Dean&Francis
ISSN 2959-6149

the Impact of Pivotal Response Treatment on the Development and Social Integration of Children with Autism

Yuxi Zheng

Department of Art,Huzhou University

Abstract:

Children with autism face severe difficulties in education, mental health and employment, and need the attention and support of the community to help them better integrate into society and realise their self-worth.This is why it is important to study the impact of early interventions on the development and social integration of children with autism, and PRT is more flexible and life-like than other early interventions(Koegel et al., 1999, 2013).Therefore, this paper discusses the current state of research on PRT and implementation strategies based on an understanding of children with autism.

Keywords: Children with autism, PRT, development,social integration, impact

Understanding Autism Spectrum Disorders

Autistic children are those with Autism Spectrum Disorder (ASD).Autism is a pervasive developmental disorder characterised by difficulties in social interaction and communication, as well as stereotypic repetitions of interests and behaviour patterns(Bourgeois, 2010).Children with autism present in a variety of ways, but the common denominator is their significant differences in social interaction, communication, and behaviour.For example, they may struggle with language development or seem to have particular difficulty in making emotional connections with people(Eisenberg, 1956; Eveloff, 1960).In addition, children with autism often show a strong interest in specific objects or activities and may have repetitive patterns of behaviour(Kanner, 1968).

Specific differences in the performance of children with autism in terms of social skills and communication abilities are mainly in the following areas:

(1) Delay and loss of social skills: there is a delay and loss in the development of early social communication skills in children with autism(Havdahl et al., 2023).For example, in the Norwegian Mothers, Fathers and Children Cohort Study, delays or loss of at least one social communication skill was found to be associated with an increased likelihood of an autism diagnosis in children with autism(Havdahl et al., 2023).

(2) Delayed language development: Children with autism usually experience a delay in early language development, which is a typical feature of autism(Reetzke et al., 2022).This delay in language development not only affects their daily communication, but may also have an impact on long-term cognitive and social functioning.

(3) Influence of the family environment: The quality

of positive interactions in the family environment has a positive impact on the development of social skills in children with autism. For example, parental emotional support and cohesion are positively associated with children's social skills(Haven et al., 2013).In addition, the presence of siblings affects the social interaction and communication skills of children with autism, with children with autism who interact with non-autistic siblings performing better on non-verbal behaviours(Kim et al., 2024).

Research on Pivotal Response Treatment

Pivotal Response Treatment (PRT) is an intervention based on Applied Behavioural Analysis that aims to improve the social, communication and behavioural performance of children with Autism Spectrum Disorder (ASD) by focusing on key areas of their development (Tóth-Czifra, 2017).PRT is based on the principles of Applied Behavioural Analysis (ABA) and emphasises teaching and learning in the natural environment to increase the effectiveness and generalisation of the intervention (Haymes, 2013). PRT has a significant impact on the development and social inclusion of children with autism.

PRT focuses on 'key' behaviours such as motivation, response to multiple cues, self-management and social interaction(McKenna et al., 2018; "Supporting Students With Autism Spectrum Disorder in Schools," 2015).These key behaviours are an important foundation for children's development, and by positively changing these behaviours, a wide range of positive effects can be achieved, including improved language skills, enhanced social skills, and a reduction in behavioural problems (Koegel et al., 2008).PRT focuses on enhancing children's social skills and language abilities. It encourages children to interact with others by designing interest-based social activities and using natural reinforcers to reward meaningful attempts (Speaks, 2020). For example, when children initiate communication, they are rewarded with a corresponding object or toy (Speaks, 2008). In addition, PRT has been shown to significantly improve children's expressive language skills and social engagement (Koegel, 2019; Tagavi, 2021).

PRT emphasises the promotion of learning by enhancing motivation. Research has shown that motivation is an important factor in the learning outcomes of children with autism (Koegel, 2019).PRT enhances children's motivation to learn by offering choices, intermittent tasks, using natural rewards, and rewarding attempts to perform target behaviours (Koegel, 2019).PRT includes embedding social interactions into activities to enhance children's social motivation and interest (Tagavi, 2021). This strategy not only promotes the development of children's social skills, but also helps them understand the value of social interactions so that they can seek out these experiences independently (Tagavi, 2021).

