.

Ⅱ. Curriculum of our family-care seminars

Our family-care seminars, aimed at relieving/resolving dementia patients' symptoms and restoring their cognition, are held by municipalities or social welfare corporations in cooperation with their family caregivers and care service providers, based on Takeuchi's theory and using the above-mentioned publication.

i. Each seminar comprises 6 sessions, which are held for patients' family caregivers and care service providers at 1-month intervals.

ii. In each session, participants are required to submit one week's worth of data on the care that they have provided for dementia patients during the previous month.

iii. On the basis of the submitted homework, instructors provide guidance on nursing care.

iv. Detailed information on dementia patients' symptoms, including changes in their original symptoms and the onset of new symptoms, is also reported, based on which related advice is provided.

v. Changes in dementia symptoms are evaluated using the following 5-point grading scale: "disappeared", "almost completely disappeared", "moderately relieved", "partially relieved", and "no changes".

Family caregivers provide nursing care under the instructions of seminar organizers (Table 1).

<Table 1.> Curriculum of our family-care seminar for demented individuals

Seminar period	Six months (seminar sessions are held at 1-month intervals)
Participants	Caregivers of dementia patients (open recruitment)
Methods	① Participants learn about the basic theory of nursing care for dementia patients using a textbook entitled: "Let's Treat Dementia as a Family", written by Takahito Takeuchi. ② Participants (family caregivers and care service providers) implement this theory (including the submission of assigned homework in every session). ③ In every session, participants review the care that they have provided during the previous month, and receive related guidance.
Assignments	① Making one week's worth of records in a report form (e.g., fluid intake, activity levels, bowel movements, and the frequency of going out [Table 1-2]) ② Taking pictures of the 3 meals on any day ③ Reporting ideas that participants have advanced regarding nursing care, and difficulties that they have encountered ④ Evaluation of dementia symptoms

Ⅲ. Objectives

This 6-month family-care seminar aimed to: 1) resolve the dementia patients' dementia symptoms, 2) clarify the effectiveness of family-led dementia care based on Takeuchi's theory by evaluating changes in these symptoms that took place over the seminar, and 3) improve such seminars based on care-related changes shown by family caregivers.

Ⅳ. Methods

Data were collected from the 64 dementia patients and their family caregivers from 3 seminar locations (location A: n=40, location B: 19, and location C: 5).

Study 1. Assessment of dementia patients' symptoms

Investigated items: 1) subject attributes, 2) disease, 3) medication, 4) services required by the patient, 5) original dementia symptoms, 6) dementia symptoms after the seminar, 7) basic information on nursing care (e.g., fluid intake, dietary intake, activity levels, bowel movements), and so on.

Methods: 6-month intervention study

Using the report form submitted in each session, interviews were held with the subjects in order to assess changes in dementia patients' dementia symptoms using the above-mentioned 5-point grading scale. Guidance was provided to those who did not report any symptom relief or disappearance.

Period: Between March 2012 and March 2014 (the seminar period differed among the seminar locations)

Study 2. Survey of family caregivers

Investigated items: 1) the attributes of family caregivers (sex, age, the presence/absence of an occupation, whether or not they lived with their patients, relationship between them and their patients), 2) changes in dementia symptoms that took place over the seminar, 3) confidence in caregiving, 4) caregivers' feelings, and 5) changes in the ways in which they cared for dementia patients (assessed using a 5-point grading scale [1: very unfavorable, 5: very favorable])

Methods: Collective questionnaire survey after the seminar

Period: Between March 2012 and March 2014 (the seminar period differed among the seminar locations)

Statistical analysis: After simple tabulation, cross-tabulation (chi-square test and residual analysis) was performed to investigate the relationships among the investigated items, and the Wilcoxon signed-rank test was performed to compare these items before and after the seminar. The level of significance was set at 0.05. For all analyses, IBM

SPSS Statistics 20 was used.

V. Ethical Considerations

Information about the participants, their families, and the care service providers was strictly protected by the seminar organizers (municipalities and social welfare corporations). We orally explained the study to the participants and seminar organizers in order to obtain their consent regarding the survey and disclosure of such information.

VI. Results

Study 1

To clarify the usefulness of the seminar employing Takeuchi's theory, we investigated changes in dementia patients' dementia symptoms and related nursing care (before and after the seminar).

1. Patient attributes

A total of 64 demented individuals (20 males and 44females) attended the seminar. The mean age of these subjects was 82.3±6.95(range: 62 to 96 years). Subjects requiring nursing care and those requiring support numbered 51 and 6, respectively. Five subjects lived independently or had not applied for such care/support.

2. Effects of the seminar on resolving or relieving dementia symptoms

Before the seminar, a total of 141 dementia symptoms were exhibited by the 64 subjects. Of these symptoms, 92 (65.2%) disappeared, 15 (10.6%) were almost completely resolved, 15 (10.6%) were moderately relieved, 4 (2.8%) were partially relieved, and 15 (10.5%) did not change. Thus, the percentage of symptoms that disappeared or were almost completely resolved was 75.8% (Table 2-1). Table 2-2 shows some of the dementia symptoms exhibited by the subjects.

<Table 2-1> Effects of the seminar on resolving or relieving dementia symptoms

Symptoms	Disappearance	Relief			No change
		Almost completely	Moderately	Partially	
141	92	15	15	4	15
Percentage (%)	65.2%	10.6%	10.6%	2.8%	10.6%

<Table 2-2> Dementia symptoms exhibited by dementia patients

No	Original symptoms	Disappearance	Relief			No change
			Almost completely	Moderately	Partially	
71	Wandering outside the house at night	1				
72	Urinating in places other than the bathroom at night	1				
73	Lack of facial expression, apathy, and sleeping all day	1				
74	Feeling anxious late at night and claiming repeatedly that the person has become crazy	1				
75	Missing day services	1				
76	Inability to cook					1
77	The person was usually either very active or very inactive.	1				
78	The person made phone calls repeatedly for the same reason, but became reassured when an explanation was given.			1		
79	Inability to go shopping and use an ATM.	1				
80	Excessive drinking	1				

3. Dementia symptoms

An average of 2.2 dementia symptoms were exhibited by each subject. The highest number of symptoms shown by a single subject was 7: 1) getting up late at night to change clothes, 2) mistaking a mirror for a bathroom entrance, 3) becoming naked and filling the bathtub with hot water, 4) going out of the house and becoming lost in the neighborhood, 5) chattering teeth, 6) becoming violent toward others, and 7) getting oneself locked out. Among those who lived independently or had not applied for care/support, an average of 3.6 dementia symptoms were exhibited. The levels of care need and numbers of dementia symptoms are shown in Table 2-3.

<Table 2-3> Levels of care need and numbers of dementia symptoms

	Number of subjects	Number of symptoms
Living independently or not having applied for care/support	5	18
Requiring support	6	6
Requiring care level 1	17	45
Requiring care level 2	11	25
Requiring care level 3	15	29
Requiring care level 4	6	13
Requiring care level 5	2	3
Missing values	2	2
	64	141

4. Types of dementia and other diseases

The subjects had been diagnosed with the following types of dementia: Alzheimer's disease (n=41 [64.0%]), no diagnosis given (n=13 [20.3%]), cerebrovascular dementia (n=6 [9.4%]), alcohol-induced dementia (n=2 [3.1%]), mixed dementia (n=1 [1.6%]), and dementia with Lewy bodies (n=1 [1.6%]). The other diseases diagnosed were: hypertension (n=24), diabetes (n=13), stroke (n=6), heart diseases (n=4), Parkinson’s disease (n=3), and mental illnesses (n=2) [multiple answers allowed].

5. Comparisons of nursing care and services before and after the seminar

The daily volume of fluid intake, weekly frequency of exercise, and time for exercise per week, which were all parts of the basic care, significantly increased after the seminar. The services required by the patients did not significantly change (Wilcoxon’s signed-rank test, $p<0.05$) (Table 2-4).

Study 2

Using a questionnaire, we investigated how the 64 caregivers viewed the 6-month seminar, and care-related changes shown by them.

1. Attributes of caregivers (patients’ families and care service providers)

Of the 64 caregivers, 62 (42 family caregivers and 20 care service providers) completed the questionnaire. The mean age of these subjects was 56.55±12.39 years. The median age of the family caregivers was 58 years (range: 35-81 years), and that of the service providers was 51 years (range: 24-62 years).

Concerning the sex of the 61 questionnaire responders, they comprised 7 male (11.5%)

and 35 female (57.4%) family caregivers, as well as 5 male (8.2%) and 14 female (23.0%) care service providers.

<Table 2-4> Comparisons of nursing care and services before and after the seminar

	N	Average	SD	Minimum value	Maximum value	%	Z	Asymptotic p-value (two-sided)
						50 (Median)		
Daily fluid intake (mL) before the seminar	63	1197.6	482.18	350.0	2900.0	1110.0	-6.261[b]	.000
Daily fluid intake (mL) after the seminar	60	1611.3	499.04	662.0	3361.0	1555.5		
Weekly frequency of bowel movements before the seminar	60	4.3	2.81	0.0	15.0	4.0	-.459[b]	.646
Weekly frequency of bowel movements after the seminar	59	4.5	2.29	1.0	7.0	5.0		
Weekly frequency of exercise before the seminar	63	4.5	5.31	0.0	30.0	4.0	-3.773[b]	.000
Weekly frequency of exercise after the seminar	58	16.2	62.43	0.0	480.0	7.0		
Time for exercise per week (minutes) before the seminar	58	162.7	234.46	0.0	1142.0	100.0	-2.803[b]	.005
Time for exercise per week (minutes) after the seminar	51	311.7	406.68	0.0	2520.0	180.0		
Weekly frequency of visiting daycare facilities before the seminar	64	1.6	1.91	0.0	7.0	1.0	-.495[b]	.620
Weekly frequency of visiting daycare facilities after the seminar	64	1.7	2.08	0.0	7.0	1.0		
Weekly frequency of visiting temporary care facilities (including small-sized centers) before the seminar	64	0.4	1.26	0.0	5.0	0.0	-1.166[b]	.244
Weekly frequency of visiting temporary care facilities (including small-sized centers) after the seminar	64	0.5	1.76	0.0	7.0	0.0		
Weekly frequency of receiving home-visit care before the seminar	64	0.2	0.95	0.0	7.0	0.0	-1.890[b]	.059
Weekly frequency of receiving home-visit care after the seminar	64	0.4	1.40	0.0	7.0	0.0		
Weekly frequency of receiving home-visit nursing care or rehabilitation before the seminar	64	0.1	0.28	0.0	2.0	0.0	-1.000[c]	.317
Weekly frequency of receiving home-visit nursing care or rehabilitation after the seminar	64	0.0	0.14	0.0	1.0	0.0		

2. Situation of family caregivers

We investigated the quality of nursing care provided by the 42 family caregivers.

1) Occupation

Of the 35 family caregivers who reported the presence or absence of an occupation, 16 (45.7%) were workers (3 males and 13 females) and 19 (54.3%) were non-workers (3 males and 16 females).

2) Whether or not family caregivers lived with their patients

Of the 25 family caregivers living with their patients, 7 (28.0%) and 18 (72.0%) were male and female, respectively. The 16 caregivers not living with their patients were all female. Thus, among the male family caregivers, the percentage of those living with their patients was significantly high ($\chi^2=5.402$ (1), $p=0.020$). As a result of investigating the relationships between the caregivers and their patients according to the caregiver's sex and whether or not they lived together, the following findings were obtained: The patients of the 7 male caregivers living together comprised 4 mothers (57.1%) and 3 wives (42.9%). Of the patients living with female caregivers, 8 (47.1%) and 8 (47.1%) were the caregivers' husbands or mothers, respectively. Among the female caregivers not living with their patients, 10 (66.7%) patients were mothers of their caregivers (Table 3-1).

<Table 3-1> Relationships between the caregivers and their patients according to the caregiver's sex and whether or not they lived together, and the patients' relationships with their caregivers, Sex of the caregivers, Male, Female, Total.

Whether or not living together, and the patients' relationships with their caregivers			Sex of the caregivers		Total
			Male	Female	
Living together	Mother	N	4	8	12
		%	57.1	47.1	50.0
	Mother-in-law	N	0	1	1
		%	0	5.9	4.2
	Wife	N	3	0	3
		%	42.9	0	12.5
	Husband	N	0	8	8
		%	0	47.1	33.3
	Total	N	7	17	24
		%	100	100	100
Not living together	Mother	N		10	10
		%		66.7	66.7
	Aunt	N		1	1
		%		6.7	6.7
	Father	N		4	4
		%		26.7	26.7
	Total	N		15	15
		%		100	100
	Total	N	7	32	39
		%	100	100	100

3. Presence or absence of supporters (multiple answers allowed)

Subjects reported what they had learned in the seminar most commonly to care managers (34.4%, n=22[17 family caregivers and 5 care service providers]), followed by family members living together (31.3%, n=20 [16 family caregivers and 4 service provider]), others (29.7%, n=19 [16 family caregivers and 3 service providers]), siblings (25.0%, n=16 [15 family caregivers and 1 service provider]), and day service staff (23.4%, n=15 [10 family caregivers and 5 service providers]) (Table 3-2).

Concerning the individuals (supporters) who were informed of what subjects had learned in the seminar, 26 subjects (18 family caregivers and 8 care service providers [40.6%]) reported that their supporters were very cooperative, 13 subjects (10 family caregivers and 3 service providers [20.3%]) considered their supporters to be slightly cooperative, 6 subjects (5 family caregivers and 1 service provider [9.4%]) provided no applicable answers, 2 family caregivers (3.1%) reported that their supporters were not very cooperative, and 17 subjects had missing values.

<Table 3-2> Individuals who were informed of what subjects had learned in the seminar (multiple answers allowed, n=64)

Individuals who were informed	Seminar participants	Number	Total number (%)
Family members living together	Family caregivers	16	20 (31.3%)
	Care service providers	4	
Siblings	Family caregivers	15	16 (25.0%)
	Care service providers	1	
Care managers	Family caregivers	17	22 (34.4%)
	Care service providers	5	
Day service staff	Family caregivers	10	15 (23.4%)
	Care service providers	5	
Helpers	Family caregivers	4	4 (6.2%)
	Care service providers	0	
Others	Family caregivers	16	19 (29.7%)
	Care service providers	3	

4. Homework progress

1) The subjects' homework progress was investigated using cross-tabulation according to the type of subject (family caregivers and care service providers), followed by chi-square tests.

The percentage of those who considered the homework to be slightly difficult was significantly higher in the family caregivers than in the care service providers, and the percentage of those who provided no applicable answers was significantly higher in the latter group (Table 3-3). The percentage of those considering the assigned exercise to be relatively easy was significantly higher in the former group, and the percentage of those viewing it as very difficult was significantly higher in the latter group (Table 3-4). No significant differences were noted in fluid intake between the groups.

<Table 3-3> Subjects' views regarding the assigned homework

			Subjects, Family, Care		Total
			caregivers	service providers,	
What did you think of the homework?	Relatively easy	N	5	0	5
		%	14.3	0	10.6
		Adjusted residual	1.4	-1.4	
	Noapplicable answers	N	1	5	6
		%	2.9	41.7	12.8
		Adjusted residual	-3.5	3.5	
	Slightly difficult	N	23	3	26
		%	65.7	25.0	55.3
		Adjusted residual	2.4	-2.4	
	Very difficult	N	6	4	10
		%	17.1	33.3	21.3
		Adjusted residual	-1.2	1.2	
Total		N	35	12	47
		%	100	100	100

χ^2=16.036(3),p=.001

<Table 3-4> Subjects' perceptions regarding the assigned exercise Subjects, Family caregivers, Care service providers, What did you think of the assigned exercise?

			Subjects, Family, Care		Total
			caregivers	service providers,	
What did you think of the assigned exercise?	Relatively easy	N	13	0	13
		%	37.1	0	27.7
		Adjusted residual	2.5	-2.5	
	Noapplicable answers	N	6	1	7
		%	17.1	8.3	14.9
		Adjusted residual	.7	-.7	
	Slightly difficult	N	13	6	19
		%	37.1	50.0	40.4
		Adjusted residual	-.8	.8	
	Very difficult	N	3	5	8
		%	8.6	41.7	17.0
		Adjusted residual	-2.6	2.6	
Total		N	35	12	47
		%	100	100	100

χ^2=11.039(3),p=.012

5. Relationship between changes in dementia symptoms and each investigated item(Changes in caregivers' feelings, confidence, and ways in which they cared for their patients).

In the present study, 65.2% of the dementia symptoms disappeared. We investigated how this induced changes in the caregivers' feelings, confidence, and ways in which they cared for their patients, using a 5-point rating scale (1: very unfavorable, 2: slightly unfavorable, 3: no applicable answers, 4: slightly favorable, and 5: very favorable).

In terms of the results, concerning the subjects' overall impressions of the seminar, 28 (19 family caregivers and 9 care service providers [43.8%]) and 16 (13 family caregivers and 3 care service providers [25.0%]) subjects viewed it as very effective and slightly effective, respectively (total: 68.8%). Seven (5 family caregivers and 2 care service providers [10.9%]) and 30 (20 family caregivers and 10 care service providers [46.9%]) subjects reported very favorable and slightly favorable changes in dementia symptoms, respectively (total: 57.8%). Twenty (17 family caregivers and 3 care service providers [31.3%]) and 23 (14 family caregivers and 9 care service providers [35.9%]) subjects reported very favorable and slightly favorable changes in their feelings regarding care for their patients, respectively (total: 67.2%).

Twenty-two (14 family caregivers and 8 care service providers [34.4%]) and 23 (19 family caregivers and 4 care service providers [35.9%]) subjects reported very favorable and slightly favorable changes in the ways they cared for their patients, respectively (total: 70.3%). Seventeen (10 family caregivers and 7 care service providers [26.6%]) and 24 (19 family caregivers and 5 care service providers [37.5%]) subjects reported very favorable and slightly favorable changes in their confidence in caring for their patients, respectively (total: 64.1%) <Table 3-5>.

Thus, a higher percentage of care service providers than family caregivers felt very or slightly favorable changes in dementia symptoms after the seminar.

<Table 3-5> Subjects' evaluations of seminar-induced changes

			Very unfavorable	Slightly unfavorable	No applicable answers	Slightly favorable	Very favorable	Others	Missing values	Total
Overall impressions	Family caregivers	N	0	0	2	13	19	0		34
		%	0	0	5.9	38.2	55.9	0		100
	Care service providers	N	0	0	0	3	9	0		12
		%	0	0	0	25.0	75.0	0		100
	Total	N	0	0	2	16	28	0	18	64
		%	0	0	3.1	25.0	43.8	0	28.1	100
Changes in cognitive symptoms	Family caregivers	N	0	1	5	20	5	3		34
		%	0	2.9	14.7	58.8	14.7	8.8		100
	Care service providers	N	0	0	0	10	2	0		12
		%	0	0	0	83.3	16.7	0		100
	Total	N	0	1	5	30	7	3	18	64
		%	0	1.6	7.8	46.9	10.9	4.7	28.1	100
Changes in feelings	Family caregivers	N	0	1	3	14	17	0		35
		%	0	2.9	8.6	40	48.6	0		100
	Care service providers	N	0	0	0	9	3	0		12
		%	0	0	0	75.0	25.0	0		100
	Total	N	0	1	3	23	20	0	17	64
		%	0	1.6	4.7	35.9	31.3	0	26.6	100
Changes in ways in which caregivers looked after patients	Family caregivers	N	0	1	0	19	14	0		34
		%	0	2.9	0	55.9	41.2	0		100
	Care service providers	N	0	0	0	4	8	0		12
		%	0	0	0	33.3	66.7	0		100
	Total	N	0	1	0	23	22	0	18	64
		%	0	1.6	0	35.9	34.4	0	28.1	100
Changes in confidence in caring for patients	Family caregivers	N	0	2	3	19	10	0		34
		%	0	5.9	8.8	55.9	29.4	0		100
	Care service providers	N	0	0	0	5	7	0		12
		%	0	0	0	41.7	58.3	0		100
	Total	N	0	2	3	24	17	0	18	64
		%	0	3.1	4.7	37.5	26.6	0	28.1	100

Ⅶ. Discussion

Although caring for dementia patients is regarded as a major issue among the elderly, this practice remains underdeveloped. According to Hattori (2013), many non-pharmaceutical approaches for dementia patients have been proposed, but only a few of them have a high evidence level, and research on such approaches has stagnated as it is very difficult to investigate their effects on such patients. In the present study, we provided direct instructions for the family caregivers of 64 dementia patients, using Takeuchi's theory. As a result, of the 141 dementia symptoms exhibited by these patients, 92 (65.2%) disappeared and 15 (10.6%) were almost completely resolved after the seminar (total: 75.8%). In our seminars, each dementia symptom reported by patients' families is regarded as a single symptom instead of being collectively referred to using a technical term, and guidance continues to be provided until each symptom disappears. For instance, symptoms that are collectively regarded as "poriomania" in general are treated more specifically in our seminars: 1) going out of the house at night, 2) going to a nearby mountain, and climbing up on the roof of houses, and 3) walking up and down the hall all day. It has been reported that dementia symptoms can occur due to various environmental factors and patients' physiological state. Therefore, our seminars focus on and monitor each detailed symptom while ensuring 1500 mL/day of fluid intake, 1500 kcal/day, exercise (walking), and spontaneous bowel movements. Through the present seminar, increased fluid intake and activity levels resulted in the disappearance or alleviation of dementia symptoms, which led to a further increase in the fluid intake and activity levels. According to an epidemiological survey, walking has a clear inhibitory effect against the onset of dementia (Abbott, White, Ross et al., 2004). Thus, increased activity levels (walking) and fluid intake achieved the effect of resolving or relieving dementia symptoms through increased levels of arousal. This suggests that dementia symptoms can be resolved or alleviated depending on care, in which fluid intake and activity levels are important factors, and that Takeuchi's theory is useful in such care.

The questionnaire survey conducted after the seminar revealed care-related differences between the family caregivers and care service providers. Unlike in the past, men also care for their immediate family and relatives nowadays. Among the male family caregivers, the percentage of those living with their patients was significantly higher than those not living with their patients, whereas a significantly lower percentage of female caregivers lived with their patients than those not living together. Among the family caregivers investigated, the percentage of females was higher than that of males; however, we obtained very interesting findings regarding the relationship between the caregivers' sex and their patients. Of the 43 family caregivers, only 2 (4.6%) were daughters-in-law of their patients, and there was a tendency for dementia patients to be cared for by those in a close blood relationship. Thus, it is expected that patients will more likely be looked after by their sons in the future (Hirayama,2014) .

Caregivers informed their family members living together, care managers, and/or siblings of what they had learned in the seminar, and cared for their patients in coordination. In particular, family caregivers asked for cooperation from not only professionals, but also from other individuals/organizations. Concerning the assigned exercise aimed at increasing the patients' activity levels, care service providers considered the exercise to be very difficult, whereas family caregivers viewed it as relatively easy. On the other hand, unlike service providers, the lives of family caregivers were hampered by their patients' dementia symptoms at all hours of the day and night. In the present seminar, as patients' dementia symptoms were resolved or alleviated, their caregivers noted that it is possible to treat these symptoms, and advanced various ideas regarding care for these patients. This helped caregivers to make related propositions, and to inform various other individuals involved in the care about the seminar in order to obtain closer cooperation. Through this process, caregivers showed changes in confidence in caring for their patients, ways in which they communicated with their patients, and care-related feelings. These changes became sources of motivation for family caregivers to continue their at-home lives with their patients, and to deal with things that were more likely to be viewed as very difficult and neglected by care professionals.

Concerning the family caregivers' overall impressions of the seminar, 7 (5 family caregivers and 2 care service providers [10.9%]) and 30 (20 family caregivers and 10 service providers [46.9%]) subjects reported very favorable and slightly favorable changes in dementia symptoms, respectively (total: 57.8%). This total percentage was lower than the rate of caregivers viewing the seminar as very or slightly effective (68.8%), that of caregivers reporting very or slightly favorable changes in their care-related feelings (67.2%), and that of caregivers reporting very or slightly favorable changes in confidence in caring for their patients (64.2%). In addition, the total percentage was lower than the rate (75.8%) of symptoms that actually disappeared (65.2%) or were almost completely resolved (10.6%). Thus, the disappearance of dementia symptoms did not lead to family caregivers' positive evaluation of symptom changes. This suggests that, even if dementia symptoms are resolved or alleviated, family caregivers assume that such effects are only temporary, and continue to feel deeply anxious because of their history of being hindered by such symptoms over the years. Thus, there is a need to adopt continued approaches to family caregivers while increasing the rate of actual disappearance/alleviation of symptoms.

Study limitations

In the present study, we collected data from 64 subjects, which is not sufficient. However, this study is a significant step considering that nursing care for dementia patients remains underdeveloped. In addition, our findings are very helpful in analyzing each patient thoroughly, and developing seminars for those who did not show favorable changes in their symptoms in this study. Because our seminars are held at 6-month intervals nationwide, we intend to accumulate more samples for quantitative analyses.

Ⅷ. Conclusion

On the basis of the findings of our 6-month seminar, we make the following 4 propositions: 1) dementia symptoms can be resolved or relieved depending on care, 2) fluid intake and activity levels are important factors for caring for dementia patients, 3) professionals providing such care can improve related knowledge and skills, and 4) on resolving or relieving dementia symptoms, caregivers' stress can be reduced, which facilitates their continued at-home lives. Thus, to resolve and/or alleviate dementia symptoms successfully, it is necessary to disseminate Takeuchi's theory-based family-care seminars, which are accompanied by a follow-up 6 months later.

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ORIGINAL ARTICLE

A Social Service Strategy for a Low Birth Rate and an Aged Society[1]

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ABSTRACT

Based on the observation that the phenomena of a low birth rate and an aged population are rapidly occurring in South Korea, the present study established a research question on how to provide social services in this context and examined the "Social Service Project to Cope with a Low Birth Rate and Aged Society," which is being implemented by each local government.

The result of the analysis is as follows. To cope with the low birth rate, 17 metropolitan local governments operate various social services, such as: creating an atmosphere that encourages childbearing and parenting; establishing policies that encourage childbearing; paying medical expenses during delivery for low-income families; providing a comprehensive care package for pregnant women; developing applications on pregnancy–childbearing–parenting; building public daycare centers; and lending toys. The social services to cope with an aged society include: removing inconveniences in homes for the elderly; hiring assistants to help with the health and safety of the elderly; managing dementia in the elderly; pairing "buddies" with those elderly residing alone; building a silver town (retirement home) for the low-income elderly; creating a living space for the elderly living alone; hosting video festivals; and providing jobs for the elderly.

