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Telehealth as a Parent Training Platform: a Behavioral Development approach to Autism Intervention

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Abstract: Technology has resulted in the emergence of WhatsApp™, and Zoom Video conferencing as competitive alternate training platforms to in-person training sessions. The wide reach of internet based technology has made telehealth an effective and low-cost method of training parents as interventionists using the principles of Applied Behavior Analysis (ABA) for children with Autism Spectrum Disorder (ASD). The current study aimed at training a parent of a child with ASD to implement and deliver evidence based autism intervention. The outcomes were measured using a gold standard developmental based assessment, the Verbal Behavior Milestones Assessment and Placement Program (VB-MAPP). The results indicate notable changes in scores on the assessment, acquisition of skills on the part of the child and the parent's skills in playing the role of the interventionist, coupled with the development of a harmonious and positive relationship between mother and child. Suggestions for further research include using the telehealth model and evidence based parental training for the dissemination of quality services to a larger population.

Key Words: Autism, India, Parenting, Telehealth, Special Education, Applied Behavior Analysis, Behavioral Intervention

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I. Background

Parents play a central role in the development of the child's life. They hold a unique position of having continued access, bonding and the ability to become the change makers in their child's life simply by being present and available and using best practices to guide their development. Parental beliefs are reflected in everyday routines and activities, influencing the development of the child (Tuli, 2012). Autism spectrum Disorder (ASD) is a chronic neurodevelopmental condition of early childhood onset characterized by social communication deficits, restricted interests and repetitive behaviors (Esposito et al, 2020). This disorder is known to impact various facets of the individual's life, that of his immediate family and the extended society. Despite its far-reaching implications, research indicates that early and continued access to evidence based interventions can improve the developmental trajectory for these individuals. Children with ASD face varying challenges through the years, these challenges require inputs from professionals specialized in assisting individuals with developmental disabilities. Access to these service providers is often times limited, time consuming and resource intensive. Autism has no known cure till date, but has a vast number of therapeutic approaches available that range from behavioral to educational, to speech, occupational and often times alternative treatments (Lofthouse, Hendren, Hurt, Arnold, & Butter, 2012; Rogers & Vismara, 2008). Majority of evidence based studies indicate that Applied Behavior Analysis (ABA) is the most effective treatment methodology, which is an umbrella including several treatment paradigms such as Discrete Trial Training, Pivotal Response Training, and Verbal Behavior (Johnson, Butter & Scahill, 2019). Research studies indicate that increased parental involvement has positive effects on child behavior, making them the most natural therapist for their child. It is imperative to mention that parental involvement requires guidance of a certified professional and continued support through the crucial learning years. However, families of children with ASD often encounter obstacles in obtaining evidence based assessment and the required support to implement suggested intervention strategies at home and in the community (Goodwin, 2008; Koegel, Symon, & Koegel, 2002; Snell-Johns, Mendez, & Smith, 2004). Board Certified Behavior Analysts (BCBA®) and Board Certified assistant Behavior Analysts (BCaBA®) are the authorized professionals to provide behavior analytic services and they are a hard to find commodity in a country like India. Currently there are only 24 BCBA's and 15 BCaBA's in India, leaving much of the population affected by ASD underserved. An upcoming and popular approach that aims to bridge this alarming gap is via the provision of tele-health services and distant monitoring with the help of the parent, who in turn is trained to play the interventionist. Telehealth uses communication technologies to deliver treatment and education (Ferguson, Craig & Dounavi, 2018). The current study was

