



Research on Kindergarten Children with Disorders Development and Teacher's Supporting (Research at Da Nang city and Quang Ngai province, Viet Nam)

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Abstract:- *Developmental disorders in kindergarten children comprise a group of psychiatric conditions originating in childhood that involve serious impairment in different areas. The narrowest concept is used in the category "Specific Disorders of Psychological Development" in the ICD-10. Developmental disorders make influence physical, intellectual, psychological, behavioral, and language disorders in children. If kindergarten teacher knows the characteristics of children, they can support children better. In our research with 413 kindergarten teachers in Da Nang and Quang Ngai, there are 76.5% of teachers can realize the characteristics of kindergarten children with developmental disorders. This is the result of the project «Improve the capacity to realize characteristics of autism spectrum disorders for kindergarten teachers in Da Nang city», code T2017-03-07. Based on the results of the research, we propose training programs for kindergarten teachers on characteristics/ identifying children with developmental disorders and ways of supporting/ educating them in the coming time.*

Keywords: Developmental Disorders; Children, Kindergarten Children ; Characteristics of Developmental Disorders; Kindergarten Teachers; Supporting

Introduction

Developmental disorders are better called neurodevelopmental disorders. Neurodevelopmental disorders are neurologically-based conditions that can interfere with the acquisition, retention, or application of specific skills or sets of information. They may involve dysfunction in attention, memory, perception, language, problem-solving, or social interaction. These disorders may be mild and easily manageable with behavioral and educational interventions, or they may be more severe, and affected children may require more support. Neurodevelopmental disorders include (1) Attention-deficit/hyperactivity disorder/ (2) Autism spectrum disorders/ (3) Learning disabilities, such as dyslexia and impairments in other academic areas/ (4) Intellectual disability, Buckley SJ. (2000); Carver CS, Scheier ME (1981); (American Psychiatric Association, APA - 2013).

Goldberg, M. R., Dill, C. A., Shin, J. Y., Nguyen, V. N. (2009), stated that: On appearance, children with autism spectrum disorders and children Normally, there is no difference, except communication, interaction, behavior, and learning. Scahill, L., & Schwab-Stone, M. (2000): Autistic children's learning, thinking and problem-solving abilities can range from very talented to difficult. Volkmar FR, Paul R., Klin A., Cohen D. (2005): Autism disorder, nonspecific diffuse developmental disorder (PDD-NOS), and Asperger's syndrome - both referred to as autism century.

Segen Joseph, C. (2006) showed more trafficked boys than girls. The prevalence of developmental disorders is increasing in kindergarten children age, with the prevalence of 7% -13% of kindergarten children diagnosed with developmental disorders (DSM-5, Karmiloff, Annette, et al., 2011; Payne, Kim John, et al., 2010). Szatmari, P., Offord, D. R., Boyle, M. H. (1989); According to Karmiloff, Annette et al (2011); Payne, Kim John, et al (2010) has about 7% - 13% of school-age children diagnosed with developmental disorders, including autism. Segen Joseph, C. (2006) is more likely to manifest in boys than girls. According to data from the Center for Federal Disease Control of the United States (2012), 1 in 88 children in the US is currently diagnosed with an autism spectrum disorder. Searight, R. (2001) Children with autism spectrum can be diagnosed according to DSM-5 (2013) including 3 items: A, B, C; test CARS; PEP test 3 - R. ...



There is no single cause of autism, but it is generally accepted that autism is caused by abnormal brain structure or abnormal brain function. Brain CT scan showed some abnormalities in the shape and structure of the brain of autistic children compared to normal children.

Macey, K. D. (2005 a) - There are several causes of autism: Genetics; The environment before childbirth; Maternal infection; Diabetes mellitus; Teratogenicity factors; Pesticides; Thyroid problems; Folic acid; Stress; Male sexual hormones of the fetus; Ultrasound ... and other causes. Polanczyk, G., de Lima, M. S., Horta, B. L., Biederman, J., Rohde, L. A. (2007);

In Vietnam, autism syndrome has only been concerned for about 15 years. Before that, it was only mentioned in theory, there was no research and treatment. The first place to study and treat children was the Center for N-T psychology of doctor Nguyen Khac Vien (1913 - 1997). In the 1990s, the N-T Psychological Center organized many seminars; Child therapy according to the method of psychological analysis (Psychoanalysis), with the support of French psychologists, Le Thi Phi (2018); Nguyen Thi Hang Phuong (2018); Le My Dung (2020)

Research and therapy for autistic children in Vietnam developed and expanded in the early years of the 21st century. Psychiatric departments of some Vietnamese hospitals began to report and research on autism syndrome only (especially in Hanoi and Ho Chi Minh City). Autistic children started to receive treatment with special education methods at the care and education centers for children with disabilities in special education schools in provinces and cities across the country.

