PREVENTION OF SECONDARY DISABILITIES FOR CHILDREN WITH DEVELOPMENTAL DISORDERS

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Abstract. Developmental disorders (also called developmental disabilities) are a group of early-onset developmental disorders characterized by impairments in personal, social, academic, or occupational functioning. The article focuses on a group of children with developmental disorders including autism spectrum disorder, attention deficit hyperactivity disorder, and learning disorder. Secondary disabilities are often referred to as mental disorders and behavioral complications, which arise as a result of the primary disorder/injury. In particular, the group of children with developmental disorders often tends to integrate different types of developmental disorders, which will be the group at risk of having many difficulties at the same time and having a high rate of secondary disabilities. The article points out the manifestations, and causes of secondary disabilities and proposes ways to prevent secondary disabilities for children with developmental disorders.

Keywords: Developmental disorders, secondary disabilities, prevention, children with disabilities.

1. Introduction

Developmental disorders (also known as developmental disabilities) are a group of early-onset developmental disorders, often before school age, and are characterized by impairments in personal, social, academic, or occupational functioning. The disorders include intellectual development disorders, language disorders, autism spectrum disorders, attention deficit hyperactivity disorder, specific learning disorders, movement disorders, and others [1]. In this article, children with developmental disorders will focus mainly on children with autism spectrum disorder, attention deficit hyperactivity disorder, and learning disorder because this is a group of children who often have integrated developmental disorders and have the most secondary difficulties

In society, there is always a certain percentage of people with developmental disorders. The results of a statistical study by the US Centers for Disease Control and Prevention (CDC) in 2015 studied and concluded: Developmental disorders can occur in all racial, ethnic, and socio-economic groups [2].

The number of children with developmental disorders is an objective existence and tends to increase. In Japan, data from the Ministry of Education, Culture, Sports, Science and Technology (2012) showed that: The percentage of children likely to have a developmental disorder among primary school students in an integration classroom is 6.5%, of which the rate

of boys is 9.3%, the rate of 1st graders is 9.8% [3]. Statistical research results of the US Centers for Disease Control and Prevention (CDC) in 2015 showed that: About 15% of children aged 3-17 years have one of these developmental disorders [2].

In Vietnam, there are currently not many studies to show the specific number of children with developmental disabilities, but the practice of special education shows that the educational needs of children with disabilities are increasing, the number of centers for care and education for children with special needs is increasing across the country. In the November 2018 report on the 2016 National Survey of Persons with Disabilities (under the National Statistical Survey Program signed and promulgated by the Prime Minister in Decision No. 803/QD-TTg dated June 28, 2012) of the National Statistics Office in collaboration with UNICEF in Vietnam shows that: The rate of disability tends to increase with age, in the future, the rate of disability may continue to increase; 7.06% of the population aged 2 years and older are disabled, of which the rate of disability for children aged 2 to 17 is 2.83%. If combined with the results of the General Review of People with Disabilities who are actually residing in centers, the disability rate of the population aged 2 years and older is 7.09%, of which children 2-17 years old are 2.83% (children 2-15 years old is 3.02%), in which children with an intellectual disability is one of the disabilities with the highest rate (0.74%) compared to other types of disability [4].

Children with developmental disorders often have difficulties in functioning in learning (reading, writing, calculation) or cognitive, language, motor, behavioral, and adaptive functions in communication and social interaction, etc. Due to the child has facial injuries/defects (considered as primary disabilities) and secondary disorders (also known as secondary disabilities) appear as a consequence of the onset defects. In particular, the group of children with developmental disabilities, who tend to integrate different types of developmental disabilities, will be the group that has more and more difficulties at the same time. Research in Japan has shown that: Children with autism spectrum disorders are the highest rate among developmental disabilities (accounting for 88.5%) with integration with other developmental disorders such as hyperactivity disorder. attention deficit, and intellectual disability (Saito, et al., 2020) [5].

These secondary disorders are often manifested in the form of psychological disorders (unable to adapt to the environment, depression, anxiety, stress, ...) and it is these secondary disorders that are considered to be the primary object of Psychology-Education research and the impact of modified educational programs [6].
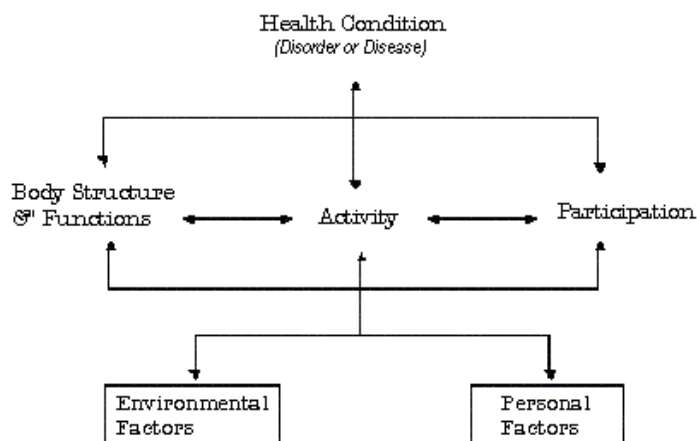
2. Content

