A Japanese Self-Advocacy Scale for Students with Developmental Disabilities

Akane Nishi[1], Shuhei Ogawa[2], Mika Kataoka[3], Michio Kojima[4]

[1]Graduate School of Comprehensive Human Sciences, University of Tsukuba

[2]Faculty of Social Welfare, Nagano University

[3]Faculty of Education, Kagoshima University

[4]Institute of Comprehensive Human Sciences, University of Tsukuba

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ABSTRACT:

In Japan, there are limited tools for measuring the actual situation of self-advocacy, creating a need to develop a Japanese Self-Advocacy Scale and examine its reliability and validity. For this purpose, the researchers conducted an online survey of 202 individuals with developmental disabilities attending higher education institutions. Three factors were extracted to create the main constructs of the scale: "Knowledge of and Acting on Rights," "Knowledge and Affirmation of Self," and "Self-Assertion." This structure inherited the existing conceptual framework of self-advocacy using a different internal construction. The scale developed in this study reflected a narrow definition of "Knowledge of Self," focusing on the understanding of disability characteristics, rather than a broader self-understanding that includes knowledge of one's strengths and preferences. This focus was found to be an appropriate component of self-advocacy. Furthermore, it was revealed that knowing one's rights and acting on those rights are continuous and interconnected activities and not easily separable. The scale achieved a Cronbach's alpha of 0.938, indicating a strong positive correlation with existing scales for similar purposes and demonstrating reliability and validity. This newly developed scale reflects the cultural and educational context of Japan and is specifically tailored for individuals with developmental disabilities.

Keywords: Self-Advocacy, Developmental Disabilities, Higher Education, Scale Development, Disability Rights in Japan

1. Introduction

Self-advocacy has been defined in various ways. Self-advocacy is "advocating for one's own rights" (Tateiwa & Teramoto, 1998) and is "understanding and seeking individual rights" (English, 1997). The idea of self-advocacy comes from the West (Kataoka, 2017). In considering self-advocacy, it is necessary to take into account the cultural characteristics of Japan. In Japan, people with

developmental disabilities have fewer rights than in other countries, and people with disabilities are positioned as recipients of support (Takashima, 2015; Ogasawara, 2016). Given this cultural background in Japan, the perception of self-advocacy in the country may differ from that in other countries. Self-advocacy in Japan is described by the term "Teisho-ryoku" (Yoshii and Kataoka, 2017). This takes into account the nature of self-advocacy, which has a rights perspective in addition to a help-seeking perspective. Self-advocacy also can be illustrated that the person concerned and those around him or her engage in constructive dialogue with each other rather than simply asserting rights unilaterally (Kouyama, 2017). Thus, it can be said that self-advocacy in Japan emphasizes the importance of gentle and constructive dialogue.

Self-advocacy is a broad concept encompassing diverse existing constructs, leading several studies to propose models composed of its components and related elements. Internationally, one model frequently cited in the theoretical background of self-advocacy is the conceptual framework proposed by Test et al. (2005). According to this framework, self-advocacy consists of four elements: "knowledge of self," "knowledge of rights," "communication," and "leadership." Knowledge of self includes subcomponents such as strengths, preferences, interests, and support needs. Knowledge of rights includes subcomponents such as personal rights, community rights, human service rights, and educational rights. Communication includes subcomponents such as assertiveness, negotiation, articulation, and listening. While "leadership" in Japanese often implies leading people or managing groups, Test et al. (2005) emphasize its meaning as advocating for others or for causes, represented by the subcomponent advocating for others or for causes. In another model, Pfeifer et al. (2021) organize and discuss self-advocacy into aspects of "knowledge," "beliefs," and "behavior." According to this, self-advocacy requires knowledge about the self, rights, accommodations, and learning contexts within one's field of study. Simultaneously, it requires beliefs such as views of disability and agency, as well as behaviors pertaining to communication. From these two models, self-advocacy can be understood as a process where individuals with disabilities start by learning about themselves and their rights, internalize and deepen that knowledge, and then take concrete actions toward others (i.e., communicate with them).

