A study on disability-understanding of persons with higher brain dysfunction and vocational rehabilitation supports
-Comprehensive assessments of and supports for self-understanding-

(Research report No. 162) Summary

【Keyword】

self-understanding, disability-understanding, higher brain dysfunction,
bio-psycho-socio model,
focus group interview, vocational assessment

【Summary】

The purpose of this research was to clarify a desirable way of the self-understanding in persons with higher brain dysfunction and its vocational rehabilitation supports. At first, Focus Group Interview (1st) of vocational counselors for persons with disabilities and literature research were conducted to organize comprehensive ideas of self-understanding, actual support situation, and effective supports. Then, Focus Group Interview (2nd) of vocational counselors for persons with disabilities was conducted on the support hypothesis, which was then revised according to its results. In conclusion, we pointed out an importance of assessments considering self-knowledge of traits and its effects, various aspects of self-understanding including self-monitoring, and the effects of biological, psychological and social environmental factors. Also pointed out were an importance of building rapport and supports premising achievement of support recipient's goal, and necessity of various support options toward achievement of support purposes other than solely focusing on developing self-understanding.

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2. **Research period**

    FY2020 – 2021

3. **Composition of the research report**

4. **Background and purpose of the research**

    In vocational rehabilitation, "self-understanding" is important to support self-determination, etc. for adaptation to the professional life of persons with disabilities. On the other hand, persons with higher brain dysfunction often have difficulty understanding their own disabilities and its effects. Terms such as "lack of insight", "anosognosia", and "awareness deficits" are used and mentioned in the area of literature of medical care, nursing, and neuropsychology (hereinafter referred to as "medical fields") related to higher brain dysfunction. In this research, these terms used in "medical fields" are referred to as "disability-understanding" for convenience, and are distinguished from "self-understanding" in vocational rehabilitation.

    When the importance of developing "self-understanding" or "disability-understanding" is mentioned, it has been pointed out that developing "awareness deficits" may lead to mental health problems. In addition, even if "self-understanding" or "disability-understanding" are considered to be insufficient from supporters, there are cases that they can adapt to their professional life. In "vocational rehabilitation", it is important to provide support focusing on "self-understanding" of persons with higher brain dysfunction, but extreme focus on developing "self-understanding" can be risky. Therefore, it is necessary to consider the desirable way of support.

    This research will first clarify how to measure of "self-understanding" used by "vocational rehabilitation" workers to support persons with higher brain dysfunction and the situation of supports field. Next, the knowledge and trends regarding "disability-understanding" in "medical fields" will be summarized from literatures. On top of that we object to clarify the desirable way of "self-understanding" for persons with higher brain dysfunction and "vocational rehabilitation" supporters, and the remaining challenges by integrating and organizing the knowledge of "disability-understanding" in "medical fields" and thoughts or opinions of vocational rehabilitation workers.

5. Method

(1) 1st Focus Group Interview (hereinafter referred to as "1st FG")

"Focus Group Interview" with vocational counselors for persons with disabilities was conducted to clarify how "vocational rehabilitation" workers captured and supported "self-understanding" of persons with higher brain dysfunction and what difficulties they experienced in the support process.

(2) Literature survey

We surveyed domestic and foreign literatures on how to capture the concept of "disability-understanding" and how to support persons with higher brain dysfunction in "medical fields". Then, we organized the commonalities with the actual situation of supports and capturing of "self-understanding" on "vocational rehabilitation" identified in "1st FG".

(3) 2nd Focus Group Interview (hereinafter referred to as "2nd FG")

"Focus Group Interview" with vocational counselors for persons with disabilities was conducted by themes of advantages and disadvantages, alternatives and challenges in support hypotheses developed based on the results of the "1st FG" and literature survey. According to the results, the support hypothesis was modified and desirable supports and remaining challenges based on the nature of "self-understanding" in persons with higher brain dysfunction were clarified.

