

Case Studies of Work Support Using Agricultural Activities at Work Support Centers for Continuous Employment (Type B)

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Summary

The purpose of this study was to examine the effects of work support in three Work Support Centers for Continuous Employment (Type B) that provide agricultural work support. Interviews were conducted at three work support centers that provide work support using agricultural activities. Case studies were analyzed qualitatively based on the following four points: an outline of the agency, details about the agricultural activities involved, the course of the agricultural activities, and a work support perspective. In addition, we analyzed the aspects of work support using agricultural activities. The results indicated that work support using agricultural activities had the following five effects: increasing the motivation to work, training for interpersonal relationships, establishing a sense of belonging in the community, relieving stress, and restoring self-esteem. These effects were discussed from the perspective of horticultural therapy, and suggestions were then made about the effectiveness of work support using agricultural activities. The results of this exploratory study involving only a limited number of cases suggest the need to clarify further the meaning and effects of work support and the background factors of Work Support Centers for Continuous Employment (Type B).

Key words : agriculture, horticultural therapy, social participation, vocational rehabilitation, welfare

Introduction

In recent years, collaborations between the agricultural and welfare sectors have been attracting increasing attention in the field of disability welfare. Such collaborations are framed as “initiatives in which the agricultural and welfare sectors collaborate to create confidence and a sense of purpose in persons with disabilities and to develop agricultural businesses by involving persons with disabilities in activities in the agricultural sector so that social participation can be achieved” (Noufuku-renkei-tou-suishin-kaigi, 2019). This type of collaboration,

beyond ameliorating issues such as labor shortages in the agricultural sector, also provides mutual compensation in addressing issues such as employment opportunity shortages in the welfare field for persons with disabilities, and is therefore expected to help increase wage and improve quality of life for persons with disabilities. Collaborations between agriculture and welfare are also of great interest to work support agencies helping persons with disabilities, such as Employment Transition Support Agencies and Work Support Centers for Continuous Employment (Type B) (hereinafter referred to as “Type B agencies”) (Nippon-Foundation, 2019). In fact, the number of welfare facilities implementing collaborations between the agricultural and welfare sectors is increasing. In addition, welfare service establishments for persons with disabilities that implement collaborations between the agricultural and welfare sectors have reported perceiving positive effects in terms of physical/health, mental/emotional, and life/work attitudes

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(Nippon-kikin, 2018).

As represented by efforts to solve regional issues by focusing on the welfare-like power of agriculture (Hamada, 2016) and reports on the benefits of cooperation between agriculture and welfare (Kanda et al., 2014), many practical studies on agricultural and welfare collaboration can be confirmed (Miyabe, 2020; Kikuchi, 2020). Reports of the introduction of collaborations between the agriculture and welfare sectors have also mentioned various challenges, including the burden on welfare agency staff (Honda and Shibuya, 2018), the importance of human resources development (Tajika and Utsunomiya, 2019), and the need to develop third-party agencies to assist with their introduction (Ushino et al., 2007; Koshiha and Yoshida, 2016).

Due to the growing interest in the practice of agricultural and welfare collaboration, many such reports can currently be found. In addition, for its promotion, many reports on issues and perspectives for improvement have been proposed. However, the functions and effects of work support using agricultural activities typified by collaborations between agriculture and welfare have not been sufficiently verified in the existing literature. Accordingly, we think that an exploratory survey of the effects of work support using agricultural activities at employment-related disability welfare service agencies is needed.

It is important to clarify the functions and effects of this work support in Type B agencies. In the Employment Transition Support Agencies, there is a 2-year upper limit on the period of use. However, there is no upper limit on the period of use for Type B agencies. Type B agencies should provide not only a place to belong, but also transition support for future employment based on decisions made by users according to their needs.