The research is implemented through theoretical research methods (collection, processing, selection and generalization of information, research results on issues related to the research problem) and method of summarizing experience (studying theoretical and practical studies close to the research problem) to understand the causes, influencing factors and manifestations of secondary disabilities in children with developmental disorders to make suggestions on how to prevent secondary disabilities for children with developmental disorders. The results of the study are presented below.

2.1. Approaches to studying the causes of secondary disabilities in children with developmental disorders

The article approaches the causes of secondary disabilities in children with developmental disorders through the concept of disability according to the ICF model of health, function, and disability classification of the World Health Organization (WHO) in 2001. WHO made an

adjustment and change in the classification of health, function, and disability as generalized by the ICF model (International Classification of Functioning, Disability, and Health).

Health Condition
(Disorder or Disease)

Body Structure & Functions → Activity ← → Participation

Environmental Factors

Personal Factors

Figure 1. The ICF Model of Human Functioning and Disability

(World Health Organization, 2001).

The ICF model conceptualizes that a person's level of functioning is an interactive relationship between the person's health status and environmental and personal factors. This is a physiological-psychological-social model, based on a combination of social and interventional models.

The International Classification of Functioning, Disability, and Health (ICF) model and its components: The model establishes the three levels of human functioning: (1) at the level of body/body structures with functions domain, (2) the person's activities domain, and (3) participation domain/ (considered in a social context). In this classification, disability implies a certain degree of dysfunction at one or more of these same levels: impairments, activity limitations, and participation restrictions, respectively. It also includes additional information on personal and environmental factors.

The ICF model (Figure 1), it shows that individual children with developmental disorders are influenced by factors affecting the children themselves (personal characteristics, psychological state, ability, personal needs, etc.). Particularly, factors from the family, school, and social environment (not having enough favorable and safe conditions to protect children).

2.1.1. Environmental factors

Secondary disabilities may arise from improper parenting situations or abuse, abuse, or neglect of a child with a disability.

In practice, abuse and ill-treatment are defined by most professionals based on government law. However, the laws in each country are often very different and therefore do not provide a satisfactory definition for all cases. The World Health Organization (WHO) definition of child abuse (abuse/maltreatment) 2006 notes the following: All forms of emotional or physical abuse, sexual abuse, neglect or neglect or commercial exploitation or exploitation that result in harm or are likely to result in harm to the health, survival, development or dignity of the child in a context where responsibility, trust, or power are involved" (WHO, 2016) [7].

Types of abuse classified by Barnett, Manly, and Cicchetti (1993) include Physical abuse (e.g. beating, burning, punching, kicking, etc.) and sexual abuse (such as fondling, sex, exposure to sexual acts, involvement in pornography), neglect (failure to provide basic needs for food, care and protection of the child) or lack of supervision (disregard for young children, or leaving the child in the care of an untrustworthy person), psychologically or emotionally abusive

(withholding the child's emotional safety needs, not accepting the child, or not allowing the child to be independent, mocking the child, terrorizing the child or controlling the child excessively) [8], [9]. Different types of abuse can have different effects on a child's development. In studying the differences between children experiencing different forms of neglect, as well as comparing children with and without a history of neglect early in their family upbringing, it was found that: Early abandonment is prone to cognitive, language, and behavioral impairments, as well as behavioral and neurodevelopmental assessments, are required to identify children in need of intervention and a rich environment that can foster promote resilience [9]. The results of a study in Japan on child abuse by parents show that: First-born children's developmental difficulties are significantly associated with their mother's harsh punishment. Mothers need to understand their child's developmental behavior and provide an environment conducive to nurturing young children [10].

Research by the authors Sullivan, P.M., and Knutson, J.F. on the relationship between children with disabilities and abuse shows that: Compared with children without disabilities, the risk of children with disabilities being abused is three times higher than that of children without disabilities. Children with disabilities are 3.79 times more likely to be physically abused, 3.1 times more likely to be sexually abused, and 3.76 times more likely to be abandoned than children without disabilities [11]. It is likely that the actual number is higher due to the difficulty of communicating with children and the reliability of reports from children who are victims.