Although the social services to cope with the low birth rate and aged society are diverse, they have limitations in that they lack a "medium-to-long-term vision" and that they do not "secure the budget" in advance. Because this problem cannot be solved within a short period, Korean society need a change in direction to establish a long-term goal and push forward the core projects. In particular, budgetary agreement between central and local governments must be drawn up before nationally funded projects related to social services are planned. Considering current economic recession and negative policy environments, we suggested an alternative social service policy approaches such as an on-line based social service market for overcoming the jurisdictional restrains, social service industry for stable and high quality service, social responsibility investment as a new fund for social service.

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Ⅰ. Introduction

As recently as the 1990s, Korea was unconcerned about its low birth rate and few people were aware of the aging and aged society. Birth control policies through family planning were promoted instead of policies to tackle the low birth rate and statistics on children were not systematically collected. In addition, awareness of the issue of an aging/aged/super-aged society was low.

A birth control policy was enforced in the 1960s when the total fertility rate was 6.0 per woman, and as a result the birth rate dropped drastically. The total fertility rate in 1983 was 2.08 (Jung, et al, 2012: 56), and 1.65 in 1995. Although the Korean government abolished the birth control policy in 1996, the rate continued to decrease after the 1997 financial crisis and the total fertility rate in 2005 was 1.08, the lowest in Korean history (Lee, et al, 2012: 31-35). Since then, there has been a slight increase; however, in 2014 it was 1.23, which is the lowest fertility rate among the OECD countries.

As of June 2015, the percentage of the Korean population who are 65 years and above reached 13.1%, thus indicating an aging society. Among the OECD countries, Korea also has the highest elderly suicide rate. Korea entered the state of being an aging society (the percentage of the elderly population being 7%) in 2000 and is expected to become an aged society in 2018 (the percentage of the elderly population being 14%). In 2026, Korea will move to the status of a super-aged society (the percentage of the elderly population being 20%). It will take 18 years for Korea to move from an aging to an aged society (115 years for France and 72 years for the United States), and it is expected to take another 8 years for Korea to move to being a super-aged society; this is a drastic change from the world's standard (Choi, 2011: 35-36).

The Korean government's efforts to cope with a low birth rate and aged population are manifested in many policies and projects. In 2006, the Korean government established the "first masterplan for low birth rate and aged society (2006–2010)" centering on 12 departments including the Ministry of Health and Welfare; in so doing, the government planned policies addressing the issues of low birth rate, aging, and strengthening the workforce. First, to address the problems of a low birth rate, the government lowered the social burden of childrearing and assisted families to keep both jobs and homes. Second, to address the problem of aging, the government ensured income and healthcare for the elderly and created an environment where they could enjoy free time in their later years. Third, to address the workforce problem, the government increased the utilization of the potential workforce, such as the elderly, women, and foreigners, while developing elder-friendly jobs. In 2011, the Korean government established the "second masterplan for low birth rate and aged society (2011–2015)" and has been implementing a variety of policies since then (Lee & Lee, 2011: 59-60).

With the research question on the method of providing social services in a society with a low birth rate and aged population, this study reviewed the social service project to cope with a low birth rate and aged population currently implemented by local governments. This study identified the current conditions and drew implications by examining the policies implemented by 17 metropolitan local governments as of December 31, 2014. The data from these local governments were obtained from the Combined Evaluation of Local Government, which is annually evaluated by the Ministry of Government Administration and Home Affairs (MOGAHA).

Ⅱ. Projects to Cope with Low Birth Rate & Aging Population

1. Social service project to cope with a low birth rate and an aging population.

According to the "second masterplan to cope with a low birth rate and aged society (2011–2015)," Korea's social service projects are being implemented by 16 central government organizations.[2] Those projects can be divided into two types of project: (1) projects to cope with the low birth rate and (2) projects to cope with an aged population.

One of the projects that address the issue of a low birth rate is the implementation of a fixed pay rate during parental leave (500,000 KRW at the lowest level to 1,000,000 KRW at the highest) so that families can maintain their jobs while taking care of their families. Other projects include reduced work hours during parenthood, a work-hour saving system for vacations, three-day-long paid paternity leave, and a job-sharing system to facilitate public servants' part-time employment (whereby a full-time job is shared by two part-time employees). The projects that are designed to reduce the burden on the married couples include increasing the assistance for the newlywed house fund and transferring military personnel (with children) on active duty to the military reserves. The projects to relieve the burden of childrearing include expanding the scope of recipients of full childcare costs for the first four years of a child's life to the lowest 70% of income earners, increasing childcare costs for parents who do not use a childcare facility, providing high school scholarships for parents who have more than two children, and providing tax deductions (Lee & Lee, 2011: 60-62).

The projects that address the issue of an aged society include increasing the budget for and scope of the basic pension, differentiating work conditions and pay levels by diversifying the type of jobs that employ the elderly, establishing an agency to employ senior citizens, and providing 50% of the training costs to businesses that employ the elderly as interns. In addition, the Korean government has increased support for the elderly who reside alone or have been diagnosed with pre-dementia and has strengthened the capability of geriatric care workers by increasing their training hours (Lee & Lee, 2011: 62-63).

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[2] Ministry of Health and Welfare; Ministry of Education, Science and Technology; Ministry of Culture, Sports and Tourism; Ministry for Food, Agriculture, Forestry and Fisheries; Ministry of Gender Equality and Family; Ministry of Employment and Labor; Ministry of Government Administration and Home Affairs; Ministry of National Defense; Ministry of Justice; Ministry of Land, and Transport and Maritime Affairs

As a reference, the “Childbearing Encouragement Fund,” one of the most well-known projects of all those that cope with the low birth rate, is run autonomously by the local governments; therefore, the eligibility and the amount of money available differ from one local government to another. Because local governments are conducting various projects with a limited budget, the budget for each project is minimal (Lee, et al, 2012: 35-36).

<Table 1> Birth rate and percentage of aged people

	Birth rate (%)					Percentage of aged people (%)				
	2009	2010	2011	2012	2013	2009	2010	2011	2012	2013
Seoul	0.962	1.015	1.014	1.059	0.968	9.17	9.72	10.19	10.84	11.45
Busan	0.94	1.045	1.078	1.135	1.049	10.78	11.26	11.77	12.50	13.25
Daegu	1.029	1.109	1.146	1.217	1.127	9.73	10.04	10.37	10.94	11.56
Incheon	1.143	1.214	1.232	1.301	1.195	8.33	8.62	8.94	9.39	9.81
Gwangju	1.137	1.223	1.234	1.295	1.17	8.66	8.97	9.32	9.85	10.31
Daejeon	1.156	1.206	1.261	1.315	1.234	8.39	8.66	8.96	9.38	9.83
Ulsan	1.308	1.369	1.393	1.481	1.391	6.57	6.82	7.09	7.47	7.91
Sejong	-	-	-	1.597	1.435	-	-	-	15.22	14.70
Gyeonggi	1.226	1.309	1.314	1.355	1.226	8.42	8.67	8.98	9.39	9.77
Gangwon	1.248	1.313	1.338	1.374	1.249	14.36	14.81	15.18	15.71	16.18
Chungbuk	1.317	1.402	1.428	1.485	1.365	12.97	13.20	13.40	13.75	14.13
Chungnam	1.408	1.479	1.496	1.571	1.442	14.78	14.87	14.99	15.27	15.64
Jeonbuk	1.279	1.374	1.405	1.44	1.32	14.97	15.22	15.58	16.21	16.70
Jeonnam	1.445	1.537	1.568	1.642	1.518	17.97	18.29	18.61	19.19	19.64
Gyeongbuk	1.274	1.377	1.434	1.489	1.379	15.44	15.57	15.72	16.21	16.76
Gyeongnam	1.323	1.413	1.446	1.503	1.367	11.63	11.81	12.07	12.50	12.95
Jeju	1.378	1.463	1.487	1.598	1.427	11.86	12.19	12.60	13.01	13.36
Total	1.149	1.226	1.244	1.297	1.187	10.58	10.90	11.24	11.74	12.22

Source: http://kosis.kr.

2. Situations in Local Governments

Low birth rate and an aged society have negative impacts on the local society and economy. The birth rate in Korea has decreased rapidly and the proportion of elderly in the population has risen as quickly; therefore, Korea is heading toward being an aged society at a faster pace than other countries worldwide. This indicates that the Korean government does not have enough time to establish a preventive policy. Due to the low birth rate, the workforce is decreasing sharply and the rate of aging of the workforce is accelerating, which will lower productivity. Due to the aging workforce, the domestic market will be shrunk and government expenditure on social welfare related to aging will increase, while the financial earnings of the government will deteriorate as the workforce that can support the elderly population decreases (Kim & Park, 2013: 195-196).

With regard to local society and economy, major statistics are outlined as Table 1. Although the birth rate rose slightly from 1.149 (in 2009) to 1.187 (in 2013), this is the lowest fertility rate among the OECD countries. The percentage of aged people has continuously increased from 10.58% (in 2009) to 12.22% (in 2013). The GRDP of Korea increased from 1,151,367,386 billion KRW in 2009 to 1,430,254,931 billion KRW in 2013; the rate of participation in economic activities rose from 60.8% in 2009 to 61.5% in 2013 while the rate of unemployment decreased from 3.6% in 2009 to 3.1% in 2013.

<Table 2> GRDP and rate of participation in economic activities

	GRDP (bil. KRW)					Rate of participation in economic activities (%)					Rate of unemployment (%)				
	2009	2010	2011	2012	2013	2009	2010	2011	2012	2013	2009	2010	2011	2012	2013
Seoul	273,199	289,719	303,813	313,479	318,607	60.8	61.8	62.5	62.3	62.3	4.5	4.7	4.6	4.2	4.0
Busan	60,695	63,737	66,648	67,999	70,338	56.6	56.3	56.4	57.9	58.0	4.3	3.6	3.6	3.9	3.8
Daegu	36,017	38,580	41,448	43,021	44,754	59.0	59.4	59.0	60.2	59.6	4.3	4.0	3.7	3.3	3.3
Incheon	53,796	60,708	61,854	62,208	64,654	61.8	62.5	63.3	64.2	63.7	4.6	5.1	4.8	4.5	4.2
Gwangju	23,834	26,401	27,789	28,914	29,763	58.6	59.0	58.4	57.8	58.7	3.8	3.5	3.1	2.7	2.9
Daejeon	25,535	27,632	29,684	30,884	31,456	59.4	59.1	59.4	59.7	59.5	3.6	3.6	3.6	3.7	3.1
Ulsan	52,556	62,852	68,748	70,783	68,348	60.5	60.5	60.7	60.8	60.0	4.2	3.6	2.8	2.6	2.1
Gyeonggi	237,319	266,562	276,155	288,147	313,671	61.3	61.5	61.2	61.6	61.8	3.9	4.0	3.5	3.3	3.0
Gangwon	29,111	30,628	32,438	33,853	35,357	59.0	57.6	57.6	58.2	57.3	2.0	2.6	2.2	2.5	2.4
Chungbuk	34,837	39,470	42,489	43,628	47,402	60.6	61.0	61.1	59.9	61.0	2.1	2.2	2.4	2.0	2.1
Chungnam	71,756	83,167	91,816	95,308	99,154	62.4	62.2	62.4	62.9	64.6	3.0	2.9	2.3	2.3	2.8
Jeonbuk	34,739	36,632	39,960	40,432	42,513	59.3	58.5	59.1	58.6	59.3	1.9	2.2	2.3	2.0	2.0
Jeonnam	51,544	59,901	62,689	64,642	62,289	64.9	63.4	63.3	63.6	63.0	1.6	2.1	2.0	1.6	2.1
Gyeongbuk	72,973	80,839	82,276	85,401	89,132	63.9	64.3	63.6	63.6	63.7	2.7	2.8	2.5	2.5	3.1
Gyeongnam	83,163	87,419	91,233	95,635	99,619	61.4	60.8	61.5	60.7	61.1	3.0	2.8	2.2	1.9	2.1
Jeju	10,296	10,899	11,847	12,707	13,198	67.8	66.0	66.9	67.3	67.1	1.6	1.8	1.7	1.6	1.8
Total	1,151,367	1,265,146	1,330,888	1,377,041	1,430,255	60.8	61.0	61.1	61.3	61.5	3.6	3.7	3.4	3.2	3.1

Source: http://kosis.kr.

Ⅲ. Low Birth Rate and Aged Society Projects: Case Studies

Based on the characteristic of each service, the Low Birth Rate and Aged Society Projects implemented by 17 local governments were classified into care, development, and information services. As the following table indicates, many services are related to care; the services that provide care for pregnant women, children, or elderly people comprise more than half of all projects.

<Table 3> Low Birth Rate and Aged Society Projects

Project Characteristics	Project for Low Birth Rate Society	Project for Aged Society
Care	Seoul (Public Childcare Facilities Tailored to Seoul Citizens)	Daegu (Memory School for the Elderly with Minor Dementia)
	Incheon (Free Childbirth and Mother-Baby Room for Low-Income Families)	Sejong (Sejong-style Silver Town for Low-Income Seniors)
	Gangwon (Providing a Complete Maternity Service)	Gyeonggi (Carnation House as a Shared Living Space for the Elderly in Solitude)
	-	Chungbuk (Happiness Keeper Project)
		Chungnam (Living Welfare Mobilization Team)
		Jeju (Aides for Elderly Health and Safety)
Development	Ulsan (Creating a Social Atmosphere that is Childbearing-Friendly)	Busan (Silver Image & Video Festival)
	Jeonnam (Childbearing Encouragement Policy Tailored to the Province)	Gwangju (Buddy Project for the Solitary Elderly)
	Gyeongnam (Toy Bank)	Jeonbuk (Jeonju Bread Café and Traditional Korean Homes as Bed and Breakfast)
Information	Daejeon (Creating a Social Atmosphere that Encourages Childbearing and Childrearing)	-
	Gyeongbuk (I-Mom App)	

1. Project for Overcoming Low Birth Rate Society

1) Care Services

① City of Seoul: Public Childcare Facilities Tailored to Seoul Citizens

Seoul has the lowest fertility rate of all the cities in Korea: the national average is 1.187 children per woman, while Seoul's rate is 0.968 (as of 2013). Looking at childcare facilities in Seoul, private providers make up 88.9% of the total (as of 2012), and 70.3% of working mothers in Seoul wish for an increase in the number of reliable childcare providers. The city of Seoul has decided that they urgently need to establish a policy to address the issue of the low birth rate and to build reliable childcare facilities. To meet this need, starting in 2012, Seoul established a medium-to-long-term masterplan to increase the number of national and public daycare centers; the city plans to invest 630 billion KRW to build 1,000 national and public daycare centers by 2018 (as of 2014, there were 934 places; by 2015, 150 daycare centers will have been newly built; 300 in 2016, 300 in 2017, and 250 in 2018).

Seoul passed the "Ordinance for Establishing National or Public Childcare Facilities" in December 2012 and has been providing financial assistance of up to 90% of the building cost based on the financial capacity of 25 districts in the city of Seoul. While the Ministry of Health and Welfare provides financial assistance of up to 250 million KRW per facility, the city has separately established a budget and provides up to 90% and 2.5 billion KRW per facility. In addition, the city also receives financial support from the Federation of Korean Industries and the Life Insurance Philanthropy Foundation for building national or public childcare facilities.

② City of Incheon: Free Childbirth and Mother-Baby Room for Low-Income Families

In an attempt to lessen the burden of childbearing for low-income families, the city of Incheon established a "24-hour mother-baby clinic," which performs free child delivery for the first time in Korea. The family welfare department in each Gu and Gun affiliated with the city of Incheon advertises and promotes the project to find eligible families; clinics in each Gu and Gun affiliated with the city of Incheon that are connected with the programs provide assistance to pregnant women, while the Department of Public Health Policy establishes the budget and provides administrative assistance as needed.

The Korea Population and Health Welfare Association, a public organization for health welfare, educates pregnant women and takes full responsibility for a 24-hour free childbirth service for low-income families. During 2014, 401 women benefited from the service and 842 women received a medical examination. For this project, the city invested a total of 330 million KRW, which was 100% supported by the allocated budget. Apart from this, the city invested 80 million KRW to replace old ultrasound equipment and 350 million KRW to expand the women's health clinic. The results of a survey on the level of satisfaction showed an 87% satisfaction rate.

③ Gangwon Province: Providing a Complete Maternity Service

Starting in 2011, the city of Wonju in Gangwon Province has been providing necessary services to expectant mothers residing in the city. The city ensures the expectant mothers receive the necessary services by issuing them a voucher for 140,000 KRW, every month for six months. Any pregnant woman with a monthly family income under 100% of the national average is eligible for the service. The service includes a special lecture on prenatal education (once a month), cultural programs for expectant mothers (twice a month), exercise programs for expectant mothers (three times a week), and a post-natal program (three times a week).

The survey of the satisfaction level showed that over 90% of the participants were satisfied with the service. When the vouchers are used, the participants are supposed to pay a small part of the cost (2% in 2013, 5% in 2014).

2) Development Services

①City of Ulsan: Creating a Social Atmosphere that is Childbearing-Friendly

The city of Ulsan has many projects to increase the birth rate. First of all, the city sends a congratulatory message along with a baby gift worth 400,000 KRW to a family that resides in the city and gives birth to a baby; the city also interviews the family and releases this interview in the media. Second, the city has "increased the financial assistance for childbearing" as the mayor promised the citizens. When a family gives birth to a third child or when a baby is born to a family with a disabled parent, the city gives one million KRW to the family. In the near future, the city will pay the childbearing costs when a second child is born. Third, families with more than three children will temporarily receive reduced water bills until 2019. The city has also hosted a festival for families with multiple children.

②Jeonnam Province: Childbearing Encouragement Policy Tailored to the Province

Based on the need to establish a policy that encourages childbearing and to find solutions for a decreasing population in Jeonnam Province, the local government provides various forms of assistance to 17,000 expectant mothers and babies residing in Jeonnam Province. In 2001, for the first time in Korea, they passed an ordinance that assists with childcare costs for newborns; they offered 100,000 KRW (2001), 200,000 KRW (2002–2003), and 300,000 KRW (since 2004) per newborn baby respectively. The province has been enforcing an ordinance regarding a parking lot exclusively reserved for pregnant women, which was passed in 2010. In 2014, the province passed an ordinance to build a public maternity care center; they are planning to build two centers in 2015 and two more in 2016.

Jeonnam Province has many islands and nine Guns have particularly poor facilities for childbirth. All pregnant women are registered on the homepage of the National Emergency Management Agency, and in an emergency, they can ring 119 from a registered phone to go to an OBGYN doctor.

③Gyeongnam Province: Toy Bank

By providing a space for children to have fun with their parents and by lessening the financial burden through a rental service for childcare items, Gyeongnam Province is creating a happy environment for childbearing and parenting. Gyeongnam Province has set up three Toy Banks to lend toys, books, and audiovisual materials and operates play programs and nursing rooms. The number of rentals during 2014 was 20,000.

Recently, the Toy Banks signed an MOU with four neighboring colleges and three private organizations for information exchange, program operation, support for volunteer services, and contribution of talents. In addition, by creating the "Story Grandma" project (an elderly woman tells a story to children at the toy bank), the toy bank is used as a source of employment for the elderly.

3) Information Services

①City of Daejeon: Creating a Social Atmosphere that Encourages Childbearing and Childrearing

The city of Daejeon determined that changing the negative perception of childbearing and childrearing has a long-term effect in increasing the birth rate, although it does not bring about any immediate visible changes.

To this end, the city has established a strategy to promote childbearing: posting promotional images that encourage childbearing on the sides of 900 official vehicles and playing promotional videos at locations with a high volume of human traffic (i.e., bus stops, department stores, wholesale stores, the city hall, baseball stadiums, sports stadiums, and swimming pools). In addition, the city also produced a promotional video that campaigns for childbearing, which they broadcast extensively in the time slots when most families watch television, showed on movie screens before movies began, and installed on the screen doors at subway stations. Song for multiple children, composed by the Department of Applied Music at a local college, is used as theme music at various events.

②Gyeongbuk Province: I-Mom App

Because there are not enough media where the information necessary from pregnancy to parenting can be easily located, the province offers an integrated information platform encompassing pregnancy, childbearing, and parenting, through a Smartphone App, assisting with the rental service of required items in connection with a support center for baby care products. Any families who reside in Gyeongbuk Province can obtain information through the app and rent baby care items for free.

The I-Mom App was used by 4,474 people during 2014, an average of 373 per month. The type of information available on this app is as follows: government projects for supporting pregnancy (i.e., beautiful mother card, a project to support married couples suffering from infertility, and medical assistance for pre-natal check-ups), projects to support childbearing (i.e., assistance with the Childbearing Encouragement Fund, health insurance fees, home attendants for the mother and newborn, and assistance with screening tests for abnormalities in pregnancy), and the project for childcare support (i.e., the Nutrition Plus project, assistance with childcare costs, financial assistance with childrearing, assistance with babysitting services, and vaccination guides).

2. Project for Aged Society

1) Care Services

①City of Daegu: Memory School for the Elderly with Minor Dementia

For the first time in Korea, the city of Daegu has set up a “memory school” in order to systematically manage elderly people with minor dementia who are not eligible for a long-term care service. The participants are 320 elderly people who have been diagnosed with minor dementia and are not eligible for a care service; there is one school in each of the eight Gu (district) and in each Gun (county) affiliated with the city of Daegu. The tuition is between 10,000 KRW and 20,000 KRW per day, and the elderly on a low income can participate for free.

The Memory School in Daegu offers the following programs to the elderly with minor dementia: during the day, it offers memory rehabilitation programs (i.e., educational therapy, art therapy, and preventive exercises for dementia) and a counseling program for the elderly and their families; at night, the school offers a transportation service to take the elderly to their homes. The school comprehensively manages elderly people with minor dementia by working with the Metropolitan Dementia Center and the clinics with a Dementia Supervision Project.

②City of Sejong: Sejong-style Silver Town for Low-Income Seniors

Drawing from the fact that existing silver towns are luxurious, the city of Sejong has built a silver town for the low-income elderly tailored to the city’s specific needs for the first time in the country. By investing a total of 15 billion KRW (3.2 billion KRW for the lot, 11.8 billion KRW for construction), the city started construction in October 2012 and completed building “Milmaru Welfare Village” in June 2014.

The city publicly advertised for a dedicated manager to run the silver town professionally; as a result, “Sejong Central,” a social welfare foundation, was selected as the manager. They built a fitness room and a multi-program room; a full-time medical staff member (triage nurse) is in residence and is in charge of emergency treatment including health counseling and health examination. Currently, 42 elderly people are living in 40 units; there are 7 elderly people in their 60s, 24 in their 70s, and 11 in their 80s or over. The results of a satisfaction survey showed that 90.5% of the residents were satisfied.

③Gyeonggi Province: “Carnation House” as a Shared Living Space for the Elderly in Solitude

Due to the rapid increase in the number of the elderly living in solitude who require protection and care, Gyeonggi Province determined that they need a space where they can gather to ease the loneliness, and to work and perform leisure activities together. Carnation House is a shared living space remodeled from pre-existing places such as senior-citizen centers and community centers. It is a space that operates leisure programs and a studio where they can work together. It is not a residential space, but a space for daily activities.

In 2013, 6 Si and Gun affiliated with Gyeonggi Province conducted a pilot project for Carnation Houses; in 2014, an additional 23 Si and Gun in Gyeonggi Province established and operated Carnation Houses. Existing volunteer organizations provided voluntary services to install boilers and put up wallpaper. Each Si and Gun recruits sponsors for the Carnation House. The elderly living in solitude gather to work together, performing tasks such as folding facial masks and fruit-holding nets, and earn a monthly income of between 160,000 KRW and 170,000 KRW.

④Chungbuk Province: Happiness Keeper Project

Chungbuk Province has the second-highest elderly suicide rate in the nation: the percentage of isolated elderly is high (18.5%) as is the percentage of the elderly living in poverty (OECD average: 12.8%, Chungbuk Province: 49.3%), which indicates an urgent need to establish a strategy to help them. Therefore, Chungbuk Province selected 2,000 senior citizens over 65 years of age who are healthy and well-respected, as “happiness keepers.” On a daily basis, they visit the isolated elderly in their neighborhood to greet them, check the status of their health, and inform them about any village events; when there is a problem, they report to affiliated organizations. Chungbuk Province allocated 5.1 billion KRW to the project and created jobs for the elderly by paying the happiness keepers 200,000 KRW monthly.

⑤Chungnam Province: Living Welfare Mobilization Team

The population of elderly over 65 years of age in Chungnam Province is 16.7% of the total population of the province. The elderly population over 65 years of age in Hongsung Gun, affiliated with Chungnam Province, is 21%. Because there are many elderly people living in single or married-couple households, there were numerous issues related to everyday living, such as replacing electrical equipment, replacing damaged pipes, etc. To resolve such inconveniences in these homes, the city established and is operating a living welfare mobilization team. The team consists of personnel from the community self-supporting centers and the Korea Electrical Contractors Association. When a senior citizen places a request by calling or visiting the Gun office, the team visits their home and solves the problem.

Hongsung Gun in Chungnam Province invested 7.5 million KRW (100% supported by the Hongsung Gun budget) and resolved problematic issues such as electrical installation, piping equipment, and small repairs by visiting. A total of 164 requests from basic pension recipients or elderly households have been resolved.

⑥Jeju Island: Aides for Elderly Health and Safety

In JeJu, 70% of the elderly population of the island is over 70 years of age and in need of assistance with hearing aids as well as dentures. Since the number of elderly people with dementia is increasing, a technology to track their location is imperative. For the first time in Korea, the local government of Jeju Island pays 50% of the total cost for dentures and hearing aids. They also advertise on local TV commercials or posters that they provide this assistance.

For the first time in the country, the Jeju government distributed mobile phones with a tracking program free to people who have been diagnosed with dementia or are suspected of having dementia. For the first two years, the rental of the mobile phone as well as the phone usage is free. Currently, 122 dementia patients are using the mobile device with tracking app.