Facing Differences in PRT Implementation Strategies for Children with Autism in Different Age Groups

There are a number of differences in the implementation strategies of PRT with children with autism of different ages. These differences are mainly in the areas of motivation, task design and parent/carer involvement.

Early Childhood (0-3 years)

In early childhood, PRT emphasises the development of key behaviours through interactions in the natural environment. Interventions at this stage focus on capitalising on the child's interests and motivation, such as using toys or games as rewards (Koegel, 2019). Additionally, research has shown that early social skill development is important for children with autism, and therefore social interaction and language skills are specifically emphasised in this stage of PRT (Tagavi, 2021).

Preschoolers (4-6 years old)

As children get older, PRT for preschoolers focuses more on task variety and the use of natural reinforcement. For example, the child's interest and motivation is maintained by varying the content and frequency of tasks and introducing new activities (Speaks, 2008). Also, interventions at this stage will involve more parental involvement to ensure that the child receives the same training effects in the home environment (McKenna et al., 2018).

School-age children (7-12 years)

For school-age children, PRT implementation strategies are further refined to include more complex task designs and more systematic assessment methods. For example, research has noted that as children get older, their ability to understand and express themselves verbally improves, so more tasks requiring verbal communication can be introduced (Verschuur et al., 2013). Additionally, interventions at this stage take into account the child's social needs and enhance their social skills through methods such as role-play and socio-drama (Verschuur et al., 2013).

Parents Participate in PRT Interventions

PRT emphasises parental involvement and implementation

ISSN 2959-6149

in the natural environment (Minjarez et al., 2010; McKenna et al., 2018), which helps to consolidate treatment effects and extend them into everyday life. Active parental involvement in the PRT process not only improves the effectiveness of the intervention, but also increases parental confidence and the overall quality of life of the family (Minjarez et al., 2010). Best practices and strategies for parent involvement in PRT interventions include the following:

(1) Tailored interventions: PRT interventions should be individualised to each child's goals, needs, and daily activities to ensure broad communication, behavioural, and social skill improvements (WONG & RAMKUMAR, 2023).

(2) Full participation of family members: the key to PRT is the active involvement of parents and other family members in the natural environment. This includes the implementation of interventions in environments such as the home, community, and school, thereby helping the child to develop independence and self-management skills in real-life situations (Rue, 2015).

(3) Application of motivational strategies: increase the child's motivation by increasing choice, establishing a direct link between the target behaviour and the reward, and encouraging reasonable attempts. In addition, motivational strategies such as following the child's leadership/choice and using items favoured by the child can be used (Mandasari, 2012).

(4) Ongoing supervision and support: to ensure the accuracy of the intervention, clinicians need to be trained and provided with ongoing supervision. Supervision is provided at least once a week to ensure effective implementation of intervention strategies (Tagavi, 2021).

(5) Training and education: Parents and therapists trained together in PRT techniques can significantly improve children's language and social behaviour.Training parents and children simultaneously is more effective than training parents alone (Verschuur et al., 2013).

(6) Behavioural guidance for positive interactions: Healthy child development can be promoted by guiding parents to engage in positive interactive behaviours with their children. For example, the Regional Intervention Plan (RIP) model requires family members to participate in a 2-hour training session at least twice a week, covering modules on behavioural skills, social skills, etc. (Hepburn & Foundation, 2004).

How does the Effectiveness of PRT Compare to Other Autism Intervention Methods such as ABA?

PRT is an intervention approach derived from Applied Behaviour Analysis (ABA), with the main difference being a greater focus on natural situations and increased motivation to help children with autism acquire key skills (Koegel et al., 1999, 2013). In contrast to traditional ABA approaches, PRT emphasises training in everyday life and stimulating the child's interest and engagement through, for example, play (Tagavi, 2021; Ventola et al., 2014).