In addition, this kind of support may lead to obtaining valuable information for requesting the provision of reasonable accommodation in future employment. What is needed in employment is interaction for the provision of reasonable accommodation (Kawashima et al., 2016). The provision of reasonable accommodation does not mean that the company provides the accommodation unilaterally. When working for a company, persons with disabilities need to interact with their co-workers and others to create reasonable accommodations for their own conditions within the

company. For this reason, it is necessary for users to understand themselves and clarify the necessary considerations, which should be organized in work support at welfare facilities. It is important that work support be planned and implemented based on purpose. Therefore, it is necessary for supporters to not only provide agricultural activities to users as their duties, but also be able to provide these activities in a planned manner after knowing the functions and effects of the support.

Elucidating the significance of making use of agricultural activities for work support in Type B agencies might allow us to make some theoretical contributions to the future progress of collaborations between the agricultural and welfare sectors. In this study, our focus in examining the effects of work support using such agricultural activities was on the practice of horticultural therapy, which is defined as “the art and science of growing flowers, fruits, vegetables, trees and shrubs resulting in the development of the minds and emotions of individuals, the enrichment and health of communities and the integration of the ‘garden’ in the breadth of modern civilization” (Relf, 1992). Through support programs, the introduction of horticultural therapy can promote “changes in self-concept, social interaction, physical abilities, academic skill development and improved work habits” (Relf, 1981). Accordingly, it is felt that the practice of horticultural therapy can yield useful suggestions for examining the meaning of work support using agricultural activities. In the following, we adopt the perspective of horticultural therapy to examine the effects of work support using such agricultural activities at Type B agencies, which represent a type of employment-related disability welfare service agency.

Tagaki (2013) points out that the practical research activities typified by action research can help practitioners rediscover the significance of their activities based on the information, knowledge, principles, and values they have gained in the past. This enables them to verbalize values held to be self-evident in their respective fields and phenomena that are not easily expressed. In the present context, the meaning of work support using agricultural activities typified by collaboration between agriculture and welfare has yet to be adequately verbalized. Therefore, in this study, based on information collected in interviews, we employ a case-based research methodology to discuss work support

practices so as to explore and clarify the effects and perspectives of agricultural activities in work support practice settings. In particular, we examine the effects of work support using agricultural activities in Type B agencies, which are welfare service facilities for persons with disabilities, from the perspective of horticultural therapy.

Materials and Methods

1. Agencies Targeted

As shown in Table 1, three Type B agencies incorporating agricultural activities into work support were chosen for inclusion in this survey. All three agencies were located in the same Japanese prefecture.

In each case, agricultural activities were not an exclusive enterprise, but were being performed in conjunction with nonagricultural activities. In addition, where expertise on agricultural practice was wanting, these activities were implemented in the form of dispatching users off-site as agricultural labor. While this was most prominently seen in the case of agency Y, we also observed that some local farmers sought cooperation from welfare facilities to compensate their labor shortages, for instance, in the case of pesticide-free farming and the harvesting of tomatoes to be shipped.

2. Survey Flow

We visited Type B agencies that had consented to our request for cooperation in the survey, and conducted interviews with the respective manager of each agency. We also referred to information about the agencies obtained from pamphlets and other materials.

3. Method of Analysis

Information obtained from the study was analyzed as a case study for each agency in terms of (a) an outline of the agency, (b) details about the agricultural activities involved, (c) the course of the agricultural activities, and (d) a work support perspective. Interview content was categorized and organized in terms of the status of work support using agricultural activities and from the viewpoint of support.

4. Ethical Considerations

After applying to the Akita University Research Ethics Committee for Research Involving Human Subjects, approval for the study was obtained when it was determined that no further discussion was necessary (April 10, 2020, No. 2-1). When conducting the study, we obtained consent after explaining that personal information as it related to the names of individuals and facilities would be anonymized and used solely for research purposes.

Results and Discussions

1. Case 1 : Agency X

Agency X is located in the prefecture's capital city. It is a Type B agency with a capacity of 20 users. The majority of current users are persons with psychiatric disabilities. In addition to agricultural activities, the main occupations include producing pottery, weeding the grounds in public parks, and cleaning vacant houses.