Within Japan, for example, Nishi & Torii (2022) propose a hypothetical model framing the first stage of self-advocacy as "self-understanding" and the second stage as "requesting assistance/asserting rights." Additionally, Ogawa (2019) defines self-advocacy as "the skill to understand one's own disability, comprehend coping strategies and support methods one can implement independently, and appropriately request accommodations." Furthermore, Matsumura & Sawazaki (2024), drawing on the framework of Test et al. (2005), argue that "communication" (including assertion), "self-management," "self-understanding," "self-determination," and "assistance request behavior" are key components of self-advocacy. For example, self-understanding in self-advocacy is understood not only as understanding disability characteristics but also as a general understanding of oneself, including one's strengths, weaknesses, and interests (Nishi & Torii, 2022). In the conceptual framework by Test et al. (2005) mentioned earlier, "Knowledge of self" is defined as gaining knowledge of one's own interests, preferences, strengths, learning style, and attributes of one's disability (Test et al., 2005). That is, deepening understanding of both characteristics attributable to disability and those not attributable to disability is assumed to be important in self-advocacy. Furthermore, as mentioned earlier, requesting assistance is a concept that constitutes part of the behavioral factors of self-advocacy (Nishi & Torii, 2022; Matsumura & Sawazaki, 2024). Appropriate requests for assistance determine the availability of support during university life, and a weak orientation toward receiving assistance can become a significant weakness in academic pursuits (Yoshida et al., 2017). In self-advocacy, requesting assistance can be considered one of the most typical and frequent expressive behaviors. Furthermore, assertion is defined as "an attitude of honestly and frankly

expressing one's feelings, thoughts, and beliefs in a manner appropriate to the situation, while encouraging the other person to communicate similarly" (Hiraki, 1993; 2000). It constitutes the foundation of communication in self-advocacy, meaning conveying one's own perspective while respecting the other person's position. As mentioned earlier, assertiveness is included as a subcomponent of communication in self-advocacy (Test et al., 2005). Assertion, as a form of self-expression that is neither aggressive nor passive, is expected to be related to self-advocacy as constructive dialogue (Kouyama, 2017). As outlined above, self-advocacy is a multifaceted concept encompassing multiple existing constructs. Among these existing constructs, this study specifically predicts that self-understanding, requesting assistance, and assertiveness are concepts related to self-advocacy.

While individuals with disabilities exercise self-advocacy across all daily contexts, one of the most critical contexts is higher education institutions. Higher education institutions are characterized by the need for "self-management" and "initiative. For many, higher education institutions are the first place of self-responsibility, which can make it difficult to access and actually use support (Hadley, 2006). Also, unless students themselves advocate for their own rights, they will not necessarily be helped by those around them (Kataoka and Tamamura, 2009). Therefore, it is necessary for students to be willing to speak up and seek consideration themselves, and the skill of self-advocacy is required. In fact, self-advocacy is counted as one of the factors of adjustment to college life (Gelbar et al., 2015) and has been shown to have a positive impact on academic performance (Fleming et al., 2017), self-management skills (Bellman et al., 2015), planning skills (Adams and Proctor, 2010), and so on. In higher education institutions, self-advocacy is one of the necessary communications for self-management and initiative, and students' self-advocacy is increasingly required in higher education institutions than in pre-secondary education.

Among students with diverse disabilities, self-advocacy is particularly necessary for those with developmental disabilities. These are defined as "[impairments] in physical, learning, language, or behavior" that begin during the child's developmental period, may impact day-to-day functioning, and usually last throughout a person's lifetime" (Centers for disease control and prevention [CDC], 2025). Developmental disabilities are "invisible disabilities" (Takahashi, 2012; Nakamura, 2019), and "invisible" or "hidden" disabilities require more self-advocacy (Terras et al., 2020). Furthermore, due to their disability characteristics, students with developmental disabilities are either unaware of the attention they need or, if aware, have difficulty displaying it proactively and appropriately (Oketani, 2013; Mori, 2023), as they do not have a clear sense of need or an ongoing problem due to difficulties in self-understanding. Similarly, due to their communication difficulties, they may not know whom or how to consult (Uchiyama et al., 2022). Self-advocacy is an important form of communication for individuals with developmental disabilities to appropriately explain invisible disabilities and request assistance.

Considering the above, in Japan, there is a need for a tool to measure the actual state of self-advocacy among university students with developmental disabilities in order to provide effective support for them. However, few self-advocacy scales exist in Japan, and few scales targeting students with developmental disabilities in higher education institutions can be found outside of Japan. Existing self-advocacy scales are limited to those used by nurses in medical practice (Abbasinia et al., 2020), cancer patients (Vahdat et al., 2015), and teacher evaluation (Walick, 2017). With reference to these scales, self-advocacy scales based on individual assessment should be developed for developmental disabilities in Japanese institutions of higher education.