2) Development Services

①City of Busan: Busan Silver Image & Video Festival (BSIF)

The city of Busan hosted the Silver Image & Video Festival that was held in September 2014. A total of 325 videos (i.e., 43 on any topic desired, 282 on a topic related to the elderly) were submitted and 27 videos (i.e., 12 videos on any topic desired, 15 videos on a topic related to the elderly) received an award. The grand prize went to “Romance in the Twilight of Life: An Old Couple’s Journey to Overcome Dementia.”

Ever since the first BSIF was held in 2011, participation has increased annually, as have the number and quality of submissions. Busan assigned mentors in 12 adult daycare centers and conducted media education among the elderly, assisting in the video-making process. Groups of five to ten elderly people from adult daycare centers or senior-citizen colleges in the Busan area competed.

②City of Gwangju: “Buddy” Project for the Solitary Elderly

To make life more enjoyable for elderly people, the city of Gwangju invested 60 million KRW to promote a project that pairs elderly people as friends based on their personality types. In other words, the project introduces a buddy that the solitary elderly person can trust and rely on. First of all, the elderly at high risk for death in solitude are reclusive people who are disconnected from society. Second, the elderly who have been diagnosed with depression by a medical doctor and those who have attempted suicide are in a high suicide-risk group. Third, the elderly who are designated as people with limited relationships are senior citizens who reside alone; they feel very lonely and depressed and are at medium risk for committing suicide.

First, for the elderly who belong to the group at high risk of death in solitude, the city offers personal counseling, regular visits, free meal deliveries, and safety checks during police patrols. Second, for the elderly who belong to the high-risk suicide group, places such as mental health promotion centers attempt to pair the elderly with buddies by providing group counseling sessions, art activities, vegetable gardens, picnics, etc. Third, for the elderly who belong to the group of people with limited relationships, the city tries to pair them up with buddies by creating informal social gatherings, hosting a program called Laughter Heals, and supporting social outings.

③Jeonbuk Province: Jeonju Bread Café and Traditional Korean Homes as Bed and Breakfast

The number of tourists who visit traditional Korean villages in Jeonbuk Province is constantly increasing (over four million visitors per year as of 2011), thereby leading to a lack of accommodation for tourists. For this reason, to cope with the shortage of accommodation and to create jobs for the elderly, Jeonbuk Province promoted bed and breakfast homes owned by the elderly. In addition, the province is attempting to create jobs for the elderly by training them to become baristas or bakers at Jeonju Bread Café.

In 2013, of all the tourists who visited Jeonbuk Province, 1,239 stayed at bed and breakfast homes owned by the elderly, and 1,446 did so in the following year. Currently, 10 senior citizens are employed at Jeonju Bread Café.

3. Summary of Case Studies

The overall characteristics and problems that have been identified with the 17 local governments are as follows. First, the representative project of each local government displays a “huge disparity” based on the financial condition of the local government. Large local government (e.g., Seoul, Gyeonggi), which have relatively better financial conditions, strengthen infrastructure such as building daycare centers and creating shared workspace for the elderly residing alone. By contrast, areas with relatively poor financial conditions cannot implement any projects that require the local government’s financial investment. Such discrepancy between regions could deteriorate.

Second, there is limitation in creating a “specific result-oriented outcome” despite diverse projects being designed and implemented. This is because the projects do not have systematic structures that enable the local government to set goals for solving local issues and to achieve those goals. In reality, symbolic projects and similar projects are being implemented among the local governments as opposed to separate masterplans for respective regions being established and reinforced. Although each local government has problems that stem from low birth rate and an aged society, they do not have the mature condition to establish active policies to cope with the problems.

Third, there is a dearth of strategies to “support the connection of social services” among local governments. It is necessary to establish active aging programs beyond jurisdiction; in reality, however, social service projects are implemented only within the respective jurisdictions of the corresponding governmental organization. In particular, there is no project that reflects the reality that the elderly need not only caring services within certain buildings in the jurisdiction, but they also need programs that provide assistance with transportation.

Fourth, the projects absolutely depend on “the government’s public financial programs.” It is difficult to vitalize social service programs, as financial mobilization becomes difficult due to the deteriorating financial condition of local governments. Although it is necessary to make diverse social efforts to mobilize various sources of finance besides the government, no significant policies related to this have been established. Moreover, local governments are complaining of being in the red because the source of financial support for various social services that are designed to cope with the low birth rate and aged population is obscure. In particular, although the basic pension is the central government’s project, the local governments are unilaterally given the responsibility to supply the remaining budget apart from the central government subsidy. In the future, the central and local governments must agree on the budget in advance before planning any social service projects that receive subsidies from the central government.

Fifth, although there are various social service projects to address the issues of a low birth rate and aged population, the social services in Korea have limitations in that they lack “a medium-to-long-term vision.” In other words, while there are projects that are run by the central government or by the local governments, there is no intensive project that the government is pushing forward as a core project and the various projects are being carried out one at a time. For this reason, it is difficult to identify the focus and effect of each policy (Jung, 2012: 33-34). Furthermore, the government is concentrating on financial assistance while seeking short-term success. The issue of a low birth rate and aged population cannot be solved within a short period; instead, it is necessary to establish long-term goals and devise core projects.

Ⅳ. Discussion and Implications

In a society experiencing a low birth rate and aged population, strategies to encourage childbearing and support childcare are imperative, as are strategies to ensure welfare and strengthen the workforce. The result of analyzing the social services in 17 metropolitan local governments can be summarized as follows. The social services to cope with the low birth rate include such as ; creating a societal atmosphere that cares about childbearing and parenting; establishing policies that encourage childbearing; establishing free childbearing projects for low-income families; providing a total service for expectant mothers; developing apps on pregnancy, childbearing, and parenting; building national and public daycare facilities; and providing toy rentals. The social services to cope with an aged population include: resolving daily inconveniences at homes for the elderly; hiring aides to ensure the health and safety of the elderly; establishing projects that manage the elderly with dementia; pairing the elderly in solitude with buddies; building silver towns for the low-income elderly; creating shared living spaces for the elderly in solitude; hosting video festivals; and creating jobs for the elderly.

The policy implications of this study are as follows. First, it is necessary to build “an alternative system for social service policy centered around the local government.” In other words, social service policy should be established systematically so that local governments can adapt to a society with low birth rate and an aging population. Unlike social welfare policy for low-income vulnerable classes, the policies to cope with low birth rate and an aged society are region-based investment for all residents. When the central government implements basic policies to secure people’s income and health, the local government should take charge of policies that concern citizen’s daily living to maintain and vitalize the local society.

Second, it is necessary to “diversify the financial sources for social services.” If the tight financing continues, it will not be possible to vitalize the social service programs that are dependent on the government’s budget as expected. Therefore, strategies should be sought out to secure a variety of finances that can operate social service projects. To this end, it is crucial to make an effort to connect the corporations’ social contribution activities with the programs dealing with low birth rate and an aged society.

Third, it is necessary to “expand the infrastructure to provide social services.” Individuals have different desires for social services, and there are various providers that can meet such diverse needs; in the meantime, there is a huge regional discrepancy in the conditions of social service providers. Therefore, strategies should be found to expand the infrastructure that provides social services. In this regard, it is necessary to develop new policy means (e.g., an alternative to build and vitalize the online-based social service market as one of the social service R&D projects by the Ministry of Health and Welfare) such as “building an online infrastructure of social service information,” which helps with distribution of the information about the quality and content of the programs that small social service organizations offer.

This study is significant in that it has drawn implications by analyzing local government projects that are independently operated to cope with the low birth rate and an aged population. However, it has limitations: it has failed to examine related theories and previous literature, so it lacks academic foundation as well as in-depth research and analysis. It is hoped that follow-up studies will perform academic research and compensate for these limitations.

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ORIGINAL ARTICLE

The Development of Inclusive Education Support Assessment Tool (IE-SAT)

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ABSTRACT

The study aimed to develop the Inclusive Education Support Assessment Tool(IE-SAT) in order to verify the effects of the dispatch of special needs education supporters, which has been carried out by the Government of Japan. The results of the verification of the content validity for the composition and features of this tool and the formation of its domains and items will be introduced in this article.

＜Key-words＞
Special needs education supporter，inclusive education，assessment tool，IE-SAT

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Ⅰ. The Theme and Purposes of Study

In 2007, the Ministry of Education, Culture, Sports, Science and Technology prescribed the good education for children with disabilities in the Notification about the Implementation of Special Needs Education. It was also clearly stipulated that the proper education should be given to the children who have special needs for education from elementary to high schools in the Notification by implementing special needs education in all the schools that have the children who needs special educational support. As the number of children with disabilities has increased in elementary and middle schools, it is estimated that the children who require special supports for their education due to the learning disabilities (LD), ADHD, Asperger syndrome, etc. account for the 6.5 percent in the regular classes(Ministry of Education, Culture, Sports, Science and Technology, 2012). However, the necessary supports for their special needs for education have not been properly provided because of the short manpower.

The amended School Education Act, which was enacted in 2007, stipulated the implementation of the education that enables children with disabilities who attend elementary and middle schools to overcome their difficulties that were caused by their disabilities. Furthermore, since 2007, special needs education supporters who assist and support the school life of children with disabilities have been dispatched by using the local government budget. Special needs education supporters who have been dispatched to the regular schools have supported the school life of the children who have difficulties in schools due to the disabilities including developmental disabilities by helping their learning and securing their health and safety according to the characteristics of their disabilities and educational needs.

According to the survey on the dispatch of special needs education supporters in elementary and middle schools by the Ministry of Education, Culture, Sports, Science and Technology in 2006, 13,616 supporters were working at 8,922 elementary and middle schools. The local fiscal measures that enabled the expense for the dispatch of special needs education supporters to be paid from the local government budget was announced in 2007 and since then, the number of special needs education supporters has increased nationwide with dispatching them to public kindergartens since 2009 and to public high schools since 2011. In 2014, 49,706 of special needs education supporters were dispatched by using 53 billion Yen through local fiscal measures, which is the amount of budget that can dispatch 46,300 special needs education supporters; 5,638 to public kindergarten, 43,586 to public elementary and middle schools and 482 to public high schools. The number of special needs education supporters has increased steadily (Table 1).

<Table 1> Dispatch of Special Needs Education Supporters

(Unit: one million Yen, person)

Year	Kindergarten		Elementary and Middle Schools		High Schools		Total		Local Government Budget
	Budget from local fiscal measures	Number of the Supporters	Budget from local fiscal measures	Number of the Supporters	Budget from local fiscal measures	Number of the Supporters	Budget from local fiscal measures	Number of the Supporters	
2006		3,299		18,200		226		21,725	
2007		3,513	21,000	22,486		278	21,000	36,277	Approx. 25,000
2008		3,437	30,000	26,092		224	30,000	29,753	Approx. 36,000
2009	3,800	3,779	30,000	31,173		219	33,800	35,171	Approx. 38,700
2010	3,800	4,252	34,000	34,132		341	37,800	38,725	Approx. 43,500
2011	4,300	4,460	34,000	36,524	500	367	38,800	41,351	Approx. 44,300
2012	4,500	4,807	36,500	39,371	500	443	41,500	44,621	Approx. 37,600
2013	4,800	5,217	39,400	41,157	500	483	44,700	46,857	Approx. 51,400
2014	5,300	5,638	40,500	43,586	500	482	46,300	49,706	Approx. 53,000

Children can get assistance and supports for their learning and living from special needs education supporters at School by the dispatch of special needs education supporters (Chamoto & Kikuchi, 2014). Moreover, the results of the survey on the special needs education supporters also showed that they have positively affected the children and others; there were a lot of responses implying that the performance of special needs education supporters is effective (Hosoya, Kitamura & Igarashi, 2014).

There, however, are also some problems that have been revealed such as the lack of the knowledge about and experience of special needs education and the absence of the nationwide data to scientifically verify whether the special needs education supporters have properly performed their jobs in the field of special needs education. Moreover, the dispatch and utilization of special needs education supporters have depended on the judgment of each local government, for there is no regulation for the budget for the dispatch of special needs education supporters in the School Education Act and the budget for the dispatch of special needs education supporters is included in the tax revenue allocated to local governments which is the general revenue. The situation even happened that the budget that should have been used for the dispatch and utilization of special needs education supporters was used for other projects; for example, in 2008, even though 36 billion Yen (the amount of budget that can dispatch 30,000 special needs education supporters) was allocated for special needs education supporters nationwide, only 29,753 special needs education supporters were dispatched. Furthermore, it could be considered as a problem that the budget of the central government is small; in 2014, the number of public schools was 38,607 including 4,714 kindergartens, 20,558 elementary schools, 9,707 middle schools and 3,628 high schools, but the number of special needs education supporters per school was only 1.29 (Ministry of Education, Culture, Sports, Science and Technology, 2014). To solve abovementioned problems and to facilitate the dispatch and utilization of special needs education supporters, it is necessary to clearly present the scientifically proven educational effects of special needs education supporters to the central and local governments.

It, however, was impossible to verify the educational effects of the dispatch of special needs education supporters, because there was no tool to measure them. Therefore, this study aimed to develop Inclusive Education Support Assessment Tool (IE-SAT) that enables to measure the effects of the dispatch of special needs education supporters.

Ⅱ. Structure and Features

IE-SAT is the tool to measure the performance of support system for children with disabilities within a school including special needs education supporters based on the concept of inclusive education. IE-SAT consists of three domains and 10 items including network, supports for learning and supports for living. Evaluators can give the scores between one and five for 10 items and quantitatively measure the performance of special needs education supporters in the supportive system of schools for students with disabilities.

The construct of IE-SAT was established based on various materials including administration data and preceding studies; the four items in the Purposes of the Dispatch of Special Needs Education Supporters in the section of the Dispatch of Special Needs Education Supporters from the material No. 8: About the Special Needs Education Supporters of the 13th session of Special Committee for the Desirable Development of Special Education by the Ministry of Education, Culture, Sports, Science and Technology (2011) (See Table 2); the Report of High School Working Group in the Conference of the Research Partners on the Special Needs Education (2009); and the results of the Research on the Support System for the Dispatch of Special Needs Education Supporters to the Prefectural High Schools in Okinawa Prefecture. In addition, the concepts of Inclusive Education assessment Tool (IEAT) (Han, Yano & Yonemizu, 2015) were also included for the construct of IE-SAT.

<Table 2> Purposes of the Dispatch of Special Needs Education Supporters of the Ministry of Education, Culture, Sports, Science and Technology

○1 To properly respond to the needs of students with developmental disabilities in regular classes
○2 To support the students with disabilities who have been approved to study at the regular elementary and middle schools
○3 To support the adjustment of students who need special supports due to their disabilities to school life among the students who attend high schools
○4 To assist the central roles of special needs schools[1]

Ministry of Education, Culture, Sports, Science and Technology (2011)

<Table 3> Inclusive Education Assessment Tool (IEAT)

IEAT	Guarantee of Rights	Has the right to education been guaranteed?
		Has the extracurricular activities been guaranteed?
		Has the equal opportunity been secured?
	Improvement in Environment	Have the efforts been taken to improve the learning environment?
		Have the efforts been taken to improve the expertise of teachers?
		Have the opportunities for inclusive learning been provided?
		Have the network among various professionals (or organizations) such as health, medicine, welfare and labor and among parents been formed and operated?
	Reform in Curriculums	Have the efforts to improve the independence of students been taken?
		Have the efforts for the participation of community in the inclusive education been taken?
		Have the efforts to promote the awareness of disabilities been taken?
		Have the efforts for the cultivation of the leaders who work for inclusive society been taken?

Han, Yano & Yonemizu (2015)

Ⅲ. Domains of IE-SAT

This tool consists of three domains of network, supports for learning and supports for living. The domains were determined based on the administration data and preceding studies; the Purposes of the Dispatch of Special Needs Education Supporters in the section of the Dispatch of Special Needs Education Supporters by the Ministry of Education, Culture, Sports, Science and Technology (2011); the research results of the Current State of Support System for Students with Disabilities within High Schools by

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[1] Special needs schools play central roles for the special needs education in Japan, by taking the responsibilities such as 1) assisting the teachers at elementary and middle schools, 2) providing consulting about and offering the information on special needs education, 3) guiding and supporting children with disabilities and 4) networking and coordinating the related organizations such as welfare, medicine and health.

the Ministry of Education, Culture, Sports, Science and Technology; and the concepts of Inclusive Education Assessment Tool (IEAT)(Han, Yano & Yonemizu, 2015).

In the domain of Network, it is evaluated whether the contacts or communications among parents, teachers and special needs education coordinators via in-person communication or phone calls are being made and whether they attend the support meetings that are hosted by schools. In the domain of Supports for Learning, the level of supports for learning activities and group activities within and outside of schools is evaluated. In the domain of Supports for Living, the level of supports for the activities of daily living and the group activities is evaluated.

Ⅳ. Definitions of Items

The 10 items of IE-SAT have been determined based on the Guideline for the Special Needs Education Supports by the Ministry of Education, Culture, Sports, Science and Technology (2007), which has specifically prescribed the roles of special needs education supporters via six domains (19 questions), the Act on the Elimination of Discrimination against Persons with Disabilities and the materials on the implementation of inclusive education.

❶ Network

It refers to whether the contacts or communications among guardians, teachers and special needs education coordinators via in-person communication or phone calls are being made and whether they attend the support meetings that are hosted by schools.

Q1. Has the communication been made between the special needs education supporter and parents?

In addition to the communication via the network, whether special needs education supporters provide the information on the learning and living of students at the school to parents and whether they are provided the information on them at home by parents are also evaluated.

Q2. Has the communication been made among the special needs education supporter, homeroom teacher and other teachers?

This question implies the significance of in-person communication between special needs education supporters and teachers as well as the communication via daily records or other written materials. Whether the information on the learning and living of students is sufficiently being shared among special needs education supporters, homeroom teachers and other teacher is evaluated.

Q3. Has the communication been made among the special needs education supporter, special needs education coordinators and school nurses?

Whether the information on the learning and living of students is being shared among special needs education supporters, special needs education coordinators and school nurses is evaluated. The exchange of the information on students via in-person communication is also considered as important as well as via daily record or written materials.

Q4. Has the special needs education supporter participated in the committee for supporting the learning and living of students with disabilities?

Whether the special needs education supporters are allowed to participate in the committee for supporting the learning and living of students with disabilities and to freely express their opinions in the committee is evaluated. If special needs education supporters are not allowed to participate in the committee, but are only supposed to write daily records, they should answer that they don't participate in the committee.

❷ Supports for Learning

Q5. Have the students with disabilities become to receive more supports for the individual learning activities through the special needs education supporter?

Whether the supports of special needs education supporters enable students to understand the contents of classes more and to be provided with more help is evaluated. The supports for learning for students include note-taking by special needs education supporters, the assistance for moving between classrooms and the efforts on the prevention from hurting themselves.

Q6. Have students with disabilities become to receive more supports for their group learning activities through the special needs education supporter?

Whether the dispatch of special needs education supporters enables students to receive more supports for the communication during classes is evaluated.

Q7. Have students with disabilities become to receive more supports for their learning activities outside of schools through the special needs education supporter?

Whether the more supports for learning activities of students such as the group activities with classmates or other students, school excursion, field trip and outdoor camp program for one night and two day have been provided through the dispatch of special needs education supporters is evaluated.

❸ Supports for Living

Q8. Have students with disabilities become to receive more supports for fostering independence in the daily activities of living within a school through the special needs education supporter?

Whether the more supports for fostering independence in the daily activities of living within a school such as changing clothes, using toilet, eating, taking medicine, moving, arranging things and managing schedule have been provided through special needs education supporters is evaluated.

Q9. Have students with disabilities become to receive more supports for fostering independence in the group activities through special needs education supporters?

Whether the more supports for performing activities during classes and classroom-cleaning time have been provided through special needs education supporters is evaluated.

Q10. Has the understanding of the disabilities of both students with and without disabilities been improved through the special needs education supporter?

Whether the understanding of the difficulty that the students with disabilities have in daily activities of living such as changing clothes, using toilet, eating, taking medicine, moving, arranging things and managing schedule has been heightened among students without disabilities through special needs education supporters is evaluated. The efforts to improve the awareness of disabilities among students without disabilities are also included in the evaluation.

Ⅴ. Evaluation

All the scores of 10 questions are added; four questions in the domain of network, three in supports for learning and three in supports for living, which were given the score between one and five. The score of each question is doubled and added; the perfect score of total is 100.

The evaluation with using this tool is applied for each special needs education supporter; if one special needs education supporter cares more than one student, the evaluation can be implemented for the supports for one student who most needs the supports of special needs education supporter.

The evaluators who evaluate the performance of special needs education supporters may be special needs education supporters, administrators, special needs education coordinators and homeroom teachers, but the evaluators must not modify the results of evaluation results.

For the most desirable results, the integrated evaluation results that are obtained from separately implementing the evaluations by special needs education supporters, homeroom teachers, special needs education coordinators and administrators for the performance of each special needs education supporter should be submitted to the committee for supporting the learning and living of students with disabilities and discussed to improve their performance.

Ⅵ. Face Sheet

The face sheet includes the information on the student with disabilities who is the subject of the supports of a special needs education supporter such as grade, age and types of disabilities and the information on the special needs education supporter such as age, gender, whether to hold teacher's license or not, the period working as a special needs education supporter, the period working as a teacher, the time of education about special needs education within one year and previous occupation.

<Table 4> Face sheet

Inclusive Education Support Assessment Tool (IE-SAT)

- The tool to evaluate the performance of special needs education supporters in the implementation of inclusive education

Inclusive Education Support Assessment Tool (IE-SAT) is the tool to evaluate the support system for students with disabilities by utilizing the special needs education supporters in the perspective of inclusive education. This tool should be filled for each special needs education supporter.

1. Student who is provided supports by one special needs education supporter

The number of students who are provided supports by one special needs education supporter is [___________].

(When a special needs education supporter provides supports to more than one student, please write the information on one student who most needs the supports.)

① Grade __________th grade

② Gender [Male / Female]

③ Types of Disability [Intellectual disability / physical disability / health impairments / visual impairment / hearing impairment / developmental disability* / multiple disabilities** / acquired disabilities · multiple disabilities***]

* Developmental disabilities: [LD / ADHD / autism spectrum disorder]

** Multiple disabilities: [Intellectual disability / physical disability / health impairments / visual impairment / hearing impairment / developmental disability]

※ Please check the (○) corresponding to the items that you think is most appropriate for each question regardless of whether the student has been diagnosed or not.

*** Acquired disabilities·multiple disabilities– Medical care [Has been medically cared / has not been medically cared]

2. Special needs education supporter
(Please, fill the blank, only when the evaluator accords with the special needs education supporter who is the subject of this evaluation.)

① Age ____________ years old
② Gender [Male / Female]
③ Teacher's license [Kindergarten/elementary/middle school ( ) High school ( )
Special needs school ( ) School nurse ( )
School dietitian ( ) Librarian ( ) No license ( )]
Teacher's license for special needs education: [2nd / 1st / Specialization license / N/A]
④ Period working as a special needs education supporter(excluding substitute teachers):
[____ years ________ months]
⑤ Period working as a teacher(including substitute teachers, but excluding special needs education teachers):
[____ years ________ months]
⑥ Period working at special needs schools(including substitute teachers, but excluding special needs education teachers):
[for intelligent disabilities ______ years / for physical disabilities ______ years
for health impairments ______ years / for visual impairments ______ years
for hearing impairments ______ years / for intellectual and physical disabilities ______ years]
⑦ Time of education for special needs education within one year: about __________ hours
⑧ Previous occupation ________________________________

Ⅶ. The Development and the Content Validity of IE-SAT

The construct and items of IE-SAT have been determined through the discussion with researchers and in-service teachers based on the aforementioned administration data, studies and case studies. Since then, the content validity was verified through the expert survey for five experts on special needs education. Finally in March, 2015, the IE-SAT(tentative) was established through the review meeting that includes seven teacher's consultants of Special Support Schools Department of Prefectural Schools Education Division in Okinawa Prefectural Board of Education (Tanaka, Yonemizu & Yano et al., 2015).

To verify the validity of IE-SAT (tentative), the survey was implemented for 135 in-service teachers in August, 2015. Before distributing questionnaires, the information on special needs education, current state of the special needs education supporters and inclusive education was explained to those teachers for about two hours. The questionnaires were distributed to only teachers who consented to survey after sufficient explanation for the purpose of research and ample time for questions and answers. The number of teachers who participated in the survey is shown in Table 5.

The 123 questionnaires (91.1%) out of 135 distributed questionnaires were valid. The results of the survey on the content validity for the 10 items of three domains of IE-SAT (tentative) are shown in Table 6. In results, 95 percent of respondents answered that all the 10 items of three domains are valid. Even though there were negative responses, it may be interpreted as the lack of the knowledge of special needs education supporters. The manual for IE-SAT was edited to include the specific examples, because there were five responses having told that the definitions on network and supports for learning outside of school need to be more elaborated. Through the abovementioned process of content validity, IE-SAT has been finally developed (See Table 7).

<Table 5> Number of teachers who participated in the survey for the verification of content validity

	Number	Percentage (%)
Kindergarten・Elementary Schools	49	36.3
Middle Schools	48	35.6
High Schools	22	16.3
Special Needs Schools	16	11.9
Total	135	100.0

<Table 6> Results of the Verification of Content Validity of Each Question (%)

	Positive	Negative
Q1	95.9	4.1
Q2	100.0	0
Q3	99.2	0.8
Q4	99.2	0.8
Q5	99.2	0.8
Q6	100.0	0
Q7	98.5	1.6
Q8	98.5	1.6
Q9	99.2	0.8
Q10	99.2	0.8

(n=123)

<Table 7> Inclusive Education Support Assessment Tool (IE-SAT)

Inclusive Education Support Assessment Tool (IE-SAT)

- The tool to evaluate the performance of special needs education supporters in the implementation of inclusive education

① Please check the (○) corresponding to the answer that you think is most appropriate for each question without exception from Q1 to Q10.
② Please add the three subtotals and enter the score in the total score box.

