Abstract

The purpose of this study was to investigate the experience of discontinuation of the participants in the physical education class by using the case study method which is one of the qualitative research methods. As for the participants of the research, 3 people who discontinued among the participants of the physical education class for children with physical challenges at AAA University were selected and in-depth interviews were conducted, and based on the collected data, the following results were obtained through the data analysis. First, the participants participated in the program without an accurate understanding of the program, and after dissatisfaction with various factors of the environment, they were able to find out the process leading to the discontinuation. Second, the participants were found to be restricted in continuous participation due to various factors of the physical education programs other than the program corresponding to this research case. Third, participants recognized the value of participating in physical activity and were found to be desiring a program with limitations to continuous participation complemented.

Despite the quantitative expansion of the program, it was still difficult to find a program that meets their conditions and needs. Therefore, efforts should be made to improve not only the development and dissemination of diverse and systematic programs that can accommodate their diverse characteristics, but also the environment influencing program participation. Furthermore, specialist physical education experts should also pay attention not only to the participants but also to the voice of the people who discontinued and try to achieve better programs.

Keywords Adapted Physical Education, Disabilities, Parent’s Perception, Drop-Out, Discontinuation

1. Introduction

In recent years, the possibility of various changes through the physical activity participation of the people with disabilities has been affirmed, and its importance has been reported through many studies[1][2][3]. Physical activity of people with disabilities not only improves health, and improves physical fitness, but also reduces physical, psychological and social constraints and contractions caused by disability, and further provides a necessary rehabilitation process for living as a social member alongside occupation and recreational activities through the physical activity participation[4]. In particular, physical activity of the children with physical challenges is known to carry various educational values such as social development, emotional stability, and intellectual development that can provide a basis for normalization[5], and so the parents with children with physical challenges are participating their children not only in school but also various physical activities outside of school[6].

In order to accommodate this growing need for physical activities as such, the number of physical education classes for the chil-
dren with physical challenges in private institutions, community-linked institutions, and universities is rising. Of them, the physical education class for the children with physical challenges, which is established in cooperation with the university and the local community, provides opportunity for the children with physical challenges who are alienated from physical activity and also has a great influence on the improvement of the quality of life through development in the physical, affective and cognitive areas, with a such significant value in the respect of giving back to the society from the academic discipline of major program[6].

However, while it was possible to verify a large number of previous studies[7][8][9][10][11], there is a voice raised that the quality of the program’s effectiveness and the satisfaction of the parents and the stakeholders are not following the quantitative growth[12][11]. In fact, it is reported that there are still difficulties in participating in the physical activities for the children with physical challenges for reasons such as a lack of diversity of physical activity programs, economic burden, lack of professionalism of teachers, lack of physical facilities, and lack of equipment[13][14][15][16].

Furthermore, the ratio of incomplete practitioners with disabilities in physical education in 2013 increased by 8% to 57% year on year[17], and the number of people who discontinued their participation despite their participation in physical activity programs was affirmed in fact through many studies[18][19][20][21][22][23][3][24]. This was because the researches in the past focused on quantitative aspects such as providing physical activity opportunities for the disabled, verifying effects, presenting surveys and presenting plans, and lacking interest in the participants’ voices in the actual field[25][11][5], and so the number of the opportunities for physical activity for the disabled has increased, it can be judged that it still feels difficult to participate continuously.

Despite the precondition that it should be regular and continuous to achieve the effects of physical activity[26], many people with disabilities have failed to participate in continuous physical activity. The discontinuation of the participants brings economic, education, and psychological loss to the participants in addition to the program providing institutions[27], and especially for the youth in their developmental stage, discontinuation of physical activities causes not only sleeping problem but also adverse emotional impact[28]. Therefore, it is urgent to establish a plan for participating in physical activity for the children with physical challenges through a more concrete and systematic approach concerning the discontinuation of physical activity participation by the children with physical challenges.

