

PICO Analysis on Children with Disabilities; Autism Examined

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Problem

Disability is defined as “any significant lag or delay in a child’s physical, cognitive, behavioral, emotional, or social development when compared against developmental norms,” (Hockenberry et al., 2017, p. 530). As of 2014, approximately seventy-five million children live in the United States (Hockenberry et al., 2017). This total includes children with disabilities who may require special attention and considerations for their daily life, education, and medical care. Recently, the understanding of disability descriptions has changed from a medical model that focused on impairment levels in a child, towards emphasizing the highest functional abilities and successes of the children when interacting with their environment, (Hebbeler & Spiker, 2016). So how can one begin to fully understand the functioning as well as meet the special needs of these patients? It may be appropriate to begin by gaining an understanding of each type of disability individually.

Physical disabilities are defined by a decrease in motor or sensory abilities (Hockenberry et al., 2017). With the help of the Gross Motor Function Classification System, GMFCS, one can begin to categorize and understand what level of impairment a child may experience. The GMFCS has proven to be an accurate and dependable tool over time and is able to foresee long-term gross motor function (Georgiadis et al., 2017). Some examples of physical disabilities include but are not limited to cerebral palsy, epilepsy, acquired brain injuries, and dwarfism.

Mental disabilities are a difficult category to understand and care for, as they are often not recognized and diagnosed until later in a child’s life. Many parents are unaware of the developmental stages of a child and therefore they do not identify a developmental disability in their child (Ganjiwale et al., 2016). Mental disabilities, according to The National Academy of

Science, Engineering, and Medicine (2016), include conditions such as attention deficit hyperactive disorder, autism spectrum disorder, anxiety related disorder, and many more. With mental disabilities, a large focus is placed on effective learning and social interaction as well as developing a positive quality of life.

Sensory disabilities should be specially considered as they greatly affect how a child moves through and processes information from the world around them. Childhood blindness is significant because children with visual impairment live their life having considerable educational, economical, and psychological effects on themselves and their community (Gyawali & Moodley, 2017). Gilbert, Bowman, and Malik (2017) state that to improve eye health and reduce visual disability in children, the combination of low vision rehabilitation and special education services are needed. Another sensory disability to examine is a hearing impairment or complete deafness. When hearing impaired children begin formal schooling at age five, often there are existing deficiencies in their language and literacy skills (Scott et al., 2019). Hearing impaired children in areas where preschool education is not standard should receive systematic early education in foundational literacy skills (Scott et al., 2019). To keep up with the developmental milestones of what would be considered a normally-abled child, there must be sufficient supportive care and education for these children. Applying accommodations like braille for the blind, sign language for the deaf, early education, screening services, and other specialized healthcare methods can be both challenging and expensive. However, it is essential that sensory disabled children are provided supplementation for their cognition needs.

Specifically considering autism, this is a mental disability defined as “difficulty with social communication and restricted, repetitive patterns of behavior, interest, or activities,” (Sanchack & Thomas, 2016, p. 972). It is clear that advancement needs to be made in our

comprehension of early developmental mechanisms since early disease recognition and intervention rely on this understanding (Lai et al., 2014). From a diagnosis standpoint the Diagnostic and Statistical Manual of Mental Disorders, DSM-5, states symptomatic criteria as “difficulties in social communication and social interaction; and restricted and repetitive behavior, interests, or activities” (Lai et al., 2014, p. 896). Thanks to updates in mental health care, and the more specified diagnostic criteria as outlined in the DSM-5, children of the 21st century have the opportunity to be diagnosed sooner, as soon as developmental milestones are missed, and therefore have early interventions applied.

In looking into the many types of disabilities, it is clear that autism specifically lacks research and resources to support children. More studies in which the autistic spectrum as a whole is considered are necessary to help with clarification of individual prognosis (Sanchack & Thomas, 2016). Organizations like Autism Speaks and Autism Society can be great resources to parents following a diagnosis. Sites like these are designed to help parents understand the disorder and learn more about what they can do for their child. There are also generalized recommendations surrounding ‘early interventions,’ but a lot of unanswered questions remain such as what effective individualized educational interventions are, how we can make environments more autism-friendly, and many more. To truly begin to be impactful on the lives of children with autism, more needs to be done to better understand and accommodate those with this disorder.

Intervention

Within recent years, the previously depicted developments in diagnosis and understanding of autism spectrum disorder, ASD, have provided more opportunities for studying

interventions. The intention of studies like these being to potentially enhance the quality of life in children with autism.

