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Characteristics of Children with Health Impairment and their Education in the Field of Special Support Education

Chang-Wan HAN¹, Eun-Ae LEE², Sun-Hee LEE³, Atsushi TANAKA⁴

Abstract

As medical technology has developed, diseases in childhood including childhood cancer, nephritis of children and cardiac disorder, which were difficult to cure in the past, have been completely curable or children with those diseases become able to survive for a long term. Due to the long-term survival, the educational opportunities have been expanded and the educational needs of children with health impairment and their parents have been heightened and diversified. In this context, as Special Education Promotion Law of South Korea in 2005 was partially amended including children with health impairment caused by chronic diseases in the category of disabilities for special education, they got to receive services.

This study intended to understand the characteristics and current situations of children with health impairment and reviewed the educational supports and teaching methods for children with health impairment. Literature review focusing on the analyses on precedent studies for related areas was employed for the research method.

Even though there are differences among children with health impairment depending on their physical conditions caused by diseases, they commonly feel more anxiety and depression than healthy children of same age and struggle with problems including stress caused by changes in the body during treatment, difficulty in forming relationships with teachers and peers, maladjustment to society and schools, etc.

In South Korea, for these children with health impairment, diverse educational support methods have been implemented including educational supports by hospital school, supports to help them return to school, persistent support within schools, supports through communication media, itinerant educational supports, etc.

There are problems in the course of providing educational support, for example, the lack of personnel and budget, regional inequality of facilities, unsystematic system and improvement of awareness.

To solve these problems, countermeasures such as sufficient supplement of special education teachers and volunteers, expansion of facilities, building the network of related agencies and education for the improvement of awareness need to be implemented.

Key words: Special support education, children with health impairment, Characteristics of children with health impairment, Educational support

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1. Introduction

Because, in the past, diseases such as cancer and cardiac disorders in childhood seemed to be death sentences, children who were diagnosed as those diseases had been regarded as dying patients. However, the development of medical technology has increased the survival rate; 1～4% of survival rate of patients of pediatric cancer in 1930’s has risen to about over 70% owing to the development of medical science for the last 70 years.

The children and adolescents who have chronic diseases including pediatric cancers, kidney diseases and cardiac diseases have difficulties caused by long-term treatment, chemotherapy and pharmacotherapy; the limitation of physical change and body functions in daily life comparing with the same age group, psychological and emotional difficulties and the difficulties in school life and performance. In this context, the focus of the education for children with health impairment has been moved from psychological approach to death from the way of living their life together with chronic diseases.

As students with health impairment are absent from school frequently and/or for a long time because of their diseases and its treatment process, they may not only struggle with school life by being kept back in the same class and feeling difficulty in studying, but also have psychological and emotional problems in the relationship between friends and teachers. To solve these problems and secure the right of learning for students with health impairment, special educational support is required.

About 8,000 students drop out of and/or are temporarily absent from school because of diseases (Ministry of Education Science and Technology 2003) and 97% of those with health impairment have trouble with the re-adaptation to school life due to the long term learning deficit and the blank of school life, even though they are recovered and return to school (Eun-Hye PARK et al 2005).

To solve the psychological and emotional problems of students with health impairment, foreign countries such as the U.S.A, Japan, Germany and Swiss have already considered the students with health problems as the person subject of special education. In South Korea, by partially amending the 'Special Education Promotion Law', children who have chronic diseases or weakness were included to the persons subject of the special education with the name of 'health impairment' and began to be given educational services and also the 'Enforcement Decree of the Act on the Special Education for Disabled Persons, Etc.', which was enacted in 2007, prescribes that children with health impairment have to be given special educational support by selecting them as the persons subject of special education (Chang-Wan HAN et al 2011).

However, in South Korea, children with health impairment who were selected as the subject of special education and have received special educational supports in hospitals and schools were only 2,174 (Ministry of Education Science and Technology 2010). According to the results of 2005 survey on the needs of parents of children with health impairment, 86% of respondents answered that they couldn’t receive educational services, because there was no hospital school available, which proves that children with health impairment have not been given the educational opportunities properly (Eun-Hye PARK et al 2005). Even though educational support programs for children with health impairment like programs to help them return to school have gained interests and necessity, the supports and studies for children with health impairment have not been sufficient.