6. Summarized results of the study

(1) "1st FG"

A total of 15 vocational counselors with 10 to 20 years of work experience were divided into three groups and "1st FG" was conducted.

First, the interviews of each three groups were analyzed using the "integrated qualitative method (KJ method)" with a theoretical model that inherits the principles of "KJ method". As a result, although the center topic was different for each group, a common logical structure was clarified, as "difficulties and challenges" remained in implementing of foundational "concept and device of self-understanding support", and the importance of the foundational "concept and device of self-understanding support" was clarified in order to address these "difficulties and challenges" in turn.

As a result of the overall analysis that integrated the results organized into each three groups, it was clarified that vocational counselors for persons with disabilities captured the "self-understanding" of persons with higher brain dysfunction, provided support, and felt difficulties and challenges as shown in the figure. A summary of these results is as follows.

- Vocational counselors for persons with disabilities found it difficult to capture the concept of "self-understanding" for persons with higher brain dysfunction. It was mentioned as a factor of difficulty in capturing based on psychological factor of "acceptance", changing of the condition by disability characteristic and social environment, possibility of capturing difference by support organizations or individuals by the concept of the broad-based term "self-understanding".

- In case of providing supports for "self-understanding", vocational counselors for persons with disabilities paid attention to support needs and goals of support recipients, based on rapport building, and approached to achieving goals with support recipients. At this time, rather than setting the goal of developing "self-understanding," they stood for supporting "self-understanding" during solving challenges by behavior change and environmental improvement, and supporting aimed for solving.

- They emphasized the importance of building support systems with family members and colleagues as well as cooperation systems among support organizations because there was a fundamental recognition in need of long-term perspective for "self-understanding" supports. However, it was pointed out the difficulty that these support systems might be difficult to establish due to various reasons by social resource problems or relationships between significant others and support recipients
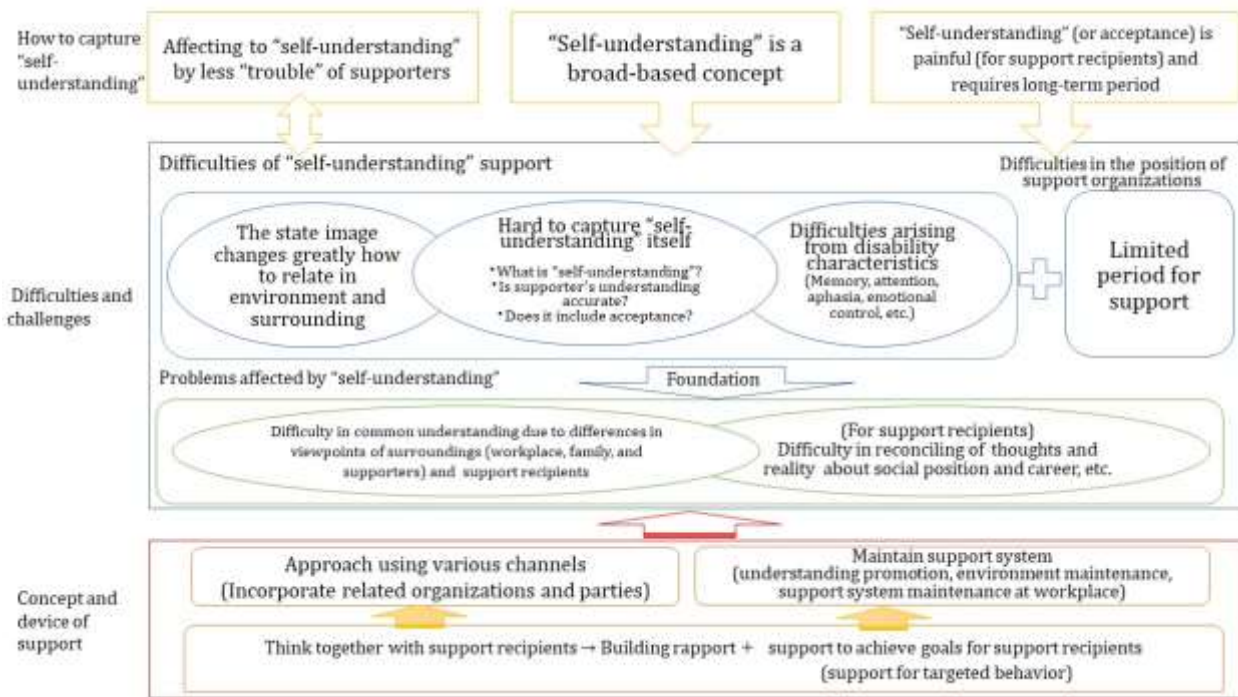
Figure: Thoughts of vocational counselors for persons with disabilities related to "self-understanding" of persons with higher brain dysfunction