Total Score (❶+❷+❸) ×2	/100

❶ Network refers to the contacts or communication via in person or phone calls

Q1	Has the communication been made between the special needs education supporter and parents?	5	4	3	2	1
Q2	Has the communication been made among the special needs education supporter, homeroom teacher and other teachers?	5	4	3	2	1
Q3	Has the communication been made among the special needs education supporter, special needs education coordinators and school nurses?	5	4	3	2	1
Q4	Has the special needs education supporter participated in the committee for supporting the learning and living of students with disabilities?	5	4	3	2	1

❶ Subtotal of Network	/20

❷ Supports for Learning

Q5	Have the students with disabilities become to receive more <u>supports for the individual learning activities</u> through the special needs education supporter? The supports for the individual student's learning activities refers to the direct supports for learning to improve the level of understanding the contents of classes such as the assistance for note-taking.	5	4	3	2	1
Q6	Have students with disabilities become to receive more <u>supports for their group learning activities</u> through the special needs education supporter? The supports for group learning activities refer to the supports for students with disabilities to improve the communication with other students without disabilities in the situation of the presentation during classes or small talking with friends.	5	4	3	2	1
Q7	Have students with disabilities become to receive more supports for their learning activities outside of schools through the special needs education supporter?	5	4	3	2	1

❷ Subtotal of Supports for Learning	/15

❸Life Support

Q8	Have students with disabilities become to receive more supports for fostering independence in the daily activities of living within a school through the special needs education supporter? The supports for fostering independence in the daily activities of living within a school refers to providing helps for the activities such as changing clothes, using toilet, eating, taking medicine, moving, arranging things and managing schedule.	5	4	3	2	1
Q9	Have students with disabilities become to receive more supports for fostering independence in the group activities through special needs education supporters? The supports for fostering independence in the group activities refers to helping students with disabilities in performing activities during classes and classroom-cleaning time.	5	4	3	2	1
Q10	Has the understanding of the disabilities of both students with and without disabilities been improved through the special needs education supporter?	5	4	3	2	1

❸ Subtotal of Supports for Living	/15

Calculation	Double the subtotals of three domains and add all three subtotals. Perfect score is 100.

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ORIGINAL ARTICLE

The Performance of Culture and Arts Support Program for Persons with Disabilities as the Means of Cultural Marketing and the Tasks for its Development: Based on the Survey on the Current State of the Awareness of Culture and Arts Support Program of the Companies for Persons with Disabilities in South Korea

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ABSTRACT

This study aimed to evaluate the performance of the culture and arts support programs of companies for persons with disabilities and to suggest the tasks to activate those programs as the means of cultural marketing by implementing the survey on the current state of the awareness of culture and arts support programs of the companies for persons with disabilities.

Based on the results of the study, the tasks to lead companies to actively participate in the culture and arts support programs for persons with disabilities in the aspect of cultural marketing were suggested. First, the companies need to actively promote their culture and arts support programs for persons with disabilities and provide the information on them. Second, for the improvement of the understanding and awareness of persons with disabilities, the culture and arts support programs of companies for them should be implemented on a continuous basis. Third, the value of the culture and arts support programs of companies for persons with disabilities needs to be emphasized by presenting their various achievements. Fourth, the studies on the culture and arts support programs of companies for persons with disabilities as the part of cultural marketing need to be continuously conducted. Fifth, the companies should plan and implement the programs that may be led to the creation of employment simultaneously with supporting the culture and arts programs for persons with disabilities.

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Ⅰ. Introduction

In recent, the interest in and consideration for socially vulnerable people have increased, as proactive welfare policies have been implemented in the aspect of productive welfare in South Korea. The needs of persons with disabilities who are eager to find themselves and accomplish self-achievement in the dimension of culture and arts have also grown (Jun, 2010). In this context, the needs for the particular systems and policies to support the cultural and art rights equal to persons without disabilities also have grown.

Until now, the activities in order to guarantee the cultural and art rights of all the people including persons with disabilities have generally relied on the supports of public sector. It, however, has become clear that the supports of public sector are not enough to meet the ever-growing needs for the culture and arts, which has caused company's mecenat activities[1] to be involved in from the private sector(Kim, Bang, Kim & Han, 2014). Furthermore, Frey (2003), a cultural political economist, argued that the company's mecenat activities are more appropriate to support cultural and art activities, because the companies tend to respond to the needs of culture and arts more quickly and less bureaucratically.

In the meantime, as the corporate social responsibility (CSR) has increasingly gained the attention, the company's mecenat activities have been expanded, but they tended to be carried out in the aspect of charity. Lately, however, the cultural marketing programs have increased that combine the value of social contribution in the aspect of public interest with the improvement of corporate image and the creation of new value in the commercial aspect (Kim & Im, 2012; Oh, 2011).

The cultural and arts support programs of companies for persons with disabilities may achieve not only the realization of public interest that persons with disabilities who have artistic capabilities can be identified and cultivated, but also commercial interests that new values can be created by newly designing the creativity of persons with disabilities; that is, the support of companies for the cultural and arts programs as the part of cultural marketing may be led to the win-win relationship between the company and persons with disabilities. However, the results of those programs have not been clearly presented due to the lack of empirical researches that demonstrate the performances of the culture and arts programs for persons with disabilities in both aspects of public and commercial interests, which caused the limited participation of companies in them. Moreover, since there is no research on the current state of the culture and arts support programs for persons with disabilities, the mismatch between the supply and demand of those programs has not been solved; to activate the culture and arts programs for persons

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[1] The company's mecenat activities refer to the sponsoring activities of companies for the culture and arts based on the mutually beneficial relationship between companies and beneficiaries and are also frequently called sponsorship or partnership(Korea Culture and Tourism Institute, 1995).

with disabilities, the research for the companies who are suppliers of those programs and the persons with and without disabilities who are their consumers needs to be implemented.

Therefore, this study aimed to evaluate the performance of culture and arts programs for persons with disabilities and suggest the tasks to activate them by investigating the current state of culture and arts support programs of companies for persons with disabilities through the survey for persons with disabilities who are their consumers and the experts on the culture and arts programs for persons with disabilities.

Ⅱ. Methods

The current state of culture and arts support programs for persons with disabilities was surveyed for persons with disabilities who are their consumers, the experts on the culture and arts support programs for persons with disabilities and the professionals who are working in the field of culture and arts. Based on the results of the survey, 1) the value of the culture and arts support programs for persons with disabilities in the aspect of social contribution was evaluated and 2) the tasks to activate them were identified.

The current state of culture and arts support programs for persons with disabilities of companies has been investigated based on the following methods.

1. Survey

The survey was conducted to understand the current state of the culture and arts support programs of companies for persons with disabilities; the questionnaires were distributed by mail and e-mail and collected likewise.

The questionnaire was composed of four categories and 27 items; 1) the awareness of the culture and arts support programs of companies for persons with disabilities, 2) the necessity of the culture and arts support programs of companies for persons with disabilities, 3) the performance appraisal of the culture and arts support programs of companies for persons with disabilities and 4) the tasks for the activation of the culture and arts support programs of companies for persons with disabilities(See Table 1).

<Table 1> Composition of the questionnaire for the survey on the current state of culture and arts support programs of companies for persons with disabilities

Categories	Contents
1. Awareness of the culture and arts support programs of companies for persons with disabilities	· Degree of the awareness of those programs · Degree of the awareness of the ongoing implementation of those programs
2. Necessity of the culture and arts support programs of companies for persons with disabilities	· Necessity in the aspects of cultural right and the equal right of persons with disabilities · Necessity in the aspects of the improvement of the understanding and awareness of persons with disabilities · Necessity in the aspects of the cultivation of the talents and the creation of employment of persons with disabilities · Necessity in the aspect of the activation of community · Types of programs that are needed most
3. Performance appraisal of the culture and arts support programs of companies for persons with disabilities	· Evaluation of the performances of the culture and arts support programs for persons with disabilities in the aspect of social contribution
4. Tasks for the activation of the culture and arts support programs of companies for persons with disabilities	· Tasks that are necessary to activate the culture and arts support programs of companies for persons with disabilities

2. The Subjects of the Study and the Survey Period

The survey was conducted for 200 people including artists with disabilities, the researchers on the culture and arts of persons with disabilities, persons whose jobs are related with both culture and arts and persons with disabilities and persons whose jobs are related with culture and arts, but unrelated with persons with disabilities. Whether the subjects have disabilities or not was not considered when distributing the questionnaires. The survey was carried out between June 15 and July 14 in 2015.

Ⅲ. The Concept of Cultural Marketing

Cultural marketing may be explained by the concept of 'marketing of the culture and arts' and the concept of 'marketing through marketing the culture and arts' according to who the main agent of the implementation is. The main agent of the former may become the culture-and-arts related organization and that of the latter may become the company who has the plan to achieve the company goals by taking advantage of the culture and arts (Kim & Kwon, 2009, Kim, Kwon & Lee, 2012). In this study, the latter one of abovementioned two concepts was used, which is the cultural marketing by companies who intend to take advantage of the public and commercial values of culture and arts support programs for persons with disabilities.

The cultural marketing of companies may be divided into external and internal cultural marketing. External cultural marketing is the activities that cultural marketing is directly used as the means of the marketing of products and the communication strategy for the external consumers of company including consumers, artists, culture and arts organizations and communities. Meanwhile, internal cultural marketing is the activities that enable the employees, who are the internal customers of company, to develop creative abilities by providing culture and arts education and experiences. In this study, the concept of the external cultural marketing was used focusing on the culture and arts programs for persons with disabilities including customers, artists, culture and arts organization and communities.

Ⅳ. Results

1. Overview of Survey and the Characteristics of Respondents

In this study, the awareness and necessity of culture and arts programs were investigated via the survey on the current state of those programs centering on the demand-side aspect of culture and arts support programs for persons with disabilities.

The survey was conducted for 200 people including the experts and researchers on the culture and arts for persons with disabilities and the employees of the Korean Federation of the Association of Artists with Disabilities(한국장애인문화예술단체총연합회), the Association for the Promotion of the Culture for Persons with Disabilities(장애인문화진흥회), the Korea National Council on Social Welfare and the Korea Employment Security Association for the Disabled regardless of whether they have disabilities or not. The return rate of questionnaire was 93.5 percent (n=187), which is very high percentage.

The respondents showed the characteristics as follows; average age was 36.1 years; male was 42.4 percent and female 57.8 percent; the percentage of respondents with disabilities was 16 percent and that of respondents without was 84 percent; the percentage of respondents whose jobs are related with persons with disabilities was 62.2 percent and they have averagely been in the jobs for seven years and seven months and the percentage of respondents whose jobs are unrelated with persons with disabilities was 24(See Table 2).

<Table 2> Characteristics of respondents (n=187)

Characteristics		M(±SD)
Age	Valid=183	36.1(±9.9)
	Missing=4	
Gender	Valid=185	Male: 78 (42.2%) Female: 107 (57.8%)
	Missing=2	
Whether having disability or not	Valid=181	Yes: 29 (16.0%) No: 152(84%)
	Missing=6	
Occupation	Valid=179	Respondents whose jobs are related with persons with disabilities: 112 (62.6%) Respondents whose jobs are related with culture and arts, but unrelated with persons with disabilities): 43(24%) Researchers: 24(13.4%)
	Missing=8	
Period that respondents have been in the jobs that are related with persons with disabilities	Valid=163	7.7(±6.3)
	Missing=24	

2. The Results of the Survey on the Awareness of the Culture and Arts Support Programs of Companies for Persons with Disabilities

It was asked whether the respondents were aware of the culture and arts programs of companies for persons with disabilities and the 52.9 percent of respondents answered that they were not aware of those programs.

Since it was assumed that whether the respondents were aware of the culture and arts programs of companies for persons with disabilities may be affected by the degree of the interest in those programs for persons with disabilities, which also may be affected by the characteristics of respondents such as whether the respondents have disabilities or whether their jobs are related with persons with disabilities, their awareness of those programs according to the characteristics of respondents was analyzed. However, the differences according to whether they have disabilities or not were found to be statistically insignificant (chi-square=0.373, p=0.541). That is to say, regardless of whether the respondents have disabilities or not, the degree of the awareness of the culture and arts support programs of companies for persons with disabilities was relatively low (See Table 3).

<Table 3> Respondents' awareness of the culture and arts support programs of companies for persons with disabilities by whether they have disabilities or not (n=187)

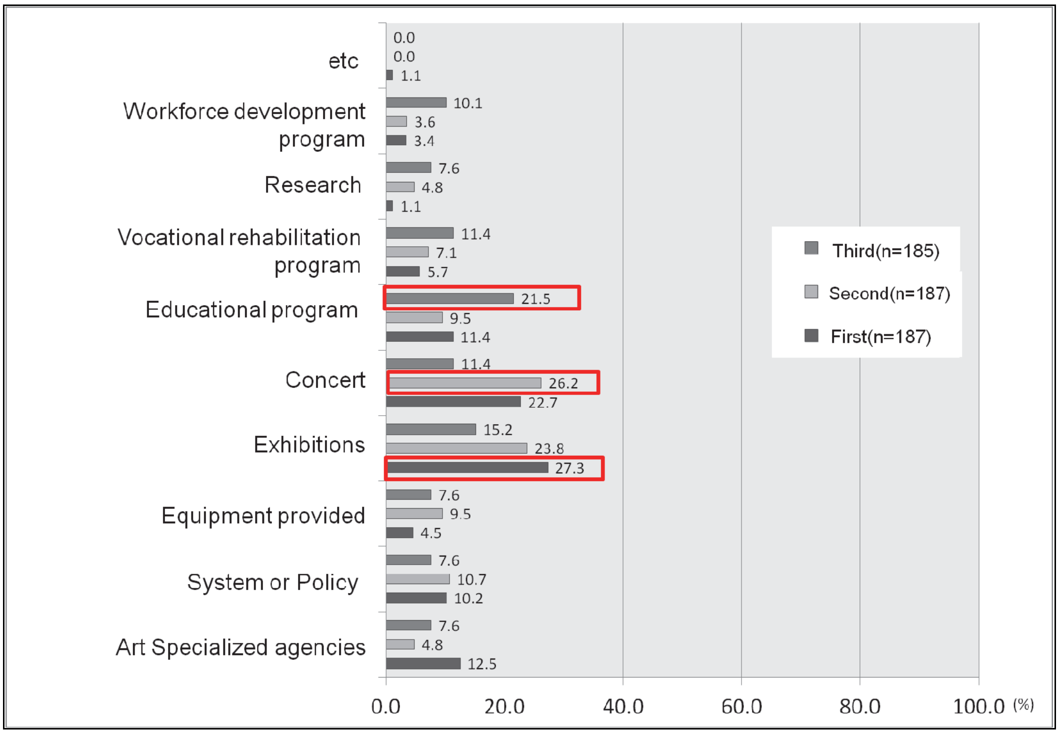
			The Awareness		Total
			Yes	No	
Whether the respondents have disabilities or not	Have disabilities	Frequency	14	12	26
		Percentage	53.8%	46.2%	100.0%
	Have no disability	Frequency	61	68	129
		Percentage	47.3%	52.7%	100.0%
Total		Frequency	75	80	155
		Percentage	48.4%	51.6%	100.0%
Valid=155, Missing=32 Pearson Chi-Square=.373, p=.541					

In the meantime, the differences according to whether respondents' jobs are related with persons with disabilities were found to be statistically significant, which means that the persons whose jobs are related with persons with disabilities may have more possibility to be aware of the culture and arts programs of companies for persons with disabilities (chi-square=9.654, p=0.008) (See Table 4). The 60 percent of the respondents whose jobs are related with persons with disabilities was aware of those programs, but only 30 percent of those whose jobs are not related with persons with disabilities was aware of those programs, which may be interpreted that the culture and arts programs of companies for persons with disabilities have not been known well yet.

<Table 4> Respondents' awareness of the culture and arts programs of companies for persons with disabilities by whether their jobs are related with persons with disabilities or not (n=187)

			Awareness		Total
			Yes	No	
Relationship with whether respondents' jobs are related with persons with disabilities	Respondents' jobs are related with persons with disabilities	Frequency	49	35	84
		Percentage	58.3%	41.7%	100.0%
	Respondents' jobs are unrelated with persons with disabilities	Frequency	13	31	44
		Percentage	29.5%	70.5%	100.0%
	Researchers	Frequency	10	12	22
		Percentage	45.5%	54.5%	100.0%
Total		Frequency	72	78	150
		Percentage	48.0%	52.0%	100.0%
Valid=150, Missing=37 Pearson Chi-Square=.9.654, p=.008(p<0.05)					

As to the types of the culture and arts programs of companies for persons with disabilities, respondents were aware of one-time events such as exhibitions(27.3 %) and concerts(26.2%), but, the number of the respondents who were aware of the research and educational programs of companies for persons with disabilities was relatively very low(See Figure 1); there was no statistically significant difference according to whether they have disabilities and whether their jobs are related with persons with disabilities.



<Figure 1> Types of culture and arts programs of companies for persons with disabilities which respondents were aware of.

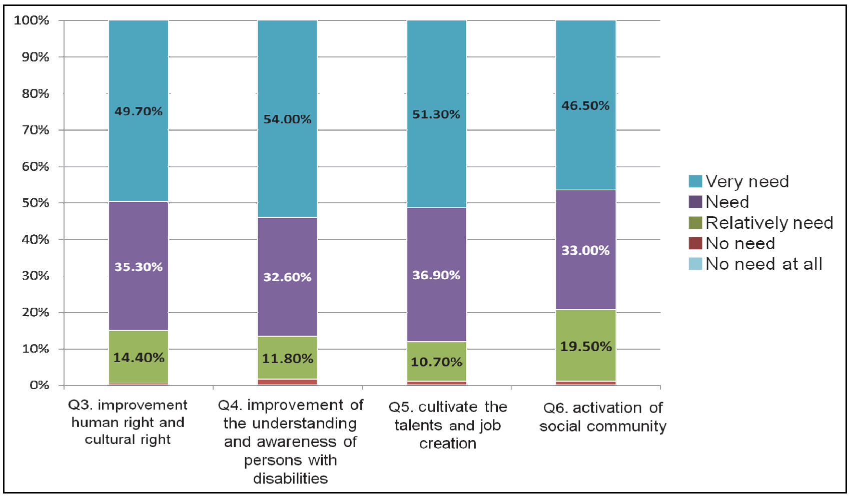
Most of respondents answered that the culture and arts support programs of companies for persons with disabilities have not been sufficiently provided, while only 5.9 percent of respondents answered that they have been provided sufficiently. They mostly answered that the insufficient supply of those programs may have been caused by the lacks of promotion and information and also suggested that most of programs have not been sustainable, because they have been carried out as the forms of one-time events. In the meantime, the respondents who answered that those programs have been sufficiently provided showed the opinions that the systems have been established to support the culture and arts support programs for persons with disabilities and the programs and events for persons with disabilities have increased more than in the past.

In sum, the abovementioned results present that the active promotion of those programs or the provision of information on those programs has not been carried out sufficiently in the position of consumers of those programs, even though some companies have endeavored to support culture and arts programs for persons with disabilities and those programs and events have increased compared to the past.

3. The Necessity of the Culture and Arts Programs of Companies for Persons with Disabilities

The necessity of the culture and arts programs of companies for persons with disabilities was investigated in the four aspects as follows; the guarantee of the right to enjoy culture and arts and rights to equality of persons with disabilities; the improvement of the understanding and awareness of persons with disabilities; the cultivation of the capability of persons with disabilities and the creation of employment; and the activation of community through the utilization of human and material resources within the community.

The 54.0 percent of respondents answered that the culture and arts support programs for persons with disabilities need to be implemented for the improvement of the understanding the awareness of persons with disabilities and 46.5 percent answered that they need to be done for the activation of community through the utilization of human and material resources within the community(See Figure 2); there was no statistically significant difference according to whether they have disabilities and whether their jobs are related with persons with disabilities.



<Figure 2> Necessity of the culture and arts programs of companies for persons with disabilities (n=187)

In sum, respondents considered that culture and arts support programs of companies for persons with disabilities are needed most for the improvement of the understanding and the awareness of persons with disabilities, even though the culture and arts programs of companies for persons with disabilities are needed for all the four goals of the guarantee of the right to enjoy culture and arts and rights to equality of persons with disabilities, the improvement of the understanding and the awareness of persons with disabilities, the cultivation of the capability of persons with disabilities and the creation of employment and the activation of community through the utilization of human and material resources within the community.

4. The Results of the Performance Appraisal for the Culture and Arts Support Programs of Companies for Persons with Disabilities

1) The Composition and the Categories of Performance Appraisal for the Culture and Arts Support Programs of Companies for Persons with Disabilities in the Aspect of Social Contribution

As aforementioned, in the aspect of cultural marketing, the cultural and arts support programs of companies for persons with disabilities may achieve not only the realization of public interest that persons with disabilities who have artistic capabilities can be identified and cultivated, but also commercial interests that new values can be created by newly designing the creativity of persons with disabilities. However, there was no tool to appraise the performances of those programs in the public and commercial aspects. Therefore, in this study, the quantitative appraisal for the performance of those programs in the public aspect was attempted.

The tool for the performance appraisal for the culture and arts support programs of companies for artists with disabilities in the aspect of social contribution was utilized, which was developed based on the cases of culture and arts support programs for persons with disabilities and the opinions of experts on the culture and arts for persons with disabilities and is composed of three categories and 10 items including the improvement in the rights of persons with disabilities, the cultivation of the talents of persons with disabilities for arts and the social participation of persons with disabilities(See Table 5).

2) Results of the Performance Appraisal for the Culture and Arts Support Programs of Companies for Persons with Disabilities in the Aspect of Social Contribution

In results of the performance appraisal for the culture and arts support programs of companies for artists with disabilities in the aspect of social contribution, the average of the total score was 28.3 out of 50.

Among the three categories, the average score of ❶ the category of the improvement in the rights of persons with disabilities was 8.9 out of 15; the score of the item on the improvement in the human right of persons with disabilities was highest (average score was 3.0) and that on the guarantee of the rights of arts and cultural education was lowest (average score was 2.9). The average score of ❷ the category of the cultivation of the talents of persons with disabilities for arts was 8.6 out of 15; the score of the item on the expansion of their capability of arts and culture was highest (average score was 3.0) and that of the identification and cultivation of the talents of persons with disabilities for arts was lowest (average score was 2.8).The average score of ❸ the category of the social participation of persons with disabilities was 11.3 out of 20; the score of the item on the efforts for the improvement of social awareness for persons with disabilities was highest (average score was 3.0) and that of the identification and cultivation of the talents of persons with disabilities for arts was lowest (average score was 2.7).

<Table 5> Tool for the performance appraisal for the culture and arts support programs of companies for artists with disabilities in the aspect of social contribution

The performance appraisal for the culture and arts support programs of companies for artists with disabilities in the aspect of social contribution

① This form is designed to rate the performance of the culture and arts support programs of companies for artists with disabilities in the aspect of social contribution.

② Please check the box by choosing the score between one and five in the questions from Q8 to Q17. The score can be is given between one and five; one for very high level of performance, two for high, three for average, four for low and five for very low.

Total: ❶+❷+❸	______/50

❶ Improvement in the rights of persons with disabilities

		5	4	3	2	1
Q8	Have the companies contributed to the improvement in the human right of persons with disabilities via the culture and arts support programs for them?					
Q9	Have the companies contributed to the guarantee of art right and cultural right via the culture and arts support programs for them					
Q10	Have the companies contributed to the guarantee of the rights of arts and cultural education via the culture and arts support programs for them?					
	❶ Subtotal	________/15				

❷ Cultivation of the talents of persons with disabilities for arts

		5	4	3	2	1
Q11	Have the companies made the effort to identify and cultivate the talents of persons with disabilities for arts via the culture and arts support programs for them					
Q12	Have the companies made the effort to help persons with disabilities expand their capability of arts and culture via the culture and arts support programs for them?					
Q13	Have the companies provided the opportunity for arts activities to persons with disabilities via the culture and arts support programs for them?					
	❷ Subtotal	________/15				

❸ Social participation of persons with disabilities

		5	4	3	2	1
Q14	Have the companies contributed to the social participation of persons with disabilities by networking welfare facilities, administrative agencies, educational agencies and NPOs via the culture and arts support programs for them?					
Q15	Have the companies contributed to the social integration of persons with disabilities by providing them with the opportunities of the creative and cultural collaboration with persons without disabilities via the culture and arts support programs for them?					
Q16	Have the companies contributed to the social integration of persons with disabilities by making the effort for the improvement of social awareness for persons with disabilities via the culture and arts support programs for them?					
Q17	Have the companies contributed to the activation of communities by utilizing the material and human resources within them via the culture and arts support programs for them?					
	❸ Subtotal	_______/20				

Score calculation	The total score is calculated by adding each score of each question.

<Table 6> Results of the performance appraisal for the culture and arts support programs of companies for artists with disabilities in the aspect of social contribution (n=186)

Items		M(SD)
❶ Improvement in the rights of persons with disabilities	Q8. Have the companies contributed to the improvement in the human right of persons with disabilities via the culture and arts support programs for them?	3.04(1.07)
	Q9. Have the companies contributed to the guarantee of art right and cultural right via the culture and arts support programs for them	2.98(1.09)
	Q10. Have the companies contributed to the guarantee of the rights of arts and cultural education via the culture and arts support programs for them?	2.90(1.05)
	❶ Subtotal	8.92(2.97)
❷ Cultivation of the talents of persons with disabilities for arts	Q11. Have the companies made the effort to identify and cultivate the talents of persons with disabilities for arts via the culture and arts support programs for them	2.80(1.05)
	Q12. Have the companies made the effort to help persons with disabilities expand their capability of arts and culture via the culture and arts support programs for them?	2.96(1.05)
	Q13. Have the companies provided the opportunity for arts activities to persons with disabilities via the culture and arts support programs for them?	2.88(1.06)
	❷ Subtotal	8.59(2.95)
❸ Social participation of persons with disabilities	Q14. Have the companies contributed to the social participation of persons with disabilities by networking welfare facilities, administrative agencies, educational agencies and NPOs via the culture and arts support programs for them?	2.83(0.99)
	Q15. Have the companies contributed to the social integration of persons with disabilities by providing them with the opportunities of the creative and cultural collaboration with persons without disabilities via the culture and arts support programs for them?	2.82(1.02)
	Q16. Have the companies contributed to the social integration of persons with disabilities by making the effort for the improvement of social awareness for persons with disabilities via the culture and arts support programs for them?	2.98(1.10)
	Q17. Have the companies contributed to the activation of communities by utilizing the material and human resources within them via the culture and arts support programs for them?	2.68(0.97)
	❸ Subtotal	11.32(3.64)
Total		28.25(9.42)

The results of the performance appraisal of the culture and arts support programs of companies for persons with disabilities showed that those programs have been highly rated in the aspects of the improvement in the human right of persons with disabilities, the guarantee of the rights of arts and cultural education and the improvement in the social awareness for persons with disabilities. However, the score in the aspect of the activation of community was relatively low, which may mean that the culture and arts support programs of companies for persons with disabilities should be prepared that can contribute to the activation of community by utilizing the human and material resources within the community.