Therefore, this study aims to understand the characteristics and current situation of children with health impairment and reviews educational support and teaching methods for them.

2. The Characteristics of Children with Health Impairment

1) The Definition of Children with Health Impairment

Disability generally means the state that the organs in the body cannot play the roles that are supposed to be done or that mental ability is impaired. In South Korea, the cases that chronic diseases caused by physical
impairment interfere from living or cause to disable to do things that are necessary to live are also included in
disabilities. However, the definition of disability has been changed from physical condition-centered definition
to functional disorder-centered one gradually (Soo-Kyeong HWANG 2004) and the subjects of special
education have been gradually increased. In this context, by partially amending the ［Special Education
Promotion Law］, children with health impairment caused by chronic diseases, who have been concerned
about by medicine, nursing, public health engineering and pedagogy, were newly included to the persons
subject of the special education with the name of ‘health impairment’ and began to be given educational
services.

Korea Institute for Special Education defines students with health impairment as the students who need
special supports for studying and daily living, for they require continuous medical treatments e.g., long-term
hospitalization or outpatient care due to the chronic disease or weakness and for the first time, added students
with health impairment to the persons subject to special education (Dong-Young CHUNG et al 2001).

‘Act on Special Education for Disabled Persons, Etc’ defines a person with health impairment as the person
who needs continuous education services for school life and school performance as well as continuous medical
support such as long-term hospitalization or out-patient care for over three months because of chronic diseases
including mental and physical disorder, kidney disorder and liver disorder.

Japan employs the term, frailty linked to disease and physical frailty, as the similar term of health
impairment. Japan Ministry of Education, Culture, Sports, Science and Technology defines frailty linked to
disease as the condition that needs continuous medical and life regulation due to chronic disease and physical
frailty as the condition that needs continuous life regulation due to the state easily to be sick (MEXT
Homepage).

2) Psychological, Physiological and Pathological Characteristics of Children with Health Impairment

Children with health impairment are likely to struggle with their disease, symptoms exposed in the course
of treatment, physical pains, psychological and emotional maladjustment and the low performance of tasks
caused by cognitive problems. Children with health impairment have to endure the pains and side effects in
the course of complicated tests and treatment for a long time. Even after they are cured, they have to go
through physical change more than other patients with simple diseases due to relapses and after-effects.
Diverse symptoms in the course of treatment as well as the pains from diseases negatively affect children with
health impairment; these physical problems are also more likely to affect them psychologically and emotionally
and for them to have difficulty in studying (Ga-Sil OH et al 2003). Children with health impairment complain of
physical side effects and emotional changes in the continuous course of treatment; fatigue, tiredness and
powerlessness; uneasiness, anger, shame, depression, sadness, anxiety, uncertainty and fear of relapse.
Especially children with health impairment who are in the sensitive stage of life to form self-conception may go
through severe and psychological conflict (Tae-Hyun KWON 2003).

The diseases that children with health impairment commonly have are as follows:

Diabetes in childhood may make children difficult in studying and concentrating on class because of
improper level of blood sugar (Brown et al 1993). Children with diabetes go through with the hardship to
control the level of blood sugar, because they don’t have enough place or time to do blood-sugar test and to
get injection in the school. In addition, the impairment of physical ability generates cognitive, socio-emotional
and behavioral problems. Especially it is reported that children with leukemia show the difficulty in
quantitative description, fine motor skill, vision and movement (Berg et al 1993, Peckham et al 1988).

Childhood asthma is the bronchial asthma and bronchitis to give rise to respiratory distress and makes
patients absent from school frequently and difficult to learn new information, for they feel bad and hard to
concentrate on, even though they attend class (Bender 1999). Asthma itself is not the cause to lower learning
ability, but the medication for asthma bring about depression, fear and short-term memory impairment and in
result, decreases the ability of understanding.