The purpose of this study was to conduct a preliminary literature review to select questions for the Japanese version of the Self-Advocacy Scale for students with developmental disabilities at a higher education institution, and then to develop and test the reliability and validity of the scale. In this study, targets of support for students with disabilities

include not only those who have been diagnosed, but also those who have not been diagnosed but have a tendency toward developmental disabilities (e.g., Tanji and Noro, 2014), so we also included those who are "said to have or may have a developmental disabilities."

Scale Development Procedure

We first conducted scale item development (literature review and content validity assessment), followed by an online questionnaire survey (Figure 1). In the literature review, the first author examined domestic and international literature to identify and extract the elements (items) constituting self-advocacy. Subsequently, the second, third, and fourth authors, along with two individuals with lived experience, totaling five individuals, each independently evaluated the appropriateness of the items measuring self-advocacy. Based on these results, the first author finalized the self-advocacy questions to be asked in the online questionnaire survey. These items were used in the online questionnaire survey.

2. Methodology

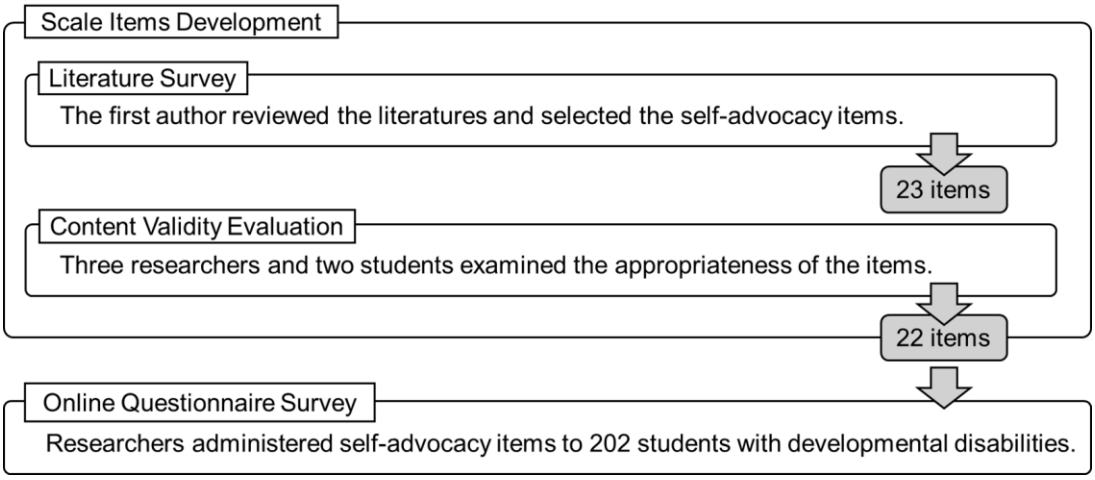

Figure1. Scale Development Procedure

Design of Scale Items Development

The researchers conducted a survey of prior literature in both Japanese and English to determine potential items for a self-advocacy scale. The literature survey period was August–December 2023. The survey was done for the purpose of designing questions for the scale and creating a definition and description of self-advocacy. To collect literature in Japanese, the researchers searched for Boolean formula of "'self-advocacy' AND 'students'" ("*teishō-ryōku*" *TO* "*gakusei*") on CiNii Research. To collect literature in English, the researchers used the ERIC and PubMed databases and searched for the Boolean formula "'self-advocacy' AND 'college.'"

Literature Survey

Searches across three databases yielded a total of 42 relevant literature sources. From the descriptions within these sources, the lead author extracted passages referring to definitions or components of self-advocacy, compiling a list of 23 items (Table 1). These items could be interpreted based on existing theoretical frameworks: the four-elements model by Test et al. (2005) and the three-elements model by Pfeifer et al. (2021). That is, self-advocacy encompassed understanding oneself and one's rights, and communicating with others based on the knowledge of self and rights.

