BMH MEDICAL JOURNAL

BMH Med. J. 2018;5(1):27-31 **Brief Review**

Developmental Disorders in Children – Importance of Parent Training Interventions

Beena Johnson

Baby Memorial Hospital, Kozhikode, Kerala, India. PIN: 673004

Address for Correspondence: Dr. Beena Johnson, Developmental Paediatrician & Senior Consultant in Child Guidance, Baby Memorial Hospital, Kozhikode, Kerala, India. Email: jiacam@gmail.com

Abstract

Childhood developmental disorders cause significant negative impact on the physical, intellectual and social-emotional development of an individual. Developmental disorders are common in pediatric practice and these children are more likely to have comorbid behavioral disorders than their typically developing counterparts. They are also at greater risk for academic stress due to scholastic backwardness. Intellectual developmental disorders, communication disorders, autism spectrum disorder and specific learning disorder are the common developmental disorders seen in children. The key interventions for the management of developmental disorders in children are parent training interventions. Early parent training interventions are essential for the reduction in the global prevalence and burden of childhood developmental disorders.

Keywords: Developmental disorders, Children, Parent training interventions

Introduction

Childhood developmental disorders include a wide range of conditions that impair the child's physical, intellectual, social and emotional development. These disorders cause significant health burden globally. Children with delay in the developmental milestones in one or more streams of development are commonly seen in pediatric practice. Children with developmental delay will have impairments in any or all of the following major domains of development: expressive and receptive language development, motor development, self-help skills development and social-emotional high risk for developing development. These children are at internalizing and externalizing behavioral problems, which in turn will aggravate the functional difficulties [1]. The behavior problems will have significant negative impact on the child and the caregivers and hence early intervention is essential [2]. The key interventions for reducing and managing developmental disorders in childhood are parent training interventions. Randomized controlled trial was conducted by LL McIntyre, to evaluate parent training intervention for caregivers of preschool-age children with developmental disabilities. The results suggested that parent training intervention was effective in the management of these children [3].

Developmental Disorders in Children

The common developmental disorders in children are the following:

1. Intellectual Developmental Disorders

The general population prevalence of intellectual developmental disorders is 1%. The intellectual developmental disorders are characterized by deficits in reasoning, planning and abstract thinking. The problem solving skill, scholastic skills as well as the ability to learn from experience are also defective in children with intellectual developmental disorder. These defects will lead to impairment in adaptive functioning. The adaptive reasoning in the academic, social and practical domains will be defective. They will not have the ability for personal independence and they cannot take social responsibilities in the proper way. Children with global developmental delay will have deficits in the developmental milestones in several areas of intellectual functioning. The severity levels for intellectual disability can be mild, moderate, severe or profound. Family interactions are important for children with intellectual developmental disorders, in order to develop appropriate social behaviors [4].

2. Communication Disorders

Communication disorders begin early in life and include language disorder, social communication disorder and speech sound disorder. These children will have deficits in the development of language, speech and social communication. Stuttering is also a communication disorder, characterized by disturbances in the normal fluency and motor production of speech. Children with communication disorders usually have academic failure and they are also at increased risk for isolation and ridicule by peer group. This in turn leads to social and emotional problems [5]. The most critical period for language development is early childhood and hence communication disorders should be diagnosed early. The interventions should be started as early as possible to prevent significant morbidity in the future [6].

3. Autism Spectrum disorder

Autism spectrum disorder (ASD) is one of the severe developmental disorders affecting social and communication skills. Children with these disorders will have significant defects and persistent impairment in social communication and social interaction. The deficits in language include complete lack of speech, language delay or poor comprehension of speech. Reciprocal social interaction is poor. Non-verbal communication is also defective. These children have restricted, repetitive, stereotyped patterns of behavior. The symptoms are usually seen during second year of life. In some children, the symptoms can be recognized even before twelve months of age. The neuroplasticity in young children emphasizes the important role of very early intervention involving the parents in children with ASD. The interventions involving parents have been found to be effective in improving the social-communicative behaviours of young toddlers with autism spectrum disorder [7,8].

4. Specific Learning Disorder

Children with specific learning disorder have difficulties in using the academic skills. They have difficulty in reading words, difficulty in understanding the meaning of what is read, errors in spelling, errors in grammar, difficulty in mastering number facts or difficulties in mathematical reasoning. The academic skills are substantially below those expected for the age and significantly interfere with academic performance. The learning difficulties should persist for at least six months, in spite of providing the interventions for these academic difficulties. In order to diagnose specific learning disorder; the learning problem of the child should not be due to intellectual disability, uncorrected visual problem, uncorrected auditory problem, psychosocial problems or other

neurological disorders. Specific learning disorder can be mild, moderate or severe. Early diagnosis and individualized treatment plans are essential for remediation. Parental guidance is necessary both in the diagnosis and treatment processes [9]. Early interventions significantly improve the outcomes for children with specific learning disorder. The commitment and attitude of parents also have a very important influence in bringing out positive outcomes in children with learning disorders [10].

Parent Training Interventions

Parent training interventions enhance parent-child interactions and have significant role in fostering children's development. The programs generally include two approaches. Parents are taught the discrete skills to promote child development and they are also taught how to manage the behaviour problems. Parent training interventions are very effective for children with developmental disorders. World Health Organisation (WHO) has given public health priority for development disorders. Parents Skills Training (PST) is recommended by WHO as the key intervention for developmental disorders [11].