The specific agricultural activity in question was the production of garlic and other crops on farmland located on the outskirts of the city. This farmland is owned by agency X, which conducts a series of operations that includes cultivation, maintenance and management, harvesting, and packaging.

Originally, Agency X was established chiefly by

Table 1. List of agencies in the survey.

Agency	Category	User capacity	Main activities	Agricultural activity format	Crops involved
Agency X	Type B agency	20 users	Agricultural activities, pottery, cleaning, etc.	Production activities on agency-owned farmland	Garlic, onion, pumpkin, etc.
Agency Y	Type B agency	14 users	Agricultural activities, cleaning, light work, etc.	Off-site work at local farms	Tomato, rice, etc.
Agency Z	Type B agency	20 users	Agricultural activities; grading, batching, and preprocessing of fresh vegetables; computer work, etc.	Production activities on agency-owned farmland and off-site work	Garlic, berry, etc.

family associations with the purpose of providing hospital discharge support for persons with psychiatric disabilities and as well as a place to engage in activities during the day. From its inception, the agency has adopted the view that activities that utilize natural elements help stabilize mental symptoms, and has introduced agricultural activities as work support activities as a form of support to achieve this. At present, the agency is primarily engaged in the production of garlic, as well as a few other crops, including onions and pumpkins.

At agency X, the question of what activities to engage in is decided based on users' wishes. That is, rather than instructing users to perform agricultural activities, the intention is to encourage their self-determination so that they will take the initiative of engaging in agricultural activities on their own. With a focus on this type of activity selection, the provision of support is conscious of drawing out users' intrinsic strengths by promoting their independence (ep.1: "Eliciting strengths through responsible choices"). The manager felt that by having users take the initiative, he would not only begin to think of these agricultural activities (which is strenuous work) in a proprietary manner, but also eventually recognize that they could obtain remuneration in the form of wages, which would lead to increased motivation to work (ep.2: "Instilling motivation to work"). It has been reported that many users feel the desire to engage in some kind of activity after they start using the agency, though the degree to which this is true varies from person to person. It was felt that agricultural activities, which move the entire body, can readily satisfy this desire for physical activity, and that these agricultural activities could be an opportunity for expanding the scope of activities to include work-based activities and interactions with others in the agency (ep.3: "Providing opportunities to expand the scope of activities").

The manager also felt that support outcomes were produced in not only the work involved in the agricultural activities themselves, but also other ancillary activities. One of these was the creation of opportunities to engage with other users. The fact that users work together on extensive farmland entails the need for a division of labor as well as mutual support to be provided within the team. These activities thus became an opportunity for learning how to communicate with other users and encouragement to think about these interpersonal

relationships (ep.4: "Practicing interpersonal relationships and communication"). Another example was the chance to see the local community. Because agency X's farm was on the outskirts of the city, users traveled back and forth by shuttle bus every morning and evening. For users who would normally have a constricted range of daily activity, the chance to see cityscapes and scenery from the bus window during this commute provided a sense of enjoyment stemming from the sight of the community in which they lived (ep.5: "Understanding of one's own local community").

2. Case 2 : Agency Y

Agency Y is located in another city in the same prefecture, in a mountainous region adjacent to the prefectural capital. This is a Type B agency with a capacity of 14 users. Its primary users are persons with intellectual and/or psychiatric disabilities. The main activities at the agency, aside from agricultural activities, include cleaning buildings and light manufacturing jobs on contract with local companies.

Specifically, the agricultural activities consist primarily of off-site work on private farms in the community where the agency is located. Users are dispatched to help with the harvest at tomato farms, to weed farmland for farmers who practice pesticide-free cultivation, and to harvest sweet potatoes and rice.

