

Psychological Analysis Of Children With Autism Disorders: Analyzing Their Cognitive Interventions And Their Possible Outcomes

Navya B

Designation: Clinical Psychologist

Company - Indusviva Early Learning Centre

*Address: AMR Mansion, 2nd floor, #304, 4th cross, Annaiah Reddy Road,
Vijaya Bank colony, Banaswadi-560043*

ABSTRACT

The psychological interventions consist of cognitive-behavior therapies and social skills training among the individuals suffering from autism spectrum disorder (ASD). Children suffering from autism disorders are often observed with the symptoms of comorbid anxiety-causing functional impairment. The deficits in social interaction, communication issues, and stereotyped behavior are some of the common characteristics observed among autistic children. Hence to cope up with some of these deficits, cognitive interventions have been carried out for maintaining the interventional effects for a longer duration. The present study aims for psychological analysis of children with autism disorders while implicating their cognitive interventions and their possible outcomes. The discussion on the psychological aspects of autistic children has been implicated in detail. The existing literature has been used for determining the cognitive interventions involving certain therapies, conduction of social skills, a program of psychosocial interventions, and related treatment on autism disorders among children. The finding and discussions are obtained from the existing literature. The findings and discussions involve the implication of the evidence-based on the possible outcomes of the cognitive-behavior therapies and related interventions being discussed in the literature review of the study. Also, the conclusion and future recommendations have been implemented after analyzing the findings of the study.

KEYWORDS: *Psychology, Cognitive interventions, Autism spectrum disorder (ASD), Cognitive-behavioral therapy, Social skills*

Date of Submission: 10-02-2021

Date of acceptance: 24-02-2021

I. INTRODUCTION

The children suffering from autism spectrum disorder (ASD) show comorbid anxiety disorders that lead to functional impairment. It also includes other symptoms such as familial, attitudinal, and academic impairment that adversely impact the growth of the child. As per World Health Organization (WHO), ASD is regarded as a global public concern with a prevalence of more than 1% out of which 95% of the individuals suffering from ASD are from low-/middle-income countries (LMIC) (Viljoen, Mahdi, Shelly & de Vries, 2021). Due to ASD, children suffer from comorbid psychological disorders such as social anxiety disorder (SAD), anxiety, and major depressive disorder (MAD) that hinder their growth process. To bring improvements in the comorbid psychological disorder condition of the children, intervention measures such as Applied behavior analysis (ABA), Cognitive-behavioral therapy (CBT), and Parent training are implemented. However, at times standard treatment approaches are not effective for autistic children. It lowers impacts the social, behavioral, and literacy abilities of the children (Wood, Drahota, Sze, Har, Chiu & Langer, 2009). Based on the above detailed information, it can be said that the present research focuses on the psychological analysis of children with autism disorders while analyzing their cognitive interventions and their possible outcomes. The study analyzes psychosocial interventions such as cognitive-behavior therapies and social skills training so that social-communication deficits of autistic children are reduced. It includes analyzing the effectiveness of cognitive behavioral therapy (CBT) for anxiety disorders or social skills training. The study also examined some objectives which are as follows:

- To study the prevalence of autism disorder among individuals and children around the world.
- To study psychiatric comorbidity amongst people with autism disorders.
- To explore different psychological therapies for children, adolescents, and adults with ASDs.
- To effectiveness of cognitive behavioral therapy (CBT) for anxiety disorders or social skills training.

II. LITERATURE REVIEW

Prevalence of autism disorder among individuals and children around the world

According to Wood, Drahota, Sze, Har, Chiu & Langer, (2009) autism spectrum disorder (ASD) is defined as the condition in which the individual suffers from certain disorders/impairments such as communication, language, or social behavior difficulty. ASD lays social, economic, and emotional implications on the families as taking care of such individuals is not an easy task. To examine the prevalence of autism disorder among individuals and children around the world, a survey conducted by the Centers for Disease Control (2007), it was found that 1 in every 150 children suffer from ASD. On the other hand, the National Autistic Society specified that most the ASD children suffer from anxiety issues. It leads to depression, Oppositional Defiant Disorder (ODD), and Attention Deficit Hyperactivity Disorder (ADHD) difficulties among them. Moreover, as per the survey conducted by CDC, the incidence of autism among individuals has increased and forms 1% of the entire world population. It increases the financial burden to provide treatment to such individuals and make special arrangements for education and livelihood opportunities.