Table 1. Self-Advocacy Elements Derived from Literature Survey

Four Elements Model[1]	Three Elements Model[2]	Related Elements
Knowledge of Self	Knowledge / Beliefs	Knowing one's strengths[1]
		Knowing one's preferences[1]
		Knowing one's goals[1]
		Knowing one's interests[1,2,5,6]
		Knowing one's own learning style[1]
		Knowing about support for needs (including special accommodation)[1,2]
		Understanding and knowing about one's disability/disabilities[2,3,4,8]
Knowledge of Rights		Knowing about personal rights[1,2,5,6]
		Knowing about the rights of group which one belongs[1]
		Knowing about human service rights[1]
		Knowing about rights as a user of the school or facility[1]
		Knowing about personal rights, especially related to higher education[1,8]
		Knowing how to respond when own rights are violated[1]
		Knowing that one can seek support from others in times of need[1]
Communication	Behaviors	Asserting oneself[1,6]
		Using assertive thechnology[1]
		Listening to others[1]
		Perssuasion[1]
		Adjusting (negotiating)[1,2,3,6]
		Comprmiseing[1]
Leader-ship		Advocating for other or for causes[1]
		Taking action for political problem[1]
		Leading or playing a role in the team for rights advocacy[1]

[1] Test et al., 2005; [2] Pfeifer et al., 2021; [3]Izzo et al., 2011; [4]Skinner, 2004; [5]Yamashita, 2022; [6]Stamp et al., 2014; [7]Barna and Nice, 2021; [8]Russel and Pearl, 2020

Content Validity Evaluation

Based on the elements of self-advocacy extracted from the literature survey, the first author designed potential questions for a self-advocacy scale while accounting for the characteristics of Japanese culture and higher education institutions. Subsequently, in order to incorporate external perspectives, a preliminary survey was conducted with both researchers and students with developmental disabilities. The second, third, and fourth authors, who are researchers on intellectual and developmental disabilities, special needs education, and self-advocacy, confirmed the content validity. Two students with developmental disabilities attending a Japanese institution of higher education were also asked to review the items. After three researchers and two students read the

definition of self-advocacy and developmental disabilities, and then evaluated the items based on two criteria: (1) whether each item was appropriate as a questionnaire item (i.e., whether the content was suitable), and (2) whether the wording was clear and understandable. For items judged inappropriate, they provided reasons and suggested revisions in their comments. Three co-authors and two students independently evaluated the appropriateness of the items, and their comments were individually sent to the first author. The first author then consolidated the opinions of the five evaluators and refined the items accordingly.

After 23 items were extracted through literature review, the first author created a draft 28-item self-advocacy scale, adding 5 items based on Japanese cultural characteristics, features of higher education institutions, and characteristics of developmental disabilities. Subsequently, based on feedback from 5 evaluators, 3 items were added, 9 items were revised, and 9 items were excluded, one item was added but later excluded. For example, items were added that ask about experiences where individuals not only understood it was acceptable to seek help but also took action themselves, as well as items asking whether they understand the reasons for their difficulties (such as being able to explain characteristics of brain function). Regarding the support needed by the individual, while the literature survey focused on accommodations, items concerning support from close associates were also added. Furthermore, in several items, the Japanese expression was changed from "understanding" to "knowing" because the original wording could potentially make respondents feel pressured to deeply and correctly understand the matter in questions. On the other hand, while there were numerous expressions related to rights, such as "personal rights" and "human service rights," several items were deleted because they were difficult to translate into Japanese and the concepts themselves were unclear. The final draft version focused on rights as a user and educational rights. Simultaneously, all items corresponding to "leadership" in Test et al (2005) were deleted based on the opinion that they were ill-suited to the Japanese context. As a result, a draft self-advocacy scale consisting of 22 items was created for the online questionnaire survey.

Design of Online Questionnaire Survey

Participants

The online survey included 202 students aged 18 or older with developmental disabilities who were attending higher education institutions in Japan. Participants were recruited from all parts of Japan. The types of higher education institutions attended by the students were as follows: four-year universities, junior colleges, colleges of technology, professional training colleges, graduate schools, master's programs, doctoral programs, professional universities, professional junior colleges, professional departments, special training colleges, research students, trainees, and others.

Survey Period and Process

The first survey was conducted in August 2024. A second survey was conducted in November 2024 to ensure a larger number of participants. Both surveys were conducted using a web-based research company, Asmarq Corporation. After the company conducted a sampling, participants who corresponded to "students with (symptoms of) developmental disabilities attending higher education institutions in Japan" were invited to participate. The items were the same for both the first and second surveys. After the participants were asked to respond to the survey and the data were analyzed, the questions were again reviewed by the researchers for content validation.

