Effectiveness of ABA on supporting children with ASD

Ms. Gurbani Kohli
PhD Scholar, SGT university, Chandu, Budhera, Gurugram, Haryana 122505
Corresponding author email: gurbanisahdev93@gmail.com

Dr. N.K. Chandel
Associate Dean, M.A., M.Phil., Ph.D. Dept of Clinical Psychology at SGT Hospital & University, Gurgaon, Haryana -122505

Dr. Anant Agarwal
MBBS, DNB – Psychiatry DMC/R/12207 Delhi Medical Council, 2015

***Abstract*---**This review article starts with broad categories of ASD interventions and identifies the need to study effectiveness of ABA therapy. It establishes ABA to be gold standard based on research done in the past. Further, it defines ABA and then deep dives into the advantages and limitations of ABA therapy. Finally, it concludes by strongly vouching for ABA as the treatment of choice on the premise that advantages certainly outweigh its limitations.

***Keywords*---**ABA therapy, autism, ASD, limitations ABA, interventions.

Introduction

Two different types of ASD interventions are eminent, comprehensive and focused. Comprehensive treatment models (CTM) consist of a set of interventions, established within a specific conceptual framework and measured to result in a broader positive impact on the principal deficits of ASD (Wong, 2015). Focused interventions (FI) are designed to help improving a single or a small number of skills of a child with ASD (Odom, 2010). FI are usually defined operationally, target specific outcomes, and are quicker than CTMs. FI are the building blocks of CTMs and educational programs for individuals with ASD.

Need for the study

ABA belongs to CTM model and most first-rate assessments of ASD interventions today unswervingly and unequivocally identify ABA-based interventions as the

gold standard and treatment of choice for individuals with ASD (Maglione, 2012) (National Autism Center, 2015) (New York State Department of Health Bureau , 2017). In 1987, Dr. Ivar Lovaas, known as the father of Assisted Behavior Analysis (ABA) therapy proved that early intervention and intensive behavioral therapy helped children with Autism. He also determined that 90% of children made substantial gains by receiving ABA therapy (Lovaas, 1987).

Definition of ABA

ABA is founded upon effective learning and teaching principles. ABA can be defined as a scientific tool that imparts specific skills which are reinforced to achieve targeted goals. Moreover, it is an individualized approach of teaching that stresses on increasing appropriate behaviors while decreasing the inappropriate behaviors (Smith, 2010), creating an environment of growth and learning that is applicable to all areas of teaching. ABA based interventions can be applied in various settings ranging from vastly structured programs that are conducted as a one to one treatment to more holistic programs that include developing children as models.

Advantages of ABA

The key benefit of the ABA approach is that it breaks down larger skills into small manageable sub-skills. Then, by using reinforcement techniques, the child learns and eventually masters each of those sub-skills. In order to implement ABA, a therapist needs to go through extensive training and is required to get a board certification .An ABA therapist understands the functions of behaviours (communication, attention seeking, avoidance) and develops programs, using effective teaching techniques like discrete trial teaching (DTT), to meet the child's needs.

Concurrent and continuous monitoring ensures enough data to make objective, data driven decisions in which one is able to achieve measurable changes in appropriate target behaviors that stand the test of time and environments (Dillenburger, 2009).The ABA model empowers the therapist to isolate one behaviour for intervention, thereby decreasing the chances of other variables influencing the results. A much easier way to assess an intervention compared to RCT (Randomized Control Trials) that are highly dependent on data from multiple sources. The success rate with ABA is high as each subskill is introduced one at a time repeatedly till the child masters the first subskill. ABA has led to positive developments and changes in relevant social behaviors within the framework of a child's social environment (Dillenburger, 2009).

Limitations of ABA

Although there is strong research support for using ABA, there is still statistical evidence of heterogeneity in response to the therapy. Researchers approach this heterogeneity by considering two predictors of response to the therapy that are either child specific or treatment specific variables (Perry A, 2009). Various studies examine whether child-specific characteristics, such as age (Granpeesheh D, 2009), autism symptom severity (Ben-Itzchak E, 2007), cognitive functioning

(Ben-Itzchak E, 2007) and adaptive functioning (Makrygianni MK, 2010) affect response to therapy. Treatment-specific variables, such as treatment intensity (Reichow B, 2009), teacher training (Koegel RL, 1977), treatment location (Dixon DR, 2016) and clinical supervision (Dixon DR L. E., 2016) have also been examined. Treatment 'dosage' continues to be a contentious issue that needs to be studied further to recommend a standard for all the treatment/child specific variables discussed.