The fact that agency Y is located in a mountainous region mean that there are no nearby companies that need outsourcing. In these circumstances, agency Y leveraged opportunities for interactions with private farms in the local community to begin contracting users out to perform off-site agricultural activities. More recently, as increasing opportunities have arisen to accept requests from local farmers to weed paddy and upland fields, users have also started receiving training in the use of mowing equipment.

While there is some desire to accept further requests for off-site employment in future, there is also a sense that the prospects for opening sales and developing outsourcing to individual farmers are limited. Accordingly, the manager is looking for ways to raise the profile of agency Y in the local community and collaborate with local agricultural cooperatives.

At agency Y, work activities are determined according to individual preferences, including with regard to light manufacturing work and other indoor

activities. Contrary to the expectation that there would be little interest in agricultural activities given the heavy physical burden they involve, it seemed that a relatively large number of users actually prefer such activities, which allow them to move their bodies freely and relax by working in natural surroundings. While the manager recognized that users felt substantial fatigue owing to the amount of physical activity involved in agricultural work, she also saw advantages in the fact that the work was conducted on farms outside the agency (ep.6: “Releasing and alleviating stress through agricultural activities”). These advantages included the stress relief that resulted from users being able to raise their voices while working and the ease of getting users interested in activities performed in natural surroundings (ep.7: “Feeling a sense of accomplishment through the work”).

In addition, she reported that one advantage of weeding work was that because the soil of the farmland becomes visible once the weeds have been removed, it was easy for users to gain a sense of the fruits of their labor. Also, since this work was done on local farms, it was felt that such activities would lead to more opportunities for interactions with local residents and provide support that would help users establish a sense of belonging in the community (ep.8: “Interacting with local residents”).

3. Case 3 : Agency Z

Agency Z is located in the prefectural capital. It is a Type B agency with a capacity of 20 users. The majority of those who use the agency are persons with intellectual disabilities. Aside from agricultural activities, the agency’s work consists chiefly of computer work and the grading, batching, and pre-processing of fresh vegetables.

The specific agricultural activities involved concern the cultivation of garlic on farmland on the outskirts of the city. Users also work off-site harvesting berries on berry plantations known to the agency during the busy harvest season.

Agency Z had no prior experience of agricultural activities. After deciding to introduce agricultural activities on the basis that this might represent effective work support for users, the agency purchased new machines and dehydrators and began cultivating garlic on farmland on the outskirts of the city. However, it seems that it proved difficult to grow crops of saleable quality, and the agricultural

activities did not proceed smoothly. By the fourth year after the introduction of agricultural activities, the project had reportedly reached the point of being able to grow crops of a certain quality, but had still not achieved sufficient production to cover cost outlays.

In addition, these agricultural activities brought along the challenge of a lack of profitability in the context of business operations. For example, it was necessary to travel to the farm on the outskirts of the city, and providing daily transportation for so many users constituted a significant economic burden. Another specific reason was the fact that the area was also susceptible to long winters, which made it difficult to secure a volume of production that would be sufficient to turn a profit throughout the year.

In light of these challenges, Agency Z’s current activity focus is on providing labor to farmers in the local community. Specifically, it dispatches workers off-site to berry growers in the area during the busy harvest season.

The manager of agency Z cited four advantages to agricultural activities. The first is the relaxing effect derived from working outside the agency. Work support normally involves work that takes place inside the agency, but since farms are off-site work, agricultural activities produce a relaxing effect simply by virtue of taking place in an environment different from the everyday setting (ep.9: “Relaxing through activities”). Second, agricultural activities make it possible for users to keep to their own pace. In agricultural work, farmers are often more conscious of qualitative rather than quantitative aspects of work, which means that individual users were able to progress at their own pace. As a result, the work respected the pace of individual users (ep.10: “Maintaining individual pace”). A third advantage was the ease with which users were able to see the fruits of their labor and thereby to gain a sense of accomplishment. In contrast with other sorts of light work such as cleaning, agricultural activities easily enabled them to observe crops growing and finally being harvested as a result of their labor, which readily conveyed a sense of accomplishment (ep.11 “Feeling the results of my work”). The final advantage is how users were able to gain self-confidence. Because agricultural activities allow users with different degrees of disability to perform the same tasks all together, the manager suggested that it was unlikely for the

situation to occur in which some users would suffer a loss of confidence at their poorer accomplishment in comparison with others (ep.12: “Gaining self-confidence”).