According to relevant studies, PRT has been shown to have significant effects in improving the behaviour, language and social interactions of children with autism. For example, a randomised clinical trial comparing the effects of PRT and adult-led ABA interventions on disruptive behaviours of children with autism in public schools showed that PRT performed better in reducing disruptive behaviours (Koegel et al., 2019). In addition, PRT has been shown to enhance social communication skills and is more sustainable than traditional ABA techniques (Tagavi, 2021; Ventola et al., 2014).

Nonetheless, traditional ABA approaches such as Early Intensive Behavioural Intervention (EIBI) have also achieved significant results, particularly in the areas of cognition, language, social skills and daily living skills (Gitimoghaddam et al., 2022). However, these methods typically require a significant amount of repetitive practice and time investment, sometimes as many as 90,000 trials to teach a single word (Koegel et al., 2019). In contrast, PRT approaches are more flexible and life-like, reducing the tedium and time consumption of the intervention (Koegel et al., 1999, 2013).

PRT, as an a priori behavioural support strategy, has also shown promising results in reducing or eliminating behavioural problems (Koegel, 2019). For example, a randomised clinical trial comparing PRT with a structured applied behaviour analysis (ABA) intervention showed the advantages of PRT in reducing disruptive behaviours in public school children with autism (Koegel, 2019).

Overall, while the ABA approach has extensive empirical support and success in autism interventions, PRT, with its unique strengths, has performed more prominently in certain areas, particularly in improving motivation and adaptation to the natural environment (Salorio, 2010).

Analysis of the effectiveness of PRT treatment

What are the Long-term Effects of PRT in Children with Autism?

PRT can significantly improve the behavioural and social skills of children with autism by systematically addressing core or key areas of autism, such as motivation, self-management, social interaction, and multi-cue responsiveness (Ventola et al., 2014; Zhou & Xu, 2019). Studies have shown that children who receive PRT typically experience significant reductions in core ASD symptoms and improvements in overall social engagement (Tagavi, 2021; Ventola et al., 2014).

Specifically, PRT emphasises the use of learning opportunities in the natural environment with child-centred

strategies to promote autonomy and motivation, thereby reducing reliance on prompts and increasing spontaneity (Silveira-Zaldivara et al., 2021; Zhou & Xu, 2019). This intervention not only improves children's verbal expression, but also enhances their social skills and self-management (Koegel et al., 2019).

What are the Differences in the Effectiveness of Implementing PRT in Different Cultural Contexts?

There is some variation in the effectiveness of Pivotal Response Treatment (PRT) when implemented in different cultural settings, mainly in terms of the cultural adaptation of the intervention and the prevalence of the effects (Cardemil, n.d.).

According to the analysis in Cultural Adaptations to Experimental Treatments: a Comprehensive Review, cultural adaptations to a particular treatment programme should be considered when it shows significantly different effects in different cultural groups (Cardemil, n.d.). However, if adequate research shows no significant differences between cultural groups, there is no need to develop a different version (Cardemil, n.d.). For example, research on the Incredible Years parenting program showed that the intervention was effective in changing both parental behaviour and child behaviour in four different cultural groups (White, African American, Latino, and Asian American), and no cultural differences were found (Cardemil, n.d.).

However, with regard to PRT itself, there are no definitive findings indicating whether there are significant differences in its effectiveness across cultural contexts.PRT is a naturalistic model of intervention based on the principles of ABA (Applied Behavioural Analysis), which aims to achieve broad-based improvements in functioning through the teaching of key behaviours (Rue, 2015; Verschuur et al., 2013). Nonetheless, because PRT emphasises motivational components and naturalistic approaches to language learning, these features may have different acceptability and effectiveness in different cultural contexts. For example, some cultures may place more emphasis on collectivism than individualism, which may affect the effectiveness of individualised teaching strategies in PRT.

In addition, the book PIVOT RESPONSE TREATMENT FOR AUTISM SPECTRUM DISORDERS mentions that PRT was initially developed as a 'natural language paradigm' (NLP) and was later expanded to include a variety of other behavioural interventions (Koegel et al., 2019). This flexibility and wide applicability means that PRT may be applied differently in different cultural contexts, but further research is needed to verify the specific effects.

How to Quantify the Impact of PRT on Social Skill Enhancement in Children with Autism?