Despite such importance, there is a lack of studies on the discontinuation, and the present study in progress does not reflect the specificity of the children with physical challenges because it is presented only in the comprehensive aspect over the entire age or entire disability area, and there will be limitations to explain the essence of the phenomenon of discontinuation in further depth.

Following this need, this study carried out a case study on the discontinuation of the participants of the physical education class for the children with physical challenges. In this way, it would be possible to provide basic data to help the children with physical challenges to participate in the physical activity and further promote the operation and activation of the physical education class by understanding the cause and finding essential characteristics.

2. Methodology

The purpose of this study is to investigate in depth the discontinuation experience of the participants of physical education class for the children with physical challenges. In order to understand the process and experience of the discontinuation of the participants in the physical education class, qualitative research method was adopted and a case study approach was applied. Case study is a method by which a researcher delicately and deeply collects various data on one or several
cases over time and reports on the characteristics of the case based on the collected data[29]. In particular, case study is an approach that is used when it is desirable to understand a particular case within a context, which is an ideal approach to understand the experience of discontinuation of the participants in a particular context of physical education class for the children with physical challenges.

2.1. Subjects

Participants selected for this study voluntarily participated in the physical activity program (parents participated dance sports class) conducted at A university, yet discontinued participation. In order to select participants, the researcher discussed the purpose and significance of the research through interviews with the manager of the program. Thereafter, the program manager explained the purpose and significance of the study to the participants of the total of 7 teams of discontinuation. Of them, the final 3 teams agreed to participate in the study, and the other participants did not participate in the study due to their personal reasons. Children with developmental disabilities were excluded from the study because of their intellectual disabilities, and only their fathers or mothers who participated in the program and made the majority of decisions were selected as study participants.

Participants in this study were 2 mothers and 1 father of the children with developmental disabilities. The characteristics of the research participants observed during the interview process are shown in <Table 1> below.

Table 1. Characteristics of research participants.

<table>
<thead>
<tr>
<th></th>
<th>Parent A</th>
<th>Parent B</th>
<th>Parent C</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gender</td>
<td>Male</td>
<td>Female</td>
<td>Female</td>
</tr>
<tr>
<td>Age</td>
<td>Mid 40s</td>
<td>Mid 40s</td>
<td>Late 30s</td>
</tr>
<tr>
<td>Occupation</td>
<td>Firefighter</td>
<td>Human rights lecturer</td>
<td>Housewife</td>
</tr>
</tbody>
</table>

The physical activity program in which the researcher participated had the children with physical challenges and their parents with the aim to overcome constraints on the physical activity for the children with physical challenges by improving their awareness of the physical activity. A total of 14 children participated in the program, all with developmental disabilities. The program consisted of warm-up exercises (physical strength exercise and physical strength exercise), main exercise (line dance and dance sports) and organized exercise for 90 minutes, for 3 times a week for a total of 8 weeks. One team leader and three assistant teachers participated in each individualized education in accordance with the type of disability and the degree of disability of the children with physical challenges. <Table 2> shows the specific programs of the physical education classes for the children with physical challenges.

Table 2. Overview of adapted physical education class.

<table>
<thead>
<tr>
<th>AAA University’s physical education class for children with physical challenges</th>
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</thead>
<tbody>
<tr>
<td># of children with disabilities</td>
</tr>
<tr>
<td>- 14 children, 14 parents of them</td>
</tr>
<tr>
<td># of participating teachers</td>
</tr>
<tr>
<td>- 4 special physical education teachers</td>
</tr>
<tr>
<td>Class hours and form</td>
</tr>
<tr>
<td>- 90 minutes 3 times a week, and 3:1 lessons</td>
</tr>
<tr>
<td>Place of instruction</td>
</tr>
<tr>
<td>- AAA University dance hall</td>
</tr>
<tr>
<td>Program details</td>
</tr>
<tr>
<td>1-3 weeks</td>
</tr>
<tr>
<td>- Line dance</td>
</tr>
<tr>
<td>4 weeks</td>
</tr>
<tr>
<td>- Mountain climbing activity</td>
</tr>
<tr>
<td>5 weeks</td>
</tr>
<tr>
<td>- Line dance</td>
</tr>
<tr>
<td>6 weeks</td>
</tr>
<tr>
<td>- Line dance, cha-cha-cha</td>
</tr>
<tr>
<td>7-8 weeks</td>
</tr>
<tr>
<td>- Line dance, cha-cha-cha, jive</td>
</tr>
</tbody>
</table>

