



## **Research on Stress Recognition of Persons with Developmental Disability and Support for Job Adjustment - Focusing on Those with Comorbid Mental Disability -**

### **(Research Report No. 150) Summary**

#### **[Keywords]**

Developmental disability, mental disability, comorbid, local vocational centers for persons with disabilities, support for adaptation and settlement, support for rehabilitation, perspectives of response, psychiatric symptom, stress at work, stress coping

#### **[Points for Practical Purpose]**

- Use this report as a reference for problem solving for persons with developmental disability and comorbid mental disability, and persons with mental disability and sign of developmental disability characteristics.
- Use this report as basic materials for the attributes of persons with developmental or mental disability using local vocational centers for persons with disabilities (male/female ratio, age distribution, disability certificate possession status, work experience, etc.), and characteristics and problems of persons with developmental disability characteristics and comorbid mental disability.

April 2020

Japan Organization for Employment of the Elderly, Persons with Disabilities and Job Seekers (JEED)

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## 2. Research period

FY 2018 to 2019

## 3. Composition of the research report

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## 4. Background and purpose of research

At the local vocational center for persons with disabilities (hereinafter referred to as the “local center”), it is most important to provide priority support of “persons with disabilities who need highly personalized assistance that is difficult to provide at other institutions.” In particular, needless to say, individual treatments are important for persons with mental disability or developmental disability depending on individual situations. However, there are many unclear areas especially regarding how to deal with the coexistence of developmental disabilities and

mental disabilities.

This research, focusing on the existence of persons with mental disability such as mood disorder in addition to developmental disability, and persons mainly with mental disability but having the “developmental disability characteristics,” provided basic materials on their actual conditions, and examined the problems and support of subjects with developmental disability characteristics and comorbid mental disability by learning the actual support provided for them by the local center and interviewing these persons themselves.

## 5. Research Method

### (1) Interviews of experts

Interviews of experts who regularly support, practice and study persons with mental disability or developmental disability (doctors specializing in child psychiatry and developmental disability, clinical psychologists, academic experts, work transition support providers) were conducted and the following findings have obtained (Table 1):

Table 1 Findings from expert interviews

<b>Medical perspectives for treatment of developmental disability and psychiatric problem (secondary disability)</b>
Many persons with developmental disabilities have psychiatric problems.
Due to the original disability characteristics, accumulation of failure experience, feeling of insufficiency and reduced self-affirmation are naturally prone to occur in developmental disability.
Regarding psychiatric problems that occur in persons with developmental disability after adolescence, improvement of the difficulty in living through their actual lives and the treatment of anxiety should be prioritized over prescribing medications.
It is necessary to know one’s characteristics and features and how to deal with them, and actually design the living by oneself.
Since psychiatric problems such as anxiety disorders impair motivation and impede self-determination, it is necessary to first seek mental stability.
It is important to identify priority method to treat based on individual assessments of coexistence of disabilities.
<b>Perspectives for responses to developmental disability and comorbid mental disability work transition support providers</b>
Support cases by the work transition support providers are common in that they have little or no working experience, have problems with the social skills required for employment, and have difficulty in group activities.
There is experience that the knowhow of support accumulated as a model of schizophrenia is difficult to apply to persons with developmental disability.
Regarding the skills that are expected to be acquired before becoming a member of society and the skills such as communication necessary for actually working in the workplace, opportunities for learning and training according to the achievement are necessary especially for persons with developmental disability.
If emotional control is an issue, the support may need a prolonged period of time regardless of the degree of developmental disability characteristics.

### (2) Questionnaire surveys at the local center

#### a. Purpose and method of survey

To understand the images of persons with developmental disability and mental disability

using the local center, questionnaire surveys titled “Surveys on problems and responses for the stress of users with developmental disability characteristics in job adjustment” were conducted using the basic information (state of diagnosis and disability certificate acquisition, academic background, occupational career, etc.), cognitive characteristics regarding the developmental disability of users, and problems and supports for the stress of users in occupational life.