Survey Items

The online survey consisted of five sections. The first section inquired about the basic demographics of the participants. These included gender, age, province of residence, marital status, occupation, type of institution of higher education attended, major, diagnosis, and support received (based on open-ended questions). The second section consisted of 22 questions based on the self-advocacy components selected from the literature survey. Based on feedback from the three researchers and two students with developmental disabilities, the first author made the revisions shown in Table 1, further refined the wording, and

then, administered the 22-item questionnaire in Japanese. The participants were asked to answer on a six-point scale from "not at all applicable" to "very applicable." The third section was the "Self-Understanding and Self-Concordance Scale" by Aoyagi et al. (2002), which asked the students to what extent they understood and acted on their own strengths and weaknesses. This scale consisted of 37 items in total. The fourth section was the "Help-Seeking Skills Scale" by Honda et al. (2010). This scale was used to measure the help-seeking behaviors as well as the process of choosing a person or situation in which to ask for help. It comprised 17 items. The fifth section was the "Assertion Scale for Adolescents" by Tamase et al. (2001). It consisted of two factors (relationship formation and persuasion negotiation) for a total of 25 items. The "Self-Understanding and Self-Concordance Scale," the "Help-Seeking Skills Scale," and the "Assertion Scale for Adolescents" are existing scales similar to the self-advocacy scale that was to be developed and were used for its validation.

Ethical Declaration

The survey and its procedures were approved by the Ethics Review Committee of University of Tsukuba (No. 筑 2024-13A). Responses were voluntary and could cease at any time, and there was no disadvantage entailed in doing so. The participants were informed via the survey website that their privacy was strictly protected and that their personal information would not be leaked. In accordance with the regulations of the Ethical Review Committee, participants were presented with a web-based document stating that completing the questionnaire would be considered as providing informed consent. This procedure was used because, in anonymous online surveys, individual participants cannot be identified, and it is not possible to withdraw consent after submission. Participants who agreed to these terms proceeded to complete the questionnaire.

3. Results

Participant Demographics

The participants included 73 men, 125 women, 3 others, and one who did not respond. The mean age was 21.1 years (*SD* = 2.79, range = 18-30). Multiple choice was available for the question about disabilities. There were 53 individuals with Autism Spectrum Disorder (ASD), 25 with Asperger Syndrome, 8 with High-Functioning Autism, and 13 with Pervasive Developmental Disorder (PDD). In addition, there were 76 individuals with Attention-Deficit/Hyperactivity Disorder (ADHD) and 8 with Attention-Deficit Disorder (ADD). Furthermore, there were 14 individuals with Learning Disabilities (LD) and 7 with Specific Learning Disorders (SLD). Eight identified as having another intellectual disability or neurodevelopmental disorder, and 80 identified as showing symptoms of developmental disabilities.

Factor Analysis of the Scale Structure

First, the researchers conducted an exploratory factor analysis (EFA) using principal axis factoring and promax rotation. Four factors were considered appropriate based on attenuation (with an eigenvalue set to 1), simple structure, and interpretability. After rotation, the factor loadings for all but three items were less than 0.4, resulting in 19 appropriate items. When the EFA was conducted again in the same manner, three factors were considered appropriate, and the final number of appropriate items converged at 15, excluding four items with factor loadings below 0.4 in the three-factor structure (Table 2).

Table 2. Results of the Explanatory Factor Analysis

	Items (Range = 1–6)	*M*	*SD*	Factor Loading		
				Ⅰ	Ⅱ	Ⅲ
Knowledge of and Acting on Rights						
8.	I understand my rights as a student of the school or facility.	3.44	1.38	**1.019**	−0.023	−0.221
9.	I understand my educational rights.	3.6	1.35	**0.915**	−0.086	−0.035
10.	I know how to respond when my rights are violated.	3.25	1.41	**0.822**	−0.117	0.070
19.	I know how to negotiate with others when necessary.	3.64	1.43	**0.484**	0.049	0.319
18.	I can persuade others when necessary.	3.54	1.44	**0.442**	0.065	0.323
11.	I know how to ask for help from others when I need it.	3.65	1.35	**0.432**	0.281	0.112
16.	I use supportive devices when necessary.	3.26	1.45	**0.412**	0.153	0.219
Knowledge and Affirmation of the Self						
21.	I understand my own difficulties.	3.98	1.28	−0.045	**0.940**	−0.120
22.	I understand why my difficulties occur.	3.79	1.37	0.001	**0.835**	−0.043
7.	I know the characteristics of my disability/disabilities.	3.88	1.31	−0.129	**0.799**	−0.020
6.	I know what kind of reasonable accommodations I need.	3.42	1.46	0.222	**0.601**	−0.002
20.	I have requested assistance.	3.73	1.48	0.084	**0.541**	0.098
Self-Assertion						
14.	I can express my needs.	3.46	1.50	−0.044	−0.084	**0.989**
13.	I can clearly express my feelings.	3.43	1.48	−0.106	0.046	**0.919**
15.	I can clearly say no when necessary.	3.52	1.46	0.073	−0.187	**0.809**