(2) Literature survey

Literature surveys were conducted on the development of the concept of "disability-understanding" for persons with higher brain dysfunction, evaluation of "disability-understanding", and effective implementation method for supports in "medical fields".

A: How to capture "disability-understanding" for persons with higher brain dysfunction

- There was a model that pointed out various aspects of "disability-understanding". For instance, according to the model of Toglia & Kirk (2000) that was developed from the model of Crosson et al. (1989), it was necessary to evaluate various aspects of "disability-understanding" including "Identification and understanding of strengths and limits", "knowledge about task characteristics", "self-monitoring of current cognitive state", and "prediction of self- performance", etc.
- "Disability-understanding" was organized to be changed under the influence of various factors by biological, psychological and social environmental factors, etc. (Ownsworth et al. 2006).

B: Effective supports for developing "disability-understanding" and its limits

- It was presented: (1) training through practical life situations, and (2) questions (Socratic questions) that give awareness for support recipients by using feedback as common points of supports of developing effect for "disability-understanding" (Schrijinemaekers et al. 2014).
- The effectiveness of metacognitive strategy training, a method that focuses on self-monitoring and self-regulation during task execution, was demonstrated (Goverover et al. 2007). This training is a method of examining strategies for dealing with tasks in order to increase the awareness of self-performance during the execution of the task.
- The limit of cognitive function decline (Sherer & Fleming, 2014) and the limit of scene generalization (Goverover et al. 2007), etc. were pointed out in developing "disability-understanding". It was also pointed out that developing "disability-understanding" might lead to increased psychological stress (Fleming & Ownsworth, 2006).

C: Comprehensive support considering biological, psychological, and social environmental factors in "disability-understanding" for persons with higher brain dysfunction.
The followings were emphasized because the limitations and harmful effects of the uniform supports were pointed out.

- It is necessary to select methods that are conscious of the original purpose of support, not the purpose of "disability-understanding" itself (Toglia & Maeir, 2018).
- It could be possible to support "awareness deficits" by forming habits, building rapport, and working on social environmental aspects. Therefore, it is necessary to select appropriate supports in consideration of the multifaceted aspects of "disability-understanding" and the influence of biological, psychological, and social environmental factors (Fleming & Ownsworth, 2006).

D: Intersection of concept between "self-understanding" in the field of vocational rehabilitation and "disability-understanding" in "medical fields"
The common points between "self-understanding" in the field of vocational rehabilitation revealed in "1st FG" and "disability-understanding" in the field of "medical fields", etc. organized by literature survey were organized in the following.

◆ Perspectives to capture "self-understanding" of persons with higher brain dysfunction
  ➢ It is important to assess "self-understanding" from multiple perspectives, as it has a nature with various aspects including knowledge of abilities and limitations, knowledge of challenges, self-monitoring, and performance prediction, etc.
  ➢ It is necessary to anticipate various factors that affect "self-understanding". In literature surveys, it is suggested to be comprehended by the perspective of biological, psychological, and social environmental factors.
  ➢ It is necessary to reexamine the effectiveness of "self-understanding" supports in order to achieve goals of support recipients, not for the purpose of developing "self-understanding" itself.