Some authors and research products on autism such as Le Khanh (2006) had a book "The unhappy angels". Author Vo Nguyen Tinh Van (2002): Raising an autistic child, To understand autism; Autism and therapy. All three books have been published in New South Wales, Australia (The Vietnamese Parent Support Group With Disabled Children in NSW). Some other books such as: To understand autism (2002), Raising children with autism (2002); Autism and Therapy, (2006). author GS. Nguyen Van Thanh publishes 3 books: Children holding themselves, methods of education and teaching, (2006). Autism risk from 0 to 7 years old, (2006); Promote social relations in the education of autistic children (2007) - Vu Van Thuan, Chan Van Cong (2014). Some studies have been published, Nguyen Minh Tien (2003) with the topic Autism Disorders in Children; BS. Le Quoc Mai Anh (2005) with the topic of Autism Disorder. Author, doctor Quach Thuy Minh, and colleagues at the Psychiatric Department of Central Pediatric Hospital; Ngo Xuan Diep researched the situation of autistic children,

Research by Vu Thi Minh Huong and Tran Van Cong, Current situation of autism diagnosis at Phuc Tue Center for Care and Education for Children with Disabilities, Hanoi. Dr. La Thi Bui - Tu Na Clinic center, Hanoi: Assessment and management of autism spectrum in community mental health care model - Nguyen Thi Hang Phuong (2018); To Thi Quyen (2018).

The above studies are only on a small scale, partly reflecting the development of the autism spectrum in Vietnam. Almost the intervention part still has many limitations. Therefore, the issue needs to have a more elaborate, in-depth study that reflects more fully children with autism spectrum in Vietnam. The National Institute of Mental Health (NIMH)-Viet Nam

The article describes the incidence of developmental disorders in Da Nang and Quang Nam, Viet Nam, and its support for kindergarten children. Developmental disorders comprise a group of psychiatric conditions originating in childhood that involve serious impairment in different areas. There are several ways of using this term. The most narrow concept is used in the category "Specific Disorders of Psychological Development" in the ICD-10. (American Psychiatric Association (APA), 2013). Scruggs, T. E., Mastropieri, M. A. (1996), Searight, R. (2001).



The International Classification of Diseases is the international "standard diagnostic tool for epidemiology, health management, and clinical purposes" (ICD 10). Pervasive and specific developmental disorders F80-F89.

F80 Specific developmental disorders of speech and language

F81 Specific developmental disorders of scholastic skills

F82 Specific developmental disorder of motor function

F84 Pervasive developmental disorders

F88 Other disorders of psychological development

F89 Unspecified disorder of psychological development

Description of developmental disorders

The term "developmental disorder" or "developmental disability" means a severe, chronic disability of an individual that: is attributable to mental or physical impairment, or a combination of mental and physical impairment, is manifested before the individual attains the age of 22, is likely to continue indefinitely

Results in substantial functional limitations in three or more of the following areas of major life activity: self-care/ receptive and expressive language/ learning/ mobility/ self-direction/ capacity for independent living/ economic self-sufficiency/ reflects the individual's need for a combination and sequence of special, interdisciplinary, or generic services, individualized support or other forms of assistance that are of lifelong or of extended duration and are individually planned and coordinated. Scahill, L., & Schwab-Stone, M. (2000); Scruggs, T. E., Mastropieri, M. A. (1996),

Materials and Methods

Researchers: 413 kindergarten teachers from Da Nang and Quang Nam, Viet Nam at 35 schools. There are 11.62% teachers at intermediate; 48.91% teachers at college degree; 38.26% teachers at university degree; 1.21% masters. And there are 98.7% of teachers are women, 1.3% of teachers are the man. There are 71.19% of teachers at Da Nang and 28.81% teachers at Quang Ngai.