Inter-Factor Correlation	Ⅰ	Ⅱ	Ⅲ
Ⅰ	—	0.706	0.757
Ⅱ		—	0.656
Ⅲ			—

Examination of the factor pattern matrix revealed that Factor I was based on items reflecting an understanding of one's rights, such as "I understand my rights as a student of the school or facility" and "I know how to can ask for help from others when I need it," and how to affirm them, such as "I know how to negotiate with others when I need to," "I can persuade others when necessary." Factor I, which consisted of seven items, was defined as "Knowledge of and Acting on Rights." Factor II consisted of five items that indicated understanding of a disability's characteristics and requesting consideration based on those characteristics, such as "I understand my own difficulties" and "I have requested assistance." This factor was labeled "Knowledge and Affirmation of Self." Factor III consisted of three items: "I can clearly assert my own needs," "I can clearly assert my own feelings," and "I can clearly say no when necessary." It was labeled "Self-Assertion."

Based on this three-factor model, the researchers conducted a confirmatory factor analysis (CFA) using the maximum likelihood method and structural equation modeling. The

results showed that the fit indices were $\chi^2(87) = 291.94$, $p < 0$, comparative fit index (CFI) = 0.9, root mean square error of attraction (RMSEA) = 0.11, indicating a good fit for the CFI (Figure 2). Although the modified indices assumed covariance among some items, the RMSEA was not modified in this study to increase their goodness of fit, due to interpretability. A one-factor structure was attempted because of the assumed covariance among some items but was rejected due to the reduced goodness of fit. Instead, the three-factor structure was adopted as indicated by the EFA.

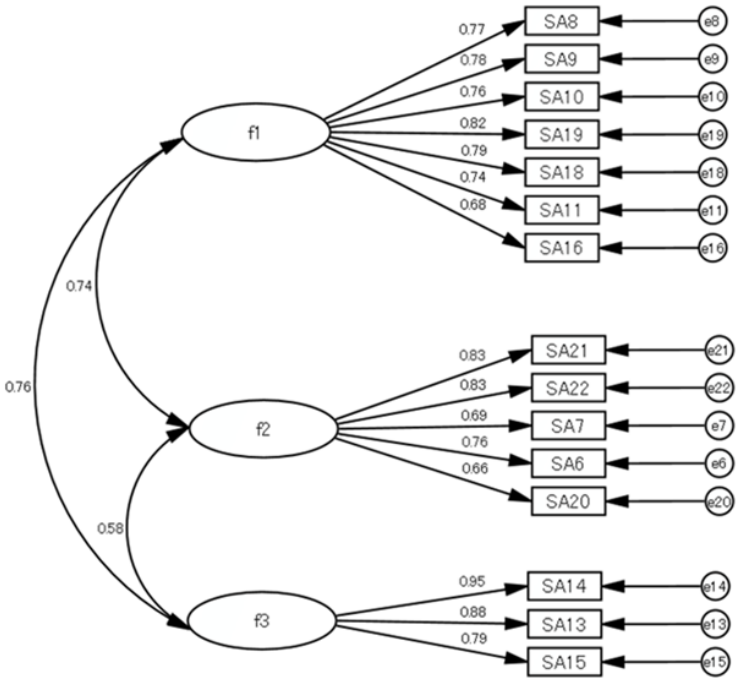

Figure 2. Confirmatory Factor Analysis results

Examination of Reliability and Validity

Cronbach's alpha (α) was estimated to examine the internal consistency of the Self-Advocacy Scale and its subscales. The results showed α = 0.938 for the entire scale, α = 0.908 for Factor I related to rights, α = 0.865 for Factor II, and α = 0.9 for Factor III. The α coefficients for the entire scale and each subscale were above 0.8, indicating that the scale has internal consistency.

To examine the validity of the self-advocacy scale, Pearson's product-moment correlation coefficients were calculated between the self-advocacy scale and the other scales used in the survey. The results showed somewhat strong positive correlations between the Self-Advocacy Scale and the Self-Adherence Scale, the Help-Seeking Skills Scale, and the Assertion Scale for Adolescents (Table 3).