conducted prior to the Covid-19 pandemic, but the transformation of service delivery models further amplifies the findings of this study. Literature also indicates that telehealth can ease the shortage of specialized professionals and bridge the gap that families affected by ASD face in accessing these professionals (Boisvert, Land, Andrianopoulos, & Boscardin, 2010). In such a scenario, emphasis is placed on training the parent, with the objective not being limited to the transference of scientific knowledge but additionally parental empowerment with the single aim of equipping them with skills to promote sustainable change in the behavior and development of their child. The present study illustrates the benefit of use of the telehealth model and emphasizes on the role of the parent as interventionist yielding positive quantifiable results for the child, in addition to enabling the parent to form a lasting bond and being able to accept the child's deficits and strengths. This subtle outcome has maximum long-term benefits for both mother and child. This study also provides an understanding of using the telehealth model as a supplementary tool that amplifies the benefit and effectiveness of center based services and the inherent ability to reach those who are geographically disadvantaged. The study would be incomplete without focusing on the cost benefit factor and saving of resources such as travel time and money spent on travel both for the family and the professional. In a subsequent study, Pollard, Karimi & Ficcaglia (2017) found that telehealth proves to be a cost effective high impact solution to address the barriers families face in accessing behavior treatment.

II. Method

Setting

The present study was conducted in the city of Chennai, in South India. It is the fourth largest metropolitan city in India, and Tamil and English are the primary languages spoken. Pre-intervention assessments were conducted to establish the baseline using the VB-MAPP, the gold standard for assessment for individuals with ASD.

With the use of standard material corresponding to the assessment, the participating mother was coached using data sheets, a printed goal plan, and material corresponding to the stated goals.

Intervention was implemented at home, in a designated room with a camera set up to transmit or record the sessions. Sessions were either live-telecasted or recorded and shared via a password protected iPad, allowing the authors to see, hear and communicate with the participants. Recorded footage was shared via a closed WhatsApp™ group and a secured folder on Google Drive™.

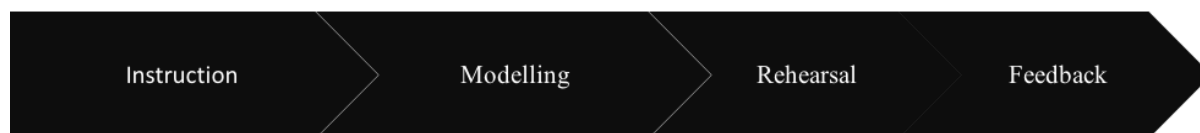
Participants

The participants were a mother-son duo. The participating child (Participant C) held a diagnosis of ASD based on the Diagnostic Statistical Manual of Mental Disorders (DSM-V) and the Autism Diagnostic Observation Schedule-2 (ADOS-2). He also held a medical report from a developmental pediatrician confirming the diagnosis. Participant C had vocal verbal abilities, brief exposure to mainstream education and received full time center based services. His Individualized Education Plan (IEP) indicated that he could follow three to five word directions and respond verbally although his words lost clarity with the length of the utterance. It was also noted that the child comprehended the local language, Tamil a lot quicker than English. He would attempt to use a mixture of languages to convey his message. The participating mother (Participant M) was 29 years old at the time of the study and held a high school completion certificate. She attended multiple trainings on implementation of Behavior Analytic practices to foster a positive learning relationship with her child but was unable to implement the procedure and gain the child's compliance prior to this intervention. The participants lived in a joint family, consisting of three generations. Participation in the study was voluntary and not compensated. Informed consent was obtained for analyzing the videos shared by the participant.

Behavior Skills Training

Behavior Skills Training (BST), a training package for teaching a new skill comprises of four components: instructions, modelling, rehearsal, and feedback (Dib & Sturmey, 2012). Table 1 indicates the flow of steps beginning from providing instructions and followed by modelling or demonstrating to the trainee therapist, the trainee and trainer then rehearse the instructions and feedback is provided by the trainer. The cycle continues until the trainee therapist meets the mastery criteria for all instructions that they will eventually deliver to the child/ individual they work with. Results from a vast number of studies indicate that BST was used to conduct stimulus preference assessments (Lavie & Sturmey, 2002), implement structured ABA sessions and improve the quality of service delivery of supervisees and Behavior Technicians.

