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Review Article

Developmental Process, Role of Play in Developmental Process, Developmental Delay, Effectiveness of Parent Child Interaction Therapy and Pride Skills: A Systemic Review

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ABSTRACT

Background: Every Child is unique: they grow, learn and develop in their own way based on their potency and weakness. Parent child interaction therapy is an intervention intention at parents and Children displaying externalizing behavior disorders. This study aim to determine the developmental delay in the children and role of parent child interaction therapy for improving the parenting and decreasing the behavior problem in the children.
Methods: A Pub Med, SCOPUS and Google scholar (2000-2016) literature review was undertaken to define the developmental process, role of play in childhood, developmental delay, effectiveness of parent child interaction therapy.
Results: We identified 28 relevant articles. The most frequently noted form of developmental delay, effectiveness of parent child interaction therapy.
Conclusions: This article bring to light the prevalence developmental delay, and their causes like genetic, excessive use of drug or too much consumption of alcohol during pregnancy, complications during pregnancy and prematurity or birth, child is suffered with any disease in infant period, brain injury, Encephalitis or brain trauma. And articles also gave evidence that use of parent child interaction therapy improve the parenting and decline the disruptive behavior of children.

Keywords: Developmental process, Developmental delay, parenting, child behavior, PCIT.

INTRODUCTION

Development is a lively process in which a young baby evolves and it is different for every child. Development means that child explores, learns and treads his way into adulthood. Children's skills are built up and combined to produce ever more sophisticated achievements such as playing, walking, problem-solving and communicating. The development rate in the early childhood years can be assessed, either through observation or by administering psychometric tools. Children strive to learn many things during these initial years and each one of them accomplishes these milestones according to their individual potential. [1]

Development in its broadest sense encompasses physical and mental growth that leads to anatomical, physiological and behavioral changes which occur throughout childhood. For most pediatricians, child development is associated with changes in children's ability to move around, perform fine movements with their hands, communicate effectively, learn new information, be independent in self-care and interact with others. [2]

Growth and development includes many stages which from conception till the

end of life. These stages are based on intellectual, physical, social, and emotional developmental of life maturity of child. [2]

The beginning years of life considered being an exclusive period of human development and parents assume special significance. Parents direct their young children from complete infantile reliance into the beginning stages of independence. Parent's care giving styles can have both immediate and lasting effects on children's social functioning in areas from moral development to peer play to academic achievement. [3]

Neuroscientist Jaak Panksepp found that play stimulates production of a protein, 'brain-derived neurotrophic factor', in the amygdala and the prefrontal cortex, which are responsible for organizing, monitoring, and planning for the future. In one study, two hours a day of play with objects produced changes in the brain weight and efficiency of experimental animals (Panksepp 2003, Rosenzweig 1976). [4]

A neuroscientist Jack found that play increase the production of a protein, brain derived neurotrophic factor in the amygdale and the prefrontal cortex which are responsible for monitoring, organizing and planning for the future. An experimental study shows that, two hours a day of play with objects produced changes in the brain weight. [4]

Play has many emotional-behavioral repayments. Play reduces fear, anxiety, irritability , stress, and creates joy, self-esteem and mastery, increases coolness, flexibility and adaptability and ability, improves emotional flexibility and openness, to deal with surprise and change, play can heal emotional disturbances also. [5]

Developmental delay is a state whereby child is not able to do the activity respective to the age. The delay can be obvious in some children, while it may be minimal in others. Under the area of development we considered the fine motor development it indicate how children manipulate objects by using their hands, gross motor development it shows how children move, speech and language development, how the children communicate with others, how effectively child understand and use language to interact socially and behave emotionally it represent intellectual/cognitive development of child. [6]

Behind this there are number of causes that are responsible for the developmental delay these causes are hereditary factors, genetic factors, or chromosomal abnormalities, pregnancy and birth factors e.g. excessive use of drug or too much consumption of alcohol during pregnancy, complications during pregnancy and prematurity or birth, child is suffered with any disease in infant period, brain injury, e.g. Encephalitis or brain trauma, and other environmental factors like of lack of support from family and parent may lead to social or language developmental delay, most of the causing factors are unknown. [7]

The developmental delay mainly alienated into two categories and these are transient developmental delay and persistent developmental delay. Transient delay can be seen in the premature babies and these premature babies may show delay in the some areas like sitting, walking, crawling and then their normal age. Prolonged hospitalization is also an anther cause of delay which is associated to physical illness, immaturity, family stress etc. on the other hand persistent developmental delay if the delay in development continue it is frequently related to troubles in one or more of the following areas: understanding, hearing, learning, moving, communication and seeing. To determine what all areas are affected regular assessments is needed. [7]

There are number of causes of persistent developmental delay. Disorders which cause persistent developmental delay are also called developmental disabilities. Examples are cerebral palsy, muscle disorders, language disorders, emotional problems, autism, and disorders of vision and hearing. These are the conditions can cause persistent developmental delay. However, this is the one of the most

common causes of an intellectual disability. [8]