Geretsegger, Elefant, and Mössler (2014) studied how music therapy may influence the key symptom of ASD; that being challenges in social interaction and communication. Studies used both short-term (one week) and medium-term (seven months) music therapy interventions. Findings stated that the primary intended outcome, social interaction improvements, occurred when music therapy was applied. Additionally, secondary outcomes of increased joy, further social adaptation, and enhancements of the parent-child relationship were noted. These outcomes indicate positive development, however, to be certain that these effects are sustainable and enduring more research is needed.

Another intervention method to consider is Intensive Interaction, a technique in which non-verbal subjects are taught pre-verbal techniques like facial expressions, responsive eye contact, joint focus activities, and vocal mirroring. These methods assist to build a relationship through mutually enjoyable games of imitation played with a person who has an intellectual disability like autism. Unfortunately, the results of Intensive Interaction cannot be generalized due to restrictions in the methodology and design of the study as well as the low number of participants (Hutchinson & Bodicoat, 2015).

Comparison

To identify effective treatment interventions for children with autism, it is essential to review studies completed in the past to assess efficacy of different methodologies. Geretsegger, Elefant, and Mössler (2014) completed a systematic review of music therapy in patients with autism. The focus being the use of musical experience to foster relationships, and through those relationships facilitate improvements in communication and expression. Training courses in the

field of music therapy focus on clinical music therapy techniques, as well as personality and clinical sensitivity of a therapist. The two effect categories include non-generalized outcomes indicating behavior changes occurring during therapy, and generalized outcomes indicating daily life changes occurring outside of therapy. The results of music therapy interventions were different when compared to standard care unaided by interventions.

On the other hand, Hutchinson and Bodicoat (2015) considered the practice of Intensive Interaction in children with autism also by completing a systematic review. Intensive Interaction focuses on the application of preverbal technique imitation. Similar to how a mother mimics the actions of an infant, a practitioner would develop a similar back and forth relationship with a patient. The training received by Intensive Interaction practitioners was highly varied, displaying inconsistencies in length from one day or less, to ten-day long training sessions. The review of studies focused on Intensive Interaction determined that no definite conclusions could be made. Intensive interaction is a versatile and complex method; therefore, it is difficult to directly correlate positive effects to this. Recommendations for future researchers included careful consideration of study methodology to create more definitive results.

After consideration of the two interventions, music therapy proves to be effective whereas Intensive Interaction requires additional consideration. However, both of these intervention studies could benefit from extended evaluation periods. Are the behavior modifications learned in treatment sessions still helpful to the participants as they grow older, say after 10 years? This could be further defined by continued assessment over a participant's lifespan. Additionally, no one knows a child better than a parent or caregiver, they could be a valuable asset to research. Implementing parent surveillance data could depict daily behavior changes following treatments and provide insight into the duration of reactions.

Outcome

Children with autism are a special subset of patients that require specialized intervention techniques to achieve developmental milestones. Music therapy appeared as a commonly-researched and relatively effective intervention. Whereas intensive interaction required more specific study parameters to produce clear results. It is continuously apparent that autism research and intervention studies are limited by a small number of participants (Geretsegger et al., 2014). Another possible improvement to be made in research would be the inclusion of long-term follow-up after a year or more (Geretsegger et al., 2014), to assess lasting effects of an intervention. Treatment brought into settings where parents can be highly involved increases caregiver's confidence and enables smoother transition of intervention skills to real-life settings such as school and recreation activities (Lai et al., 2014). Inclusion of multidisciplinary team members and application of multidimensional individualized care to each child will help to reach goals of maximized functional independence and improved quality of life (Lai et al., 2014). Considering quality of life, to strive for a more supportive environment that respects the differences of an individual with autism is imperative (Lai et al., 2014).

Conclusion

Children with disabilities have many physical and psychological needs. As a society, improvements need to be made in the promotion of healthy growth and development for all children. Encouraging regular wellness checkups will increase evaluations by health care professionals, therefore increasing the likelihood of identifying early warning signs of disabilities. This is especially important for children with autism since positive outcomes rely heavily upon intervening early in life. Additionally, in understanding the mechanisms of the disorder, health care providers can better tailor treatment plans. Autistic children need specialized

psychological support, as well as attention to safety concerns. It can be difficult to instill lessons like a fire evacuation plan, safe street crossing, or stranger danger to children who have a marked disinterest in social interaction. There is a lack of research on how to best educate these children, from smaller lessons like these to large goals of independent function within society. Parents, healthcare providers, and researchers alike must continue to advocate for a better understanding of children with autism. With multidisciplinary healthcare teams, familial involvement, and individualized treatment plans we continue to identify better care techniques for the autistic population. There is so much more to autism that we do not yet understand, however, continuing to strive for interventions that make a substantial difference in these children's lives is imperative.

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