Leyfer et al., (2006) analyzed that the diagnosis of anxiety disorder among autistic children is a complicated task. The major reason behind it is the similarity between anxiety disorder and ASD symptoms. For example, most ASD children suffer from emotional and communication impairments because of which certain deficits such as repetitive behavior attitude is observed among them.

Matson & Nebel-Schwalm, (2007) examined that functioning impairment symptoms of anxiety are similar to ASD because of the children do not perform well in the classroom teaching and learning environment. ASD symptoms are also associated with adaptive skill deficits, poor self-care attributes, and low organizational skills. It delays the speech skills, cognitive abilities, reciprocal social interaction abilities, and understanding and maintaining conversation abilities. To eliminate or reduce the comorbidity amongst children with autism disorders, it is essential to intervention measures in the form of appropriate diagnostic instruments, parent training initiatives, and Treatment and Education of Autistic and Related Communication-Handicapped Children (TEACCH).

Psychiatric comorbidity amongst people with autism disorders

According to Hossain, Khan, Sultana, Ma, McKyer, Ahmed & Purohit, (2020) ASD is a neurodevelopmental disorder that is associated with several comorbidities such as sleep disorders, gastrointestinal disorders, Attention Deficit Hyperactivity Disorder (ADHD), anxiety, bipolar disorder, obesity, and seizures.

Hollocks et al., (2019) analyzed that anxiety disorder ranged from 1.47% to 54% among ASD individuals. A study was conducted by Van Steensel et al., (2011) by taking 2121 children and adolescents. As per the analysis, it was found that most of the children suffered from anxiety disorders ranging from 34.8% to 39.6%. Wigham et al., (2017) conducted a study by taking the 162671 respondents (both children and adults) and analyzed that depressive disorder is prevalent among ASD children from 2.5% to 47.1% and it was also found that depressive disorder was present among 11% of the selected sample.

Vannucchi et al., (2014) analyzed that bipolar and mood disorders are common symptoms among ASD children which ranged from 6% to 21.4%. The study included 153,192 individuals as respondents and found that 4.4% to 37% of children suffered from bipolar and mood disorders. Other comorbidities such as psychotic disorders and Suicidal behavior disorder were also found among the ASD individuals because of which they showed retarded growth symptoms. A study was conducted by Zheng et al., (2018) to analyze the prevalence of Schizophrenia spectrum and other psychotic disorders among the ASD individuals. As per the study analysis, it was found that the Schizophrenia spectrum and other psychotic disorder symptoms were shown by 4% to 76% of individuals. The study included 22,176 respondents that showed 95% CI: 2.08 – 6.05 schizophrenia spectrum disorders.

Zahid and Upthegrove, (2017) examined that suicidal behavior disorder was recorded among the individuals that suffered from ASD that ranged from 10.9% to 66%. The suicidal attempts frequency was recorded to 1% to 35% among ASD individuals. Due to the high prevalence of suicidal tendencies, it becomes highly difficult for the caretakers, parents, and guardians to take care of the ASD children. The children are often depressive and find it difficult to cope with daily life challenges. Morgan et al., (2020) analyzed that sleep disorders are found among ASD individuals which makes them insistent and aggressive. The study included 190,963 respondents and found that 13% of individuals suffer from sleep disorders. The longer sleep onset latency was recorded to be 0.48, 95% CI: 0.21 to 0.86, and lower time of REM sleep was recorded to be -0.88, 95% CI: -1.56 to -0.21. The lower sleep efficiency and higher time awake after sleep onset were recorded to be -1.20, 95% CI: -1.98 to -0.41 and 0.49, 95% CI: 0.11-0.87 respectively.

Lai et al., (2019) analyzed that obsessive-compulsive and related disorders were found among ASD individuals. It ranged from 9% to 22% that adversely impacted their health conditions. A study was conducted by Richa et al., (2014) by including a certain number of respondents and found that disruptive, impulse-control and conduct disorders were prevalent among 48% participants. Due to these disorders, the individuals faced

issues while communicating and understanding social interactive texts and messages. Hedley and Uljarević, (2018) analyzed that Attention-deficit/hyperactivity disorder (ADHD) were recorded among ASD individuals which ranged from 25.7% to 65%. Due to ADHD-based ASD, the individual lacks persistence, difficulty in sustaining concentration, and the inability to comprehend. All these results in poor cognitive abilities, poor time management skills, and inability to finish daily routine chores. Thus, it can be said that several comorbidities are associated with ASD individuals that degrade their learning, behavioral, and emotional capabilities.