5. Tasks to Activate the Culture and Arts Support Programs of Companies for Persons with Disabilities

In the results of the survey on the tasks to expand and settle the culture and arts support programs of companies for persons with disabilities as the part of activities of cultural marketing, 97.3 percent of respondents answered that the efforts to identify and cultivate the talents of persons with disabilities for arts without the discrimination against disabilities should be made (Table 7).

As shown in the Table 7, as to the question of whether the efforts should be made for the social integration of persons with disabilities by improving the social awareness for them, the 64.1 percent of respondents answered that the best efforts should be made for that, which was the highest one among other questions that gained the same score.

<Table 7> Tasks to Activate the Culture and Arts Support Programs of Companies for Persons with Disabilities (n=187)

(Unit: No. of person, %)

Tasks		The efforts should be made.		The efforts are not needed to be made.		Missing value
		The best efforts should be made.	The efforts should be made.	The best efforts are not needed to be made.	The efforts are not needed to be made.	
Q18	Do you think that the efforts should be made for the improvement in the human rights of persons with disabilities?	171(94.0%)		11(6.0%)		5
		87(47.8%)	84(46.2%)	11(6.0%)	0(0.0%)	
Q19	Do you think that the efforts should be made for the guarantee of the art right and cultural right of persons with disabilities?	171(94.0%)		11(6.0%)		5
		66(36.3%)	105(57.7%)	11(6.0%)	0	
Q20	Do you think that the efforts should be made for the guarantee of the rights of arts and cultural education of persons with disabilities?	175(95.6%)		8(4.4%)		4
		74(40.4%)	101(55.2%)	7(3.8%)	1(0.5%)	
Q21	Do you think that the efforts should be made to identify and cultivate the talents of persons with disabilities for arts without the discrimination against disabilities?	178(97.3%)		5(2.7%)		4
		99(54.1%)	79(43.2%)	5(2.7%)	0(0.0%)	
Q22	Do you think that the efforts should be made to improve the capability of arts and culture of persons with disabilities?	173(96.1%)		7(3.9%)		7
		68(37.8%)	105(58.3%)	7(3.9%)	0(0.0%)	
Q23	Do you think that the efforts should be made to provide the opportunities for arts activities of persons with disabilities?	171(94.0%)		11(6.0%)		5
		95(52.2%)	76(41.8%)	11(6.0%)	0(0.0%)	
Q24	Do you think that the efforts should be made to promote the social participation of persons with disabilities by networking welfare facilities, administrative agencies, educational agencies and NPOs?	169(93.3%)		12(6.7%)		6
		73(40.3%)	96(53.0%)	12(6.7%)	0(0.0%)	
Q25	Do you think that the efforts should be made to contribute to the social integration of persons with disabilities by providing them with the opportunities of the creative and cultural collaboration with persons without disabilities?	167(95.3%)		12(6.7%)		8
		87(48.6%)	80(44.7%)	12(6.7%)	0(0.0%)	
Q26	Do you think that the efforts should be made for the social integration of persons with disabilities by improving social awareness for persons with disabilities?	172(95.0%)		9(5.0%)		6
		116(64.1%)	56(30.9%)	9(5.0%)	0(0.0%)	
Q27	Do you think that the efforts should be made to contribute to the activation of communities by utilizing the material and human resources within them during the culture and arts support programs for them?	169(92.3%)		14(7.7%)		4
		84(45.9%)	85(46.4%)	14(7.7%)	0(0.0%)	

V. Conclusions

In this study, based on the survey on the current state of the awareness of culture and arts support program of the companies for persons with disabilities, how well those programs have been recognized and what makes those programs necessary were reviewed. In addition, the performance of the culture and arts support programs of companies for persons with disabilities was quantitatively appraised in the aspect of social contribution.

Based on the results of study, the tasks to lead companies to actively participate in the culture and arts support programs for persons with disabilities in the aspect of cultural marketing were suggested.

First, the companies need to actively promote their culture and arts support programs for persons with disabilities and provide the information on them. The results showed that whether the respondents were aware of the culture and arts support programs of companies for persons with disabilities or not was affected by whether their jobs were related with persons with disabilities or not. In addition, it was found that the culture and arts support programs of companies for persons with disabilities have not been actively promoted or the information on them has not been sufficiently provided, even though some companies have made the efforts to support them. That is to say, to attain both public and commercial achievements of the culture and arts support programs of companies for persons with disabilities in the aspect of cultural marketing, the active promotion of those programs and the provision of the information on them should be carried out as much as possible even the general public who do not have any relationship with persons with disabilities can be aware of them.

Second, for the improvement of the understanding and awareness of persons with disabilities, the culture and arts support programs of companies for them should be implemented on a continuous basis. The results show that, among the reasons that the culture and arts support programs of companies for persons with disabilities are necessary, the answer that they are necessary for the improvement of the understanding and awareness of persons with disabilities accounted for the biggest percentage. And also, the results of the survey on the tasks to activate the culture and arts support programs of companies for persons with disabilities also showed that the best efforts should be made for their social integration by improving the social awareness of persons with disabilities. Therefore, the continuous and long-term programs rather than one-time events need to be implemented.

Third, the value of the culture and arts support programs of companies for persons with disabilities needs to be emphasized by presenting their various achievements. As aforementioned, in the aspect of cultural marketing, the cultural and arts programs of companies for persons with disabilities may achieve not only the realization of public interest that persons with disabilities who have artistic capabilities can be identified and cultivated, but also commercial interests that new values can be created by newly designing the creativity of persons with disabilities. However, there was no tool to appraise the performances of those programs in the public and commercial aspects. In this study, the evaluation was focused on the social contribution and it was proved that the social contribution could be evaluated in the various aspects including the improvement in the improvement in the rights of persons with disabilities, the cultivation of the talents of persons with disabilities for arts and the social participation of persons with disabilities. In particular, it was found that the culture and arts support programs of companies for persons with disabilities have been rated highly in the aspects of the improvement in the human right of persons with disabilities, the expansion of their capability of arts and culture and the improvement of social awareness of them. Therefore, the value of the culture and arts support programs of companies for persons with disabilities needs to be underlined as the activities of cultural marketing to induce the participation of more companies in them by making public the achievement of those programs in the commercial aspect as well as in the aspect of social contribution.

Fourth, the studies on the culture and arts support programs of companies for persons with disabilities as the part of cultural marketing need to be continuously conducted. In this study, it was confirmed that the exhibitions, concerts and the educational programs of culture and arts among the various types of the culture and arts support programs of companies for persons with disabilities have been known relatively well. Meanwhile, respondents did not know well about the research on the culture and arts of persons with disabilities that companies have conducted and also did not give priority to that in the aspect of the necessity among other types of the culture and arts support programs of companies for persons with disabilities, either. It, however, is important that the meanings of the culture and arts support programs of companies for persons with disabilities in the aspects of economics, management and sociology are presented to attract the active and voluntary participation of companies in the field of culture and arts programs for persons with disabilities. Furthermore, it is significant to identify the needs of persons with disabilities who are the consumers of the culture and arts support programs of companies and the companies who are the providers of those programs through the research on the current state of the culture and arts support programs of companies for persons with disabilities as well as the meaning of those programs.

Fifth, the companies should plan and implement the programs that may be led to the creation of employment simultaneously with support the culture and arts programs for persons with disabilities; as the task to expand and settle the culture and arts programs of companies for persons with disabilities, 97.3 percent of respondents answered that the efforts should be made for the identification and cultivation of the talents of persons with disabilities without discrimination against disabilities. The opportunities that artists with disabilities may not only be integrated into the society through the culture and arts activities, but also achieve the economic independence should be provided for the activation of the culture and arts of persons with disabilities.

Unfortunately, this study has the limitation that it was written only in the aspect of consumers of the culture and arts support programs of companies for persons with disabilities, which did not deal with the issues that the companies may confront in the process of the implementation of those programs. Moreover, this study only dealt with the achievements in the aspects of social contribution that is considered as public interest and did not deal with those in the commercial aspect. Therefore, the follow-up studies should be conducted in order to present the achievement of the culture and arts support programs of companies for persons with disabilities in the more comprehensive aspect and to suggest the tasks to develop them more.

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ORIGINAL ARTICLE

The Verification of the Reliability and Validity of Inclusive Education Assessment Tool (IEAT)

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ABSTRACT

Han, Yano & Yonemizu (2015) also developed the Inclusive Education Assessment Tool(IEAT) to understand the establishment of inclusive education system. This tool was developed based on the understanding of the current state of inclusive education and the relationship between inclusive education and special needs education in Japan. IEAT is the first tool to evaluate the current state of inclusive education system, but its reliability and validity have not been verified yet. Therefore, this study aimed to verify the reliability, content validity and construct validity of IEAT. Content Validity; When over 80 percent of the respondents answered that the tool is valid, it is determined that this tool is verified to be valid. Reliability; Reliability of IEAT was estimated using the internal consistency method. The internal consistency of IEAT was assessed with Cronbach's α. A minimum Cronbach's α co-efficient of 0.7 was considered satisfactory for group-level comparisons. Construct Validity; Construct validity was verified using structural equation modeling (SEM). Goodness of fit index (GFI), comparative fit index (CFI) and root mean square error of approximation (RMSEA) are the suitability indices of SEM; researchers may choose which index they would use for the verification of SEM. A model is considered acceptable, when two or more fit indices are met including RMSEA. For adequately fitting models, these fit indices should meet the following criteria: GFI>0.95, CFI>0.90 and RMSEA<0.1. As the result, Over 90 percents of respondents answered that this tool is valid in all the items and domains, guarantee of rights(α＝0.848), improvement in environment(α＝0.752) and reform in curriculum(α＝0.775); GFI=0.953; CFI=0.952; and RMSEA=0.068. The validity was verified because the values of GFI, CFI and RMSEA were within the goodness-of-fit range.

＜Key-words＞
Inclusive education, IEAT, Verification of the Reliability and Validity,

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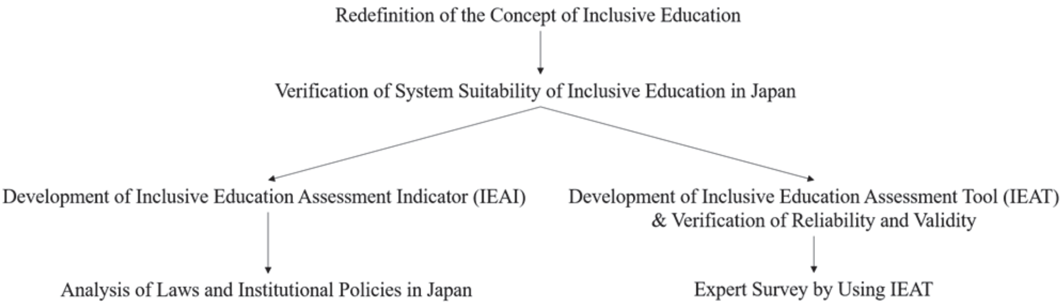
Ⅰ. Introduction

Including Japan, inclusive education became the world-wide issue in the field of educational policy. In Japan, however, even though the policies for the implementation of inclusive education system have been prepared, but there is no tool to evaluate the level of inclusive education yet (Kohara, Yano& Han, 2014).

For the evaluation of inclusive education system, the study on the philosophy and theoretical background of inclusive education has been conducted, Inclusive Education Assessment Indicator (IEAI) that evaluates the inclusive education system and policies was developed and the study on the analysis of the laws, systems and policies on education in Japan by using IEAI was carried out (Figure1). Han, Yano& Yonemizu(2015) also developed the Inclusive Education Assessment Tool(IEAT) to understand the establishment of inclusive education system. This tool was developed based on the understanding of the current state of inclusive education and the relationship between inclusive education and special needs education in Japan.

IEAT intended to understand the state of inclusive education system through the subjective evaluation of the educational experts. IEAT consists of 11 items of three domains; the guarantee of rights, the improvement in environment and the reform in curriculum (Figure 2). IEAT is the first tool to evaluate the current state of inclusive education system, but its reliability and validity have not been verified yet.

Therefore, this study aimed to verify the reliability, content validity and construct validity of IEAT.



<Figure 1> The Research Process on the Evaluation of Inclusive Education System

Inclusive Education Assessment Tool (IEAT)

【How to answer the questions and calculate the scores】

① Please check the (○) corresponding to the answer that you think is most appropriate for each question between Q1 and Q11.

② Please add the scores of each domain and check the (○) corresponding to the level of the score of each domain between Level Ⅰ and Level Ⅴ.

❶ Guarantee of Rights

		Strongly agree	Agree	Neutral	Disagree	Strongly disagree
Q1	Has the right to education been guaranteed?	5	4	3	2	1
Q2	Has the extracurricular activities been guaranteed?	5	4	3	2	1
Q3	Has the equal opportunity been secured?	5	4	3	2	1

❶Subtotal of the Guarantee of Rights	/ 15

Ⅰ	Ⅱ	Ⅲ	Ⅳ	Ⅴ
3〜5	6〜8	9〜11	12〜14	15

❷ Improvement in Environment

Q4	Have the efforts been taken to improve the learning environment?	5	4	3	2	1
Q5	Have the efforts been taken to improve the expertise of teachers?	5	4	3	2	1
Q6	Have the opportunities for inclusive learning been provided (room, facilities and environment for inclusive learning)?	5	4	3	2	1
Q7	Have the network among various professionals (or organizations) such as health, medicine, welfare and labor and among parents been formed and operated?	5	4	3	2	1

❷ Subtotal of the Improvement of Environment	/ 20

Ⅰ	Ⅱ	Ⅲ	Ⅳ	Ⅴ
4〜7	8〜11	12〜15	16〜19	20

❸ Reform in Curriculum

Q8	Have the efforts to improve the independence of students been taken?	5	4	3	2	1
Q9	Have the efforts for the participation of community in the inclusive education been taken?	5	4	3	2	1
Q10	Have the efforts to promote the awareness of disabilities been taken?	5	4	3	2	1
Q11	Have the efforts for the cultivation of the leaders who work for inclusive society been taken?	5	4	3	2	1

❸ Subtotal of the Reform in Curriculum	/ 20

Ⅰ	Ⅱ	Ⅲ	Ⅳ	Ⅴ
4〜7	8〜11	12〜15	16〜19	20

Calculation	Please add the scores of each domain and check the (○) corresponding to the level of the score of each domain between Level Ⅰ and Level Ⅴ.	Each answer of questions can be changed to the corresponding score; strongly agree = 5, agree = 4, neutral = 3, disagree =2 and agree = 1.

<Figure 2> Inclusive Education Assessment Tool: IEAT

Ⅱ. Methods

1. Subject& Procedure

In the workshop for inclusive education by the Okinawa Prefectural Board of Education, the survey on IEAT was carried out; the consent to participate in the survey was gained after explaining the purposes and contents of the study and the questionnaires were distributed. In the workshop, the public officers from Okinawa Prefectural Board of Education and Education Offices (the branches of prefectural board of education) and special needs education coordinators from elementary, middle and high schools within the Prefecture participated in the workshop.

The seven workshops were held between November, 2014 and September, 2015. 62 public officials for education and 590 special needs education coordinators(total 652) responded to the survey; all the public officials for education held teacher's license. Special needs education coordinators are the teachers who play the central role of special needs education in each school and their main responsibility is to manage the network of diverse people and organizations including administrative officers, families, educational institutions such as elementary schools, middle schools, high schools, etc. and organizations related with the education for persons with disabilities such as hospitals, welfare facilities and organizations related with employment.

2. Questionnaire

1) Face Sheet

On the face sheet of IEAT was distributed to the respondents (evaluators), the information on the respondents were asked; age, gender, the period of working as a teacher, the period of working at special needs school, the period of working at the special needs classes, the period of working as a special needs education coordinator, the period of working at the board of education and whether to hold the teacher's license for special needs education.

2) Content Validity of IEAT

The content validity of IEAT of 11 questions of three domains were verified by using five-point scale; the score of 5=very valid, 4=valid, 3=limitedly valid, 2=in-valid and 1=very in-valid.

3) IEAT

IEAT is the tool for understanding the state of inclusive education system. IEAT consists of 11 items of three domains; the guarantee of rights, the improvement in environment and the reform in curriculum. For each item, the evaluators are asked to indicate the extent of their agreement or disagreement using a five-point scale; the score of 1 = strongly disagree, 2 = disagree, 3 = neutral, 4 = agree and 5 = strongly agree.

3. Statistical Analysis

1) Content Validity

Content validity is largely stated whether it is valid or in-valid; 5 = very valid, 4 = valid and 3 = limitedly valid are considered as valid and 2 = in-valid and 1 = very in-valid are considered as in-valid. When over 80 percent of the respondents answered that the tool is valid, it is determined that this tool is verified to be valid (Usuta, 2000; Toyama, 2013).

2) Reliability of IEAT

Reliability of IEAT was estimated using the internal consistency method. The internal consistency of IEAT was assessed with Cronbach's α. A minimum Cronbach's α co-efficient of 0.7 was considered satisfactory for group-level comparisons (Cronbach, 1951).

3) Construct Validity

Construct validity was verified using structural equation modeling (SEM). Goodness of fit index (GFI), comparative fit index (CFI) and root mean square error of approximation (RMSEA) are the suitability indices of SEM; researchers may choose which index they would use for the verification of SEM.

A model is considered acceptable, when two or more fit indices are met including RMSEA (Steiger, 1998). For adequately fitting models, these fit indices should meet the following criteria: GFI>0.95(Shevlin & Miles, 1998), CFI>0.90 (Han, Lee, Iwaya, Kataoka & Kohzuki, 2005) and RMSEA<0.1 (Koshio, 2004). In this research, maximum likelihood estimation was used for the parameter estimation. AMOS ver.4.0 was employed for statistical analysis.

Ⅲ. Result

1. Content validity of the IEAT

The characteristics of respondents are shown in the Table 1. Over 90 percents of respondents answered that this tool is valid in all the items and domains (Table 2).

<Table1> Characteristics of the Respondents to the Content Validity of IEAT（N=410）

Characteristics	M±SD
Age	42.2±10.0
Period of teaching experiences	17.2±9.9
Period of teaching experiences at special needs school(s)	1.71±5.3
Period of teaching experiences at special needs classroom(s)	1.6±3.3
Period of working as a special needs education coordinator	1.7±2.3
Period of experiences in board of education	0.3±1.9
Gender	Male: 77(18.8%) Female: 332 (81.0%) No response: 1 (0.2%)
Teacher's license for special needs education	With license: 136 (33.2%) Without license: 274 (66.8%)

<Table.2> The Results of the Survey on the Validity of Each Domain and Question Item (N=410)

<table>
<tr><th colspan="2" rowspan="3">Questions</th><th colspan="3">Valid
N(%)</th><th colspan="2">In-valid
N(%)</th><th rowspan="3">No-response
N(%)</th></tr>
<tr><th>Very valid</th><th>Valid</th><th>Limitedly Valid</th><th>In-valid</th><th>Very In-valid</th></tr>
<tr><th>N(%)</th><th>N(%)</th><th>N(%)</th><th>N(%)</th><th>N(%)</th></tr>
<tr><td rowspan="2">Domain 1</td><td rowspan="2">The inclusion of the scope of “Guarantee of rights ” in the IEAT</td><td colspan="3">402(98.0)</td><td colspan="2">0(0.0)</td><td rowspan="2">8(1.9)</td></tr>
<tr><td>174(42.4)</td><td>195(47.5)</td><td>33(8.0)</td><td>0(0.0)</td><td>0(0.0)</td></tr>
<tr><td rowspan="2">Domain 2</td><td rowspan="2">The inclusion of the scope of “Improvement in environment” in the IEAT</td><td colspan="3">402(98.0)</td><td colspan="2">0(0.0)</td><td rowspan="2">8(1.9)</td></tr>
<tr><td>243(59.2)</td><td>144(35.1)</td><td>15(3.6)</td><td>0(0.0)</td><td>0(0.0)</td></tr>
<tr><td rowspan="2">Domain 3</td><td rowspan="2">The inclusion of the scope of “Reform in curriculum” in the IEAT</td><td colspan="3">400(97.5)</td><td colspan="2">1(0.2)</td><td rowspan="2">9(2.1)</td></tr>
<tr><td>171(41.7)</td><td>198(48.2)</td><td>31(7.5)</td><td>1(0.2)</td><td>1(0.2)</td></tr>
<tr><td rowspan="2">Item 1</td><td rowspan="2">The inclusion of Q1 in “Guarantee of rights” of the IEAT</td><td colspan="3">392(95.6)</td><td colspan="2">0(0.0)</td><td rowspan="2">18(4.3)</td></tr>
<tr><td>176(42.9)</td><td>185(45.1)</td><td>31(7.5)</td><td>0(0.0)</td><td>0(0.0)</td></tr>
<tr><td rowspan="2">Item 2</td><td rowspan="2">The inclusion of Q2 in “Guarantee of rights” of the IEAT</td><td colspan="3">390(95.1)</td><td colspan="2">1(0.2)</td><td rowspan="2">19(4.6)</td></tr>
<tr><td>148(36.0)</td><td>198(48.2)</td><td>44(10.7)</td><td>1(0.2)</td><td>1(0.2)</td></tr>
<tr><td rowspan="2">Item 3</td><td rowspan="2">The inclusion of Q3 in “Guarantee of rights” of the IEAT</td><td colspan="3">390(95.1)</td><td colspan="2">0(0.0)</td><td rowspan="2">20(4.8)</td></tr>
<tr><td>174(42.4)</td><td>184(44.8)</td><td>32(7.8)</td><td>0(0.0)</td><td>0(0.0)</td></tr>
<tr><td rowspan="2">Item 4</td><td rowspan="2">The inclusion of Q4 in “Improvement in environment” of the IEAT</td><td colspan="3">389(94.8)</td><td colspan="2">0(0.0)</td><td rowspan="2">21(5.1)</td></tr>
<tr><td>208(50.7)</td><td>159(38.7)</td><td>22(5.3)</td><td>0(0.0)</td><td>0(0.0)</td></tr>
<tr><td rowspan="2">Item 5</td><td rowspan="2">The inclusion of Q5 in “Improvement in environment” of the IEAT</td><td colspan="3">389(94.8)</td><td colspan="2">0(0.0)</td><td rowspan="2">21(5.1)</td></tr>
<tr><td>198(48.2)</td><td>173(42.1)</td><td>18(4.3)</td><td>0(0.0)</td><td>0(0.0)</td></tr>
<tr><td rowspan="2">Item 6</td><td rowspan="2">The inclusion of Q6 in “Improvement in environment” of the IEAT</td><td colspan="3">388(94.6)</td><td colspan="2">0(0.0)</td><td rowspan="2">22(5.3)</td></tr>
<tr><td>174(44.9)</td><td>180(44.4)</td><td>34(8.0)</td><td>0(0.0)</td><td>0(0.0)</td></tr>
<tr><td rowspan="2">Item 7</td><td rowspan="2">The inclusion of Q7 in “Improvement in environment” of the IEAT</td><td colspan="3">388(94.6)</td><td colspan="2">0(0.0)</td><td rowspan="2">22(5.3)</td></tr>
<tr><td>172(41.9)</td><td>185(45.1)</td><td>31(7.5)</td><td>0(0.0)</td><td>0(0.0)</td></tr>
<tr><td rowspan="2">Item 8</td><td rowspan="2">The inclusion of Q8 in “Reform in curriculum” of the IEAT</td><td colspan="3">382(93.1)</td><td colspan="2">1(0.2)</td><td rowspan="2">27(6.5)</td></tr>
<tr><td>156(38.0)</td><td>180(43.9)</td><td>46(11.2)</td><td>1(0.2)</td><td>1(0.2)</td></tr>
<tr><td rowspan="2">Item 9</td><td rowspan="2">The inclusion of Q9 in “Reform in curriculum” of the IEAT</td><td colspan="3">379(92.4)</td><td colspan="2">3(0.7)</td><td rowspan="2">28(6.8)</td></tr>
<tr><td>133(32.4)</td><td>195(47.5)</td><td>51(12.4)</td><td>3(0.7)</td><td>3(0.7)</td></tr>
<tr><td rowspan="2">Item 10</td><td rowspan="2">The inclusion of Q10 in “Reform in curriculum” of the IEAT</td><td colspan="3">381(92.9)</td><td colspan="2">1(0.3)</td><td rowspan="2">28(6.8)</td></tr>
<tr><td>160(39.0)</td><td>183(44.6)</td><td>38(9.2)</td><td>1(0.3)</td><td>1(0.3)</td></tr>
<tr><td rowspan="2">Item 11</td><td rowspan="2">The inclusion of Q11 in “Reform in curriculum” of the IEAT</td><td colspan="3">363(94.9)</td><td colspan="2">3(0.7)</td><td rowspan="2">28(6.8)</td></tr>
<tr><td>144(35.1)</td><td>184(44.8)</td><td>51(12.4)</td><td>3(0.7)</td><td>3(0.7)</td></tr>
</table>

2 Reliability & Construct Validity of the IEAT

1) Characteristics of the Respondents to Reliability & Construct Validity of the IEAT

A total of 614 accomplished questionnaires were collected among the 652 that had been distributed (the response rate of 94.1 percent), but of these, only 605 questionnaires could be analyzed because of the incomplete responses of the others. The characteristics of the respondents using IEAT are shown in Table 3. The average length of the period of teaching experiences of respondents (evaluators) was 12.9 years. In addition, 72.7 percent of the teachers had the teacher's license for special needs education.

<Table3> Characteristics of all respondents (N=605)

Characteristics	M±SD
Age	42.0 ±12.8
Period of teaching experiences	18.6 ±9.9
Period of teaching experiences at special needs school(s)	1.8 ±5.6
Period of teaching experiences at special needs classroom(s)	1.9 ±3.7
Period of working as a special needs education coordinator	2.1 ±2.5
Period of experiences in board of education	0.2 ±1.6
Gender	Male: 97 (16.0%) Female: 506 (83.6%) No response: 2 (0.4%)
Teacher's license for special needs education	With license: 216 (35.7%) Without license: 389 (64.3%)

2) Reliability of the IEAT.