The respondents to questionnaire are vocational counselors in charge of persons with disabilities, and the questions were about the persons with mental disability and developmental disability who were in their charge. The persons with disabilities subject to the survey must have working experience, with the developmental disability as the main diagnosis for those with developmental disability (developmental disability group I), and with the mental disability as the main diagnosis for those with mental disability such as mood disorder or adjustment disorder, etc. (mental disability group II for those showing sign of developmental disability characteristics, and mental disability group III for other persons).

b. Results of survey

(a) State of persons with developmental disability and mental disability using local centers (Table 2)

- In developmental disability group I, the proportion of women was significantly higher than that in other surveys of persons with developmental disability. In terms of age, young persons in their 20s accounted for half.
- In mental disability groups II and III, the diagnosis of “depression (excluding manic depression)” accounted for 60 to 70% in both groups. This is considered partly caused by the ratio of males higher than the general ratio of male and female in “depression” and the core group consisting of the users who intended to find jobs or return to work.
- As for the disability certificate, the possession rate was highest in developmental disability group I, and little less than 50% and 40% in mental disability groups II and III, respectively. Since this included the users who received support for returning to work, about 40% did not assume to acquire the certificate (no certificate).

Table 2 Outline survey subjects at the local center

	Developmental disability group I (n = 105)	Mental disability group II (n=79)	Mental disability group III (n=94)
Male/female ratio	70:35 (2:1)	54:25(2.16:1)	64:30 (2.13:1)
Age structure	20s and 30s account for a little more than 80%	20s to 40s account for a little less than 90%	30s to 50s account for more than 90%.
Main diagnosis age (average between sexes)	27.0 of age	31.5 of age	34.9 of age
Possession of disability certificates	Mental disabilities certificates possession rate is a little more than 80%	Mental disabilities certificates possession rate is a little less than 50%.	Mental disabilities certificates possession rate is a little less than 40%

(b) Comparative study of comorbid mental disability in developmental disability group I

When a  $\chi^2$  test was conducted for the response distributions of all survey items depending on the presence or absence of a sub-diagnosis of mental disability (mood disorder, neurotic disorder, etc.) in developmental disability group I, a significant difference was found only in the “memory” of items concerning the cognitive characteristics described later. Since no significant difference was found in other items, it seems that there is no difference in the overall content of the adaptation problems depending on the presence or absence of a sub-diagnosis of mental disability in developmental disability group I. Hence, it was decided not to conduct comparative study on developmental disability group I using the results of this survey, but mainly between the developmental disability group I and mental disability group II, or between the developmental disability group I, mental disability group II and mental disability group III.

(c) Developmental disability related characteristics in developmental disability group I and mental disability group II

In order to understand the “developmental disability related characteristics” of users, items were set on the behavioral and cognitive characteristics in relation to the “autism spectrum disorder” and “attention-deficit hyperactivity disorder,” and the answers in three stages “With specificity, With some degree of specificity, and Average” were provided.

The survey item of behavioral characteristics regarding the “autism spectrum disorder” was based on the behavioral characteristics in “A Social communication and interpersonal interaction disorders” and “B Restricted and repetitive patterns of behavior, interest or action,” defined as the diagnosis criteria in “autism spectrum disorder/autism spectrum disability” of DSM-5 “Diagnostic and Statistical Manual of Mental Disorders.”

When the presence, absence and degree of the characteristics of “Sociality and communication” in support cases were asked, and Mann-Whitney U test was conducted to compare response distributions, a significant difference was observed between groups I and II at 1% level for the “Interpersonal interaction disorders” and “Non-verbal communication disorders” which are sub-items of “Sociality and communication.” Since a significant difference was found at 5% level for sub-item “Creating relationships with others,” it was obvious that there was a difference in response distributions between groups I and II for the behavioral characteristics relating to the “Sociality and communication” (Figure 1).