2.3. Data collection

In-depth interviews useful for practically perceiving and describing experience were used to collect data. Interviews were conducted with the parents of the children with physical challenges participating in the physical education class program once for each participant. The selection of the interview schedule and the place of interview was made considering the date and place desired by the
research participant. The interview was conducted based on semi-structured questionnaires in order to extract in-depth and concrete contents in a natural atmosphere. Even if the talks strayed away from the question, the interviews were continued naturally so that participants could freely express their thoughts.

The semi-structured questionnaires were classified according to time elapse, before program participation, after program discontinuation, after discontinuation of program, past experience of physical activity program, questions about perception, questions about this program, and changes in life after discontinuation and perception. The semi-structured questionnaire was used after correction and supplementation after review by 3 specialists of special physical education who have been operating the physical education program for the children with physical challenges for many years. The contents of the interview were recorded through mobile devices with the consent of the participants. The recorded files collected after the interviews were transcribed into the Hangul program, and all of the participants' names were marked with pseudonyms. The contents of the questionnaire used during the in-depth interview are as provided in <Table 3> below.

<table>
<thead>
<tr>
<th>Classification</th>
<th>Questions</th>
</tr>
</thead>
<tbody>
<tr>
<td>Before program participation</td>
<td>- Experience and perception of the past physical education program participation</td>
</tr>
<tr>
<td></td>
<td>- Application procedures and expectations of the program</td>
</tr>
<tr>
<td>From program participation to discontinuation</td>
<td>- Pros and cons of the program</td>
</tr>
<tr>
<td></td>
<td>- Constraints on continuous participation</td>
</tr>
<tr>
<td>After discontinuation</td>
<td>- Life of children after discontinuation</td>
</tr>
<tr>
<td></td>
<td>- Ideal physical education program they imagine</td>
</tr>
</tbody>
</table>

2.4. Data analysis

In this study, a data analysis was performed based on the 4 steps of the spiral data analysis(1. data organization, 2. reading and taking notes, 3. technology, analysis, and interpretation, 4. data presentation and visualization) proposed by Creswell(2013) [29]. First, the collected data was transcribed through the Hangul program, and the transcribed data was examined in detail and primary coding was performed. Thereafter, the categorization process was performed to reduce to 3 categories. The categorized contents were reviewed and the contextually meaningful data was finally categorized to derive final theme words and quotations. Thereafter, the analyzed data results were described by subject.

2.5. Integrity of the Research

In order to ensure the integrity of the data during the data collection and analysis process, this study was reviewed by the constituents in consultation with experts[29]. In order to minimize the bias of the researchers, we also checked as to whether the collected data was randomly derived from the review among the constituents. And in order to ensure the accuracy and integrity of the data, an expert council consisted of 1 professor of special education major and 2 PhDs of special education major was established and the consultation about the whole data collection and analysis was conducted before and after the research, and efforts were made to try to bring about the essential meaning of the experience of the research participants themselves while preventing against subjective analysis based on the researcher’s bias.

3. Results and Discussion

The purpose of this study is to present the results of the analysis of the data collected by the in-depth interview with the research participants in order to explore the experience of discontinuation of the participants in the physical education class of the children with physical challenges.

3.1. From voluntary participation to discontinuation

For the children with physical challenges, there is a difference between the physical
function and learning ability that can be performed according to the type and degree of disability of each individual, and a program that considers these factors thoroughly is required for effective education[30]. However, research participants were able to discover that they did not have an accurate understanding of the program. Even if the contents and process of the program were not understood or the characteristics of the children and the contents of the program were not consistent with each other, there was a tendency to participate and see how things unfolded.