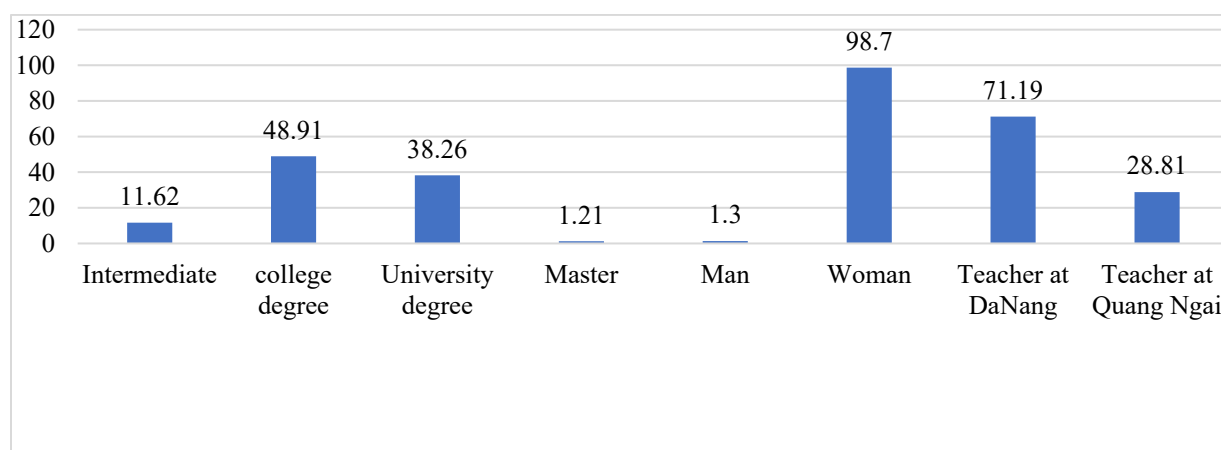


Chart 1: Researchers

Research methodology: We used the designed questionnaire with 45 questions about problems manifested in developmental disorders; Assessing the need for support; method supporting children; Advantages and disadvantages in supporting children.

[31]



Part 1: Understanding of kindergarten teachers about developmental disorders
Part 2: Manifested developmental disorders at children
Part 3: Supportive measures for children with developmental disorders and practices supporting children with developmental disorders
SPSS 22.0 is used to analyze the data collected.

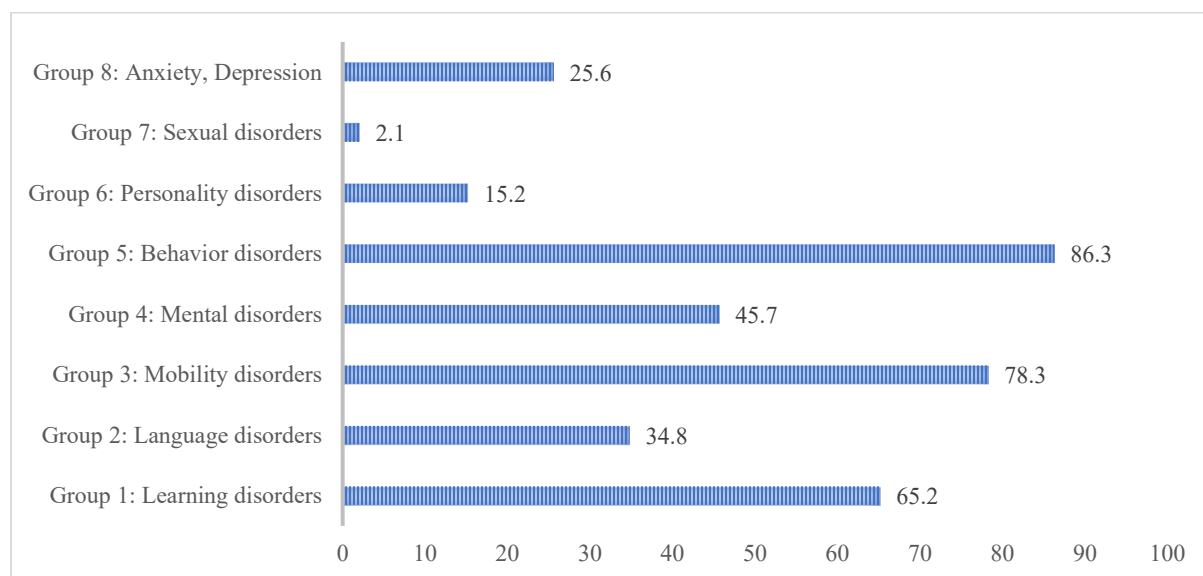
Results

Understanding of kindergarten teachers about developmental disorders

In research we choice 8 groups in developmental disorders, they are learning; language; mobility; mental; behavior; personality; sexual; anxiety, depression. The result is:

There are 86.3% kindergarten teachers understanding about behavior disorders; 78.3% teachers understanding about mobility disorders; 65.2% understanding about learning disorders;

Table 1: Understanding of kindergarten teachers (%)



This result shows that kindergarten teachers have an understanding of developmental disorders children, special behavior disorders, and mobility disorders because they are disorders easy for observing. When kindergarten teachers understand the problem of children, they can ask themself about the way for helping.