Cardiac disorders is the condition that a heart cannot function normally because of angina pectoris, myocardial infarction, heart failure, inherent heart disease, valvular disease of the heart, arrhythmia, etc. (Ministry of Education, Science and Technology, 2006b). Most of children cardiac disorders occur innately; in result, normal physical development is disturbed and frequent respiratory diseases cause vulnerable health condition; and the difficulties in commuting to school, passive relationship with friends and performing school activities are raised (Ministry of Education, Science and Technology 2006).

Kidney disorder is the condition that is caused by the dysfunctions of kidney that controls the proper quantity of water and electrolytes by getting rid of waste matters in body; it makes patients difficult in daily living activities and includes chronic renal failure that requires permanent hemodialysis or renal transplantation. Childhood kidney disorder causes poor growth by bring about poor appetite, lack of calories and chronic anemia and the physical immaturity gives children mental burden greatly (Byeong-Su JO 1998).

Pediatric cancers include acute leukemia, malignant lymphoma, Neuroblastoma, liver cancer, osteosarcoma, virus-induced tumor and among them, acute leukemia is the one that occurs most frequently, which occupies 35-40% of total cancer children patients. Leukemia is the disease related to malfunctioning blood cell formation that white blood corpuscles increase and red blood corpuscles increase (So-Hyun LEE et al 2006). While leukemia was the second cause of death among children in the past, the development and improvement of treatment methods including surgery, chemotherapy, radiation treatment and bone-marrow transplantation have increased the rate of full recovery.

However, physical change including the weight change, hair loss, oral ulcer and others in the process of leukemia treatment, which make patients hurt pride and lowered social adaptability. Especially it is reported that children with leukemia show the difficulty in quantitative description, fine motor skill, vision and movement (Eun-Hye PARK et al 2004) and their abilities of attention, concentration, ordering, memory and understanding seem to go down (Ministry of Education, Science and Technology 2006).

Therefore, children with health impairment are likely to experience anxiety and fear regardless of the types of diseases, even though there are differences among patients due to the characteristics of each disease. Children with health impairment have psychological, social and cognitive difficulties such as physical changes caused by disease, passive relationship with people, maladjustment to school or society rather than difficulties from diseases themselves. Moreover, the medication for treatment causes side effects such as depression raised by steroid for a short-term and emotional fluctuation of fear or sadness.

3. The Current Situation of Children with Health Impairment in South Korea

Students with health impairment take outpatient care attending general school or choose hospitalization for a long-term treatment attending hospital school or attend special school for a long-term treatment (Yong-Jae CHOI 2009).

As persons with Health impairment were included to the persons subject to special education in 2005, the official statistics on health impairment has been managed since 2006 and the number of students with health impairment for the last five years is shown in <Table 1>.
As noticed in the Table 1, since 2006 when the research on students with health impairment has been carried out, the number of students with health impairment has increased every year. In 2010, the students with health impairment were 24 in special schools, 496 in special classes and 1,654 in general classes and total of students with health impairment is 2,174, which is the 2.7% of 79,711 of the persons subject to special education. The number of students with health impairment has increased in general classes rather than in special schools (Chang-Wan HAN et al 2011).

4. The Education for Children with Health Impairment (The methods to provide educational support)

The methods to provide educational support for children with health impairment are diverse based on their educational needs. Eun-Hye PARK, Ji-Yeon PARK and Choong-Rai NHO (2005) suggested the education delivery system for children with health impairment of Figure 1, arguing that diverse educational delivery systems need to be built in order to secure the proper educational opportunities based on their health condition.
<Figure 1> Education Delivery System for Children with Health Impairment

Disease development

Examination and Diagnosis by Medical Doctors

Screening health impairment

Supports of medical expenses

Attending hospital school

Individualized education in regular class

In-home itinerant education

Aseptic room
Individual itinerant Education

Classroom in hospital school

Preparatory program to help return to school
- Individualized Education Planning
- Improvement of physical environment of school (reinforcing the function of school health room, improving school meals, etc.)
- Counseling to help manage diseases and accept the physical changes
- Counseling for adjusting to school
- Networking community resources
- Education for improving the awareness of children with health impairment toward teachers and peers