- I do not remember exactly. They just said that there it was. Time was right. I do not know exactly what I went for but I think I went there after hearing that B University had a good program for dance. But I did not know how difficult it was, and I went there anyway.
- I thought I was doing special athletics only.
- Yes. I did not know it was a dance.
- Anyway, this was an AAA University program and I was going to try it because it was a short program during school break. ... (omitted) I do not like the classes where parents participate.
- But it’s just that. OOO needs to get along all together. In that respect.

The research participants who participated in the program only to satisfy the educational need without a correct understanding of the program expressed dissatisfaction with the program such as for the difficulty of the program, the number of the teachers and the facility incompatibility. The program run in such an environment could not satisfy the educational desires of the parents and also found that the interest in participating in physical activity was lost.

- Yes. It was more difficult than I thought.
- I was somewhat physically struggling, and time was running out. I was tired.
- I think it was almost meaningless when I look at it.
- I do not think there were enough teachers.
- It wasn’t much interesting.
- But OOO learned to dance. ... (omitted) ... It’s impossible.
- It must be eye to eye with the kids, but they were so busy catching up with the teacher ... (omitted) ... I went there a few times, and it would’ve been better if they did something easier for better interaction.
- As I said earlier, it was good knowledge and good interaction, but it should be easier and fun.
- It was cold on the floor. It soon got warmer, but it was cold ... (omitted) ... There was too much dust.

Such results are consistent with the findings that various problems in the daily physical training environment cause not only the loss of interest in participation in sports for all, but also make it impossible to make continuous participation[31], which is also consistent with the research results of Cho, Oh, & Koo(2009)[32] that suggested that the level of satisfaction is a critical variable in the continuing participation of the people with disabilities who are participating in the existing physical activities.

3.2. Limitation, limitations, and limitations

The research participants found that continuing participation was limited in the physical education programs other than the physical education program for the children with disability of AAA University, which corresponded to the case of this study, due to various factors.

- There’s no insurance for this. It’s 30-40 minutes, and you get charged 25,000 won, 30,000 won. We do not have insurance coverage. We are all insured. But there’s no insurance for this. ... (omitted) ... I do not know. I cannot do picketing because I’m a public servant. I do not really understand. There is support of 120,000 won a month. If it is 12,000 won, it is 4 times, and 4 times won’t be enough. So now, it’s more helpful for mom than staying home, as making money is helpful for KKK.
- I’m trying to participate a lot by following around. But economic activities come first as a restriction... (omitted) ... But you can’t do it if voucher mother isn’t correct.
- It’s expensive. It costs almost 400,000 to 500,000 won including admission to swimming pool per month.
Almost neglected. If I went to work, then the kid stays home almost all the time.

Despite the fact that children with developmental disabilities require their parents to keep an eye on them because of their unpredictable characteristics, even their mother, including their father, had to resort to economic activities to help reduce the economic burden of education. This can be confirmed as a factor that brings about a vicious cycle in which the children with physical challenges could not be cared for and they must stay home neglected. Such results are consistent with the findings of Lee, Lee, Ha, & Joo (2009) [33], who report that economic difficulties in the participation of children with intellectual disabilities as the most serious challenge.

In addition, we found various factors that restrict the continuing participation such as programs that can digest various characteristics of children, lack of diversity of teachers, and lack of dedicated sports facilities, among others.

As I said before, the kids’ characteristics are so diverse.

The reason I can’t allow swimming is because there is only a male teacher and no female teacher. The contact itself is uncomfortable. B just touches here and there, and pulls pants down, and that must be uncomfortable for the teacher, you know.

But backstroke was pretty long so I quit after a while ... (omitted) ... My mother said that it’s too hard going back and forth.

I talk to every person I meet, but they say that there’s nothing kids can do during school break.