Research on family upbringing shows that: Compared with children without disabilities, the number of children with developmental disabilities is about 10 times more likely to receive inappropriate parenting [12]. Research in the social context shows that: Children most at risk of abuse are those with difficulties or special needs. Children with disabilities are almost twice as likely to be physically abused. Children with behavioral disorders such as oppositional defiant disorder are also at increased risk of physical abuse. Children with developmental and behavioral challenges can cause a lot of trouble for their parents, which increases the difficulty in the child - which in turn puts more stress on the parents, and this vicious cycle eventually leads to violence [13].

The link between brain development and child abuse shows that: Brain science medical imaging studies have shown the possibility that inappropriate parenting (abuse) such as corporal punishment, verbal abuse, and marital quarrels... can cause serious damage to the brains of children. It has also been found that it leads to problematic behavior and severely worsens parent-child relationships [14].

Brain scientist and clinician Akemi Tomoda (Professor, Research Center for Child Mental Development, Fukui University) worked alongside Harvard University to investigate the effects of abuse on the brain: Among them, 1,500 former abusers who were subjected to specific acts such as "corporal punishment" and "abusive language" were selected. After imaging and analyzing brain images using MRI and comparing them with the brains of people without abuse, it was found that some parts of the brain were malformed such as "atrophy" and "hypertrophy". Examples: Neglect, corporal punishment, verbal abuse, and neglect of childcare damage children's brains. On average, the prefrontal cortex, the part of the brain responsible for reasoning, atrophied by an average of 19% in the physically abused group (with severe bruising) over an average of eight years. In addition, the group that regularly witnessed violent parental fights showed an average of 6.1% atrophy of the visual cortex, located above the ear. Visual memory and learning ability may be negatively affected. In the group with repeated verbal abuse by parents, it was found that part of the auditory cortex was enlarged by an average of 14%, and when the auditory cortex was enlarged, neurotransmission efficiency decreased, and the ability to language comprehension, especially vocabulary comprehension, declines [14].

Brain injury research on the ability to repair/recover from brain injuries due to psychological causes has shown results and this has provided educators with suggestions for helping the brain recover. of the brain after trauma and abuse [14].

- Barriers to the learning environment:

When children with developmental disorders often have difficulty controlling behavior, and do not interact and socialize … they are at risk of falling into situations that cause other people to yell at them, classmates not to play with them, and children with disabilities do not know how to play ... and if this situation repeats many times, it can lead to psychological problems such as anxiety, adaptive behavior disorder, depression ... in children and often when children drop out of school it is time children already have these mental disorders themselves.

The survey results of the Japanese Ministry of Education and Science in 2014 on children attending inclusive classes in Japan show that: Children with disabilities tend to choose special schools when they go to middle school and high school. For children with mild intellectual disabilities, and children with developmental disabilities who transferred to special schools, most of them dropped out, broke the law, were bullied, and experienced failures and insults. Poor adaptation status due to bullying, yelling and mistreatment is currently a significant social barrier to inclusive education for children with developmental disorders [15].

2.1.2. Effects of characteristics of children with developmental disabilities

Secondary disabilities are more likely to occur in children with autism spectrum disorders, attention deficit hyperactivity disorders, and learning difficulties because these children often have specific difficulties in social interaction, communication and stereotyped behaviors, specific difficulties in behavioral control and concentration of attention, etc. When these difficulties are present, children are at risk of being scolded by others, which can lead to psychological problems such as anxiety, adaptive behavior disorders, and dropping out of school. When children drop out of school, children already have these disorders.

Each child also has its own personality traits, so the changing state of mind of the child leading to abnormalities in social interaction, behavior, and psychological disorders is different.

- Examples of research showing "f*ailure circle"* in children with developmental disorders:

Author Peter Westwood has analyzed the circles of reading failure and the circle of interaction failure in children with developmental disorders to show the progression of successive "spirals" of difficulties. progressively in children with developmental disorders [16].

Failure circle of reading: Children with learning disabilities have difficulties in reading that make them not like to read children will find opportunities to avoid (evade reading or stop reading), and when children do not practice reading skills, children will not make progress in reading… At that time, parents and people around, teachers may scold children and children will develop negative thoughts about parents, teachers, and people around the same "all day scolding" and children will have a grudge against parents, teachers, friends and hate reading, gradually leading to alienation from reading and not reading anymore, eventually children will feel worthless about themselves.