Quantifying the impact of Pivotal Response Treatment (PRT) on social skill enhancement in children with autism can be done in several ways:

1. Incorporation of Motivational Components: according to the book PIVOT RESPONSE TREATMENT FOR AUTISM SPECTRUM DISORDERS, the incorporation of motivational components into social activities is effective (Koegel, 2019). For example, interactions between children with autism and their typical peers can be facilitated by developing social games centred around restricted interests (Koegel et al., 2019). This strategy not only increases the child's engagement, but also enhances their social skills.

2. Effectiveness of community-delivered PRT interventions: research has shown that community-delivered PRT interventions are associated with improved child outcomes and parent satisfaction (Minjarez et al., 2010). This implies that PRT can be delivered more effectively in everyday life through the support of family members or community workers, thus further quantifying its improvement in social skills.

3. Application of key motivational variables: early research identified five key motivational variables: choice, intermittency, task variability, use of natural rewards and the importance of rewarding attempts to perform the target behaviour (Koegel et al., 2019). These variables are at the heart of PRT interventions to improve learning outcomes for children with autism by reducing their disruptive behaviours, using prerequisite interventions, interacting with restricted interests in a positive way, and creating an environment in which children with autism are respectable members (Koegel et al., 2013; Smith et al., 2015). The specific application of these variables can serve as an important indicator to quantify the impact of PRT on social skills enhancement.

4. data collection and analysis: in order to quantify the effects of PRT, data need to be systematically collected and analysed. This includes, but is not limited to:

- Data on children's social skill assessments before and after treatment.
- Parent and teacher observation reports of changes in the child's social skills.
- Data on the child's performance on specific social tasks, such as the ability to initiate conversations and respond to requests from others.

Positive impacts of PRT

Children with autism who receive PRT show significant improvements in social behaviour. Several studies support the effectiveness of PRT. For example, one study found that PRT was able to increase children's language skills and imitation skills (Koegel et al., 2013).PRT was able to significantly improve social communication skills in children with ASD (Gengoux et al., 2019). Young children who received PRT typically showed significant reduc-

ISSN 2959-6149

tions in core ASD symptoms and increased overall social engagement (Tagavi, 2021). In addition, PRT has been shown to increase complex social behaviours (Pierce & Schreibman, 1995) and has also been shown to have a positive impact on improving social skills in children with ASD (Zaheri et al., 2013).

A systematic review showed that PRT was effective in improving language skills, social interactions, and cognitive-perceptual abilities in children with ASD (Fereshteh et al., 2014). In addition, PRT has been shown to reduce parental stress and increase parental motivation to participate in the intervention process (Fereshteh et al., 2014). This suggests that PRT is not only beneficial for children, but also has a positive impact on the family environment.

Shortcomings of PRT and Future Research Directions

Although there is a large body of research supporting the effectiveness of PRT, some limitations remain. For example, certain key skills such as motivation, multi-cue responsiveness, and self-management have not been adequately assessed in some studies (Verschuur et al., 2013). In addition, further research is still needed on the effects of PRT on adaptive functioning, cognitive functioning, and academic functioning (Verschuur et al., 2013).

In conclusion, PRT has had a wide and far-reaching positive impact on children with autism in a number of areas through interventions that target key behaviours. It not only improves children's language and social skills, but also reduces behavioural problems and maximises the effects of the intervention through parental involvement and the use of natural environments (Minjarez et al., 2010; Tagavi, 2021). Future research needs to further explore the optimal combination settings, intensity, and duration of PRT, as well as identify child and parent characteristics associated with treatment response (Gengoux et al., 2019).

Conclusion

The aim of this paper is to explore the impact of PRT on the development and social integration of children with autism. Children with autism face many challenges in education, mental health and employment (Havdahl et al., 2023), and how to effectively help them integrate into society and realise their self-worth is an important research challenge. There are a variety of existing early interventions, but PRT has attracted much attention because of its flexibility and life-like characteristics (Koegel et al., 1999, 2013).