Such results indicate that the parents of the children with intellectual disabilities have a greater need for their kids’ participation in physical activity than the parents with children without disabilities, but in fact, is consistent with the research results that engaging the children with intellectual disability in physical activity has more difficulties than having those without disabilities participate [33]. Furthermore, it is also consistent with previous researches that pointed out that the lack of dedicated sports facilities, lack of diversity of programs and lack of professionalism, lack of professional leaders, and economic burden, among others, are the problems in the daily physical training environment for the people with disabilities [34] [35] [14].

3.3. If you do not let them, they will degenerate

While research participants may have been dissatisfied with the participation program in the physical education program, they were found to have experienced a variety of physical and psychological effects such as improvement of the athletic ability, sociability, and energy consumption, among others. And they were also found to be eagerly hoping to open a new program to complement the various limitations.

If you do not let them, they will degenerate. It does not get better, but keeps it constant and it gets a little better. Really a little by little. But if you do not let them, they will degenerate. Growth does not stop, it degenerates. Compelling them to do certain things like inline skating, that suggests that your kid uses brain, right? Jump roping and everything. If you let them still, they seem to generate.

SSS has been undergoing speech therapy for 7 years, and she can not speak. But she knows what her counterpart is saying. I guess that’s what she learned from repetition. ... (omitted) ... I think that’s the effect of education ... (omitted) ... It does cost money, but it does teach you how to interact with society.

It’s physical exhaustion. It’s physical exercise. I think it would be better for B to play and roll, and I think that you are doing brain exercise. I think that gives you a stimulus. It improves your athletic performance. Hula hoops and rope jump, and they develop even slowly at least, as they will degenerate if you let them.

SSS is big. But there aren’t many places to discharge his energy. ... (omitted) ... He’s irritated because he can’t discharge his energy.

I hope you can plan this year and open it once in the next year. I will cooperate.

Please do a program for girls. Boys are playing soccer, so why for girls?
Such results are consistent with the research results that the physical activity participation by children with physical challenges brings about diverse effects[36][1][37][38][2]. Also, a systematic physical education program that is tailored to the ability and level of the children with physical challenges would help the children, yet the most important factor that affects the participation in daily physical training is the participation environment, which is consistent with the research findings of Ku, Han, & Oh(2011)[39].

In the end, discontinuation can be seen as a practical limitation of the educational demand of the parents of children with physical challenges and the lack of ability to accommodate them. In order to meet such educational needs, many researchers as well as government agencies and local autonomous bodies are working together[6], however, due to various existing limitations, it was affirmed that the continuing physical activity participation by the children with physical challenges could only be difficult at best. That said, the previous research results are not enough to be used as a means to participate for the successful physical activities of the children with physical challenges[14], and to this end, an even more diverse array of research must be conducted in line with the real world outside in greater depth.

4. Summary and Recommendation

The purpose of this study was to investigate the experience of discontinuation of the participants in the physical education class by using the case study method which is one of the qualitative research methods. As for the participants of the research, 3 people who discontinued among the participants of the physical education class for children with physical challenges at A University were selected and in-depth interviews were conducted, and based on the collected data, the following results were obtained through the data analysis. First, the participants participated in the program without an accurate understanding of the program, and after dissatisfaction with various factors of the environment, they were able to find out the process leading to the discontinuation. Second, the participants were found to be restricted in continuous participation due to various factors of the physical education programs other than the program corresponding to this research case. Third, participants recognized the value of participating in physical activity and were found to be desiring a program with limitations to continuous participation complemented.

Despite the quantitative expansion of the program, it was still difficult to find a program that meets their conditions and needs. Therefore, efforts should be made to improve not only the development and dissemination of diverse and systematic programs that can accommodate their diverse characteristics, but also the environment influencing program participation. Furthermore, specialist physical education experts should also pay attention not only to the participants but also to the voice of the people who discontinued and try to achieve better programs.

This research has limitations in that it does not reflect various characteristics from selecting 3 people who discontinued as research participants. Therefore, in the future researches, it would be necessary to study various cases such as adaptation and discontinuation beyond the physical activities with the participation by the children with physical challenges who have even more diverse characteristics or their parents.

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