Table 1: Evidence Based Training Package



Outcomes from the mentioned studies indicate that the trained person is enabled to take on the role of a long-lasting agent of change in the child's life. The current study followed the BST model combining in-person training, role play and feedback in a continuous cycle.

Verbal Behavior Milestones Assessment and Placement Program

The VB-MAPP is an assessment tool used with individuals diagnosed with ASD and other language delays (Sundberg, 2008). This assessment tracks the milestones of the child to determine his current skill levels and deficits, with the objective of identifying instructional goals to plug the deficits and build on the current skill repertoire. It is a 5-component package designed to measure Verbal Behavior that include the Milestone assessment, Barriers Assessment, Transition Assessment, Task Analysis and Supporting Skills and Placement and IEP goals. The individual's skills are assessed based on Skinner's (1957) Verbal operants across standardized tasks. Skinner's analysis of Verbal Behavior provides a behavioral framework of language and social behavior that can guide an intervention program (Sundberg&Micheal, 2001). The milestones assessment is further subdivided into three developmental levels. Level 1 indicates 0-18 months, Level 2 indicates 18-30 months and Level 3 skills indicate 30-40 months, based on the developmental milestones of neurotypical children. Level 1 of the assessment includes emergent mand, tact, listener, social, visual-perceptual and match to sample, independent play, motor imitation and echoic and spontaneous use of language. Level 2 builds on the skill set of Level 1 with the exception of spontaneous vocal behavior. It further increases the complexity of evaluating the child's understanding of specific components of language such as listener responding by function, feature, class and broadens the scope of social skills to include classroom routines and group skills. Level 3 assesses advanced stages of milestones built in Level 2 with an addition of pre-academics of math, reading and writing (Barnes, 2014). Mand is a Skinnerian term to describe a verbal operant in which the response is reinforced by a characteristic consequence and under the functional control of relevant conditions of deprivation or aversive stimulation. The second verbal operant assessed is a tact, a form of verbal behavior where the speaker sees, hears, smells, tastes something and then comments about it. The Intraverbal that is assessed in depth in Level 3 is the most complex verbal behavior to teach a child with ASD as it focuses on reciprocal conversational skills.

Measurement

The sessions occurred at home were captured on video and shared with the authors who collated and scored the data on a daily basis. The session duration varied in length from 8 minutes to 19 minutes with an average session length of 13.5 minutes.

Inter-observer Agreement (IOA)

IOA was assessed for all the sessions, by having a second data collector watch the pre-recorded footage along with the primary author. Total IOA of 100% was obtained by comparing the proportion of appropriate behavior exhibited by the participant M while working with her child, dividing the smaller count by the higher count to obtain a percentage.

Pre-test Probes

Before implementing BST procedures, participant M was asked to work with her child on a given set of goals. No feedback or error correction was provided, to assess her abilities and establish her baseline as interventionist. The VB-MAPP assessment was conducted by the authors prior to intervention and found the participant C's scores fell in the Level 3 range. His pre-assessment score stood at 128.5 out of a total score of 170 with significant gaps in Listener Skills, Visual Perception, Match to sample, Feature Function Class, Intraverbals, reading, writing and math.

Intervention

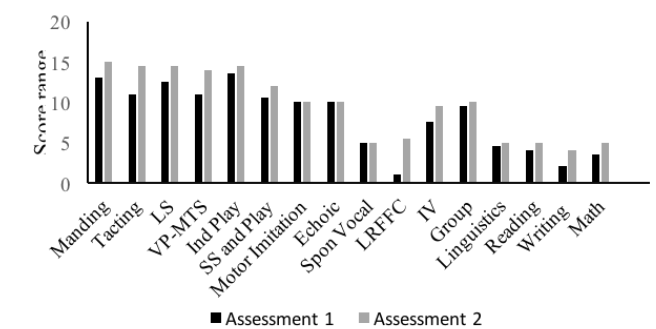
The participant M was coached at the center on delivering instructions, providing reinforcement and terminating sessions without stressing the child. She rehearsed the script with the authors, who provided constructive feedback and suggestions. The script covered goals targeting instructions in the following

domains: Naturalistic Mand opportunities, Part Tact Part Intraverbal Training, Feature Function class, Match to Sample, copying a text and application of number concepts and this was executed by participant M in the home environment.