A shortcoming of ABA model is lack of clarity on the question of the no change in behavior of ASD child with a particular intervention. In that case a Randomized Control Trial has a clear advantage as each outcome of an intervention would be backed by similar findings among many children, but the nonexistence of previous results in case of ABA does not guide the therapist . For example, the therapist would not know if other variables had been introduced during the course of the therapy for a particular intervention. Another disadvantage is the ethical issue of identifying a successful intervention but withdrawing it later owing to high costs, availability and other uncontrollable factors (Suryasa et al., 2021).

Conclusion

In order to be successful at ABA based programs it is essential to be consistent, concentrated, and resilient for accepting constant feedback and correction of a child's behavior. This requires persistent one to one instructions at the start of the intervention, indicating that parental involvement is very crucial. According to Lovaas's research (Lovaas, 1987) about 50% of the children in the ABA program accomplished higher functioning as compared to only 2% of the control group. Children receiving ABA therapy had an improved level of cognitive skills, language skills, adaptive skills as well as compliance skills. Some children were even able to attend classes with their non-autistic peers, suggesting that ABA interventions imparted early on in a child's life can lead to long-term positive goals. (John R. Lutzker, 2018). Advantages of ABA certainly outweigh its limitations. After analysis it is deducible that ABA allows one to see progression and regression easily, it is geared towards the child's needs, and almost every child that has done ABA has shown some amount of progression in its abilities.

References

Ben-Itzchak E, Z. D. (2007). The effects of intellectual functioning and autism severity on outcome of early behavioral intervention for children with autism. *Research in Developmental Disabilities*, 287-303.

Dillenburger, K. &. (2009). None Of The As In ABA Stand For Autism: Dispelling the Myths. *Journal of Intellectual and Developmental Disability*, 193-195.

Dixon DR, B. C. (2016). A program evaluation of home and center-based treatment for autism spectrum disorder. *Behaviour anal Pract*, 10.1007/s40617-016-0155-7.

Dixon DR, L. E. (2016). An evaluation of the impact of supervision intensity, supervisor qualifications, and caseload on outcomes in the treatment of autism spectrum disorder. *Behav Anal Pract*, 339-348.

Granpeesheh D, D. D. (2009). The effects of age and treatment intensity on behavioral intervention outcomes for children with autism spectrum disorders. *Autism Spectrum Disorder*, 1014-1022.

John R. Lutzker, K. M. (2018). A Guide to Programs for Parenting Children with Autism Spectrum Disorder. In K. M. John R. Lutzker, *A Guide to Programs for Parenting Children with Autism Spectrum Disorder* (pp. 229-230). London: Jessica Kingsley Publishers.

Koegel RL, R. D. (1977). Assessing and training teachers in the generalized use of behavior modification with autistic children. *Applied Behaviour analysis*, 197-205.

Lovaas. (1987). Behavioral treatment and normal educational and intellectual functioning inyoung autistic children. *Journal of Consulting and Clinical Psychology*, 3–9.

Maglione, M. A. (2012). Nonmedical interventions for chil-dren with ASD: Recommended guidelines and further research needs. *Pediatrics*, 130.

Makrygianni MK, R. P. (2010). A meta-analytic review of the effectiveness of behavioural early intervention programs for children with autistic spectrum disorders. *Research in Autism Spectrum Disorders*, 577-593.

National Autism Center. (2015). *Evidence-based practice and autism in the schools.* Retrieved from https://www.nationalautismcenter.org/: https://www.nationalautismcenter.org/

New York State Department of Health Bureau , o. (2017). *New York State Department ofHealth Clinical Practice Guideline on assessment and intervention services for young children (age 0–3) withAutism Spectrum Disorders (ASD).* New york: https://www.health.ny.gov/community/infants_children/early_intervention/autism/docs/report_reco mmendations_update.pdf.

Odom, S. L.-K. (2010). Evidence-based practices forchildren and youth with autism spectrum disorders.

Perry A, C. A. (2009). Effectiveness of intensive behavioral intervention in a large, community-based program. *Research in Autism Spectrum Disorders*, 621-642.

Preventing School Failure, 54, 54.

Reichow B, W. M. (2009). Comprehensive synthesis of early intensive behavioral interventions for young children with autism based on the UCLA young autism project model. *Journal of Autism and Developmental Disorders volume*, 23-41.

Smith, D. (2010). From the Classroom to the Family Room: Using ABA for Best Behaviours. Wong, C. O. (2015). Evidence-based practices for children, youth, and young adults with Autism

Spectrum Disorder. *A comprehensive review. Journal of Autism and Developmental Disorders*, 45.

Suryasa, I. W., Rodríguez-Gámez, M., & Koldoris, T. (2021). Health and treatment of diabetes mellitus. *International Journal of Health Sciences*, *5*(1), i-v. https://doi.org/10.53730/ijhs.v5n1.2864