Discharge

Children with health impairment have difficulties in being kept in the same class and feeling hardship in studying and adapting to school life and their families also need supports. Above all, children with health impairment need to be taught in hospital, home or school to solve the problem of being kept in the same class because they have to be hospitalized or receive long-term outpatient treatments for the treatment of diseases. In addition, diverse program to enable children with health impairment who cannot attend school due to the treatment to adjust to school life including supports for the relationship with peers and teachers are required (Eun-Joo KIM 2008).

1) The Method to Provide Support to hospital school

The hospital school is the school that is installed within hospital for students who cannot attend school due to the long-term hospitalization and outpatient treatment. Hospital school can solve the problems that children with health impairment are kept in the same class and improve the effect of treatment by letting them study during treatment. In this aspect, medical personnel tend to install and operate hospital school actively.

Because hospital schools need to provide educational services for students under treatment within limited space, the same curriculum and procedure with regular cannot be carried out. However, because the education is systematically implemented based on the individualized plan system with minimized school hour per a day without interruption and the number of hospital school days are regarded as the formal attendance of school, students with health impairment, their parents and teachers are very satisfied with hospital school (Ministry of Education Science and Technology 2006d).

In spite of these strong points of hospital schools, there are problems to need to be solved; the insufficient personnel to run hospital schools and the regional inequality that hospital schools are concentrated in Seoul and capital areas or there are regions without hospital schools.

2) The Method to Provide Support to Return to School

Even though Children with health impairment are absent for a long time due to the long-term hospitalization or outpatient treatment, they are likely to hope to return to school and, if possible, to go to next year or to enter schools of higher grades with peers of same age. They want to belong to a peer group and the peer approval can help them have psychological comfort and raise self-esteem.

Diverse programs to help children with health impairment who couldn’t attend school due to chronic diseases for a long time return to school need to be prepared, for whether they can return to school may greatly affect whether they can lead a normal life (Eun-Hye PARK et al 2004).

To help children with health impairment successfully return to school, individualized educational plan based on the health condition and academic level needs to be established. In addition, not only the improvement of physical environment including the functional reinforcement of health room and the improvement of school meals, but also counseling for managing disease and accepting physical changes, counseling for school adjustment, networking of community resources, giving the accurate information and education for improving awareness to teachers and peers, counseling for students and parents, the systematic linkage between school and hospital, etc. are required (Eun-Hye PARK et al 2004).

Especially it is important for teachers to be prepared to help children with health impairment lead a school life positively and to be qualified with humanity and acceptable attitude as well as the knowledge of their diseases (Il-Young YOO 2006).

3) The Continuous Supports within School

To enable children with health impairment adjust to school, continuous supports need to be provided in school. At first, to provide continuous health management services for student in school, the active communication between school and medical professionals like medical doctors need to be established. In
addition, the information on the characteristics of diseases of children with health impairment and thing for homeroom teachers to keep in mind needs to be provided. By providing education on the children with health impairment to peers, the relationship between them and peers needs to be maintained harmoniously.

In South Korea, the program that was developed to improve awareness of children with health impairment in 2006 is installed the websites of each city and provincial education office for teacher to easily access the program in 2007.

4) The Methods to Provide Education by Using Communication Media including Video Lecture

While children are in outpatient treatment or under treatment in hospital, educational supports through communication media including video lecture may be very useful. Eun-Hye PARK et al (2005) reported that parents of children with health impairment prefer to cyber education via internet next to the itinerant education in the results of research. In addition, according to the results of the research by Eun-Hye PARK et al (2005), the public educations including the school qualification examination and the air and correspondence college are the most preferred contents for cyber education and integrated educational programs are required to provide supplementary education according to academic level with keeping the students' grade and to help students enter higher schools.