III. Results

The post intervention assessment was conducted at the end of the 8-week period and indicated a score of 153.5 out of a total of 170. The increase of 25 points on the child's assessment was attributed to an increase in language skills in the areas of Tact, Intraverbals and Listener Responding Feature Function Class. An independent probe conducted at the center post intervention showed significant gains that correlated with the outcomes of the VB-MAPP. The skills of participant M as an interventionist developed positively to include the use of the behavioral aspects of positive reinforcement, extinction of inappropriate behaviors and increasing functional communication. Pre-andPost-test scores are graphed to depict significant changes across all domains.

VBMAP Scores - Pre and Post Intervention



IV. Discussion

This study aims to evaluate the change in skill levels of the child at the end of 8- weeks of parent led telehealth intervention.

Parent implemented interventions are designed to promote teachable moments in a naturalistic environment. The primary goal of this study was to determine whether telehealth delivery of a parent-led intervention program would support parent-child learning to develop social-communication language skills, and effectively plug the gaps in the VB-MAPP assessment. The authors proposed and found evidence to suggest that the parent can play the role of primary interventionist, and exert a positive influence in their child's developmental trajectory.

Change in scores

The Mand repertoire of Participant C showed a significant increase from a score range of 12 to 15, indicating an increase in his ability to Mand using phrases and exhibiting generalization of acquired targets across environments. Participant C's Tact repertoire reflected an increase from 10 to 14, and developed to include complex Tacts such as "City at night" when shown a picture of the city's skyline with lit up buildings. The Listener Responding Feature Function Class showed a significant change reflecting in the child's ability to respond to complex stimuli. Using behavioral principles, one of the significant outcomes of this parent driven intervention was that the child learnt to focus on the relevant stimuli that was being spoken about and emit appropriate responses. Emergence of pre-academic skills such as basic counting, word recognition and being able to copy a text and write alphabets on dictation emerged during intervention.

VBMAP versus traditional Intelligence Quotient (IQ) measures

The VBMAP consists of an initial assessment that provides the operant skill level (baseline) of the child. Obtaining an appropriate baseline is a scientific method of beginning intervention as the baseline in itself determines and drives the intervention process.

The diagnosis of ASD implies the presence of barriers that slow down the child's ability to progress in the domains of language skills, social skills and age appropriate behavior. Most assessments including IQ tests fail to assess these areas of the child's development that are crucial markers in ASD. The VB-MAPP is criterion referenced as opposed to IQ tests that are norm referenced, making it more amenable to meet the unique needs of a learner with Autism (Sundberg&Micheal, 2001).

Economy of cost

The professional time of the BCBA's on reviewing the videos and providing feedback to Participant M was on an average 80 minutes a week, as opposed to reviewing live sessions (300 minutes a week) conducted by a behavior technician. The live sessions were longer in duration accounting for natural distractions, peer engagement and transition times, absences or delayed arrivals of the child at the center. Table 2 illustrates the difference in costing and illuminates the economic advantage for the parents who subsequently saved on transport costs and time.

Table 2: Cost in Indian Rupees to the parent for 8 weeks of intervention

Expense	Center Based Services (INR)	Tele-health (Remote Supervision)
40 hours of intervention	80000	20000
Transport	3600	NIL
Material	Borne by center	1000
Total Cost	83600	21000

Parent-Child relationship

The change in scores are the most quantifiable short-term outcome of the VB-MAPP and this intervention but what remains etched in the long run is the development of a lasting bond between mother and child.