Table 3. Reliability and Validity of the Self-Advocacy Scale versus Other Scales

	Reliability	**Validity**		
		Self-Understanding Scale	Help-Seeking Scale	Assertion Scale
All Items	$a = 0.938$	$r = 0.726$***	$r = 0.697$***	$r = 0.600$***
Knowledge of and Acting on Rights	$a = 0.908$			
Knowledge and Affirmation of Self	$a = 0.865$			
Self-Assertion	$a = 0.900$			

4. Discussion

A Conceptual Framework of Self-Advocacy

The Self-Advocacy Scale developed in this study consisted of three factors: seven items for "Knowledge of and Acting on Rights," five items for "Knowledge of and Affirmation of Self," and three items for "Self-Assertion." The factor structure of the Self-Advocacy Scale in the present study inherited the framework of four-factor model of Test et al. (2005) and the three-factor model of Pfeifer et al. (2021, 2023), but showed a different conceptual framework (Figure 3).

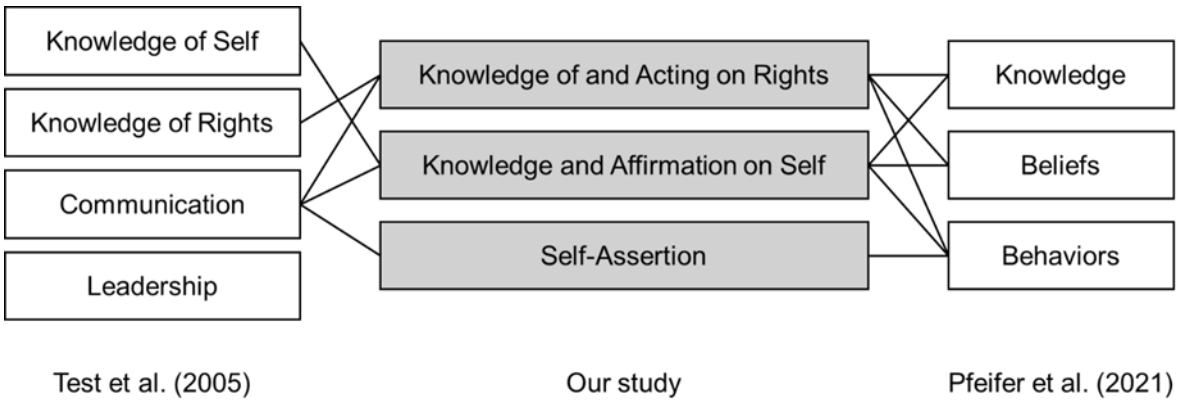

Figure 3. Comparison of Conceptual Frameworks of Self-Advocacy

In Japan, self-understanding is also sometimes viewed as either supporting self-advocacy or as the first step in self-advocacy. For example, to demonstrate self-advocacy, it is essential to deepen one's understanding of one's strengths and weaknesses and what kind of support is necessary (Kojima, 2017). Self-understanding is the basis for self-advocacy, which is also described as "verbalizing one's own characteristics and weaknesses" (Tsuzuki, 2014). Self-understanding is thus a foundational element of self-advocacy. If the first stage of self-advocacy is self-understanding and the second is requesting help and asserting one's rights, self-understanding is thus not limited to understanding the characteristics of one's disability, but also includes knowing one's strengths, weaknesses, and needs (Nishi & Torii, 2022). Although understanding one's strengths, preferences, and interests are considered as a part of self-understanding (e.g., Test et al., 2005; Pfeifer et al., 2021; Izzo et al., 2011; Yamashita, 2022; Stamp et al., 2014), they were excluded from this scale owing to the ongoing debate regarding the nature of self-understanding in self-advocacy. While the broad form of self-understanding, such as the ability to recognize one's strengths, preferences, and goals, is considered important, a narrower form of self-understanding focused on "understanding of disability characteristics" was created for the present scale. In this scale, which targets students with (symptoms of) developmental disabilities at Japanese institutions of higher education, "understanding of disability characteristics" is considered to be one component of self-advocacy. Self-understanding in a broader sense can be viewed as a different construct that serves as a premise or basis for self-advocacy. At any rate, for students with (symptoms of) developmental disabilities whose difficulties are not easily understood by those around them, the starting point for self-advocacy is to learn about their difficulties and disabilities.