Failure circle of interactive relationship: When children have difficulties in establishing and maintaining interactive relationships, social communication leads to children having difficulty making friends and children not making friends anymore, children tend to avoid relationships with friends and often work alone in class, as a result, children have few friends, they tend to be constantly criticized by teachers and peers. After that, children will have feelings of hatred for teachers and friends and hate even having to interact with others, children will have feelings of hating teachers and friends and even having to interact with others, eventually,

they will have false beliefs about their own abilities as someone who can't make friends and can't interact with others. interact with others or think of themselves as useless.

These circles of difficulty occur one after the other, so children with developmental disorders are supported as quickly as possible to avoid the next step of development.

Summary:

The temperament of each person is only the initial premise for development, and the decisive factor right from the first months of life is the influence of the early education environment on children. Therefore, it is extremely important to create favorable initial conditions such as knowing how to get ahead and organizing early education to ensure that physical and psychological potentials are fully developed.

It can be generalized that the core causes of secondary disability problems lie in two groups of causes, which are: 1) adverse causes from the adverse environment (the family, school, and social environment) causing psychological difficulties for children in learning, living, playing, communicating and participating in activities...; and 2) the causes of the child's own characteristics (character, psychological states, and difficulties in performing functions caused by forms of developmental disabilities) (Figure 2).
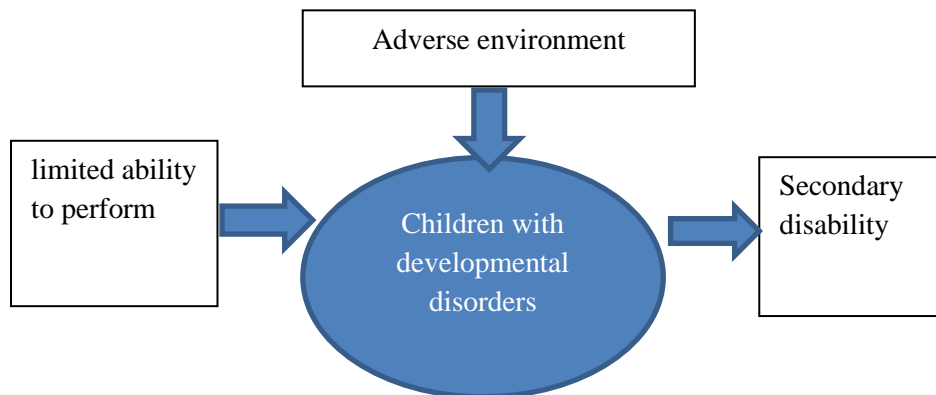
Figure 2. Secondary disabilities in children with developmental disorders

2.2. Problems of secondary disability in children with developmental disorders

Syndromes that may be accompanied by developmental disorders such as Abnormal sensations (hyperesthesia or sensory hypersensitivity, hypoesthesia/reduced sensory sensitization), problems with health, physical disorders, movement disorders…

Thus, from manifestations that are problem groups in children with developmental disorders, it can lead to secondary disorders/secondary disabilities in children such as Adaptive disorders, behavioral disorders, identity disorders, anxiety disorders, somatic disorders, personality disorders, and schizophrenia… Most of these are secondary disorders caused by post-stress trauma. Statistical research shows that many people with autism spectrum disorders have psychiatric symptoms that are not diagnosed with an autism spectrum disorder. About 70% of people with autism spectrum disorders have one comorbid psychological disorder and 40% have two or more disorders, especially anxiety disorders and obsessive disorders are quite common [17].

There are mainly two groups of problems in recognizing the signs of children with developmental disabilities with secondary disabilities, namely: Self-awareness and behavioral problems.

Self-awareness problems: Decreased self-confidence, negative self-image (decreased self-esteem); Distrust of others, insecurity, fear, depression, obsessive-compulsive disorder; There are symptoms of not self-regulating (pulling one's own hair, self-harming, physical problems such as spontaneous abdominal pain/headache with no cause, etc.); Emotional instability, flashbacks...

Behavioral problems: Hurting others or hurting yourself, running away, protesting; Theft, destruction of property; Stubborn attitude; Drop out of school, don't go to school; Being bullied…

Children with developmental disorders often have high levels of stress because the developmental disorders themselves put pressure on the environment, plus the adverse environmental conditions put the child at risk of falling into stress. If the environment is well arranged, the risk of the child having syndromes of secondary disabilities is reduced.

2.3. Prevention of secondary disabilities

- Secondary disabilities in children with developmental disorders are referred to as mental disorders and behavioral complications, which appear as a result of the primary disorder/damage. Therefore, this article will address the concept of prevention in the mental health field of public health. The goal of prevention is to prevent or moderate major human dysfunctions. It involves eliminating or minimizing the causes of the disorders.