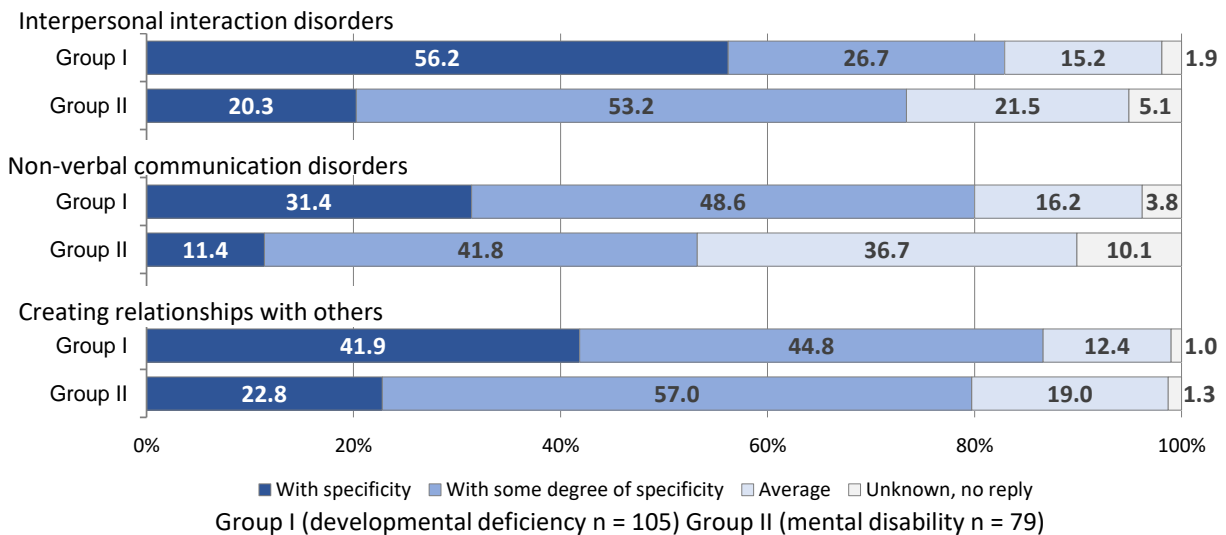


Figure 1 Observation of developmental disability related characteristics (sociality and communications) in persons with developmental disability and persons with mental disability

Regarding the behavioral characteristics of “attention-deficit hyperactivity disorders,” the focus is not placed on the behavior itself such as “attention” or “hyperactivity and impulsivity” but underlying dysfunction of the brain function. Specifically for impaired cognitive function observed in all persons with developmental disability, 11 items were set in accordance with the information processing processes from receiving to transmitting information, and the presence, absence and degree were surveyed (Figure 2).

In addition, Mann-Whitney U test was conducted to compare the response distributions. As a result, a significant difference was observed at 1% level for the “Hypersensibility/blunted affect,” “Distractibility,” “Working memory” and “Perception-motor aspect.” A significant difference was observed in 5% level for the “Partial processing characteristics,” “Total integration” and “Memory.” In contrast, there was no significant difference for the “Cognitive flexibility,” “Self-monitoring,” “Behavioral suppression” and “Planning ability.”

For all the above characteristics, the proportion of persons with specificity is high in group I, and a certain degree of presence was also found in group II. This suggests that it is important to consider support and response for persons of group II showing these characteristics.