This paper explores the effectiveness of PRT in promoting the development and social integration of autistic children through detailed analyses of the characteristics of autistic children, the theoretical basis of PRT and implementation strategies. The specific methodology includes analysing the characteristics of autistic children and describing the typical features of autistic children, such as difficulties in social interaction and communication, and stereotypic repetition of behaviour patterns. The definition of PRT, key behaviours (motivation, response to multiple cues, self-management and social interaction) and its principles for teaching in the natural environment are explained. Specific implementation strategies for PRT are described in detail according to age groups of children with autism, including intervention priorities for toddlers, preschoolers, and school-aged children.

This paper demonstrates the significant effects of PRT in children with autism, such as improvement in social skills, reduction in behavioural problems, parental involvement and satisfaction, through several studies and case studies. This paper summarises the significant effects of PRT in the development and social inclusion of children with autism. PRT has had a wide and far-reaching positive impact on children with autism in a number of domains through interventions that target key behaviours (Verschuur et al., 2013; Gengoux et al., 2019). It not only improves children's language and social skills, but also reduces behavioural problems and maximises the impact of the intervention through parental involvement and the use of natural environments. Future research needs to further explore the optimal combination settings, intensity and duration of PRT, as well as identifying child and parent characteristics associated with treatment response (Gengoux et al., 2019).

Discussion

Although existing studies have demonstrated that Pivotal Response Treatment (PRT) is effective in improving language abilities, social skills, and behavioural regulation in children with autism, there are still several areas that require further refinement and exploration.

1.Individual variability and personalised adaptation: PRT highlights motivation and naturalistic settings, yet children with autism often differ greatly in their interests, attentional capacity, and the resources available within their families. Future research could consider the use of artificial intelligence or large-scale behavioural data analysis to generate more tailored intervention plans that address these individual differences (Verschuur et al., 2013).

2.Cultural adaptability: Current evidence is largely drawn from Western cultural contexts, where parental roles and educational expectations may differ from those in collectivist cultures such as China. Further investigation is needed to examine the adaptability of PRT across diverse cultural environments, and to develop culturally responsive models of intervention (Cardemil, n.d.).

3.Sustainability and long-term effects: Much of the existing research focuses on short-term outcomes, while children with autism require consistent support through-

out development. Longitudinal studies are necessary to explore the extended impact of PRT on academic achievement, vocational adjustment, and adult social integration (Ventola et al., 2014; Zhou & Xu, 2019).

4.Balancing family and community resources: While active parental involvement is central to the success of PRT, it also imposes additional demands on families. Future directions may include hybrid approaches that combine professional community support with structured parent training, or the use of online platforms to reduce the burden on caregivers (Minjarez et al., 2010).

5.Integration of technological innovations: At present, PRT is primarily delivered through direct, face-to-face interaction. However, emerging technologies such as virtual reality, gamified learning systems, and social robots could provide new avenues to enhance children's motivation and engagement. Future research may explore how digital tools can be integrated with the core principles of PRT to form a "digital PRT" model (Silveira-Zaldivara et al., 2021).

References

Bourgeois, M. (2010). [Dealing with and examining autistic children]. PubMed, 60(3), 382–383. https://pubmed.ncbi.nlm.nih.gov/20402133

Eisenberg, L. (1956). THE AUTISTIC CHILD IN ADOLESCENCE. American Journal of Psychiatry, 112(8), 607–612. https://doi.org/10.1176/ajp.112.8.607

Eveloff, H. H. (1960). The Autistic Child. Archives of General Psychiatry, 3(1), 66. https://doi.org/10.1001/archpsyc.1960.01710010068010

Kanner, L. (1968). Autistic disturbances of affective contact. Acta paedopsychiatrica, 35 4, 100-36 .