The number of children with health impairment who took advantage of video lectures at home or in hospital has increased 247 students in 2006 to 350 in 2007 (Ministry of Education Science and Technology 2007).

Hospital school may operate the programs to connect with schools or home to support the education for children with health impairment. By connecting hospital school with school that students are affiliated with, hospitalized children with health impairment can study together with their classmates and, even though they cannot attend school, they can participate in school activities through website and communicate with peers or teachers.

5) Itinerant Education

Itinerant education is to provide education for children with health impairment through teacher's visitation to home or ward of hospital. It was found that parents of children with health impairment prefer the itinerant education that teachers visit home 2-3 times a week among the educational support methods (Eun-Hye PARK et al 2005). Thus, Eun-Hye PARK et al (2005) suggested that teachers of hospital schools visit each ward of hospitalized children with health impairment who cannot move to hospital school due to the physical condition; they also emphasized that the easy parts of individualized curriculum or social and emotional contents need to be delivered for one hour a day based on the health condition of students without demanding too much concentration and stress or causing fatigue.

Currently in South Korea, in order to provide educational opportunities when children with health impairment cannot go to school, itinerant education has been implemented and the numbers to visit students are determined based on the numbers of visits of itinerant education for the subjects of other special education (Ministry of Education, Science and Technology 2007). Regular schools, educational offices, and special education support centers have control the contents of itinerant education and the itinerant education by volunteers has been approved as the formal class.

5. Conclusion

As medical technology has developed, diseases in childhood including childhood cancer, nephritis of children and cardiac disorder, which were difficult to cure in the past, have been completely curable or children with those diseases become able to survive for a long term. Due to the long-term survival, the
educational opportunities have been expanded and the educational needs of children with health impairment and their parents have been heightened and diversified.

As students with health impairment are absent from school frequently and/or for a long time because of their diseases and its treatment process, they struggle with school life by being kept back in the same class and feeling difficulty in studying and the relationship with peers.

To solve these problems, by partially amending Special Education Promotion Law of South Korea in 2005, children with health impairment caused by chronic diseases became included in the category of disabilities for special education.

In South Korea, 2,172 children with health impairment are included in the subjects of special education and most of them have been educated in regular classes on the basis of the data of 2010. Based on the statistics in 2006, the number of children with health impairment has increased, but it is only 2.7% of whole subjects of special education.

Because children with health impairment have to be hospitalized or in the long-term outpatient treatment to treat diseases, they need to be educated whether in hospital, home or school to solve the problem of being kept in the same class. The children with health impairment who have difficulty in attending school due to the treatment of chronic diseases need to be supported through diverse programs to enable them to adjust to school life including program to support the relationship with peers and teachers.

There are methods to support the education of children with health impairment; educational supports in hospital school, supports for returning to school, continuous supports in school, educational supports through communicational media like video lecture and itinerant education. Among those methods, hospital schools have problems of the lack of personnel and regional inequality; for the supports to help return to school and the continuous supports in schools, the teachers and peers' awareness of health impairment needs to be improved; even though regular schools, educational offices, and special education support centers have control the contents of itinerant schools and the itinerant education by volunteers has been approved as the formal class, the problems of the lack of teachers in charge of itinerant education and the expertise of volunteers have been disputed.

To solve those problems, the ways to take advantage of professionals in hospitals or to make parents of students with health impairment participate in class as teaching assistants have to be considered. To solve the regional imbalance of hospital school distribution, local general hospitals need to install hospital schools and to be given systematic and financial supports. To improve teachers and peers' awareness of children with health impairment, the opportunities to help them understand children with health impairment are required including giving the education about children with health impairment or connecting the school that they are affiliated with and inducing the student of the same age to work as volunteers. To heighten the qualitative level of current itinerant education, the trainings of professionals and volunteers need to be expanded.

The endeavor to find problems and to change them for the better is also required by surveying the satisfaction of itinerant education. Moreover, the efforts to change the problems for the better need to be emphasized by organically networking with schools, hospital schools, parents of children with health impairment and other related agencies.

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