4. The Perspective of Work Support

The effects of work support using agriculture evident in the cases of agencies X through Z can be summarized as shown in Table 2 based on the similarity of the semantic content.

From the above cases, we were able to identify five effects of work support using agricultural activities, namely (a) increasing motivation to work, (b) training for interpersonal relationships, (c) establishing a sense of belonging in the community, (d) relieving stress, and (e) restoring self-esteem.

From their own survey, Pálsdóttir et al. (2014) pointed out that a program using a slow-paced approach to horticultural therapy has positive implications for the way how the patients conduct work and lead their daily lives. While it was pointed out in the present study that agricultural activities can relieve stress based on maintaining an individual pace, it was also felt that this was related to the function of Type B agencies, which occupy a preparatory position oriented to social participation, as places where users could feel a sense of belonging, which was considered to be an important perspective for the introduction of agricultural activities.

Nakamoto and Hu (2017) offered a case study of the implementation of horticultural therapy for patients suffering from depression. They reported that these activities elicited a high level of interest in activities and aroused positive emotions such

as enjoyment and intrinsic rewards. Depending on their individual disabilities, some users could not initially participate in the work activity itself owing to feelings of malaise, withdrawal, and in some cases, decreased self-esteem. However, given the aforementioned effects of stress relief and the recovery of self-esteem, it is thought that agricultural activities not only facilitate engagement in the work itself, but also synergistically promote motivation to take part in activities, ultimately leading to increased motivation to work.

Uehara (2001) reported that the characteristics of outdoor activities, including horticultural activities, lead to the optimization of lifestyle rhythms and the improvement of communicative and expressive abilities, in addition to having a therapeutic effect supporting development owing to the fact that they elicit interest and inquisitiveness in persons with intellectual disabilities. Moreover, in a study of the effectiveness of horticultural therapy programs, Joy et al. (2020) reported that as well as improving hand and finger function in persons with intellectual disabilities, significant improvements were also observed in their emotional behavior and social skills. Agricultural activities at Type B agencies are considered to be able to provide opportunities for developing interpersonal relationships, including the improvement of communication skills, because of factors including (a) the ease of eliciting independent motivation toward the cultivation of individuals, (b) the fact that such activities provide opportunities for exchanges such as questions and guidance through the medium of plants in a quietly protected space that is easily maintained, and (c) the ease with which

Table 2. Effects of work support using agricultural activities.

Interpreted support effects	Episodes in the cases
Increasing motivation to work	<ul style="list-style-type: none"> ▪ Eliciting strengths through responsible choices (ep.1) ▪ Instilling motivation to work (ep.2) ▪ Providing opportunities to expand the scope of activities (ep.3)
Training for interpersonal relationships	<ul style="list-style-type: none"> ▪ Practicing interpersonal relationships and communication (ep.4)
Establishing a sense of belonging in the community	<ul style="list-style-type: none"> ▪ Understanding of one’s own local community (ep.5) ▪ Interacting with local residents (ep.8)
Relieving stress	<ul style="list-style-type: none"> ▪ Releasing and alleviating stress through agricultural activities (ep.6) ▪ Relaxing through activities (ep.9) ▪ Maintaining individual pace (ep.10)
Restoring self-esteem	<ul style="list-style-type: none"> ▪ Feeling a sense of accomplishment through the work (ep.7) ▪ Feeling the results of my work (ep.11) ▪ Gaining self-confidence (ep.12)

users can share the single common purpose of cultivation.