The results of the he internal consistency (Cronbach α Coefficient) are as follows; guarantee of rights(α = 0.848), improvement in environment(α = 0.752) and reform in curriculum(α = 0.775) (Table 4).

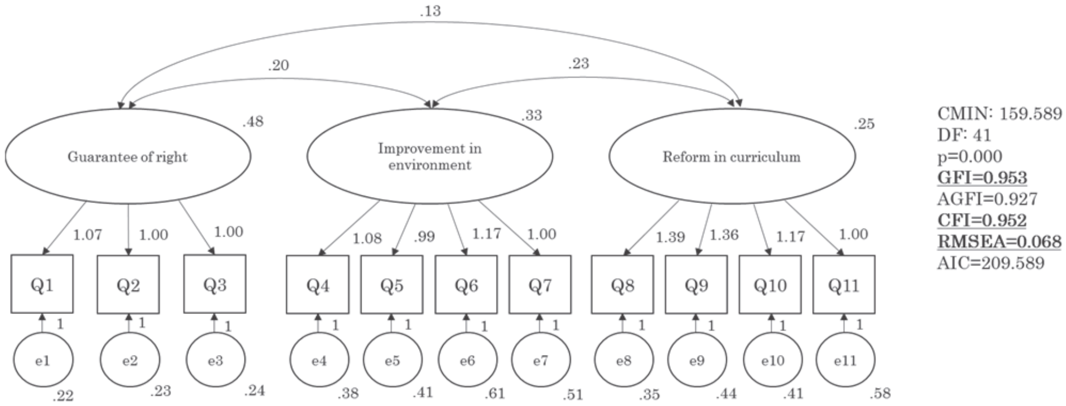
<Table4> IEAT Scale Scores and Reliability Scores (N=605)

Constructs	Mean	SD	Cronbach's alpha if item deleted	Cronbach's alpha
Guarantee of rights				0.848
Q1	4.04	0.76	0.804	
Q2	3.85	0.84	0.780	
Q3	3.85	0.85	0.780	
Improvement in environment				0.752
Q4	3.29	0.87	0.673	
Q5	3.05	0.85	0.691	
Q6	3.34	1.03	0.708	
Q7	3.10	0.91	0.708	
Reform in curriculum				0.775
Q8	3.19	0.91	0.709	
Q9	2.76	0.95	0.692	
Q10	2.94	0.87	0.716	
Q11	2.07	0.91	0.761	

Q1-Q11, (1=minimum, 5=maximum) α>.700

3. Validity of the IEAT

As for the SEM, IEAT showed a high level of fitness: GFI=0.953; CFI=0.952; and RMSEA=0.068. The validity was verified because the values of GFI, CFI and RMSEA were within the goodness-of-fit range (Figure3).



<Figure 3> SEM of IEAT

Ⅳ. Discussion

This study verified the reliability and validity of IEAT to understand the current state of inclusive education system for the first time in Japan. In results of verifying the content validity, over 90 percent of respondents answered that IEAT is valid in all the domains and items; therefore, it is confirmed that IEAT has the content validity. In results of measuring the value of Cronbach's α, high values of Cronbach's α were shown in all the domains. There was no item to be deleted, because the values of Cronbach's α if item deleted of each item were below the value of Cronbach's α of the domain that each item belong to. High values were shown in all the suitability indices of Structural equation modeling (SEM) to verify the construct validity.

In the process of the development of IEAT, theoretical method was also employed. Theoretical method refers to the process of statistically analyzing and arranging the question items that have been made based on the logical examination of the subjects to be measured(Murakami, 2008). The study on the evaluation of inclusive education system commenced with the research on the analysis and arrangement of the concepts of inclusive education in Japan and abroad. Based on those processes, the Inclusive Education Assessment Indicator (IEAI) was developed to analyze the system and policies for inclusive education system and Han, Yano, Kohara, et al.(2015) analyzed the laws, system and policies that are related with education in Japan with the IEAI. Through the abovementioned theoretically suitable process of the development of a tool, the Inclusive Education Assessment Tool(IEAT) was finally developed.

The evaluation of educational system needs to be implemented by the experts who have the expertise of the system. Therefore, the survey for this study was conducted for the public officers for education from Okinawa Prefectural Board of Education and Education Offices (the branches of prefectural board of education) and special needs education coordinators from elementary, middle and high schools within the Prefecture participated in the workshop. All the public officers for education hold teacher's license and are in charge of educational administration in the region. Special needs education coordinators play the central role for the special needs education in each school and community. Because this study was carried out for all the public officers for education and special needs education coordinators and over 600 of them participated in the survey for this study, high levels of the reliability and validity could be obtained.

It is expected that the IEAT will be prevalently used for the implementation of inclusive education system in Japan, because the IEAT is the only tool that has been verified as a tool to evaluate the inclusive education system until now with high levels of reliability and validity.

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ORIGINAL ARTICLE

Conditions and Limitations of Internet-based Information Sharing on Autistic Spectrum Disorders at Regional Youth Support Stations

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ABSTRACT

Recent research has reported that the number of unemployed youth with autistic spectrum disorders (ASDs) or suspected of ASDs is increasing. Moreover, problems faced by youth with ASDs in remaining employed have been focused. In this study, we accessed websites of regional youth support stations and analyzed information provided by these websites, in order to understand the contemporary situation related to the provision of information by these stations. Information about the provision of support in previous cases, institutional cooperation, upcoming events and the style of consultation, among others were summarized. Results indicated that information on available consultation methods at the stations was displayed on all websites. Of the stations, 18.8% required users to visit stations for consultations. However, characteristics of potential users indicated that email, telephone consultations, and home-visits were more suitable and desirable for them. Other issues including the frequency of updating the websites and information about events for interacting with similar others were also investigated. Based on the results, we have discussed the roles of regional youth support stations in meeting social needs.

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Ⅰ. Problem and Purpose

1. NEETs and Autistic Spectrum Disorders (ASDs)

In recent years, people with ASDs are often identified among those that are not in education, employment or training (NEETs). In general, personal factors, such as lack of autonomy, endurance, and communication skills, immature volition to work, as well as socioeconomic factors including decreasing employment opportunities for young adults after the end of the so called economic bubble in the early 1990s are recognized as key causal factors in NEETs. According to Kitao, Sugimoto & Sonoi et al. (2005), "Japan will face a serious decrease in population to approximately 100,000,000 people by 2050. Therefore, ensuring that the workforce can increase its productivity is important for developing the economy. The, increase in the number of NEETs entails that potential human resources are not fully utilized and that people fail to receive training, or gain experience through work, both of which can result in reduced economic growth. Therefore, the issue of NEETs is more than just about jobless youth; and is a serious national concern with implications for economic development.

After decreasing to 630,000 in 2009, the number of jobless youth has generally remained unchanged at over 600 thousand since 2002. However, the youth population aged 15-34 years has shrunk from 34.25 million in 2009 to 29.29 million in 2009. This indicates that the ratio of jobless people among the young population has actually increased by 0.3%, indicating that there has been no improvement in the youth employment situation. The Japan Student Services Organization (2012) in a survey of post-secondary educational institutions reported that 33 of 124 alumni with a diagnosis of ASD found employment in 2012. The employment rate for alumni with no difficulties, or disorders, was 60.9% (total 580 thousand people), whereas it was 49.9% for handicapped alumni (total 1370 people). These data imply that finding employment remains difficult for youth with ASDs. Moreover, according to a survey conducted by an institution supporting NEETs, 36 of 155 users of the institution (23.2%) were suspected of ASDs (National Institute of Vocational Rehabilitation, 2008). Furthermore, another survey conducted by the Japan Productivity Center in 2007 suggest that approximately half the participants was socially withdrawn (49.5%), had a history of psychiatric treatment (49.5%), or had experienced being bullied in the past (over 50%).

Recently, problems related to working opportunities for people with ASD have been discussed more actively than in the past. Nevertheless, requirements for employment support can differ based on ASD characteristics of each person (Kim, 2012). Following the legislation of support provision for people with ASDs in 2005, employment support for such people has been focused in Japan, and the importance of developing systems for providing support from the time of diagnosis has been emphasized (Ministry of Health Labor and Welfare, 2008). However, despite the increased attention given to developing support systems, achieving the goal of adequate support for people with ASDs remains difficult.

2. History of Government Activities

Since 2003, when the Ministry of Education, Culture, Sports, Science and Technology, the Ministry of Health Labor and Welfare (MHLW), the Ministry of Economy, Trade and Industry and the Cabinet Office released the “Youth Independence and Challenge Plan,” the Japanese government has implemented a range of measures, such as career education, industry-collaborated education, and reforms of related laws to improve youth-unemployment problems. Six months after the release of the above plan, the “Action Plan for Youth Independence and Challenges” was launched to increase its efficiency. Following these activities, the government realized that more than mere employment support was needed for youth without jobs, and as a result, an expansive support policy has been conducted since 2006, which included the establishment of regional youth support stations.

Unemployment became a significant social issue during the economic depression following the collapse of Lehman Brothers in 2008. As a result, employment development projects designed to increase jobs for people of all age groups have been implemented to facilitate job creation and reemployment. Moreover, after the recognition that some jobless youth were suffering, or suspected of ASDs, a law for supporting the independence of persons with ASDs was enforced in in 2005. Furthermore, the need for career education was stipulated in the general provision of high school curriculum guidelines for special needs education, which facilitated career education in all schools including those for special needs education. The national institute of special needs education (2011) defined career education as encouragement and development of motivation, attitudes, and skills for students’ careers. The foremost among employment support projects currently implemented in Japan has been conducted by “Hello Work,” which is the national agency for job seekers. Employment support centers and local vocational centers for persons with disabilities are available to support people with difficulties, such as ASDs. However, these centers have limited their accessibility through provisions stipulating that only people diagnosed with ASDs are eligible to use the centers, thereby making them unavailable to a number of jobless youth that are suspected, but have never been diagnosed with ASDs. Therefore, such public services by themselves are inadequate solutions to the problem. As described above, the discrepancy between public policy and reality is gradually disappearing, nevertheless, new problems and issues are constantly developing, which over the years has led to high number of youth being jobless.

3. Overview of Regional Youth Support Stations

In 2006, there was a major shift from employment support to exclusive and continuous support for jobless youth, and as a result, the government expanded the Regional Youth Support Station Project that was a part of the “Action Plan for Youth Independence and

Challenge" (2005), which was included in the "Youth Independence and Challenge Plan." Interestingly, the actual discussion on developing this plan was conducted by a different organization, the conference for strategy of inclusive independence support for youth, based on an analysis of the "survey of social independence of young people" conducted by the cabinet office of Japan. In the report submitted in June 2006, the concept of this project was tentatively cited as "Youth Support Centers." Regional youth support stations provide employment support for young people aged between 15 and 39 years. The actual support includes consultations with career consultants, communication skills training, and workplace experience programs in companies that cooperate with the program. Government-sanctioned NPO groups and companies across the country have participated in implementing this project. Originally the project welcomed any unemployed person, without regard to ASDs. However, as the understanding about youth unemployment increased, meeting the needs of unemployed youth with ASDs was considered an important goal. In fact, this understanding has resulted in professionalism in providing support for people with ASDs. However, the content of these services are not standardized and they depend heavily on operators of each support station. As a result, certain training programs are not suitable for people with difficulties. Users typically visit the support station that is closest to their home on a regular basis and rarely consider changing the station. As a result, standards are required in all the stations, in order to provide the same quality of services for all users.

4. Purpose of this study

We accessed websites of Regional Youth Support Stations in different regions of Japan and examined the content of information provided in their websites. On the basis of the results, we discussed the system of Regional Youth Support Stations in light of future social need for this service.

Ⅱ. Method

1. Subjects

Websites of 160 Regional Youth Support Stations across Japan were analyzed, by examining all webpages of each website.

2. Period of analysis

November to December, 2014.

3. Procedures

1) Having a website

We used the webpage of MHLW, which shows a list of Regional Youth Support Stations, and searched the URL of each station. We also searched stations that are not included in the list by using search engines such as Yahoo, and Google.

2) Assessing information on websites

There are no standardized scales or evaluation methods available for assessing the information that is provided through websites of Regional Youth Support Stations. Therefore, we developed an original scale and evaluation criteria, based on the Regional Youth Support Station Project of 2013 (MHLW, 2013), which includes information on career consulting, station-school links and intensive training for unemployed young people (Table 1).

<Table 1> Overview of the analysis

- Having a website
- Information on websites
  Staff licensing and certification
- Disclosure of personal information about staff
  ○None ○Without a face photo ○With a face photo
- Information on past cases
- Information on institutional cooperation
  ○ None ○ Only Companies ○ Only Schools ○ Both companies and schools
- Opportunities to interact with similar others

- Frequency of updating website (days since the last update)
- Announcements of upcoming events
  (Out-of-date information was not analyzed in this study)

- Information on methods of consultation
- Using the expression, “developmental disorders”
  (Instances in which “developmental disorders” are clearly mentioned)

Ⅲ. Result

1. Having a website

All 160 Stations had a website

2. Information on websites

1) Number of full-time staff

a. Staff licensing and certification

Of all support stations, 56 (97.5%) displayed the number of full-time staff on their websites. The remaining websites had no information about their staff. The largest number of full-time staff in any one station was 27, whereas the smallest number was only three. The average number of full-time staff members in a station was 8.4.

b. Staff licensing and certification

Of all support stations, 152 (95.0%) displayed information about staff certification on their websites. The total number of staff members with a professional license, including those with multiple qualifications was 995. The details of licenses and qualifications are shown in Table 2. It can be seen that the most common license was career consultant's license, which was held by 261 staff members. This was followed by clinical psychologist's license, which was held by 143, and industrial counselor's license, held by 115 staff members.

<Table 2> Staff licensing and certification

Licenses / certificates	Number of holders as shown on websites
Career consultant	261
Clinical psychologist	143
Industrial counselor	115
Teaching credentials (including high schools, junior high schools, primary schools, special needs schools)	104
Career counselor	84
Psychiatric social worker	41
Social worker	34
Career consulting specialist	24
Psychological counselor	23
Others	166

c. Disclosure of personal information about staff

The disclosure of personal information about staff is shown in Table 3. It can be seen that websites of 130 stations (81.2%) did not show any pictures of their staff, whereas the websites of 23 stations' (14.4%) had some illustration of staff or greetings that reflected the personality and interests of staff members. Only 7 stations (4.4%) had pictures of their staff.

<Table 3> Disclosure of personal information about staff

Level of disclosure	Number of Stations	(%)
No disclosure at all	130	81.3
Illustrations and greeting words only	18	14.4
Facial pictures of staff	7	4.4
n	160	100.0

2) Information on past cases

More than half of all stations (98 stations, 61.3%) displayed some information about their previous cases on their websites. Examples of cases are shown in Table 4. It can be seen that some websites contained pictures of their past cases, whereas others posted the information on their blog, or on pages of Social Networking Services, (SNS) such as Facebook.

<Table 4> Examples of past cases

- Case information given only in words, without pictures, or images
- Detailed case explanations with pictures, and images
- Work reports with pictures, and images posted on blogs run by the station
- Reports released via SNS including Facebook and Twitter

3) Information on institutional cooperation

Of all support stations, 124 (77.5%) displayed information about cooperating institutions. As can be seen in Table 5 and by examples of cases sorted by cooperating institutions shown in Table 6., support for school refusing children and school dropouts were mainly provided through links between the stations and school projects, as well as cooperation with supporting companies through various internship programs and company tours.

<Table 5> Institutional cooperation

Institution	Number of Stations	(%)
Companies	74	46.3
Schools	18	11.3
Companies & schools	32	20.0
N/A	36	22.5
n	160	100.0

<Table 6> Case examples sorted by cooperating institutions

Schools	Companies
・ Support for students graduating without career plans	・ Linking youth and institutions based on needs
・ Individual guidance for school refusing students	・ Providing opportunities for youth to talk to working adults
・ Visiting homes of high school, and university dropouts	・ Providing work experience for long term unemployed youth
・ Preventive support for those expected to have difficulties in social life after graduation	・ Workplace visits by youth to get an idea about working

4) Opportunities to interact with similar others

We investigated whether unemployed youth had opportunities to talk and interact with other people in a similar situation. Results indicated that 59 of the 160 stations (36.9%) provided such opportunities for their users. (see Table 7 for some examples).

<Table 7> Examples of events for promoting interactions

- Seminars conducted by former users of stations that have graduated and are currently employed. Their actual experiences are introduced to develop ideas about working in unemployed youth
- "Mingle saloons" and "Free spaces" without staff members being present to maximize communication between participants
- Mingling events for women
- Events in which participants communicate while cooking and eating
- Recreational events including yoga and sports to facilitate communication among participants
- Interactions with users of other support stations in the same area

5) Frequency of updating website

We calculated the number of days from the last update of a support station website blogs, and SNS, to the day we retrieved information from the website. Of all support stations 10 (6.3%) updated their website on the day we viewed their website. Over 70% of all stations (123 stations) had updated their information within the month. The mean number of days before a website was updated was 28.3 days (SD=82.2), with a maximum of 766 days and a minimum of 0 days. These results indicate that the frequency of updating websites was very different for different stations.

6) Announcements of upcoming events

Announcements of events including seminars and camps conducted by support stations were shown on the website of 149 stations (93.1%). Most introduced computer training seminars, resume writing lectures and short-term camps for training in skills needed for social independence. Examples of such events are shown in Table 8.

<Table 8> Examples of lectures, seminars, and camps.

- Lectures on resume writing
- Lectures on job interview techniques
- Lectures on communication based on an training program for actors.
- Lectures on business manners
- Seminars discussing solutions for social problems related to youth unemployment
- Lectures on computer skills training
- Camps for improving daily rhythm and social independence

7) Information on methods of consultation

All 160 support stations provided information regarding available consultation styles at their station on their websites. Of the stations, 66 (41.3%) provided consultations through telephone, email, and home visits, 39 stations provided only telephone and email consultations, whereas 25 (15.6%) provided only home visit consultations. Moreover, 30 stations (18.8%) provided consultation only to those that visited the station (Table 9).

<Table 9> Consultation methods

Consultation style	Number of Stations available	(%)
Telephone, Email, and home visits	66	41.3
Telephone and email only	39	24.4
Home visit only	25	15.6
None of the above consultation styles	30	18.8
n	160	100.0

8) Using the term, “developmental disorders”

Of the stations, 12 (7.5%) used the words, “developmental disorders” on their websites, or shared information about consultations and/or seminars on “developmental disorders” with parents, rather than using indirect references, such as trouble with communicating with others,” or “providing support based on the needs of each user.

Ⅳ. Discussion

1. Having a website

All 160 support stations had websites for providing information to the public. This suggests that Regional Youth Support Stations recognize the Internet is a powerful and effective tool for the provision of information. Providing information through websites is highly appropriate considering the circumstances of users, because it allows users to access necessary information from any place and at any time.

2. Information on websites

1) Staff licensing and certification

Over 90% of websites contained information on the qualifications of full-time staff members. This information indicated that 262 workers held career consultant’s certificate, which was the most common in this study, followed by clinical psychologist’s certificate held by 143 staff members and industrial counselor’s certificate held by 115 workers. This implies that psychological and vocational support based on user characteristics has been highly emphasized as necessary for supporting young people. However, 166 staff members only held private certificates that were not nationally recognized. Although private certificates have the advantage of flexibly corresponding to social needs, the recognition and reliability of these certificates can differ, because different organizations have different qualification standards. As suggested by these results, closer examination of youth support center staff certification should be undertaken in the future. It is suggested that the disclosure of information on websites about staff working at stations is inadequate, with over 80% of the stations showing little or no information about their staff. When potential users plan to use services provided by a station, images of the station and its staff seen beforehand would make it easier to actually visit the station.

2) Information on past cases

Over 60% of stations displayed information about cases that they supported in the past, however, the format of such information was different between stations, with some stations including photos, whereas others used only text, or SNS such as Facebook and Twitter. It is suggested that understanding the process involved in using the services would help possible users to imagine their future, which in turn would encourage youth to take action to improve their condition.

3) Information on institutional cooperation

Information on institutional cooperation was displayed on over 70% of websites. However, less than 30% of websites provided information about programs linking the stations with schools, conducted by the MLHW as a part of Regional Youth Support

Station Project of 2013. The provision of information on issues related to schools, such as informing young people that dropping out of school would result in long-term unemployment, could be improved if the cooperation between stations and schools were more effective. It is also suggested that developing strong bonds between the stations, educational institutions, and parents, as well as information sharing between them would prevent isolating NEETs from society.

4) Opportunities to interact with similar others

No more than 40% of stations provided information about interactive events. The number of stations having interactive events on a regular basis was limited, however, they provided a wide variety of events. It is known that unemployed youth have difficulties in building relationships, and therefore, such events have been designed to improve communication skills of such young people. Some stations also held seminar events, in which former users of the station that were successfully employed, talked about their own experiences to encourage young people. In addition to such events, it is suggested that more casual events allowing reciprocal interactions between past and current users would be more helpful for young people. During such events, former users can act as role models, as well as peer supporters for current users, which in turn would contribute to lowering hurdles against using the stations by unemployed youth.

5) Frequency of updating website

All support stations with the exception of three stations, clearly displayed updated information on their websites and on SNS that included activity reports, information on seminars, and notifications about schedules. Even though the style and content of updates differed from station to station, the newness of information itself was a significant criterion that provided users with a good indication of the reliability of the station. However, a few websites rarely updated information, whereas others provided almost daily updates. It is suggested that the lack of updates over a long period of time would lead to the loss of reliability of the station and to the possibility of disconnecting potential unemployed, young users from the station. Conducting regular updates of information on websites is considered important for maintaining and improving the effectiveness and reliability of stations.

6) Announcements of upcoming events

Over 90% of stations provided information about upcoming seminars and lectures on their websites. Computer skills trainings and resumé writing lectures were the most common events. However, some stations organized original events, such as NEETs-prevention seminars, seminars on better understanding of common disorders including ASDs, and drama-style communication skills seminars. The only limitation was that more than half of those events required participants to be registered as users of the stations. It is suggested that events that are open for anyone should be increased in the future.

7) Information on methods of consultation

All the Stations provided information on their websites about available consultation methods. However, 18.8% of the stations provide consultations only for people that actually visited the stations. Taking the situation and characteristics of potential users into consideration, it is suggested that indirect and outreach types of consultation should be provided by all the stations. More full-time staff and effective job assignment in the same region would be needed in order to improve this situation in the future.

8) Using the term, “developmental disorders”

Only about 10% of the stations clearly used the term, “developmental disorders” on their websites, however, over half the websites explained characteristics of this disorder, without using the actual term. This suggests that the stations considered youth with ASDs were potential users of their facilities. Avoiding the use of this term could be appropriate as some of the possible users could have no diagnosis of ASD. Therefore, indirect explanations of the difficulties faced by unemployed youth could more closely connect these youth with the stations, regardless of their diagnosis. In the future, it is suggested that closer links should be forged between users and institutions on the basis of users’ needs and desires. Moreover, forging closer interactions between stations and users, as well as with users’ parents would be desirable. It is also suggested that details of these links should be provided through the websites, in order to effectively inform those needing the services of the stations. We also believe that improving the specialization and professionalism of staff members, as well as information sharing about disorders on station websites while avoiding direct mention of diagnostic terms, is desirable.

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Short Paper

A Study of the New System for Certifying Disabilities and Undertaking Needs Assessment for Persons with Disabilities in Taiwan
: Focusing on the Introduction of the International Classification of Functioning, Disability, and Health (ICF) Adopted by the World Health Organization

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ABSTRACT

Taiwan’s social welfare system for persons with disabilities acquired its present form after two major revisions to the Welfare Law for Handicapped Persons (1980). In the latest revision to the law in 2007, the aim of social welfare for persons with disabilities was changed to “protect the legal rights and interests of people with disabilities, secure their equal opportunity to participate in social, political, economic, and cultural activities fairly, while contributing to their independence and development.” The revised law specified that after the trial period of five years in 2012, social services would be provided through a new system for certifying disabilities and a needs assessment system would be undertaken, based on the International Classification of Functioning, Disability, and Health (ICF), adopted by the World Health Organization (WHO).

This paper investigates the impacts of this new system on Taiwan’s social welfare for persons with disabilities. The results demonstrate that the introduction of the ICF framework has created the possibility of developing social services for persons with disabilities, but there are a number of difficulties in certifying disabilities and in assessing the needs for persons with disabilities.

＜Keywords＞
Taiwan, ICF, needs assessment, certification of disability, advocacy

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Ⅰ. Introduction

In the latest revision to the law in 2007, the aim of social welfare for persons with disabilities was changed to "protect the legal rights and interests of people with disabilities, secure their equal opportunity to participate in social, political, economic, and cultural activities fairly, while contributing to their independence and development." Further, the Guiding Principles for R.O.C. Centenary Social Welfare Policy (Executive Yuan, 2012), set goals of fairness, inclusion, and a just society. One of the most important aspects of the amendments to the law that warrants particular attention is the statement that the WHO's ICF will be the foundation for a system for certifying disability and undertaking a needs assessment for social services.

Three years have passed since the launch in July 2012 of the system for certifying disabilities and undertaking needs assessments for social services. Therefore, this paper investigates the impacts of this new system. There have been many calls globally for the ICF framework to be reflected in social welfare policy for persons with disabilities. Consequentially, analyzing Taiwan's attempt to introduce the ICF framework is extremely useful for exploring the possibilities in other countries.

Ⅱ. Background to the Establishment of the New System

Problems with the former system formed the background to the establishment of the new system. The disability identification was defined in the Welfare Law for Handicapped Persons, enacted in 1980. It is based on a certification of disability by a medical institution and is the entrance point for access to social services (Jeng, 1982). If a person does not have the identification, he or she could not use social services. The following three difficulties with the former system have been cited.

The first is the problem of certification of disability based on a medical or individual model. Doctors' certifications emphasize physiological and psychological aspects, and tend not to consider the impact of the disability on a person's opportunities for activity and social participation, or the person's environment. As a result, there are concerns that doctors overlook the individuality of the person with a disability (Lai, 2011).