◆ Selection of support methods based on the nature of "self-understanding"
  ➢ There are four perspectives that should be held as a premise in case of supporting; (1) building rapport and forming collaboration, (2) providing supports in order to achieve goals of support recipients, (3) approaching from multiple perspectives, (4) organizing social environment support systems.
  ➢ It is necessary to consider risks that the inadvertent confrontation into "self-understanding" may lead to increase psychological stresses.
  ➢ It is important to utilize other support options than solely focusing on deepening "self-understanding", beside the support focusing on developing "self-understanding" itself.

(3) 2nd FG

Based on organizing of (2) D:, a support hypothesis, "Points for vocational rehabilitation supports based on natures of "self-understanding" (Draft)" was created. Then, in order to clarify the desirable way of supports and the remaining challenges, "2nd FG" was conducted on the theme of advantages and disadvantages, alternatives and challenges in the support hypothesis. Participants were a total of 17 vocational counselors with 10 to 20 years of work experience and Focus Group Interview was conducted by dividing into three groups.

A qualitative inductive analysis of "2nd FG" contents found three categories: "usefulness of supports based on the support hypothesis", "points that should be specified in the support hypothesis", and "remaining challenges". The conclusions drawn from contents of each category are as follows.

◆ Usefulness of support based on the support hypothesis
  ➢ Various aspects of "self-understanding" and concepts considering the multifactorial influences made good sense for vocational rehabilitation workers as well. They also supported the usefulness of basic attitudes such as building rapport, supporting in order to achieve goals, and utilization of social environmental supports.
  ➢ In order to support "self-understanding" in line with support purposes, the importance of supports for social environmental aspects and supports from a long-term perspective by

utilizing social resources were pointed out once again.

◆ Points that should be specified in the support hypothesis

> It was mentioned: (1) perspectives that focus on "remaining capability" and "being able to do", (2) devising feedback (externalization that treats problems separately from support recipients, generalization methods that covey challenges as common occurrences in many cases, awareness of consistency in consultation as writing down contents of the consultation and review it together, and proposal of complementary measures associated to work).

◆ Remaining challenges

> It was mentioned as remaining challenges: (1) utilizing of social resources and challenges in collaborating (lack of social resources and difficulties in common understanding among support organizations), (2) difficulties of continuous supports, (3) difficulties in disclosing disability to employers including at return to work, (4) difficulties in understanding and identifying psychological and social aspects.

(4) Revision of support hypothesis and support points

Based on above results, the support hypothesis was revised. The completed report was published in appendix of Research Report No. 162 as "Support points based on natures of "self-understanding" for persons with higher brain dysfunction ~The Process for capturing and supporting "Self-Understanding"~" (hereinafter referred to as "Support Points").

The "Support Points" proposes first to organize "viewpoint for capturing "self-understanding"" (reexamine the purpose of "self-understanding" considering various aspects of "self-understanding" and various influencing factors), then to conduct "support method selection" (selecting of support methods based on concepts and attitudes that should be held as a premise, considering effects and risks of the support). The following is a summary of "Support Points".

A: Viewpoint for capturing "self-understanding"

Since the concept of "self-understanding" has various aspects of "self-understanding" (exemplified in Table 1), it is necessary to have viewpoints of assessing each aspect. In addition, it is necessary to consider that "self-understanding" changes under various influences such as biological, psychological, and social environmental factors. After understanding natures of such "self-understanding", the purpose of "self-understanding" supports ("for acquisition of complementary measures", "for consideration of realistic employment (including return to work)," and "for disclosure of disability and consideration of disclosure contents," etc.) should be fully considered and needed to select supports that meets purposes.