Positive relationship between parent and child is known to serve as a protective factor in child development (Pianta,1999). Participant M had attended multiple group training workshops and had been given home based goals, but expressed inability to gain her child's compliance. She also expressed lack of confidence in being able to work with her child successfully and termed the relationship with her child as turbulent and often times negative. With intensive BST coaching, participant M exhibited fluency in implementing behavior analytic procedures and said she even looked forward to working with her son. Critically, Participant C displayed increased compliance and the willingness to learn with the parent. Interestingly, an unexpected outcome of this intervention was that the child began reporting at the center if he had worked with the parent or skipped worktime entirely. Anecdotal data suggests an increased bonding between the parent and the child and the gradual discovery of common interests in music, singing and in spending time together.

Social Validity

The parent of the child indicated that it was easy to implement the program along with using the principles of differential reinforcement.

Parenting stress was evaluated using a Modified Family Impact Questionnaire (FIQ; Donenberg& Baker, 1993). The FIQ assesses parents' perceptions of the impact of a child's behaviors on their family, relative to the impact that most children have on their families. The mother was asked to rate agreement with items on a 4-point scale ranging from Not at all(0) to very much (3). For the purposes of this study three of the six FIQ scales were used: Positive feelings about Parenting, Negative feelings about Parenting, and Impact on Social Life. Participant M reported that she felt positive about parenting her child and better equipped to systematically work with him. Overall stress of parenting a child with ASD was shown to decrease.

V. Limitations and Recommendations

This study could be strengthened by adding additional parent child duos to assess the effectiveness of fidelity of the procedure and improve the critical analysis of the procedure and process. A more in-depth experimental design with multiple probes and multiple participants would improve the efficacy of the study. Deeper understanding of the mother-child bond as a tool to facilitate large gains for children with neurodiverse needs would serve as an important step towards promoting a positive parenting practice.

Despite the limitations, the current results indicate the combination of telehealth and evidence based interventions to be a robust structure to empower parents of children with ASD and bridge the gap between the need for and the availability of quality services. The findings have increased relevance during the Covid-19 global pandemic and in times of the enforced lockdowns and are suggestive of increasing the availability of a variety of evidence based services to a larger population via the telehealth model.