Psychological therapies for children, adolescents, and adults with ASDs

According to Cooper, Loades & Russell, (2018) psychological therapy is a social therapy that includes conversing/interacting with other individuals. The therapy includes meeting a new individual, conversing with them by exchanging personal information, and developing a rapport with other groups after a certain duration. It is an individual-based therapy that often becomes difficult for an ASD individual to execute. Therefore, group-based psychological therapy is introduced so that social and communication challenges that are faced by ASD individuals are improved. It includes group telephonic conversations and group interventions so that ASD individual gets an understanding to deal with the social world.

Brentani, Paula, Bordini, Rolim, Sato, Portolese & McCracken, (2013) analyzed that treatment approaches such as parent training, Applied behavior analysis (ABA), Treatment and Education of Autistic and Related Communication-Handicapped Children (TEACCH), and Cognitive-behavioral therapy (CBT) are also introduced to bring improvements in the capabilities of ASD individuals. While focusing on parental training, family intervention is considered an important aspect in the treatment of children with ASD. The major focus of parent training is to change the negative contingencies of parents into positive contingencies so that they reinforce better behavior among the children. It helps the parent as well as the child to be motivated and keep on trying to bring improvements.

Applied behavior analysis (ABA) is known as one of the most appropriate methods to reduce ASD symptoms among children. It is based on Early Intensive Behavioral Intervention (EIBI) that focuses on operant learning of children and reduce the issues that are faced by them while expressing their feelings or conversing.

On the other hand, TEACCH acts as an efficient tool to strengthen the visual skills of children with ASD. The approach is based on a clinical, classroom, and professional training based program that helps ASD children to improve their eating, dressing, understanding, and communicating skills.

Aman, Lam & Collier-Crespin, (2003) examined that Pharmacological treatment is also recommended for certain ASD individuals that helps in reduction of symptoms such as insomnia, hyperactivity, impulsiveness, irritability, auto, and heteroaggressiveness, inattention, anxiety, depression, obsessive symptoms, tantrums, anger attempts, repetitive behaviors or rituals.

Additionally, Cognitive-behavioral therapy (CBT) can also be introduced to ASD individuals to reduce the behavioral and social impairment issues faced by them. It is one of the most effective psychotherapeutic treatments that help children with ASD to get a better understanding of their feelings and thoughts. By using CBT, cognitive, dialectical, Multimodal, and rational emotional deficits can be improved.

Effectiveness of cognitive-behavioral therapy (CBT) for anxiety disorders or social skills training

Lindgreen, Lomborg & Clausen, (2018) examined that Cognitive-behavioral therapy (CBT) can also be introduced to ASD individuals to reduce the behavioral and social impairment issues faced by them. It is one of the most effective psychotherapeutic treatments that help children with ASD to get a better understanding of their feelings and thoughts. By using CBT, cognitive, dialectical, Multimodal, and rational emotional deficits can be improved. CBT includes several treatment strategies such as identifying negative thoughts, practicing new skills, setting goals, problem-solving, self-monitoring, and progressing gradually that help in enhancing the skills and abilities of ASD individuals. For example, in self-monitoring, the individual behavior of the ASD individual is analyzed by tracking his/her attitude, symptoms, and experiences. It includes tracking eating disorders and analyzing the thoughts that went through when consuming the food. On the other hand, the problem-solving attitude is included in CBT in the form of five stages such as recognizing problems, finding solutions, generating a solution list, analyzing strengths & weaknesses, selecting the most appropriate solution, and implementing. All these activities help in the selection of the best approach for CBT individuals that helps to reduce the co-morbidities faced by them.

Lazarus & Abramovitz, (2004) analyzed that different CBT therapies are applied to bring improvements among ASD children. It includes cognitive therapy that helps in recognizing and correcting distorted thinking patterns, irritable behaviors, and emotional fluctuations among the individuals. Dialectical behavior therapy (DBT) is also an essential part of CBT that helps in addressing the behavioral and thinking issues that are faced by ASD individuals. Through DBT, emotional regulation and mindfulness abilities of the ASD individual are improved so that he/she can understand social endeavors adequately. Multimodal therapy is also included in CBT therapy that helps in treating different modalities such as cognition, sensation, attitude, and biological aspects. Rational emotive behavior therapy (REBT) is also regarded as an important part of CBT

therapy that highly focuses on improving irrational attitudes and belief systems of ASD individuals. By using this therapy, positive changes are brought in the thought patterns. The use of different therapies helps in reducing ASD symptoms such as anger issues, anxiety, depression, and panic attacks.