Parents are the first person who can detect the developmental delay in the child; they can detect the delay by observing some activities of the child. Some sign of delayed activities can give the idea to parents that the child is suffering with the developmental delay. [9]

Cognitive functions were impaired of those children who were suffering with the intellectual disability they show a hindrance in their activities and delayed understanding. They were not able to do some tasks at the time e.g. logical thinking, self help skills such as dressing and eating independently. Some studies reveled the autism spectrum disorder 1.6 /100 children, intellectual disability (mild) approximately 1/100 children, intellectual disability (moderate/severe) approximately 3-5 /1,000 children, cerebral palsy 2/1,000 children, hearing impairment requiring a hearing aid 1-2 /1,000 children and blindness/severe visual impairment 3/10,000 children. [10]

According to world health organization (WHO), about 5% of the world's children lesser than 14 years of age have some type of moderate to severe disability. In the United States, developmental and or behavioral disorders occur in 16-18% of children under 18 years of age. Other reported childhood disability prevalence includes Jamaica- 15%, pakistan-15%, and bangladesh-8%. In India, sources have found prevalence of 1.5-2.5% of developmental delay in children less than 2 years of age. Other reported childhood disability prevalence includes Jamaica-15%, pakistan-15%, and bangladesh-8%. These impairments show the impact not only the child and the family, but also the society, in terms of the cost of providing health care, educational support, and treatment services. Evidence supports that early treatment of developmental disorders leads to improved outcomes for children and reduced costs to society. [11]

Many research studies significantly proved that parent play a major role for better development of their child. Natural learning stages of these children is little slow. Parent should try to push children to do things. Parent can support the child's development by spending time with them, Playing cards and board games together; parent should involve the child in the physical activity, team games and outdoor activities. [12]

Give plenty of time for free play to the child. Spending time with parents is very important for the child, especially through play and relaxing activities in which children enthusiastically take part, to feel peaceful and associated with parents. [12]

Researches show that good parenting shows many proficient effects, positive parenting creates happier homes where children are naturally more co-operative. Children who grow up feeling secure and loved have lower stress levels if parents use positive patterning skills. [12]

PRIDE is an intervention developed by Sheila m. Eyberg in the USA which uses a didactic approach. A person directly gave the coaching to the parent, as research advice that alteration in behavior of parents can have an effect on a child's behavior. [13]

MATERIALS AND METHODS

Relevant articles on the topic of developmental process, developmental delay, role of play in developmental process, effectiveness of parent child interaction therapy or pride skills were identified by searching with related SCOPUS, Google Scholar and Pub Med (2002-2015). Titles and abstracts of these articles obtained from the database searches were reviewed to ensure that they were related to developmental process, developmental delay, and role of play in developmental process, effectiveness of parent child interaction therapy or pride skills. Articles falling outside of the searched date range, not written in English, or not pertaining to developmental process, developmental delay, role of play in developmental process, effectiveness of parent child interaction therapy or pride

skills were excluded. Information from these 29 articles was extracted.

RESULTS

Developmental Delay

A descriptive study was done on Clinical Analysis of Children with Developmental Delay. Objective of the study were to consider the fundamental diseases according to the developmental function and early finding of children with risk factors. Total sample sizes were 1048 children. Data were collected from those children, who undergo assessments of developmental function; children were classified into 6 functional delay groups: cognitive, motor, speech, pervasive, global, and non-specific Developmental Delay. Most children had motor (13.9%) delays, speech (21.9%) global (51.2%). Most of the children (80%) with global delay were linked with brain/neuromuscular diseases or psychological mental disorders. Approximately 62.8% of children were associated with biological factors, 16.5% with central nervous system lesions, 13.9% with prematurity/low birth body weight, 19% with genetic defects or congenital anomalies and 13.4% with neonatal insult). According to this study shows there are mixed risk factors and related diseases in children with different functional delays. [14]

A Cross Sectional study was done on Global Developmental Delay and Its Determinants between Urban Infants and Toddlers. Objective of the study were to estimation the incidence of global developmental delay amongst the children under 3 years of age and study the determinant aspects Total sample size were 468 (225 girls and 243 boys) children aged 0-3 years were included. They found that, 7.1% were having global developmental delay. Prematurity and under nutrition were the two most common etiological diagnoses (21% each). Highest delay was detected in the 0-12 month's age group (7.0%). They recommend that it is cost effective to recognize early developmental lags (including hearing impairment) in at risk children through simple broadcast tests. [15]

A prospective study was done to find the occurrence of developmental delay in 200 healthy children below 2 years of age. They could come across the occurrence of developmental delay in 9.5% of apparently healthy children by using a simple screening tool (TDSC) which can be administered in an office practice. [16]