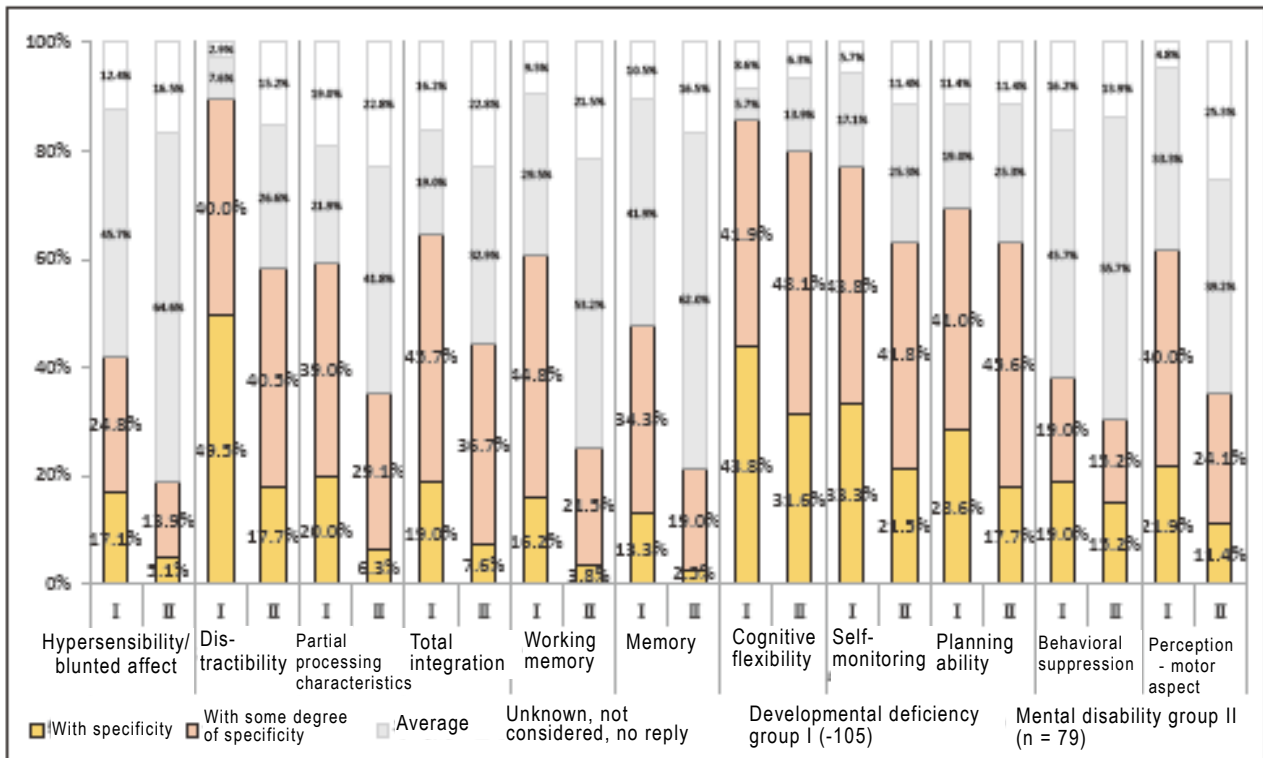


Figure 2 Observations of presence/absence of specificity in cognitive function

(3) Interviews of local center staff about support cases

a. Purpose and method of survey

To clarify the specific approaches to understand the characteristics of persons with developmental disability and comorbid mental disability, and improve their behaviors, the staff in charge of the support cases at the local center which sent back the questionnaire in above paragraph (2) were interviewed. Of these support cases, a total of 12 cases including 5 cases for persons with developmental disability and comorbid mental disability in group I, and 7 cases for persons with mental disability and comorbid developmental disability characteristic in mental disability group II were chosen to clarify support problems and analyze common points for response (Table 3).

b. Results - examples of problems and responses for users of the local center with developmental disability and comorbid mental disability -

(a) Characteristics of behavioral aspects, problems and responses for persons with developmental disability

- The stressors in workplace were classified as “personal aspect,” “working environment aspect” and “living aspect” which is classified into accidental and regular life events apart from personal characteristics and environmental factors.

- The local center has set the goals of support including “preventing illusion and anxiety,” “preventing negative feeling” and “acquiring appropriate coping measures” to counter these stressors and anxiety symptoms.
- The local center has provided training courses to support vocational preparation and reworking, and environmental adjustment by the support offered by job coaches.
- In some cases, it was not clear at the time of the survey which and when institutions responded specifically to anxiety symptoms. However, sharing the situation with local medical institutions and preparing for future responses may be very important perspectives for all cases involving anxiety symptoms.