In addition, Shibatani et al. (2009) reported an outcome whereby activities using horticultural therapy led to an increased interest in other people, as in the case of increased involvement with other participating volunteers. Thus, in horticultural therapy, it seems that beyond the horticultural activities themselves, users are also provided with spheres of livelihood (e.g., new and different places to work) and other people with whom to interact (e.g., new and different instructors, other interpersonal relationships). Conceivably, such environmental changes have the effect of creating a sense of belonging in the local community in the context of work support.

In a study of the effects of horticultural therapy, Sugihara et al. (2012) reported decreased levels of mental stress and an increase in positive emotions based on biochemical indicators. Possible reasons cited include natural interactions with others, opportunities to look forward to the growth of plants, and the ease with which such activities require no intellectual engagement. Especially for persons with intellectual disabilities, engaging in such work does not present any particular difficulties, and this ease stimulates pleasant emotions and increases activity levels. From the perspective of horticultural therapy, performing agricultural activities at Type B agencies conceivably has such advantages—the ease of engaging with the work compared with light manufacturing work performed indoors and being able to witness the growth of crops—and can also be expected to result in stress relief.

In particular, users of Type B agencies are persons with disabilities who require continuous employment-oriented training. They can easily engage in many agricultural activities without any prerequisite skills. As opposed to the manufacturing piecework often offered at Type B agencies, agricultural activities emphasize the qualitative aspect of the effort put into the work over production output. This is simply because the relative ease of farm tasks stave off anxiety about participating in the work or the challenge of carrying it out. The forgoing indicates that agricultural activities can elicit supportive effects such as restoring self-esteem among users.

At present, Type B agencies are not able to integrate the methods and effects of horticultural therapies into the objectives of their work support

activities or the perspectives of their supporters (Kanda et al., 2001a, b). Therefore, it is necessary not only to disseminate further knowledge and personnel training (Toyoda and Ikeda, 2007), but also to integrate these into work support successfully as an activity. Thus, it will be useful to provide support to connect knowledge to practice so that the perspective of horticultural therapy can be successfully incorporated into the daily activities of work support.

Study Limitations and Future Challenges

This study remains an exploratory consideration that draws on a limited number of cases. To introduce collaboration between agriculture and welfare into work support, it will be necessary to clarify further information, such as the deeper significance and effects of work support using agricultural activities and the background factors that lead agencies to adopt this kind of work support.

Accordingly, as a future challenge, we feel that it will be necessary to conduct further surveys concerning the significance assigned to work support using agricultural activities at Type B agencies with reference to findings from horticultural therapy that offer suggestions considered in this study. In addition, with a view to the further development of work support using agricultural activities at Type B agencies, we feel that it will be necessary to summarize the present circumstances of agencies conducting this type of work support, as well as their future prospects. We hope to clarify these matters in future surveys.

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摘 要

就労継続支援B型事業所における農業活動を用いた
就労支援についての事例研究

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農業活動を使用した就労支援を実践する就労継続支援B型事業所を対象として、就労支援の効果について探索的に整理、検討することを本研究の目的とした。農業活動を使用した就労支援を実施する3つの就労継続支援B型事業所への訪問インタビュー調査を行った。そして、事業所の概要、農業活動の内容、農業活動の経過、就労支援の視点の4点から事例分析した。加えて、農業活動を用いた就労支援の観点についても分析した。分析の結果、農業活動を用いた就労支援の効果は、ストレス緩和、自尊心の回復、就労意欲の向上、人間関係の訓練、地域の居場所作りの5つと考えられた。これらの効果について、園芸療法の観点から考察し、農業活動を用いた就労支援の有効性についての示唆を得た。本研究は限られた事例における探索的な検討にとどまっており、更なる就労支援の意味や効果、支援を実施するB型事業所の背景要因などを明らかにしていくことが必要であると考えられた。