Manifested developmental disorders at children

We have questions for knowing how manifestation developmental disorders in children. The result shows that: The manifestation in group Personality disorders is the most important, with mean = 3.33.

The manifestations are Suspicious–paranoid; schizoid; schizotypal and antisocial; Emotional and impulsive-borderline, histrionic and narcissistic; Anxious-avoidant, dependent, and obsessive-compulsive.

The second manifestation is group Learning disorders-(The children will have difficulty with reading and/or writing; Problems with math skills; Difficulty remembering; Problems paying



attention; Trouble following directions; Poor coordination; Difficulty with concepts related to time). It takes mean = 3.25/4.

Table 2: Teachers can know about manifestation developmental disorders in children

Manifestations of children	Analyse (%)						SD
	Never	Rarely	Some times	Always	Mean	Level	
Group 1: Learning disorders Difficulty with reading and/or writing. Problems with math skills. Difficulty remembering. Problems paying attention. Trouble following directions. Poor coordination. Difficulty with concepts related to time. Problems staying organized.	1.6	10.8	48.6	38.9	3.25	3	.309
Group 2: Language disorders Struggles to say sounds or words (stuttering) Repetition of words or parts of words (stuttering) Speaks in short, fragmented phrases (expressive aphasia) Says words in the wrong order (expressive aphasia) Struggles with using words and understanding others (global aphasia)	2.2	5.9	49.2	42.7	3.32	2	.485
Group 3: Mobility disorders Difficult in movement, late for movement	4.9	7	53.5	34.6	3.18	5	.462
Group 4: Body disorders Sleep disturbance Eating disturbance...	7	8.6	42.8	41.6	3.19	4	.332
Group 5: Behavior disorders attention deficit hyperactivity disorder (ADHD) oppositional defiant disorder (ODD) autism spectrum disorder (ASD) anxiety disorder. depression. bipolar disorder. learning disorders. conduct disorders.	3.8	4.9	53.5	37.8	3.25	3	.318
Group 6: Personality disorders Suspicious-paranoid, schizoid, schizotypal, and antisocial. Emotional and impulsive-borderline, histrionic, and narcissistic. Anxious-avoidant, dependent, and obsessive-compulsive.	3.2	3.2	50.3	43.2	3.33	1	.396
Group 7: Sexual disorders	14.5	16.1	52	17.4	2.72	6	.218



Manifestations of children	Analyse (%)						SD
	Never	Rarely	Some times	Always	Mean	Level	
Behave like the opposite sex							
Group 8: Anxiety Disorders. Mood Disorders. Schizophrenia/Psychotic Disorders. Dementias. Eating Disorders.	10.1	46.4	27.5	15.9	2.45	7	.326

Supportive measures for children with developmental disorders

There are many educational support methods for children with developmental disorders. Kindergarten teachers can use one of many therapy methods to teach children with developmental disorders. Educational support includes:

Applied Behavior Analysis (ABA): The ABA teacher observes the behavior of a person with developmental disorders and then provides instructions on any necessary missing skills. The teachers teach by providing concise instruction and rewarding a correct response. The reward system encourages positive behavior.

TEACCH: TEACCH is a structured teaching method that provides an organized school environment with a strict schedule, visual teaching methods, and short, clear instructions. TEACCH programs can easily be personalized.

Sensory Integration Therapy: Teachers can use sensory integration therapy to help children with autism who have repetitive behavior or sensory issues. The therapy can help some children develop language skills, especially with Tomatis vocal exercises.

Developmental, Individual Difference Floor-time (DIR): Greenspan's DIR Floortime uses play to teach autistic children emotional engagement, how to connect ideas and focus attention as well as problem-solving and self-expression.

There are many measures in helping the children, from the role of kindergarten teachers, can use some measures follow.

- Promote self-awareness
- Improve muscle control
- Improved sensory processing
- Encourages communication
- Creates appropriate focus
- Very motivational
- Encourages self-regulation
- Behaviour and Equine Assisted support
- Support the parents

Our result shows that the first method is to ***“Promote self-awareness”*** in children. The teacher will be helping the children stronger, proactive in their activities, the mean is 2.92/4 points. The second measure is ***“Behavior and Equine Assisted support”***, it'll make the children more and more be stronger in life, the mean is 2.81.

The third measure is ***“Encourages communication”*** with a mean = 2.68. The teachers will encouragement, praise children in every activity every day.