Table 3 Overview of the cases subject to interviews

Group	Case	Sex	Age	Diagnosis	Awareness of developmental disability if	Academic background	Disability certificates	Employment status when visiting the center	Consequence of use	Employment status	Program used									
											Vocational counseling	Vocational assessment	Work preparatory support	Support offered by job coaches	Reworking support	Adaptive counseling	Furnishing information to business oper	Furnishing information to related instit		
I	A	M	20s	Autism spectrum disorders / generalized anxiety disorders	-	University	Mental grade 3	Employed	Job seeking	Handicapped persons employment	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>							
	B	M	20s	Pervasive developmental disorders / attention deficit hyperactivity disorders / depression		University		Unemployed, job seeking			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		
	C	M	30s	Pervasive developmental disorders / depression / obsessive-compulsive disorder		University			New employment		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		
	D	F	30s	Attention-deficit hyperactivity disorders / disorder		Graduate school					<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>				
	E	M	20s	Asperger syndrome / depression		University		Mental grade 2	Employed, leave		Rehabilitation	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>					
II	F	F	40s	Bipolar II	No	Graduate school	Mental grade 2	Unemployed, job seeking	Job seeking	Job seeking	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>							
	G	M	40s	Depression		College	Mental grade 3					General employment (disclosed)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>					<input type="checkbox"/>
	H	F	20s			College	Mental grade 3					New employment	Handicapped persons employment	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>
	I	M	30s		Yes	University	No certificate	Employed, leave	Rehabilitation	General employment (disclosed)	<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>					
	J	F	30s		University	No certificate	<input type="checkbox"/>				<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>						
	K	M	50s	No	University	Mental grade 3	<input type="checkbox"/>				<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>						
	L	F	50s	Somatoform disorders / adjustment disorders	University	No certificate							<input type="checkbox"/>							

(b) Characteristics of behavioral aspects, problems and responses for person with mental disability with sign of developmental disability characteristics

- There were 3 cases in which the person had a chief complaint of developmental disability, and the tendency of developmental disability was pointed out at the medical institution in all cases. A support plan was made on the assumption that the person has the developmental disability characteristics.
- In 4 cases where there was no chief complaint, it was difficult for the person to understand the problem in relation to the developmental disability because it was not clearly pointed



out or explained at the medical institution. However, the staff in charge tried to share the characteristics that seemed to be developmental disability with the person as part of feature or personality. Some persons came to notice and grasp these characteristics by themselves and understand necessary measures for returning to work, suggesting that it is possible to organize these characteristics as part of feature or personality without using the word “developmental disability.” In contrast, in cases where it was difficult to understand one’s own characteristics, or change one’s own thoughts, the hurdles of the person’s understanding itself were high, suggesting that the problem cannot be solved in the short term.

#### (4) Interviews of persons with disabilities using vocational rehabilitation institutions

##### a. Purpose and method of survey

Considering that it is important to organize the perspectives necessary for the supporter to understand the persons with disability through subjective explanation about their experience, interviews with persons who had used the support of the local center and other vocational rehabilitation institutions were conducted. They were asked about personal experience of stress until they reached to job assistance or rehabilitation support, stress coping methods and what was felt with support, to examine the perspectives for effective support.

##### b. Results - suggestions from persons with disabilities who used vocational rehabilitation institutions -

Although there are differences in whether or not the subjects were working in the handicapped persons employment or on leave in general employment at the time of survey, it became clear that they were common in having sorted out their own characteristics and acquired (or aimed to acquire) practical stress coping methods and adaptive skills through the support.

## **6. Summary and future issues**

Regarding the developmental disability with comorbid mental disability, it is difficult to properly manage the medications and intervention in anxiety symptoms by supporters (timing, frequency, and who), and no effective method was found from this survey. This may be the future issue.

## **7. Related research outcomes**

Research on the occupational stress of persons with Developmental Disability who have working experience, Material Series No. 100, 2018

Points of job assistance for persons with developmental disability and comorbid mental disability, 2020