A study conducted to locate the Causes of developmental delay in children of 5 to 72 months old It was a cross sectional descriptive study. Sample size 153 children. They found the main reason for consulting was motor domain (90.2%), tonus disorder (43.8%) concerning the clinical presentation and 75.2% of population was children with cerebral palsy. Developmental Delay was severe, mild, moderate and profound respectively in 14.2%, 13.5%, 12.2%, and 11.1%. And hypoxic- ischemic encephalopathy (41.8%), epilepsy (13.7%), squeal of meningitis (6.5%), were the causes of DD. [17]

A cross Validation Study was done on Early Developmental Delays. They took early delays in motor and speech in milestones remains indistinct regarding lasting developmental outcomes. Total 95 sample (children) was taken for the study. Results of the study shows that the group of children with developmental delays had considerably lower Full Scale IQ's and academic attainment scores (Reading and Mathematics). Crossways other neuropsychological measures, children with delays had lesser scores than non-delayed children. [18]

A retrospective study was done to assess the awareness of developmental delay. They took the 100 consecutive children. After conducted the study, they concluded that awareness among the people regarding developmental delay and its possible interventions is low in India. Speech delay is the only delay which is considered important by parents. [19]

Effectiveness of parent child interaction therapy

An experimental study conducted on parent training for children with developmental delay, these are the children who experience many behavior problems. After intervention they bring up the conclusion that beginning evidence of efficacy in reducing negative parent and child behavior and rising parental awareness of child positive impact. [20]

An experimental study was done to examine the effectiveness of Parent - Child Interaction Therapy for young children (ages 3 to 7) and children suffered with high functioning autism and clinically have many significant behavioral problems. Results give empirical support for effectiveness of Parent-Child Interaction. Following treatment, all mothers accounted that there is reduction in behavioral problems in their child. [21]

A study was done on parent teaching for children with developmental delay in USA researcher center a. They took the children with many developmental disabilities, and hence it is proved that children with developmental disability are prone to have many behavior problems. After intervention they concluded that if negative behavior of parent is reduced child disruptive behavior is also reduced this study provides confirmation for the possibility of the Developmental delay modification applied to the providing parent training. [22]

A Randomized Controlled Trial was done to see effect of Parent-Child Interaction Therapy for Disruptive Behavior in Children with Mental Retardation. Results shows that experimental group mothers interacted more completely with their children after treatment than control group mothers, and their children were more obedient after treatment. On the other hand when they took interview of mothers experimental group mothers reported fewer disruptive behaviors is decrease of the child at home and lesser parenting stress related to complicated child behavior than control group mothers after treatment. [23]

An experimental study was done to assess the effectiveness of PCIT from home to school. They took 30 children for the study (2 and 7 year's age) with severe behavior problems. They found in all measures of pre/post data in the PCIT group and of generalization in school, and these were elevated as compare to other groups. On the other hand, no regarding in the area of hyperactivity or pro social behaviors at school no significant differences were found. [24]

Funderburk compared a PCIT treatment group with three control groups. There were also significant differences between the groups at post-treatment and after one year. The finding point out that there were significant, differences among the treatment groups and the control group in the pre/post actions. The typical treatment gave enhanced results. [25]

An experimental study was done did the study on Effectiveness of Parent–Child Interaction Therapy for Families of Children on the Autism Spectrum. The intervention group showed reductions in parent perceptions of child problem behaviors and child typicality, as well as an increase in child adaptability. Parent positive affect after the first phase was related to perceptions of improvement in problem behaviors and adaptive functioning. [26]

A quasi-experimental study was done to examination of the impact of father involvement in parent training. Children from families in which a father participated in treatment had lower levels of parent-reported behavior problems than children from single-mother families and children from two-parent families in which the father did not participate in treatment. Furthermore, the study shows that children of the family in which father-involved in the treatment they significantly more compliant during a cleanup task than children from single-mother families subsequent treatment. The results prove that involvement of father in parent training

program significantly important, particularly when working with children with developmental delay. [27]

As single-case study was done on PCIT with a Spanish-speaking mother-child dyad to address the child's externalizing behavior problems. Results clearly show that that PCIT was successful to increase the positive parent behaviors, and decrease the child disruptive behavior problems, and dropping parental stress level. [28]

CONCLUSION

Developmental performance of children is a function of several biological and social factors. The proximate factors in the child's milieu such as nutrition, gestation and seizures were more significant than the distal factors. Children exposed to these factors are at risk of developmental delay. It is cost effective to detect early developmental lags in at risk children through simple screening tests. For children's development, Play is an essential. Play starts in the child's infancy and ideally, continues throughout his or her life. Playing with children establishes and strengthens bonds that will last forever. Parent-child play opens doors for the sharing of values, increases communication, allows for teachable moments and assists in problem solving. Developmental delay children experiencing many behavior problems, due to that parent having stressed to decrease the stress and decrease the intensity of disruptive behavior parent child therapy play a significant role.

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