Table 4: Method helping children with developmental disorders

Method helping children	Mean	SD
Promote self-awareness	2.92	0.35
Improve muscle control	2.51	0.34
Improved sensory processing	2.45	0.35
Encourages communication	2.68	0.31
Creates appropriate focus	2.34	0.32
Very motivational	2.57	0.35
Encourages self-regulation	2.28	0.39
Behavior and Equine Assisted support	2.81	0.42
Support the parents	2.13	0.35

Conclusion and Discussion

Research around the world shows that, now a day, more and more children have a special need, and have developmental disorders. The Kindergarten teachers must understand this situation and Suggested solutions to support children with developmental disorders are:

1. Kindergarten teachers must be having more information about children with developmental disorders (trained/experienced / special way of teaching children)
2. At each Kindergarten, it must have special teachers for helping children with developmental disorders.
3. Social must have more education special center for helping children with developmental disorders and we should have special teachers for teaching the children.
4. There should be active cooperation between families and Kindergarten to better support children together.

The teachers and the parents should discussion about each child in their situation.

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References

- American Psychiatric Association (APA) (2013), *Diagnostic And Statistical Manual of Mental Disorders (DSM-5)*, Fifth Edition, published on May 18, 2013.
- Buckley SJ. (2000), *Speech, language and communication for individuals with Down syndrome - An overview*. Down Syndrome Issues and Information.
- Carver CS, Scheier ME (1981), *Attention and self-control: A control theory approach to human behavior*. New York: Springer-Verlag; 1981
- Goldberg, M. R., Dill, C. A., Shin, J. Y., & Nguyen, V. N. (2009), *Reliability and validity of the Vietnamese Vineland Adaptive Behavior Scales with preschool-age children*, Research in Developmental Disabilities 30 (2009) 592–602
- Le My Dung, Nguyen Thi Hang Phuong, Le Thi Thu Trang, Tran Thi My Ny, Nguyen Thi Nhung, & Phan Thi Loi (2020), *Application of dohsa-hou on a social parent of children with autism at Cadeaux Center - Da Nang, Vietnam*, Proceedings of The 1st International Conference on Education: Innovation and Development for Classrooms in The 21st Century (1st ICE 2020), UdonThani University, Thailand. ISBN 978-616-8097-11-3, pp.67-76.
- Le Thi Phi, & Nguyen Thi Hang Phuong (2018), *The reality of preschool teachers' awareness of the psychological characteristics of children with autism spectrum (Research in Da Nang city)*, Journal of Social Science Information. ISSN 0866-8647, p44-50
- Macey, K. D. (2005), *Attention-deficit/hyperactivity disorder: Teacher knowledge and referral for assessment* (Doctoral dissertation, Texas A&M University).
- Nguyen Thi Hang Phuong, & Le Thi Phi (2018), *Research on kindergarten children with disorders development and teacher's supporting (research at da nang city and Quang Ngai province)*, Proceedings of The 7th International Conference on Sciences and Social Sciences "Innovative Research for Stability, Prosperity, and Sustainability" Date: 11 - 12 January 2018, Rajabhat Maha Sarakham University, Thailand. pp. 42-51.
- Polanczyk, G., de Lima, M. S., Horta, B. L., Biederman, J., & Rohde, L. A. (2007), *The worldwide prevalence of ADHD: a systematic review and metaregression analysis*, The American journal of psychiatry, 164, 6, 942-948.
- Scahill, L., & Schwab-Stone, M. (2000), *Epidemiology of ADHD in school-age children*, Child and adolescent psychiatric clinics of North America.
- Scruggs, T. E., & Mastropieri, M. A. (1996), *Teacher perceptions of mainstreaming/inclusion, 1958–1995: A research synthesis*, Exceptional children, 63, 1, pp. 59-74.
- Searight, R. (2001), *Conduct Disorder: Diagnosis and Treatment in Primary Care*. American Family Physician, April 15, 1579-1589.
- Szatmari, P., Offord, D. R., & Boyle, M. H. (1989), *Ontario Child Health Study: prevalence of attention deficit disorder with hyperactivity*, Journal of Child Psychology and Psychiatry, 30, 2, 219-223.
- The National Institute of Mental Health (NIMH) is part of the National Institutes of Health (NIH), a component of the U.S. Department of Health and Human Services. <http://www.nimh.nih.gov>.
- To Thi Quyen, Bui Van Van, & Nguyen Thi Hang Phuong (2018), *Kindergarten teachers' measures in inclusive education for children with developmental disorders (research in Da Nang city)*, Journal of Educational Science, pp15-25 (In Vietnamese).
- Vu Van Thuan & Tran Van Cong (2014), *Attitudes of preschool teachers in Hanoi on autism spectrum disorders*, Proceedings of the national scientific seminar "Mental health in schools", VNU Publishing House. HCM, ISBN: 978-604-73-2638-9. pp. 486-496 (In Vietnamese).