In the management of children with intellectual disorders, parent training interventions improve the intellectual abilities of children. These interventions are useful to prevent and reduce the associated behavioural problems of children as well as to reduce the parent stress [12]. Family-centered practice has significant role in management of communication disorders of children. Family-centered interventions are effective in providing optimal communication skills for the child in a positive and healthy family environment [13]. The results of parent delivered interventions based on applied behavior analysis for children with autism spectrum disorders are encouraging. These interventions are effective in improving the social and communication skills of children. Significant increase in eye contact, receptive and expressive language development as well as joint attention are seen after parent training intervention [14]. Training of specific skills for parents lead to positive changes in children with ASD less than seven years of age. The parent mediated early interventions improve the parent-child interactions, social skills and the communicative behaviour of the child [15,16]. The parent mediated reciprocal imitation training has significant positive impact in improving the social interaction of children with autism [17]. Parent training is also effective in the remedial intervention strategies for children with learning disorders. Results of the study by Gortmaker VJ et al demonstrated improvement in reading fluency after parent tutoring. Children and their parents found the interventions as acceptable and effective[18]. Behaviour problems are common among children with developmental disorders. Good parent-child interactions and reinforcement of good behaviors will lead to prosocial child behaviors. Parent training programmes are helpful for improving the behavioural adjustment of young children [19]. Improving parenting skills will definitely help in reducing the disruptive behaviors in toddlers [20].

Conclusion

Normal development during childhood is crucial for social, emotional, educational and vocational success of an individual. Childhood developmental disorders can cause severe long-term morbidity for the children, if not intervened at the earliest. The negative impact includes the individual suffering of children, as well as the emotional and economic burden on their families. In the management of developmental disorders of children, especially from birth to age three, parent training interventions have very important role. The associated behavioral problems can also be managed effectively through parent training programmes. Family-centered early interventions are effective in improving the motor skills, social skills, communication skills, self help skills and academic skills of children. The key interventions having the potential to reduce developmental disorders in childhood are parenting skills training. Hence parent training interventions are recommended to achieve significant reduction in the global burden of developmental disorders in children.

References

1. Petrenko CL. A Review of Intervention Programs to Prevent and Treat Behavioral Problems in Young Children with Developmental Disabilities. J Dev Phys Disabil. 2013 Dec 1;25(6).

2. McIntyre LL, Blacher J, Baker BL. The transition to school: Adaptation in young children with and without developmental delays. J Intellect Disabil Res. 2006;50:349-361.

3. LL McIntyre. Parent Training for Young Children With Developmental Disabilities: Randomized Controlled Trial. Am J Ment Retard. 2008 Sep; 113(5): 356-368.

4. Floyd FJ, Olsen DL. Family-Peer Linkages for Children with Intellectual Disability and Children with Learning Disabilities. J Appl Dev Psychol. 2017 Sep;52:203-211.

5. Bland LE. Identifying communication disorders in children. J Ky Med Assoc. 1996 May;94(5):197-201.

6. Ruben RJ. Communication disorders in children: a challenge for health care. Prev Med. 1993 Jul;22(4):585-8.7. Vismara LA, Rogers SJ. The early start denver model: a case study of an innovative practice. J Early Interv. 2008; 31:91–108.

8. Rogers SJ, Vismara LA. Evidence-based comprehensive treatments for early autism. J Clin Child Adolesc Psychol. 2008; 37:8–38.

9. Lagae L. Learning disabilities: definitions, epidemiology, diagnosis, and intervention strategies. Pediatr Clin North Am. 2008 Dec;55(6):1259-68.

10. Pratt HD, Patel DR. Learning disorders in children and adolescents. Prim Care. 2007 Jun;34(2):361-74.

11. Hamdani SU, Akhtar P, Zill-E-Huma, Nazir H, Minhas FA, Sikander S, Wang D, Servilli C, Rahman A. WHO Parents Skills Training (PST) programme for children with developmental disorders and delays delivered by Family Volunteers in rural Pakistan: study protocol for effectiveness implementation hybrid cluster randomized controlled trial. Glob Ment Health (Camb). 2017 Jun 13;4:e11.

12. Neece CL, Lima EJ. Interventions for Parents of People with Intellectual Disabilities. Curr Dev Disord Rep. 2016; 3:124-128.

13. Rini DL, Whitney GA. Family-centered practice for children with communication disorders. Child Adolesc Psychiatr Clin N Am. 1999 Jan;8(1):153-74.

14. Beaudoin AJ, Sebire G, Couture M. Parent Training Interventions for Toddlers with Autism Spectrum Disorder. Autism Res Treat. 2014;2014:839890.

15. McConachie H, Diggle T. Parent implemented early intervention for young children with autism spectrum disorder: a systematic review. J Eval Clin Pract. 2007 Feb;13(1):120-9.

16. Parsons D, Cordier R, Vaz S, Lee HC. Parent-Mediated Intervention Training Delivered Remotely for Children With Autism Spectrum Disorder Living Outside of Urban Areas: Systematic Review. J Med Internet Res. 2017 Aug 14;19(8):e198.

Johnson B, "Developmental Disorders in Children"

17. Ingersoll B, Gergans S. The effect of a parent-implemented imitation intervention on spontaneous imitation skills in young children with autism. Res Dev Disabil. 2007 Mar-Apr;28(2):163-75.

18. Gortmaker VJ, Daly EJ 3rd, McCurdy M, Persampieri MJ, Hergenrader M. Improving reading outcomes for children with learning disabilities: using brief experimental analysis to develop parent-tutoring interventions. J Appl Behav Anal. 2007 Summer;40(2):203-21.

19. Barlow J, Bergman H, Kornør H, Wei Y, Bennett C. Group-based parent training programmes for improving emotional and behavioural adjustment in young children. Cochrane Database Syst Rev. 2016 Aug 1;(8):CD003680.

20. Perrin EC, Sheldrick RC, McMenamy JM, Henson BS, Carter AS. Improving parenting skills for families of young children in pediatric settings: a randomized clinical trial. JAMA Pediatr. 2014 Jan;168(1):16-24.