Wood, Drahota, Sze, Har, Chiu & Langer, (2009) conducted a study to analyze the effectiveness of CBT among children with ASD by including 7-11-year-old students. As per the study analysis, it was found that 78% of the children showed a positive response when provided CBT-based intervention treatment. Such findings clearly state that CBT approaches are highly useful and help in improving the ASD symptoms of the individuals. CBT intervention also helps in reducing anxiety-related symptoms by 30% to 40%.

III. FINDING AND DISCUSSION

As per the above-discussed facts, it can be said that autism spectrum disorder (ASD) is a broad term that includes several co-morbidities that impact the growth and development of the individuals. As a result, the individuals that are suffering from ASD show symptoms related to restricted cognitive abilities, repetitive memory issues, and stereotype behavior patterns. Therefore, different intervention methods such as parent training, TEACCH, and CBT are to be included so that issues and symptoms that are faced by ASD individuals are reduced. It helps in reducing social interaction, communication issues, and stereotyped behavior difficulties that are faced by children with ASD. The study also examined facts related to the effectiveness of cognitive-behavioral therapy (CBT) for anxiety disorders or social skills training and found that CBT is an effective approach to reduce ASD symptoms. The major reason behind it is that CBT is based on the psychotherapeutic treatment that helps in maintaining the interventional effects of ASD children for a longer duration.

IV. CONCLUSION

Autism spectrum disorder is a chronic disorder that creates healthcare and financial burden on individuals. ASD not only impacts the progressive growth of the children but also impacts their behavioral and cognitive abilities. The deficits in social interaction, communication issues, and stereotyped behavior are some of the common characteristics observed among autistic children. Hence, to cope up with some of these deficits, cognitive interventions have been carried out for maintaining the interventional effects for a longer duration. It includes introducing, cognitive-behavior therapies and social skills training among the individuals with ASD so that poor symptom faced by ASD individuals are reduced. It was found that CBT intervention is highly helpful in treating different modalities such as cognition, sensation, attitude, and biological aspects. By using this therapy, positive changes are brought in the thought patterns. The use of different therapies helps in reducing ASD symptoms such as anger issues, anxiety, depression, and panic attacks.

REFERENCES

- [1]. Aman, M. G., Lam, K. S., & Collier-Crespin, A. (2003). Prevalence and patterns of use of psychoactive medicines among individuals with autism in the Autism Society of Ohio. *Journal of autism and developmental disorders*, 33(5), 527-534.
- [2]. Brentani, H., Paula, C. S. D., Bordini, D., Rolim, D., Sato, F., Portolese, J., ... & McCracken, J. T. (2013). Autism spectrum disorders: an overview on diagnosis and treatment. *Brazilian Journal of Psychiatry*, 35, S62-S72. https://www.researchgate.net/publication/262438970_Autism_spectrum_disorders_An_overview_on_diagnosis_and_treatment/link/559d2e8e08aeb45d17156a1b/download
- [3]. Cooper, K., Loades, M. E., & Russell, A. (2018). Adapting psychological therapies for autism. *Research in autism spectrum disorders*, 45, 43-50. <https://www.sciencedirect.com/science/article/abs/pii/S175094671730123X>
- [4]. Hedley, D., Uljarević, M., 2018. A systematic review of suicide in autism spectrum disorder: current trends and implications. *Curr. Dev. Disord. Reports* 5, 65–76. <https://doi.org/10.1007/s40474-018-0133-6>
- [5]. Hollocks, M.J., Lerh, J.W., Magiati, I., Meiser-Stedman, R., Brugha, T.S., 2019. Anxiety and depression in adults with autism spectrum disorder: a systematic review and meta-analysis. *Psychol. Med.* 49, 559–572. <https://doi.org/10.1017/S0033291718002283>
- [6]. Hossain, M. M., Khan, N., Sultana, A., Ma, P., McKyer, E. L. J., Ahmed, H. U., & Purohit, N. (2020). Prevalence of comorbid psychiatric disorders among people with autism spectrum disorder: An umbrella review of systematic reviews and meta-analyses. *Psychiatry research*, 287, 112922. <https://pubmed.ncbi.nlm.nih.gov/32203749/>
- [7]. Lai, M.-C., Kassie, C., Besney, R., Bonato, S., Hull, L., Mandy, W., Szatmari, P., Ameid, S.H., 2019. Prevalence of co-occurring mental health diagnoses in the autism population: a systematic review and meta-analysis. *Lancet Psychiatry*. [https://doi.org/10.1016/S2215-0366\(19\)30289-5](https://doi.org/10.1016/S2215-0366(19)30289-5)
- [8]. Lazarus, A. A., & Abramovitz, A. (2004). A multimodal behavioral approach to performance anxiety. *Journal of clinical psychology*, 60(8), 831-840.
- [9]. Leyfer, O.T., Folstein, S.E., Bacalman, S., David, N.O., Dinh, E., Morgan, J., Tager-Flusberg, H., & Lainhart, J.E. (2006). Comorbid psychiatric disorders in children with autism: Interview development and rates of disorders. *Journal of Autism and Developmental Disorders*, 36, 849–86
- [10]. Lindgreen, P., Lomborg, K., & Clausen, L. (2018). Patient experiences using a self-monitoring app in eating disorder treatment: qualitative study. *JMIR mHealth and uHealth*, 6(6), e10253.
- [11]. Matson, J.L., & Nebel-Schwalm, M.S. (2007). Comorbid psychopathology with an autism spectrum disorder in children: An overview. *Research in Developmental Disabilities*, 28, 341–352
- [12]. Morgan, B., Nageye, F., Masi, G., Cortese, S., 2020. Sleep in adults with autism spectrum disorder: a systematic review and meta-analysis of subjective and objective studies. *Sleep Med.* 65, 113–120. <https://doi.org/10.1016/j.sleep.2019.07.019>