The second issue is the difficulty of establishing categories of disability. When the 1980 law was enacted, there were 7 categories of disability, which was increased to 11 in 1990, 12 in 1995, 14 in 1997, and 16 in 2001 (Lin, 2011). This increase in the number of categories of disability was a result of demands by organizations for persons with disabilities to obtain social services. Whether or not they are legally certified as having a disability is important for them. There was also the possibility that the current system results in the loss of equality among persons with different disabilities. Further, the names of the categories of disability could not conform to the method of classifying disabilities according to the cause of the disability (for example, a chromosomal abnormality), the diagnosis of a disease (e.g., dementia), or to the broad classification of the disability (for example, a physical disability) (Lin, 2010). Therefore, situations arose in which people were identified differently because of doctors' decisions, even if in reality their disabilities were the same. Furthermore, Hong (2006) described the following problems with the system of classifying disabilities: ① the classification system was unable to include all categories, and different categories were not mutually exclusive; ② analyses and comparisons with the data of other countries could not be carried out because the classification system was not in use throughout the international community; ③ the system could not be used as a clinical and evaluation tool; ④ it could not be used for statistics and research; and ⑤ it was difficult to use as a tool for formulating a country's social policy.

The third difficulty is the system for providing social services, as summarized by the following two points. First, it is impossible to identify appropriate and necessary social services for the individual from the certifications of disability alone. Second, prior to the enactment of the current law, except for some specific social services, disability identification holders who were identified as having needs were able to access social services. In the context of there being no function to adjust resources as a whole, and limited resources (particularly financial resources), this meant that social services that consumed significant amounts of money naturally ate into the financial resources of the other social services. In this situation, essential social services could not be accessed by the people in need (Lin, Wu & Lin, 2011).

Ⅲ. The Content of the New System and the Present Situation

1. The content of the new system

The characteristics of the content of the new system are described below.

First, needs assessments have been introduced into the system for certifying disabilities and providing social services, based on the ICF framework. Codes are used to document the degree of ability within a classification.

Second, in addition to the codes of the domain of body functions and structures, the codes of the domains of activities, social participation, and environmental factors have been added to the survey items for certifying disabilities. The codes of body functions and structures are certified by doctors, while the new items in the areas of activities, social participation, and environmental factors are certified by other professionals. These professionals include physiotherapists, occupational therapists, language therapists, social workers, clinical psychologists, counseling psychologists, nurses, and speech therapists (Ministry of Health and Welfare, 2014a).

Third, the process for issuing the disability certification has been changed. Previously, a person acquired their disability identification after a disability certification by a doctor. In the current system, a team of medical and other professionals is created, and the certificate is issued after the needs assessment has been completed. The social welfare government agency carries out the needs assessment after receiving the disability certification report from a health administrative agency, and subsequently issues the certification. The assessment includes information on the user’s domestic economic situation, needs of care services, home-life, and social participation, in addition to the level and category of disability (Ministry of Health and Welfare, 2014b).

Fourth, different social services are provided depending on the level of disability.

Fifth, the 16 categories of disability have been reduced to eight.

Sixth, the disability identification must be renewed every five years (Ministry of Health and Welfare, 2014c).

2. The situation after the implementation of the new system (including the trial period for the law's implementation)

The current situation, which occurred after the new system became operational, is set out below.

1) The certification of disability

During the initial introduction period the certification of disability remained centered on certifying disability according to the codes in the domain of body functions and structures in order to minimize gaps in the level of disability and provisions of social services due to the new system (Department of Social Affairs, Ministry of the Interior, 2013a).

Chou (2015) carried out an interview survey about the new system with 24 persons with disabilities and obtained the following findings. ① The individual’s level of disability has changed in some assessments, with some higher and others lower than their previous certification. ② There is an unequal power relationship between the person with disabilities and those carrying out the certification. Persons with disabilities feel that those implementing the certification are superior to them and they are inferior. ③ There are disparities in the certification of disability system across regions and implementing institutions. ④ The activities and social participation of persons with disabilities are not reflected in the results of the certification of disability. ⑤ Ultimately, there has been no change to the fact that the system is still centered on a medical model. ⑥ Despite the law, a system does not yet exist in which certifications are made through a conference between the doctor (who makes the decision on body functions and structures) and the other professionals who make the decision on activities, social participation, and the environment.

2) Needs assessment for service provision

There are four major points, as set out below.

The first point is the recognition of the significance of the needs assessment. Hsu (2012) stated that the user’s opinions and wishes can be incorporated into the needs assessment process, in order for them to be able to use the services they want. However, users have pointed out that, as assessment items are not connected to their life experiences and the assessment system lacks a mechanism to change the services that should be provided, discrepancies occur between the results of the assessment and users' actual needs (Wang, 2013). There have been other substantive complaints. Chou (2015) confirmed the following points from a survey of users about the needs assessment and subsequent services use. ① While users are provided with an explanation of the needs assessment, it is difficult to understand. ② The assessment cannot ascertain the users' real needs, as there is no assessment of the users' social participation and individual factors. ③ The independence of persons with disabilities has disappeared, as they have no opportunity to be asked questions or to express their own opinions. ④ Persons with disabilities do not really understand all of the process, do not understand how the certification is determined for their category of disability, and do not understand the roles played by the professionals in medical institutions. ⑤ The users do not expect the government to protect their own interests, and have a passive attitude that providing just a small amount of assistance is sufficient. ⑥ In many cases, users have received an identification for services as a result of the certification, but have not been contacted by the Social Welfare Bureau.

The second point is procedural. It takes considerable time to move from the certifications and needs assessment stage to the disability identification being issued. As a result, social services have established a simplified process for persons with disabilities whose needs are simple. If a needs assessment is necessary, it is carried out immediately after the disability certifications (Department of Social Affairs, Ministry of the Interior, 2013b). After obtaining the disability identification, only those people requiring services in the second and third areas described above have to undergo a needs assessment (Ministry of Health and Welfare, 2014d).

The third issue is promoting an understanding of the system. According to a government report (Department of Social Affairs, Ministry of the Interior, 2013b), central government is carrying out the following initiatives: ① allocating additional funds for needs assessment professionals and strengthening their training and development; ② providing the service users with information and explanations about the new system; ③ forming professional teams of academics and members of groups representing persons with disabilities, to ascertain the system's implementation status in various local governments, providing local governments with the necessary advice, and encouraging them to propose policies to improve the needs assessment system; ④ providing support to private organizations in local government areas to promote social service provision; ⑤ promoting various other activities, including evaluations of the needs assessment system and research into modifications. Further, in order to enhance implementation of the new system at the local government level, the implementation status of services has been included in the two-yearly evaluation of local governments' social services for persons with disabilities (Ministry of Health and Welfare, 2013). This includes the status of the budget created for social services (management system, deployment of professionals, and status of the provision of services), and the extent to which the content of the needs assessment report has been enhanced. The aim of this evaluation system is to strengthen the implementation of social services in each region (Social and Family Affairs Administration, Ministry of Health and Welfare, 2014).

The forth point is the deployment and development of professionals. Lin et al. (2013) summarized the problems and improvement policies ascertained through practical experience in Tainan City. The problems are as follows. ① As government employees still do not fully understand the system, they are unable to provide accurate answers to questions about it. Staff turnover is high, due to the considerable burden of implementing the new system, and hard-earned experience not being passed on. ② There is uncertainty about whether service provision should be based on the needs cited by the users, the results of the assessment of the applicant’s living environment, or the results of the assessment by the team of professionals. ③ There are cases where people do not receive the results of their needs assessment as the system and administrative financial resources are limited. ④ Welfare services do not necessarily meet the needs of each individual with a disability. However, in practical terms, it is not yet possible to identify accurately how best to provide services that will meet the needs of each individual with a disability. ⑤ As the volume of work required for the needs assessment and the subsequent series of related tasks is considerable, there are concerns about whether the deployment of professionals has been sufficient.

3) Conditions of service use

Hsu (2012) described the results of the trial implementation of the system in Hualien County as follows. In the former system, subsidies for living expenses were primarily used in the social services. However, the content of services in the new system has been diversified and there has been an increase in the use of family care-related services that were hardly used in the past. The ratio of subsidies for living expenses to subsidies for assistive devices was low under the former system, but, as before, persons with disabilities are selecting cash benefits in many cases. There are two primary reasons for this. Firstly, if individual needs are not recognized by the persons with disabilities themselves, services relating to individual care will not be considered effective or important. As a result, many persons with disabilities select cash benefits. Secondly, social resources are often restricted. Since the population and resources of Hualien County are concentrated in some areas, resources for services are insufficient in other areas.

According to a government report (Social and Family Affairs Administration, Ministry of Health and Welfare, 2014), there are differences among the needs cited by the three parties; namely, the needs submitted by the system user (the person with a disability), the needs that the needs-assessment professionals confirmed with the person with a disability in question, and the needs advised by the professional team. There are two major reasons why people are not accessing the services. First, when services are provided, individual factors, such as the costs they have to pay, a change of opinion, or a lack of the support they need to use them (for example, transport access), prevent them from using the services. Second, services may not be provided in their region, or some other factor may be preventing them from accessing the services (for example, they still have not been contacted by the facilities providing the services or the facilities have more applicants than the prescribed number).

3. Post-implementation evaluations of the new system

There have been various evaluations of the new system since its implementation. The social worker Caiqiao Wang (2013) summarized the current situation as noted below. ① Persons with disabilities and their families lack an understanding of the objectives of the new system and are worried that their wellbeing may be made worse by this system. In addition, they become even more anxious if they do not obtain a precise answer to their question from the responsible official, as they do not fully understand the process. ②The knowledge and skills of the professionals involved in the certification of disability and needs assessment, in terms of understanding the system and carrying out their tasks professionally, affect the results of the certification. Henghao Chang (2013) analyzed the situation after the implementation of the new system as follows. ① ICF incorporates a social model into the medical model of certification of disability, so the real problems are questions such as the following. How should the social system treat persons with disabilities? How should it treat disabilities caused by the interaction of physical and psychosocial factors? How should the system be implemented in practice in a public policy setting founded on the principle of universalism? It seems that residualism and the charity principle in the current system of welfare for persons with disabilities should be reconsidered at the same time as the new system is implemented. ② Other important questions include how the movement for the rights of persons with disabilities can be communicated by the disabled themselves during their needs assessment (communication) and how they can protect their own rights (advocacy). Obtaining many social services is not necessarily a good thing and their use of services should not be a matter of course. If the environments of persons with disabilities can be improved, it is possible through these means to reduce the extent of difficulties in their lives.

Ⅳ. Considerations

As discussed above, the introduction of ICF into the system of welfare for persons with disabilities has been clearly set out in Taiwan. The following three points were considered in this paper.

1. The certification of disability and the provision of services

The introduction of ICF into the system is significant on two grounds. First, standards for establishing the categories of disability have been enhanced. The new system was implemented with reference to international standards and, if the person fully meets the criteria for disability based on these standards, they are certified as being a person with a disability. This leads to the setting of consistent categories of disability. Second, implementation of the new system has resulted in a weakening of the medical perspective in the decisions on certification and service provision. While the certification and needs assessment has been still focused on that of disability according to an assessment of body functions and structures by a doctor, the system now enables assessment of activities, social participation, and environmental factors. The system has been liberated from certifications that are made solely from a medical perspective. However, the needs assessment items are not linked to the user’s life experience and the process lacks a mechanism to connect to service provision at a later date. Therefore, there has been criticism that discrepancies occur between the results of the assessment and users’ actual needs. It is very important, however, that professionals other than medical professionals participate in the certification of disability and in decisions on service use. Doubt remains about whether, realistically, it will be possible for non-medical professionals to intervene, or to introduce social aspects of the model. The attempt to introduce it is a grand experiment that asks: to what extent is it really possible to use the social model in certification of disability that was administrative certification? It appears that a careful debate will be required in the future based on the accumulation of research.

2. The relationship between the ICF framework and the social system

The introduction of the ICF does not take place in a vacuum and will dramatically affect a country’s social welfare system. Post-implementation evaluations have noted that the current system has elements of residualism and the charity principle. In the context of limited social resources, social services are not always provided to meet needs, even when those needs are recognized. In actuality, rather than selecting the services that are fundamentally required, persons with disabilities and their families in Taiwan tend to select monetary benefits. Either services or monetary benefits must be selected. Therefore it is likely that monetary benefits will be more attractive to persons with disabilities and their families if they do not understand what services are on offer, and if they are uncertain whether they will use the services sufficiently. However, the ICF can also be used to improve each individual's welfare situation. Recognizing the deficiencies in the social structure can become an opportunity for improving it. This is one of the objectives of the ICF framework.

3. The development and deployment of professionals

As noted earlier, it appears that the deployment of professionals differs depending on the local government involved. The person's environment needs to be taken into consideration and the professionals must have the ability to discern the needs of persons with disabilities in order to provide appropriate services based on this discernment and to carry out advocacy if there is a lack of social resources. The professionals active on the ICF's front line are required to understand the ICF and provide support based on their understanding. The development and deployment of professionals is an important issue.

Ⅴ. Conclusion

This paper has investigated how the introduction of the ICF-based system, described above, has affected Taiwan's welfare for persons with disabilities. The results of this investigation demonstrate that the introduction of the ICF has made developing welfare services for persons with disabilities possible, but there are a number of problems with the certification of disability and the needs assessment.

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Short Paper

A Concept Analysis of Quality of Dying and Death (QODD) for Non-cancer Patients: From the Perspective of Palliative Care

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ABSTRACT

Palliative care has the potential to play significant role in better quality of dying and death for non-cancer patients. The purpose of this review is to determine the definition of quality of dying and death for non-cancer patients. MEDLINE (1990-2015) and Google Scholar (1999-2015) were searched using keyword terms 'quality of dying or death', 'good or bad death'. In the 13 definitions of QODD, the most common terms are related to patient's decision-making. The most common second terms are related to medical and social support. Final terms are related to psychological support. In order for the social and psychological aspects of death awareness and acceptance to take place, the dying person's suffering should be reduced and they must be relieved of pain. Furthermore, it is rapidly increased percentages of non-cancer patients among those utilising specialist palliative care services in the countries at the top of the quality of death ranking such as United Kingdom and the United States. Unlike cancer disease, non-cancer diseases need to longitudinal supportive system. Palliative care will be effective intervention to manage symptoms of non-cancer patients and treat intercurrent medical condition is appropriate. In conclusion, QODD should be combined of psychological, medical and social support as external role and their patient's decision-making as internal role in palliative care research.

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Ⅰ. Introduction

The life expectancy has increased rapidly since the onset of industrialization and modernization. The physical health and mental health have also spotlighted with the frequent uses of the terms of the quality of life (QOL) and well-being (Kohara, Han, Tanaka, et al., 2013). In contrast, death may still be so far from daily experience that its possibility may be denied or come as a surprise. Medicine is also charged with promoting the view that death is a failure, rather than something normal that may be put off but that will happen eventually (WHO, 2004).

A taxonomy of QOL for dying persons defined quality of life for patients and for loved ones at the end of life (Stewart, Teno, Patrick, et al., 1999). This framework also included a separate domain labeled the quality of dying, defined as a personal evaluation of the dying experience as a whole, including a subjective evaluation of concepts according to expectations and values (Patrick, Engelberg & Curtis, 2001). Therefore, the quality of dying and death (QODD) pertains to the period leading up to death, although there is ambiguity about when the transition to the dying phase occurs (WHO, 2004). QODD closely related to field of palliative care. Palliative care tends to focus on symptom management and relief, but that patients primarily value communication at the end of life (Trotta, 2007).

Palliative care has been historically developed with the focus on cancer. However, recent rapid global ageing and changes in disease prevalence, which are particularly evident in developed countries, have brought renewed attention to palliative care for chronic non-cancer diseases (Oishi & Murtagh, 2014). Functional status declined at different time point in Cancer and non-cancer diseases. Most patients with malignancies status usually declined quite rapidly in functional status when they get closer to death. However, non-cancer diseases like end stage heart disease, end stage lung disease, and dementia the patient's functional status gradually declined compared to terminal cancer patients. Non-cancer diseases have to supported services at home, like Meals on Wheels and home health aides, then institutional long-term care facilities are central to good care for these patients (Lynn & Adamson, 2003). Palliative care services may change over time in patients with cancer and non-cancer diseases, and also different set of goals in care (van der Steen, Tadbruch, Hertogh, et al., 2014). For example, palliative care has three goals to different stages of dementia, prolongation of life may remain a priority in patients with mild dementia, maintenance of function in moderate dementia and maximization of comfort in severe dementia (EAPC, 2013). Palliative care integrates the psychological and spiritual aspects of patient care, and offers a support system to help patients live as actively as possible until death (WHO, 2004). Many researchers have defined the QODD in the field of palliative care, but these definitions are similar and subjective, and not explained separately for patients with cancer or non-cancer (Hales, Zimmermann & Rodin, 2010).

Therefore, the purpose of this paper is to review definitions of the QODD and to summarize the definition of QODD for patients with non-cancer diseases.

Ⅱ. Methods

1. Literature sampling

We searched published studies that reported on the development, validation of measures the QODD. We also searched reviewed reports on palliative care in patients with non-cancer diseases.

Papers were obtained from searches of MEDLINE (1999-2015) and Google Scholar (1999-2015) using the keyword search terms 'quality of dying', 'quality of death', 'good death' and 'bad death'. In the second part, the keywords were 'palliative care' 'end-of-life care', 'review' and 'non-cancer'. All databases were restricted to those published in English between January 1990 and September 2015.

20 articles identified for study selection. Exclusion of 7 studies that did not explained about definition of QODD. A total of 13 papers met the inclusion criteria.

2. Inclusion criteria

Studies were included in this review if they met the following criteria: (1) review or clinical report that measured QODD in patients with non-cancer disease, (2) also indicated about definition of QODD.

3. Exclusion criteria

Studies were excluded if they were (1) unpublished studies, abstracts or dissertations, (2) studies without measured QODD, (3) not written in English language, letters, editorials, and case reports.

4. Dementia and heart failure in non-cancer diseases

The quality of life of patients with severe dementia or heart failure (HF) is frequently poor, and many deaths in hospital, even among non-cancer patients who have received long-term community-based care (Formiga, Espel, Chivite, et al., 2002; Formiga, Olmedo, Lopez, et al., 2004). We selected these chronic diseases as most common non-cancer disease.

Ⅲ. Findings

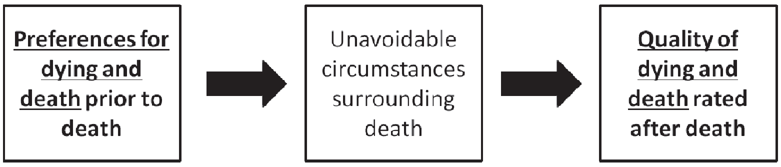
1. The definitions of QODD

In the 13 definitions of QODD, the most common terms are related to patient's decision-making. Patient's decision-making is included 'maximizing the autonomy of the patient's wish', 'sanctity of life', 'dignity', 'personal growth and acceptance', 'a person's preference for dying', 'patients' and families' wish', 'patients' wants and needs are met', 'individual's own strategies', and 'needs of the dying'. The most common second terms are related to medical and social support. Medical support is included 'culture, type and stage of disease', 'minimizing pain and suffering', 'physical comfort', 'appropriate medical care', and 'avoidable distress and suffering for patients, families, and their caregivers'. Social support is included 'social support', 'the moment of death agree with observations of how the person actually died as reported by others', 'cultural and ethical standards', 'social recognition of patient's decision-making', and 'broader social orders'. Final terms are related to psychological support. Psychological support is included 'peaceful', 'minimize psychological distress for dying and their families', 'spiritual exploration', 'life review', and 'the opportunity to mend relationships and say good-byes'.

<Table 1> The definitions of QODD

	Paper authors	Definition
1	Hales, Zimmermann & Rodin, 2008	The quality of dying and death in subjectively determined with numerous factors that influence its judgement, including culture, type and stage of disease, and social and professional role in the dying experience. Quality of dying and death is broader in scope than either quality of life at the end of life or quality of care at the end of life, although there is overlap among these constructs.
2	Sears, Sowell, Kuhl, et al., 2006	The notion of quality of death implies a health outcome minimizing pain and suffering, maximizing the autonomy of the patient's wishes, and respecting the sanctity of life.
3	Ethunandan, Rennie, Hoffman, et al., 2005	A good death is one that is pain free, peaceful, dignified, at a place of choosing with relatives present and without futile heroic interventions.
4	Tsai, Wu, Chiu, et al., 2005	A good death is one in which a patient's suffering is reduced as much as possible and death is accompanied by dignity; includes awareness, acceptance, arranging will, and appropriate timing of death.
5	Carr, 2003	A good death is characterized by physical comfort, social support, acceptance, and appropriate medical care, and it should minimize psychological distress for dying and their families.
6	Long, 2003	A gradual process that allows time for personal growth and acceptance, spiritual exploration, life review, and the opportunity to mend relationships and say good-byes.
7	Jones & Willis, 2003	Pain free, dignified, and one in which active resuscitation never occurs.
8	Curtis, Patrick, Engelberg, et al., 2002	Quality of dying and death is the degree to which a person's preferences for dying and the moment of death are consistent with other's observation of how that person actually died.
9	Bridge, Roughton, Lewis, et al., 2002	Quality of death is quality of life of the client in the last 2 days alive.
10	Patrick, Engelberg & Curtis, 2001	The degree to which a person's preferences for dying and the moment of death agree with observations of how the person actually died as reported by others.
11	Wenger & Resenfeld, 2001)	A death that is free from avoidable distress and suffering for patients, families, and their caregivers; in general accord with the patients' and families' wishes; and reasonably consistent with clinical, cultural, and ethical standards.
12	Mak & Clinton, 1999	Good death as "one in which patients' wants and needs are met".
13	Kearl, 1996	Dying well involves both the individual's own strategies and the social recognition of their attempts. Deaths become good "when they serve not only the needs of the dying but also those of the survivors and of the broader social orders as well".

According to Patrick et al.(Patrick, Engelberg & Curtis, 2001), QODD experience and indicates that preferences are moderated by the unavoidable circumstances surrounding death (Figure 1). Although the timing for measurement is not contained in the model shown in Figure 1, preferences of persons who are dying by definition must be assessed prior to death and the reports and ratings of the QODD obtained from others after death.

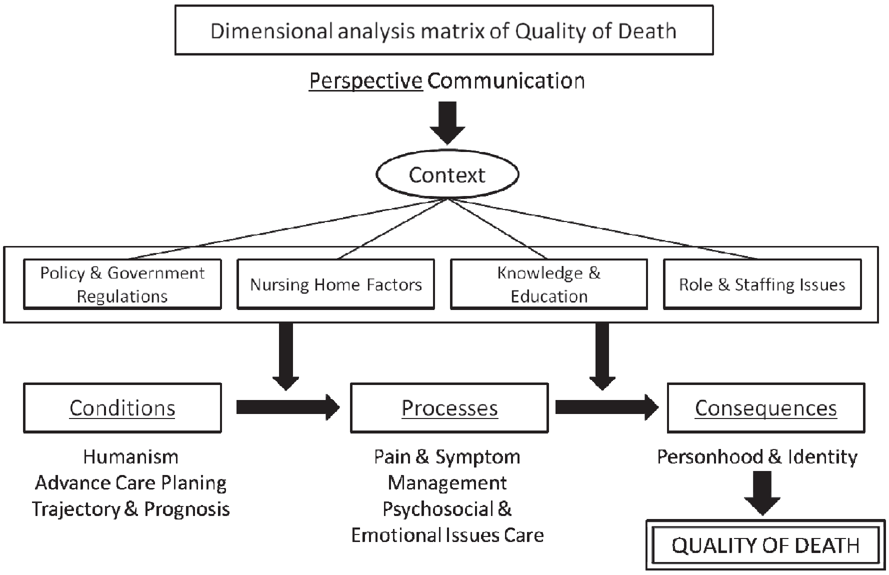


<Figure 1> Conceptual model for measuring QODD

2. The relationship between QODD and palliative care

In order for the social and psychological aspects of death awareness and acceptance to take place, the dying person's suffering should be reduced and they must be relieved of pain (Weisman, 1978). As the hospice movement developed from its inception in 1967 (Stoddard S, 1978), the good death philosophy has expanded to incorporate notions of control on the part of the person who is dying (Logue, 1994). The practice of palliative care has grown from the original hospice movement. In the Australia, Like the hospice movement, palliative care continues to serve, to some extent, as a symbolic critique of how dying people are managed in highly medicalised settings (Siebold, 1992).

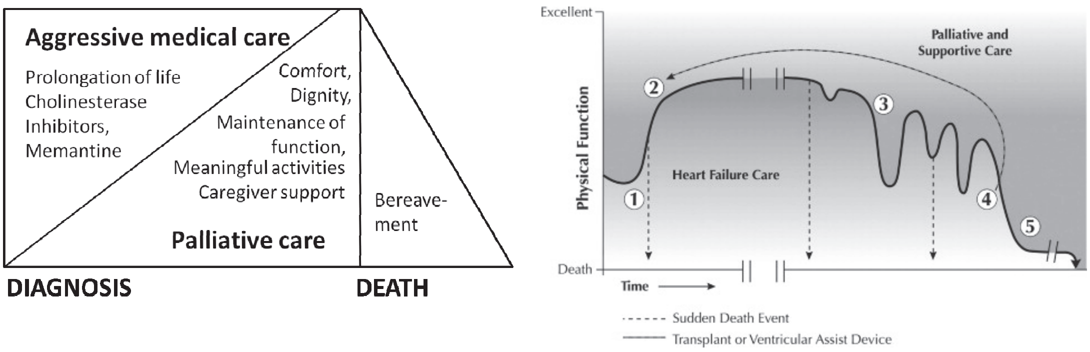
WHO defined palliative care is an approach that improves the quality of life of patients and their families facing the problem associated with life-threatening illness, through the prevention and relief of suffering by means of early identification and impeccable assessment and treatment of pain and other problems, physical, psychosocial and spiritual (WHO, 2013). According to Trotta et al. (Trotta, 2007), quality of death is the explanatory matrix for palliative care in the nursing home generated by this dimensional analysis (Figure 2). Quality of death depicts a complex social phenomenon situated within an overarching perspective of communication. Several contextual elements are both barriers and facilitators to palliative care, and have a direct impact on conditions, processes, and consequences. As shown in the figure 2, the ultimate consequence of palliative care in the nursing home is quality of death.