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References

- [1]. American Psychiatric Association. (2013). Diagnostic and statistical manual of mental disorders (5th ed.). Washington, DC: Publisher.
- [2]. Baggett KM, Davis B, Feil EG, Sheeber LL, Landry SH, Carta JJ, Leve C. Technologies for expanding the reach of evidence-based interventions: Preliminary results for promoting social-emotional development in early childhood. *Topics in Early Childhood Special Education*. 2010;29:226–238
- [3]. Barnes, Clarissa & Mellor, James &Rehfeldt, Ruth Anne. (2014). Implementing the Verbal Behavior Milestones Assessment and Placement Program (VB-MAPP): Teaching Assessment Techniques. *The Analysis of Verbal Behavior*. 30. 10.1007/s40616-013-0004-5.
- [4]. Bearss, K., Burrell, T. L., Stewart, L. M., &Scahill, L. (2015). Parent Training in Autism Spectrum Disorder: What’s in a Name? *Clinical Child and Family Psychology Review*, 18(2), 170–182.
- [5]. Boisvert, M., Lang, R., Andrianopoulos, M., &Boscardin, M. L. (2010). Tele practice in the assessment and treatment of individuals with autism spectrum disorders: A systematic review. *Developmental neurorehabilitation*, 13(6), 423–432. <https://doi.org/10.3109/17518423.2010.4998893>
- [6]. Dib N., Sturmey P. (2012) Behavioral Skills Training and Skill Learning. In: Seel N.M. (eds) *Encyclopedia of the Sciences of Learning*. Springer, Boston, MA. https://doi.org/10.1007/978-1-4419-1428-6_644
- [7]. Donenberg, Geri & Baker, Bruce. (1993). The Impact of Young Children with Externalizing Behaviors on Their Families. *Journal of abnormal child psychology*. 21. 179-98. 10.1007/BF00911315.
- [8]. Esposito, M., Dipierro, M. T., Mondani, F., Gerardi, G., Monopoli, B., Felicetti, C., Forieri, F., Mazza, M., &Valenti, M. (2020). Developing telehealth systems for parent-mediated intervention of young children with autism: Practical guidelines. *International Journal of Psychiatry Research*, 3(3), 1-11.
- [9]. Ferguson, J., Craig, E.A. &Dounavi, K. *J Autism Dev Disord* (2019) 49: 582. <https://doi.org/10.1007/s10803-018-3724-5>
- [10]. Goodwin, M.S. (2008). Enhancing and accelerating the pace of autism research and treatment. *Focus on Autism and Other Developmental Disabilities*, 23,125-128
- [11]. Hepburn, S. L., Blakeley-Smith, A., Wolff, B., &Reaven, J. A. (2016). Telehealth delivery of cognitive-behavioral intervention to youth with autism spectrum disorder and anxiety: A pilot study. *Autism : The International Journal of Research and Practice*, 20(2), 207–218. <http://doi.org/10.1177/1362361315575164>
- [12]. Ingersoll, B., & Berger, N. I. (2015). Parent Engagement with a Telehealth-Based Parent-Mediated Intervention Program for Children with Autism Spectrum Disorders: Predictors of Program Use and Parent Outcomes. *Journal of Medical Internet Research*, 17(10), e227. <http://doi.org/10.2196/jmir.4913>
- [13]. Ingersoll, B., Wainer, A., Berger, N., Pickard, K., &Bonter, N. (2016). Comparison of a Self-Directed and Therapist-Assisted Telehealth Parent-Mediated Intervention for Children with ASD: A Pilot RCT. *Journal of Autism & Developmental Disorders*, 46(7), 2275-2284. doi:10.1007/s10803-016-2755-z
- [14]. Johnson, C. R., Butter, E. M., &Scahill, L. (2019). *Parent training for autism spectrum disorder: Improving the quality of life for children and their families*. Washington, DC: American Psychological Association.
- [15]. Koegel, R. L., Symon, J. B., & Koegel, L. K.(2002). Parent education for families of children with autism living in geographically distant areas. *Journal of Positive Behavior Interventions*, 4, 88–103.
- [16]. Lavie, T., &Sturmey, P. (2002). Training staff to conduct a paired-stimulus preference assessment. *Journal of Applied Behavior Analysis*, 35(2), 209–211. <https://doi.org/10.1901/jaba.2002.35-209>
- [17]. Laurie A. Vismara, Gregory S. Young, and Sally J. Rogers, “Telehealth for Expanding the Reach of Early Autism Training to Parents,” *Autism Research and Treatment*, vol. 2012, Article ID 121878, 12 pages, 2012. <https://doi.org/10.1155/2012/121878>.
- [18]. Lindgren, S., Wacker, D., Suess, A., Schieltz, K., Pelzel, K., Kopelman, T., ... Waldron, D. (2016). Telehealth and Autism: Treating Challenging Behavior at Lower Cost. *Pediatrics*, 137(Suppl 2), S167–S175. <http://doi.org/10.1542/peds.2015-28510>
- [19]. Lofthouse, N., Hendren, R., Hurt, E., Arnold, L. E., & Butter, E. (2012). A review of complementary and alternative treatments for autism spectrum disorders. *Autism research and treatment*, 2012, 870391. <https://doi.org/10.1155/2012/870391>
- [20]. Machalicek, W., Lequia, J., Pinkelman, S., Knowles, C., Raulston, T., Davis, T., &Alresheed, F. (2016). BEHAVIORAL TELEHEALTH CONSULTATION WITH FAMILIES OF CHILDREN WITH AUTISM SPECTRUM DISORDER. *Behavioral Interventions*, 31(3), 223-250.
- [21]. Parsons, D., Cordier, R., Vaz, S., & Lee, H. C. (2017). Parent-Mediated Intervention Training Delivered Remotely for Children with Autism Spectrum Disorder Living Outside of Urban Areas: Systematic Review. *Journal of Medical Internet Research*, 19(8), e198. <http://doi.org/10.2196/jmir.6651>
- [22]. Parsons M. B., Rollyson J. H., Reid D. H. Evidence-based staff training: A guide for practitioners. *Behavior Analysis in Practice*. 2012;5:2–11.
- [23]. Peterson, K. M., Piazza, C. C., Luczynski, K. C., & Fisher, W. W. (2017). Virtual-care delivery of applied-behavior-analysis services to children with autism spectrum disorder and related conditions. *Behavior Analysis: Research and Practice*, 17(4), 286-297. doi:10.1037/bar0000030
- [24]. Pianta, R. C. (1999). *Enhancing relationships between children and teachers*. American Psychological Association. <https://doi.org/10.1037/10314-000>
- [25]. Pollard, J. S., Karimi, K. A., &Ficcaglia, M. B. (2017). Ethical considerations in the design and implementation of a telehealth service delivery model. *Behavior Analysis: Research and Practice*, 17(4), 298-311. doi:10.1037/bar0000053
- [26]. Rogers, S. J., &Vismara, L. A. (2008). Evidence-based comprehensive treatments for early autism. *Journal of clinical child and adolescent psychology : the official journal for the Society of Clinical Child and Adolescent Psychology, American Psychological Association, Division 53*, 37(1), 8–38. <https://doi.org/10.1080/15374410701817808>
- [27]. Simacek, J., Dimian, A. F., &McComas, J. J. (2017). Communication Intervention for Young Children with Severe Neurodevelopmental Disabilities via Telehealth. *Journal Of Autism And Developmental Disorders*, 47(3), 744-767.4-2186-7
- [28]. Snell-Johns, J., Mendez, J. L., & Smith, B. H.(2004). Evidence-based solutions for overcoming access barriers, decreasing attrition, and promoting change with underserved families. *Journal of Family Psychology*, 18, 19–35.