Prevention has been conceptualized to include one or more of the following characteristics: (1) Preventing a problematic behavior (so that the problematic behavior does not occur); (2) Delay the chain of problematic behavior; (3) Reducing the impact of problem behavior; (4) Raising awareness, attitudes and behaviors to promote mental and physical health; (5) Promote policies within institutions, communities, and governments that promote the physical, social, and emotional well-being of communities (Romano & Hage, 2000) [18].

- The concept of secondary disability prevention in the education of children with developmental disorders can be understood as the process of early, timely and reasonable educational attention to prevent risk factors that may delay the development process. Children's development or may cause the appearance of imbalanced factors or psychological disorders or accelerate the process of physical and mental development, creating favorable premises for the next stages of development.

2.4. Proposed measures to prevent secondary disabilities in children with developmental disorders

Secondary disabilities appear in children with developmental disorders as a result of limitations from environmental factors and personal characteristics. Therefore, in order to prevent secondary defects in children with developmental disorders, it is necessary to take measures to adjust or change the environment as well as guide and practice the development of adaptive skills for children with developmental disorders.

The proposed section on the prevention of secondary disabilities in children with developmental disorders is mainly intended for teachers and families or caregivers of children.

- Measures to prevent secondary disabilities through environmental change:

The children's outward behaviors are understood to be caused by problems caused by the difficulties and unmet needs of the child hidden inside (like an iceberg that we can't see). Therefore, when children exhibit inappropriate behavior as secondary disorders, teachers, families, and caregivers need to find out: When and where the behavior occurs, the activities in which the behavior occurs, the motivation/purpose for performing the behavior, the ways of interacting with the people around and why the people around have such a reaction… From this

understanding we will know the rules of behaviors, causes, and positive and negative effects of the ways of interacting with people around... in order to make adjustments from the environment's impact on children through appropriate, motivating, and self-confident behavior for children with developmental disorders.

Adjusting the activity context, time of activities, and interaction from people around to suit the characteristics, abilities, and needs of children with developmental disorders will have an impact on helping to prevent problems. behavioral disorders as well as mental disorders appear in children.

For the family: Family members need to have a consensus in understanding the child's difficulties and problems, and a consensus on how to interact with children with developmental disorders. Avoid behaviors or contexts of abuse, violence, and punishment that can directly or indirectly affect psychological insecurity or cause trauma to children with developmental disorders.

For schools and teachers: Schools and teachers need to make environmental changes (including physical and psychological environments) in identifying possible sources of stress for children. Depending on the level and cause of stress for the child, there is synchronous coordination with those around the child in adjusting to the impact environment.

Both families and schools need to increase the initiative for children with developmental disorders through the formation of a sense of personal self-esteem and autonomy in action decisions. Example: Understanding and reducing barriers in learning, living, and play environments to ensure children with developmental disorders are successful in performing tasks.

- Measures to prevent secondary disabilities for children with developmental disorders through the formation or improvement of skills for children:

+ Difficulties in children with developmental disorders should be explored in order to provide appropriate educational services and preventive interventions. Teachers and caregivers need to pay attention to the specific limiting skills in children with developmental disorders, such as learning skills, communication, social interaction, and especially emotional skills.

+ Educational interventions will help form appropriate skills and behaviors and this will help reduce the need for inappropriate behaviors in children, reduce problems children face in daily life, learning, playing, and help children with developmental disorders integrate, and adapt to the learning and living environment better (minimizing the occurrence of uncontrolled behaviors that prevent children with developmental disorders from integrating into the environment).

+ Each child with a developmental disorder will have unique needs and abilities (although the behaviors shown in children may be similar). As the response to each child's abilities and needs will be different, each child will need an intervention plan that is tailored to their individual needs. Depending on the characteristics of each child, family background, living situation, and support resources, there are options for appropriate coordination and impact.

3. Conclusion

Prevention of secondary disabilities is extremely important in minimizing the effects of primary disabilities on a child's development.

Children with developmental disorders who have special needs need to be helped to have a reasonable environment in learning, living, and playing. Adjust the appropriate social interaction environment to ensure psychological safety and confidence for children with developmental disorders. Meeting the right needs will contribute to protecting mental health and preventing secondary disabilities for children with developmental disorders.

Children with developmental disorders need to be provided with and trained in their limited skills. Tasks assigned to children with developmental disorders should be adjusted to suit the unique abilities and needs of each child. This will help to prevent the child from progressing through the failure circle.

Children with developmental disorders are vulnerable groups. Children are at risk of being bullied and are prone to psychological trauma.

Secondary psychological trauma in children with developmental disorders can be reversed through a safe environment, especially daily interactions that help children feel safe, and secure and increase their self-esteem.

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