- [13]. Richa, S., Fahed, M., Khoury, E., Mishara, B., 2014. Suicide in autism spectrum disorders. *Arch. Suicide Res.* 18, 327–339. <https://doi.org/10.1080/13811118.2013.824834>
- [14]. van Steensel, F.J.A., Bögels, S.M., Perrin, S., 2011. Anxiety disorders in children and adolescents with Autistic spectrum disorders: a meta-analysis. *Clin. Child Fam. Psychol. Rev.* 14, 302–317. <https://doi.org/10.1007/s10567-011-0097-0>
- [15]. Vannucchi, G., Masi, G., Toni, C., Dell'Osso, L., Erfurth, A., Perugi, G., 2014. Bipolar disorder in adults with Asperger's syndrome: a systematic review. *J. Affect. Disord.* 168, 151–160. <https://doi.org/10.1016/j.jad.2014.06.042>
- [16]. Viljoen, M., Mahdi, S., Shelly, J., & de Vries, P. J. (2021). Parental perspectives of functioning in their children with autism spectrum disorder: A global scoping review. *Autism*, 25(1), 176-198. <https://journals.sagepub.com/doi/abs/10.1177/1362361320950055>
- [17]. Wigham, S., Barton, S., Parr, J.R., Rodgers, J., 2017. A systematic review of the rates of M.M. Hossain, et al. *Psychiatry Research* 287 (2020) 112922–13 depression in children and adults with a high-functioning autism spectrum disorder. *J. Ment. Health Res. Intellect. Disabil.* 10, 267–287. <https://doi.org/10.1080/19315864.2017.1299267>
- [18]. Wood, J. J., Drahota, A., Sze, K., Har, K., Chiu, A., & Langer, D. A. (2009). Cognitive behavioral therapy for anxiety in children with autism spectrum disorders: A randomized, controlled trial. *Journal of Child Psychology and Psychiatry*, 50(3), 224-234. <https://acamh.onlinelibrary.wiley.com/doi/abs/10.1111/j.1469-7610.2008.01948.x>
- [19]. Wood, J. J., Drahota, A., Sze, K., Har, K., Chiu, A., & Langer, D. A. (2009). Cognitive behavioral therapy for anxiety in children with autism spectrum disorders: A randomized, controlled trial. *Journal of Child Psychology and Psychiatry*, 50(3), 224-234. <https://acamh.onlinelibrary.wiley.com/doi/abs/10.1111/j.1469-7610.2008.01948.x>
- [20]. Wood, J. J., Drahota, A., Sze, K., Har, K., Chiu, A., & Langer, D. A. (2009). Cognitive behavioral therapy for anxiety in children with autism spectrum disorders: A randomized, controlled trial. *Journal of Child Psychology and Psychiatry*, 50(3), 224-234. <https://acamh.onlinelibrary.wiley.com/doi/abs/10.1111/j.1469-7610.2008.01948.x>
- [21]. Zahid, S., Upthegrove, R., 2017. Suicidality in autistic spectrum disorders: a systematic review. *Cris. J. Cris. Interv. Suicide Prev.* 38, 237–246. <https://doi.org/10.1027/0227-5910/a000458>
- [22]. Zheng, Z., Zheng, P., Zou, X., 2018. Association between schizophrenia and autism spectrum disorder: a systematic review and meta-analysis. *Autism Res.* <https://doi.org/10.1002/aur.1977>.