<Figure 2> Dimensional analysis matrix of quality of death

3. Palliative care for patients with non-cancer diseases

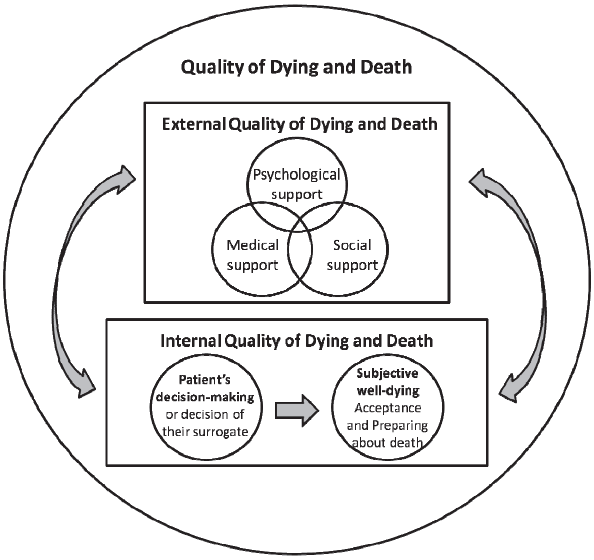
There are increasing percentages of non-cancer patients among those utilising specialist palliative care services in the United Kingdom and the United States(the national council for palliative care, 2013; NHPCO, 2014). Clinicians will be faced with Alzheimer's disease (AD) patients, who will require a special approach to care both from psychosocial and medical aspects in all stages of their dementia for the indefinite future. In an absence of curative strategies, palliative care that is attempting to improve symptoms of these AD patients and treat intercurrent medical condition is appropriate. However, aggressive care and palliative care are not mutually exclusive and both can be provided at the same time. Aggressive care may be more important in the earlier stages of the AD, while palliative care may predominate in later stages (Figure 3: Left) (Volicer & Simard, 2015). It is also palliative or supportive care need to manage and cope with heart failure (HF) should be provided concurrently with evidence-based disease-modifying interventions in comprehensive HF care (Figure 3: Right) (Goodlin, 2009).



<Figure 3> Types of care in dementia(Left) and HF(Right)

Ⅳ. Considerations and Conclusions

In our literature review, QODD might have consisted of external QODD and internal QODD. As shown in figure 4, External QODD is a criterion or measurement for better QODD from outside networks. It contained three overlapping circles which means the three support; psychological, medical and social support. In the other hand, internal QODD is own authority from yourself. We found the patient's decision-making was the majority of terms in definitions of QODD. The patient's decision-making may lead to subjective well-dying. Advanced dementia patients are possible to difficult in decision on your own due to severe cognitive impairment. Instead of patients, their surrogate makes a decision. There is a complementary relationship between external QODD and internal QODD (Figure 4). Therefore, QODD implies the result which is constantly complement between psychological, medical and social support, and patient's decision-making.



<Figure 4> the definition of QODD for non-cancer patients

According to Hattori et al., the antecedents of good death are broad. They include the holistic nature of the dying person and the family in the past and present, and for future preparations. In addition, the quality of health care contributes to the quality of death. Articles in anthropology and social sciences had greater focus on cultural differences in perceptions of good death than did those in medicine and nursing (Hattori, McCubbin & Ishida, 2006).

Individuals with advanced dementia cannot make decisions about their end-of-life care and, their decisions have to be made by their surrogates. The decisions either can be made on the basis of the patient's previous wishes, or, when these wishes are not known, on the basis of the patient's best interest as perceived by the surrogate. The patient's wishes could be made formal by a living will that was completed before the patient acquired dementia or may be in the form of verbal communication expressing patient's philosophy regarding end-of-life care (Volocer, 2005). Advanced HF should provoke a re-evaluation of medications, dietary sodium consumption, and interventions that might improve the patient's status (Hauptman & Havranek, 2005). At a shift in focus of care, such as the end of life, clinicians ought to re-evaluate all treatments relative to the goals of care, and discontinue therapies that are burdensome or that do not provide symptomatic relief. Because medications and treatments that address the neurohormonal and sympathetic disarray in HF improve symptoms, these should be continued to the extent that blood pressure and function tolerate (Goodlin, 2009). Little is known about the consequences of good death. Researchers have not fully explored the family bereavement or rituals for family and health care professionals after a person died (Hattori, McCubbin & Ishida, 2006).

In the other hand, there are some studies including the need for a commonly accepted definition of spirituality, the appropriate application of spiritual care in palliative care settings, clarification about who should deliver spiritual care, the role of health care providers in spiritual care, and ways to increase scientific rigor surrounding spirituality and spiritual care research and practice (Burgener, 1999; Cohen, Mount, Strobel, et al., 1995; Tsevat, Sherman, McElwee, et al., 1999). According to Puchalski et al., Patients should be encouraged and supported in the expression of their spiritual needs and beliefs as they desire and this should be integrated into the treatment or care plan and reassessed periodically. Written material regarding spiritual care, including a description of the role of chaplains should be made available to patients and families. Family and patient requests specifically related to desired rituals at any point in their care and particularly at the time of death should be honored (Puchalski, Ferrell, Virani, et al., 2009). Spiritual care may be possible as one of the dimension improving external QODD.

In conclusion, QODD should be combined of psychological, medical and social support as external role and their patient's decision-making as internal role in palliative care research. These roles complement each other. Given this knowledge, future research would be able to refer on measuring QODD for non-cancer patients.

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Short Paper

Longitudinal Verification of the Relationship between Psychological, Physiological and Pathological Changes and the Outcome of Classes

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ABSTRACT

The psychology, physiology and pathology of children with health impairment have not been sufficiently understood in the field of education. However, there is no tool to measure the psychological, physiological and pathological changes of children with health impairment until now and the current state of the classes to consider the psychology, physiology and pathology of children with health impairment has not been investigated. This study aimed to clarify the relationship between the psychological, physiological and pathological changes of children with health impairment and the outcome of the classes by using the PATCHI and SNEAT. The class evaluations were carried out for one 5th-grade student with health impairment by using both PATCHI and SNEAT once a week between January and March in 2015. In results of data collection, the psychological, physiological and pathological changes of children with health impairment and the outcomes of classes at schools were measured and the tasks to be improved in the curriculum of universities for teacher education for special needs education were investigated.

＜Key-words＞
The psychology, physiology and pathology of children with health impairment,
Assessment, SNEAT, PATCHI

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Ⅰ. Introduction

The education of children with health impairment has been actively under discussion in the field of special needs education in Japan. In Japan, the children with health impairment are defined as those who need long-term medical treatment and the special regulations for their living due to their chronic disease such as heart failure, digestive diseases, skin diseases, renal disease, malignancy, etc. Therefore, it is essential to consider the psychological, physiological and pathological aspects of children with health impairment for the special needs education.

Educational needs of children with health impairment have to be dealt with based on the understanding of children with health impairment in the psychological, physiological and pathological aspects. In the curriculum of universities for special needs education, the course about the psychology, physiology and pathology of infants, children or students with physical disabilities has been included as a compulsory course (The Ordinance for the Enforcement of the School Teacher's License Act No.7). In this course, the understanding of children with health impairment is emphasized in the medical perspectives of psychology, physiology (the understanding of diseases and the cares about treatment process) and pathology and in the psychosocial perspectives (psychological and social problems caused by diseases or treatment process).

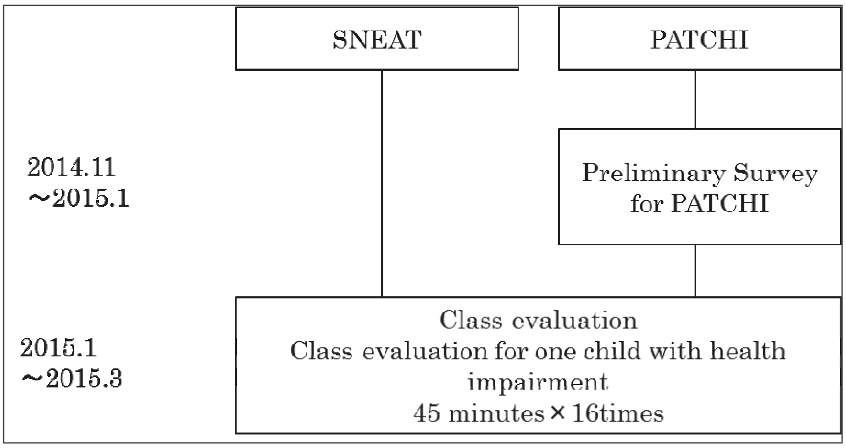
However, the psychology, physiology and pathology of children with health impairment have not been sufficiently understood in the field of education. Since the diseases of children with health impairment have not been sufficiently understood, their opportunities for participating in exercise or other activities have been limited (Kudo & Yokota, 2008). In addition, the excessive consideration of homeroom teachers for those students has also been pointed out as a problem (Tamibuchi, 2011). However, there is no tool to measure the psychological, physiological and pathological changes of children with health impairment until now and the current state of the classes to consider the psychology, physiology and pathology of children with health impairment has not been investigated. Therefore, Kohara et al.(2015) developed the Psychology, Physiology and Pathology Assessment Tool for Children with Health Impairments (PATCHI). The content validity of this tool has been verified and its relevance to Special Needs Education Assessment Tool (SNEAT) has been confirmed. In this study, it is expected that the current state of the field of education in the psychological, physiological and pathological aspects of children with health impairment may be investigated by using PATCHI and SNEAT.

This study aimed to clarify the relationship between psychological, physiological and pathological changes of children with health impairment and the outcome of classes by longitudinally measuring them using PATCHI and SNEAT in the field of education.

Ⅱ. Method

1. Subject and Procedure

This study was conducted through the collaboration with one special needs school in Okinawa Prefecture. The consents of the principal and homeroom teacher whose classes were the subjects of this study were gained in advance. The preliminary test was conducted by using the Psychology, Physiology and Pathology Assessment Tool for Children with Health Impairments (PATCHI) between November, 2014 and January, 2015, and then the class evaluations were carried out for one 5th-grade student with health impairment by using both PATCHI and SNEAT once a week between January and March in 2015 (Figure 1).



<Figure 1> Research Process

2. Data Collection

The data were collected and the evaluations were carried out through the observation of 45-mintues classes once a week by a third party evaluator. The subjects of classes included Mathematics, Science, Social Studies, Home Economics, Moral Education, and Special Activities (Table 1). The evaluator who is fully aware of the PATCHI and SNEAT filled the questionnaire after observation of the classes. The school events were not included for the evaluation.

<Table 1> Classes for Data Collection

Date	Number	Subject	
1/28	1-1	Mathematics	(MA)
	1-2	Science	(SC)
	1-3	Special Activities	(SP)
2/4	2-1	Special Activities	(SP)
	2-2	Special Activities	(SP)
2/18	3-1	Special Activities	(SP)
	3-2	Mathematics	(MA)
	3-3	Mathematics	(MA)
2/25	4-1	Social Studies	(SO)
	4-2	Moral Education	(MO)
3/4	5-1	Mathematics	(MA)
3/11	6-1	Mathematics	(MA)
	6-2	Special Activities	(SP)
3/18	7-1	Mathematics	(MA)
	7-2	Mathematics	(MA)
	7-3	Home Economics	(HO)

3. Questionnaire

1) Psychology, Physiology and Pathology Assessment Tool for Children with Health Impairments (PATCHI)

The content validity of Psychology, Physiology and Pathology Assessment Tool for Children with Health Impairments (PATCHI) was verified (Kohara, Han & Nakakuroshima, et al., 2015) and its relevance to the SNEAT was also confirmed.

The PATCHI consists of 20 items of three domains such as psychological, physiological and pathological domains. This tool uses five-point scale and its perfect score is 100; the score of 45 in the psychological domain, 25 in the physiological domain and 30 in the pathological domain.

2) Special Needs Education Assessment Tool (SNEAT)

The SNEAT is also the tool whose reliability and validity were verified (Han, Kohara & Kohzuki, 2014). The reliability of SNEAT was verified via the internal consistency method and the test-pretest method; both the coefficient of Cronbach's α and the intra-class correlation coefficient were over 0.7. SNEAT is valid based on its goodness-of-fit values obtained using the latent growth curve model, where the values of comparative fit index (0.983) and root mean square error of approximation (0.062) were within the goodness-of-fit range. The SNEAT questionnaire has a total of 11 items in three domains (Physical Functioning, Mental Health, and Social Functioning) and enables the teachers to evaluate the educational outcome of their students (Han, Kohara & Kohzuki, 2015).

4. Data Analysis

The PATCHI evaluates the psychological, physiological and pathological changes of children and the SNEAT does the outcome of special needs education classes; the results of the evaluation by using PATCHI and SNEAT may lead to confirm the relationship between psychological, physiological and pathological changes and the outcome of classes. In this study, the analysis by matching the result of PATCHI to those of SNEAT was conducted. The items about the psychology, physiology and pathology are matched to those of the health of body and mind in the SNEAT. Through the consultation with researchers on special needs education and QOL and in-service teachers, the domains of physiology and pathology have been matched to the physical functioning and the domain of psychology to mental health (Table 2). The scores of corresponding domains were matched to each other and analyzed.

<Table 2> Comparison of PATCHI with SNEAT

SNEAT		Domain		PATCHI	
Q1	Were the activities during the class appropriate for the physical conditions of the student?	Physical Functioning	Physiology	Q10	The student has difficulty in vocalizing and pronouncing.
Q2	Have been the posture, motor ability and motions of student improved?			Q11	The student can arranging stationery
Q3	Has been the ability of student to independently manage daily living improved?			Q12	The student can control urination and bowel movement.
Q4	Has been the degree of student's understanding his/her condition of diseases(disabilities) improved?			Q13	The student has difficulty in handwriting.
				Q14	The student feels fatigue.
			Pathology	Q15	The student has difficulty in breathing (e.g., choking on something or having obstructive phlegm in his/her throat).
				Q16	The student's diseases (disabilities) affect the interactions with friends.
				Q17	The time for learning during the classes has decreased due to the student's diseases (disabilities).
				Q18	The student has pains or numbness.
				Q19	The student has difficulty in participating in class or studying due to diseases (disabilities).
				Q20	The student has difficulty in scratching on the itchy spot.
Q5	Has the feelings of student changed positively?	Mental health	Psychology	Q1	The student is frustrated or angry.
Q6	Did the student participate in class(learning/activities) in concentration?			Q2	The student shows anxiety.
Q7	Has been the will of student to learn improved?			Q3	The student worries about minor things.
Q8	Could the student respond to the changes of place and situation (the changes of environment) during class?			Q4	The student is motivated to learn.
				Q5	The student responds immediately, when he/she hear or see something.
				Q6	The student has thought that he/she is useful to other(s).
				Q7	The student is pleasant.
				Q8	The student can ask help, when he/she needs it.
				Q9	The student wants his/her difficulties to be understood by others (the psychological difficulty due to his/her disabilities during classes).

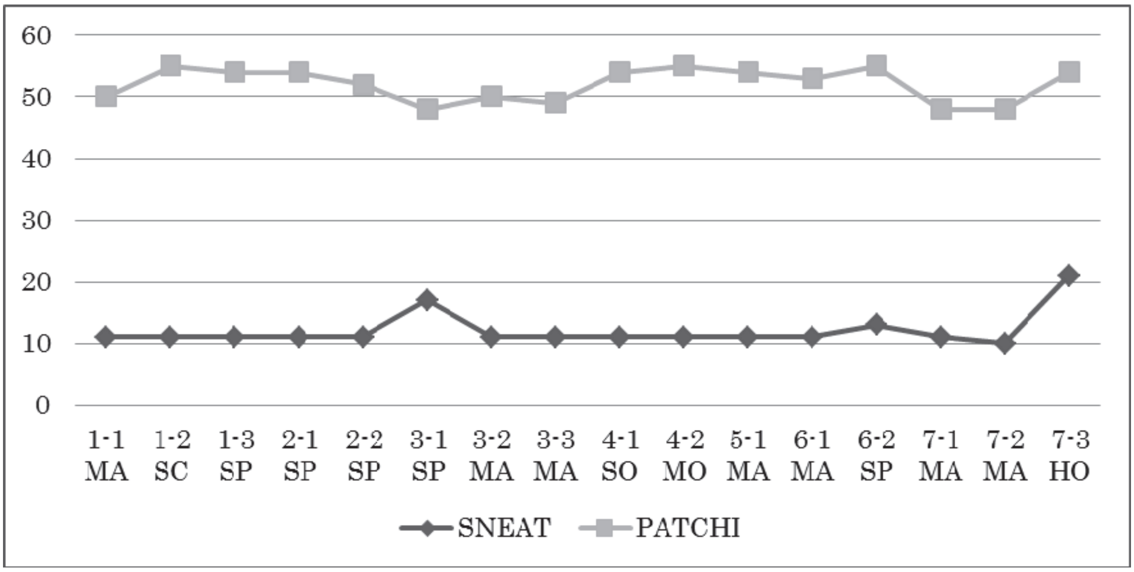
Ⅲ. Results

1. Comparison of Physiology and Pathology (PATCHI) with Physical Functioning (SNEAT)

In results of comparing the scores of the PATCHI with those of SNEAT, while the scores of the PATCHI gradually changes, those of SNEAT showed almost no change (Table 3, Figure 2); that is, the physiological and pathological states of children with health impairment showed gradual changes, but there was no change in the outcome of classes.

<Table 3> Scores of Physiology and Pathology (PATCHI) and Physical Functioning

Date	1/28			2/4		2/18			2/25		3/4	3/11		3/18		
Subject	1-1 MA	1-2 SC	1-3 SP	2-1 SP	2-2 SP	3-1 SP	3-2 MA	3-3 MA	4-1 SO	4-2 MO	5-1 MA	6-1 MA	6-2 SP	7-1 MA	7-2 MA	7-3 HO
SNEAT	11	11	11	11	11	17	11	11	11	11	11	11	13	11	10	21
PATCHI	50	55	54	54	52	48	50	49	54	55	54	53	55	48	48	54



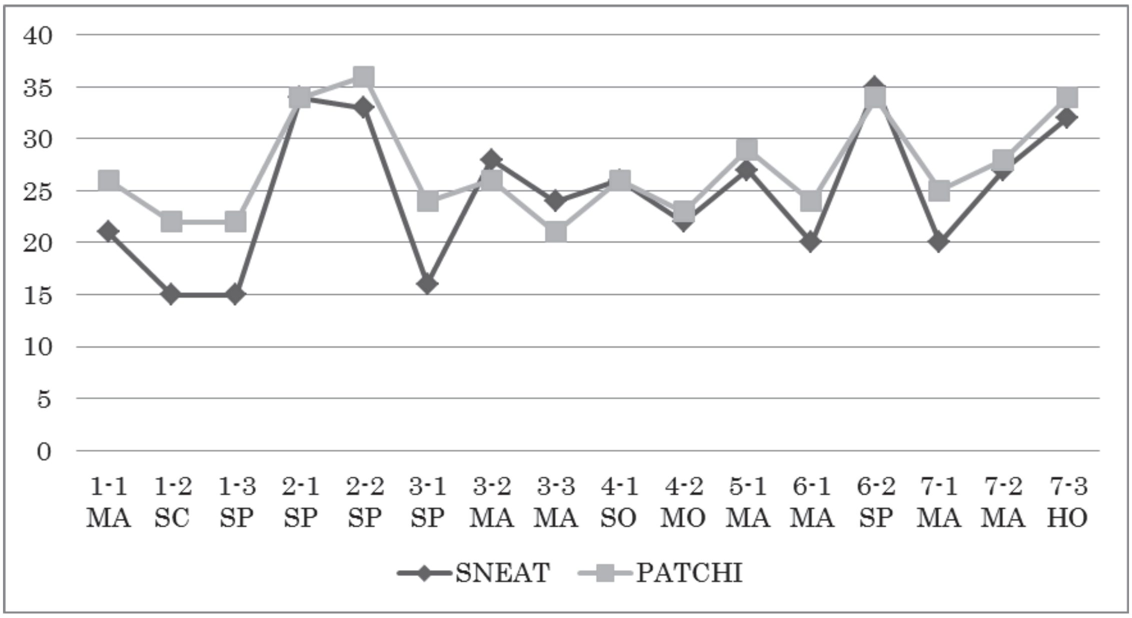
<Figure 2> Changes of the Scores of Physiology and Pathology (PATCHI) and Physical Functioning (SNEAT)

2. Comparison of Psychology (PATCHI) with Mental health (SNEAT)

In results of the comparison of the scores of the PATCHI with that of SNEAT, the changes of PATCHI and SNEAT were similar to each other (Table 4, Figure 3); the psychological changes were similar to the changes of the outcomes of classes.

<Table 4> Scores of Psychology (PATCHI) and Mental health (SNEAT)

Date	1/28			2/4		2/18			2/25		3/4	3/11		3/18		
Subject	1-1 MA	1-2 SC	1-3 SP	2-1 SP	2-2 SP	3-1 SP	3-2 MA	3-3 MA	4-1 SO	4-2 MO	5-1 MA	6-1 MA	6-2 SP	7-1 MA	7-2 MA	7-3 HO
SNEAT	21	15	15	34	33	16	28	24	26	22	27	20	35	20	27	32
PATCHI	26	22	22	34	36	24	26	21	26	23	29	24	34	25	28	34



<Figure 3> Changes of the Scores of Psychology (PATCHI) and Mental health (SNEAT)

Ⅳ. Considerations

This study aimed to clarify the relationship between the psychological, physiological and pathological changes of children with health impairment and the outcome of the classes by using the PATCHI and SNEAT.

In results of data collection, while the scores of the PATCHI gradually changes, those of SNEAT showed almost no change; that is, the physiological and pathological states of children with health impairment showed gradual changes, but there was no change in the outcome of classes. In the meantime, in results of the comparison of the scores of the psychology (PATCHI) with those of mental health(SNEAT), the changes of psychology (PATCHI) and mental health(SNEAT) were similar to each other (Table 4, Figure 3); the psychological changes were similar to the changes of the outcomes of classes. The PATCHI evaluates the psychological, physiological and pathological changes of children and the SNEAT does the outcome of special needs education classes, which means that the psychological changes of PATCHI was shown to be similar to the outcomes of classes that was measured by the SNEAT, because the teacher teaches with looking at the psychological changes of the student(s). In contrast, even though the changes happened in the domains of physiology and pathology, the outcomes of classes that are measured by the SNEAT have not seemed to be identified, because teachers cannot find the changes of children.

Based on the aforementioned results, the problem caused by the lack of expertise of teachers was derived from the curriculum of universities for special needs education. The curriculum for the teacher education has not been fully established and sometimes even the teachers who obtained the teacher's license do not seem to be fully qualified for the teaching (The Central Education Council, 2014). Due to the differences of curriculum of each university, it is also difficult to guarantee the quality of curriculum (Ministry of Education, Culture, Sports, Science and Technology, 2013). The difference has been pointed out between the abilities that the teacher's license guarantees and those that are practically required to teach at school (The Central Education Council, 2006). The courses of Psychology, Physiology and Pathology of Children with Health Impairments are offered in the curriculum of universities for special needs education. However, the minimum number of full-time instructor who must be hired for the courses of psychology, physiology and pathology of people with physical disabilities, intellectual disabilities and health impairment is one or more (The Standard of Teacher Education 4-5), which means that there may be no expert on physiology and pathology of persons with health impairment depending on the conditions of each university.[1] Moreover, the goals of the mandatory courses for the teacher education have not been fully reflected to the universities' curriculum for teacher education (The Central Education Council, 2006). Since the university's curriculum has been usually given too much emphasis on the expertise in the research areas of university professors, it could not respond to the needs at schools sufficiently (The Central Education Council, 2006). Therefore, due to the lack of the courses of physiology and pathology in the curriculum for teacher education, teachers are poor at finding the physiological and pathological changes of children during classes.

In the meantime, there are social workers and care workers as the careers to work for persons with disabilities. The curriculum for the education of social workers and care workers mandatorily includes the courses of the 'structure and functions of human body and the diseases' or 'psychology and psychological supports' (The Regulation on the Designation of Schools for Social Workers and Care Workers, the Article 3 and 4). In results of browsing the curriculum on online syllabus in the field of social welfare, the

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[1] In Japan, the special needs education is comprised of five fields such as hearing impairment, visual impairment, intellectual disabilities, physical disabilities and health impairment and the five types of teacher's license are also issued according to the fields that the teachers choose among the said five fields. Therefore, the universities for special needs education should have five experts for five fields, but the Law stipulates that the minimum number of full-time instructor who must be hired for the courses of psychology, physiology and pathology of persons with disabilities is one or more. Since this Law may be interpreted that one full-time instructor who is an expert on one field may teach all the courses of psychology, physiology and pathology for five fields, there may be no expert on the psychology, physiology and pathology of persons with health impairment.

anatomy and physiology (Tohoku Fukushi University syllabus, 2015; Syukutoku University syllabus, 2015; Kyusyu University of Nursing and Social Welfare syllabus, 2015) and general medicine (Tohoku Fukushi University syllabus, 2015; Junior College of Aizu syllabus, 2015; Kobe University of Welfare syllabus, 2015; Kyusyu University of Nursing and Social Welfare syllabus, 2015) have been offered. It has been found that the curriculum for the education of social workers and care workers has included the courses of physiology and pathology more sufficiently than the curriculum of universities for special needs education. Conclusively, the courses of physiology and pathology need to be sufficiently included in the curriculum of universities for teacher education for special needs education. In this study, the psychological, physiological and pathological changes of children with health impairment and the outcomes of classes at schools were measured and the tasks to be improved in the curriculum of universities for teacher education for special needs education were investigated. There were also the limitations in this study that the subject for observation was only one student and the curriculum from various departments that are related with disabilities could not be analyzed. However, this study is the first attempt to evaluate the classes on the spot by using both PATCHI and SNEAT. This longitudinal study that was carried out at school through the observation of the third party, which is not common, is expected to contribute to the psychological, physiological and pathological researches for students with health impairment. In the future researches, the number of subjects should be increased and the current state of the classes that are taught based on the consideration of psychology, physiology and pathology by using PATCHI should be also explored. In addition, the curriculum analysis for students with other types of disabilities will need to be carried out.

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