- [29]. Sundberg, M. L., & Michael, J. (2001). The Benefits of Skinner's Analysis of Verbal Behavior for Children with Autism. *Behavior Modification*, 25(5), 698-724. <https://doi.org/10.1177/0145445501255003>
- [30]. Sundberg, M. L. (2008). *The Verbal Behavior Milestones Assessment and Placement Program: The VB-MAPP* (2nd ed.). Concord, CA: AVB Press.
- [31]. Tomlinson, S.R.L., Gore, N. & McGill, P. *J BehavEduc* (2018) 27: 172. <https://doi.org/10.1007/s10864-018-9292-0>
- [32]. Tuli, Mila. (2012). Beliefs on Parenting and Childhood in India. *Journal of Comparative Family Studies*. 43. 81-92. [10.3138/jcfs.43.1.81](https://doi.org/10.3138/jcfs.43.1.81)
- [33]. Vismara, L. A., McCormick, C., Young, G. S., Nadhan, A., & Monlux, K. (2013). Preliminary Findings of a Telehealth Approach to Parent Training in Autism. *Journal Of Autism & Developmental Disorders*, 43(12), 2953-2969.
- [34]. Wainer, A., & Ingersoll, B. (2015). Increasing Access to an ASD Imitation Intervention Via a Telehealth Parent Training Program. *Journal Of Autism & Developmental Disorders*, 45(12), 3877-3890. [doi:10.1007/s10803-015-2550-3](https://doi.org/10.1007/s10803-015-2550-3)
- [35]. Ward-Horner, J., & Sturmey, P. (2012). COMPONENT ANALYSIS OF BEHAVIOR SKILLS TRAINING IN FUNCTIONAL ANALYSIS. *Behavioral Interventions*, 27(2), 75-92.

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