Table 1: Various aspects of "self-understanding"

Aspects of "self-understanding"	Examples
Self-knowledge of (disability) characteristics	Having memory disorder and difficult to remember
Knowledge of effects caused by characteristics of his/her own	Difficult to remember and often forgetting instructions at work
Knowledge of realistic forecast	Thinking to be able to perform the job as well as before having disability.
Knowledge of tasks/jobs	Customer service job needs to be flexible.
Knowledge of strategies	Better to take notes, so you do not forget instructions.
Self-monitoring (error-monitoring and self-regulation)	When losing track of procedures (in performing tasks), going to instructors for confirmation
Online (in performing tasks) understanding of challenges and forecasting of performance	(Right before or during receiving instructions) Realizing likeliness of forgetting these instructions without taking notes

B: Support method selection

In case of conducting the "self-understanding" supports, it is necessary to have concepts of "building rapport and forming collaboration", "providing supports in order to achieve goals for support recipients"

and "focusing on remaining abilities and what he/she has become capable of doing" as a premise, and to conduct efforts of "approaching from multiple perspectives (Example: utilizing social resources, etc. to understand deeply through relationships with significant others such as family members, medical care, and associates").

In addition, although the methods organized in the literature research can be considered as a method for developing "self-understanding", it is necessary to consider that self-understanding of "disability-understanding" may possibly lead to increased psychological stress because there are limitations by the deterioration of the cognitive function of support recipients and support effects that are difficult to generalize in case of scene changes. Thus, when there may be limitation or risk focusing on developing "self-understanding", or when the influence of psychological and social factors is considered to be significant (except there are few opportunities to recognize changes or receive feedbacks, it is desirable to select supports that focus on other than developing "self-understanding" as shown in Table 2.

Table 2: Supports that focus on other than developing "self-understanding"

Support types	Examples of support methods (from "1st FG", "2nd FG", and literature survey)
Approach focusing on forming habits	・Forming habits by conducting iterative learning and procedure learning, focusing on formations (or reductions) of targeted behavior of support recipient. ・Habituation of habit of setting goals, recording consultations, and reviewing
Approach considering psychological aspects	・Supporting based on building rapport and collaboration. ・Focusing on dealing with problems rather than developing "self-understanding" ・Increasing a sense of control by presenting multiple options and letting support recipients select ・Setting challenges that do not greatly exceed the ability of support recipients with a certain degree of familiarity for support recipients
Approach increasing motivation for support utilization, etc.	・Searching for motivation in support recipients such as "I want to be able to do it", "I do not want to bother others" and "I want to work", and connecting them to adaptive goals ・Recognizing and strengthen of behavior by embracing changes and revising goals gradually ・Suggesting complementary measures related to necessary skills for actual work
Approach to environment and surrounding network	・Providing psychoeducation to significant others, and let them understand disabilities and how to involve deeply ・Listening to their needs and considering solutions to reduce stress for significant others ・Providing information on peer groups, etc., and creating a place where people can feel positive relationships

(5) Conclusion
- "Self-understanding" has multifaceted nature including knowledge of self-characteristics, knowledge of task (occupation), and self-monitoring. It also emerges in the attitude of support recipients under the influence of biological, psychological, and social environmental factors. In conducting supports, it is necessary to conduct assessments considering influence of multifaceted natures and multiple factors of "self-understanding", and to select appropriate support methods.
- In conducting "self-understanding" supports, after building rapport, it is prerequisite to focus on support needs and goals for support recipients and take approaches toward achieving those goals.
- If it is necessary as a result of the assessment, it is desirable to select approached focusing other than on developing "self-understanding", such as forming habit, approach that considers psychological aspects, approach that enhances motivation for acquiring of complementary measures, and approach to environmental and surrounding network.
- Supporters need to support "self-understanding" of persons with higher brain dysfunction with a long-term perspective, and need to maintain systems that can continuously support them in the community. In order to achieve this, along with enhancing supports, strengthen cooperation, and improving know-how at support organizations, it is necessary to develop effective methods for promoting of understanding higher brain dysfunction in workplace.

7. Related research products

・Survey on support for promoting "self-understanding" in vocational rehabilitation scenes, Research report No.140, 2018.

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