A behavioral aspect was added to Test et al.'s (2005) "Knowledge of Rights" factor to form Factor I. Test et al.'s (2005) factor included "knowing one's rights as an individual with a disability and as a student receiving services under federal law." In Japan, one event that triggered a reconsideration of disabled rights was the International Year of Persons with Disabilities in 1981. In the context of support for students with disabilities, this created "a shift from demands centered on 'acceptance' based on the 'guarantee of the right to education' to a movement for the enhancement of 'support' for students with disabilities as the 'embodiment of the right to learn'" (Koyama, 2012). As subjects with rights, students with disabilities are expected to

understand and appropriately exercise their rights as members of educational institutions.

Items originally designated as part of Test et al.'s (2005) "Communication" factor were divided into behaviors related to rights and understanding of disability characteristics, and each was relegated to the relevant factor. In addition, three items were added to create Factor III. Outside Japan, "assertion was frequently cited in the literature and included effective and appropriate communication of feelings, needs, and desires and the ability to say 'no'" (Test et al., 2005). However, aggressive and proactive communication are different (Test et al., 2005). Advocating for one's rights in the Japanese context is most effectively achieved through constructive discussion, not one-sided arguing. For self-advocacy in Japan, it is therefore more important to have constructive dialog rather than an assertive stance (Kouyama, 2017). In this sense, listening carefully to others is also important, but an item on listening was deleted when developing the Self-Advocacy Scale.

Test et al.'s (2005) "Leadership" factor was excluded from this study because it did not fit the context of Japanese culture. Leadership is, in this context, "advocacy for the rights of others" and refers to acting on behalf of the problems of others other than oneself or the group to which one belongs, but even outside Japan, the leadership component is not always included in the concept of self-advocacy or is rarely emphasized (Test et al., 2005; Pfeifer, 2007; Pfeifer et al., 2021). Alternatively, "leadership" could be interpreted as taking action by utilizing one's knowledge about rights. As a result, the elements included in Factor I could be said to capture both knowledge about rights and leadership, following Test et al. (2005).

From the above, self-advocacy consists of self-understanding, including understanding of the characteristics of one's disability and one's rights, combined with communication based on that self-understanding (i.e., requests for consideration and self-assertion). As pointed out by Pfeifer et al. (2021), self-advocacy includes a knowledge aspect, a belief aspect, and a behavioral aspect. The definition of self-advocacy therefore varies, and further verification is necessary to check that the Self-Advocacy Scale accounts for this variation. In particular, communication styles in Japan are considered especially unique, and it is necessary to account for cultural characteristics, awareness, and attitudes.

Reliability and Validity

In this study, sufficient internal consistency was confirmed by Cronbach's α. The content validity was ensured through the independent review of all the authors and incorporating the opinions of students with developmental disabilities. The validity of the Self-Advocacy Scale compared to existing scales for similar concepts was also confirmed. However, the CFA values of some indicators of model fit were poor. Given the ambiguity of the definition and concept of self-advocacy, further validation is required for the Scale, which could potentially include a variety of factors.

Limitations

This study had third main limitations. The first was the ambiguity of the concept of self-advocacy. Although the authors carefully considered the online survey items based on a literature survey and confirmed the content validity through intensive discussion and outside feedback from persons with developmental disabilities, questions remain about what exactly constitutes self-advocacy. Future research should continue to clarify the nature of self-advocacy and account for how this may vary on a cultural basis. The second limitation was the small number of participants. Although this study included 202 participants, it is necessary to recruit more students with (or with symptoms of) developmental disabilities to improve the scale's precision. Third, regarding scale development procedures, rigorous procedures like the blind judge procedure are desirable to enhance the validity of scale items. Our procedure had the advantage of ensuring validity both academically and practically, as researchers knowledgeable about self-advocacy and individuals in positions to exercise self-advocacy independently evaluated the items. However, it is a challenge that it does not sufficiently ensure external validity and objectivity

to the same degree as a blind judge procedure, and this warrants further consideration.

5. Conclusion

Although this study has some methodological limitations, it allowed the development of a Self-Advocacy Scale appropriate for use in Japanese higher education institutions and confirmed its reliability and validity. The scale has three main features. First, it accounts for the unique cultural characteristics of Japan. Second, it is tailored to the specific context of higher education. Third, it is applicable for individuals with a variety of developmental disabilities. The structure was based on three factors: "Knowledge of and Acting on Rights," "Knowledge and Affirmation of Self," and "Self-Assertion," which partially inherited conceptual frameworks from previous models. In the future, it is expected that the utility of this scale will be enhanced through comparative examinations across regions, age groups, types of disabilities, and the presence or absence of a diagnosis.

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