Havdahl, A., Farmer, C., Surén, P., Øyen, A., Magnus, P., Susser, E., Lipkin, W. I., Reichborn-Kjennerud, T., Stoltenberg, C., Bishop, S., & Thurm, A. (2023). Attainment and loss of early social-communication skills across neurodevelopmental conditions in the Norwegian Mother, Father and Child Cohort Study. Journal of Child Psychology and Psychiatry, 65(5), 610–619. https://doi.org/10.1111/jcpp.13792

Reetzke, R., Singh, V., Hong, J. S., Holingue, C. B., Kalb, L. G., Ludwig, N. N., Menon, D., Pfeiffer, D. L., & Landa, R. J. (2022). Profiles and correlates of language and social communication differences among young autistic children. Frontiers in Psychology, 13. https://doi.org/10.3389/fpsyg.2022.936392

Haven, E. L., Manangan, C. N., Sparrow, J. K., & Wilson, B. J. (2013). The relation of parent–child interaction qualities to social skills in children with and without autism spectrum disorders. Autism, 18(3), 292–300. https://doi.org/10.1177/1362361312470036

Kim, S. Y., Song, D. Y., Bong, G., Han, J. H., & Yoo, H. J. (2024). Descriptive Analysis of Social Interaction and Communication Skills of Autistic Children According to Sibling Status and Characteristics. Psychiatry Investigation, 21(1), 44–51. https://doi.org/10.30773/pi.2023.0209

Tóth-Czifra, E. (2017). Neuropsychiatric Disease and Treatment. https://doi.org/10.14293/s2199-1006.1.sor-med.clwxpbd.v1

Haymes, L. K. (2013). Book Review: The PRT Pocket Guide: Pivotal Response Treatment for Autism Spectrum Disorders. Research and Practice for Persons With Severe Disabilities, 38(1), 63–64. https://doi.org/10.2511/027494813807046980

Koegel, R. L. (2019). Pivotal Response Treatment for Autism Spectrum Disorders, Second Edition. http://books.google.ie/books?id=nqnQuQEACAAJ&dq=PIVOT+RESPONSE+TREATMENT+FOR+AUTISM+SPECTRUM+DISORDERS&hl=&cd=1&source=gbs_api

Speaks, A. (2020). 100 Day Kit for Newly Diagnosed Families of Young Children. http://books.google.ie/books?id=IaR8zwEACAAJ&dq=100+Day+Kit+For+Newly+Diagnosed+Families+of+Young+Children&hl=&cd=1&source=gbs_api

Speaks, A. (2008). First 100 Days Kit. http://books.google.ie/books?id=nDCvnQEACAAJ&dq=First+100+Days+Kit&hl=&cd=1&source=gbs_api

McKenna, A., Bamote, L., Johnson, L. S., & Cossette, N. (2018). SERVICE GUIDELINE ONE AUTISM SPECTRUM DISORDER INTERVENTION GUIDANCE FOR SERVICE PROVIDERS. In Connecticut Birth to Three System. https://www.birth23.org

Verschuur, R., Didden, R., Lang, R., Sigafoos, J., & Huskens, B. (2013b). Pivotal Response Treatment for Children with Autism Spectrum Disorders: A Systematic Review. Review Journal of Autism and Developmental Disorders, 1(1), 34–61. https://doi.org/10.1007/s40489-013-0008-z

WONG, C. M., & RAMKUMAR, A. (2023). CLINICAL PRACTICE GUIDELINES ON AUTISM SPECTRUM DISORDER IN CHILDREN AND ADOLESCENTS. In CLINICAL PRACTICE GUIDELINES | AUTISM SPECTRUM DISORDER IN CHILDREN AND ADOLESCENTS.

Mandasari, V. (2012). Learning social skills with 2D animated social stories for children with Autism Spectrum Disorders. https://researchbank.swinburne.edu.au/items/f1c44d56-87b1-4e28-b9d5-47d181d53c11/1/

Hepburn, K. S., & Foundation, A. E. C. (2004). Families as Primary Partners in Their Child's Development & School Readiness. http://books.google.ie/books?id=pR5AtwAACAAJ&dq=Families+as+Primary+Partners+in+the+Child%27s+Development&hl=&cd=1&source=gbs_api

Supporting Students with Autism Spectrum Disorder in Schools. (2015). In NCSE POLICY ADVICE PAPER.

Koegel, L. K., LaZebnik, C., Stone, W. L., DiGeronimo, T. F., & Smerling, K. (2008). First 100 Days Kit.

Tagavi, D. (2021, September). Parent-Child Psychophysiological Synchrony in Early Autism Intervention: A Pilot Investigation.

ISSN 2959-6149

Koegel, R. L., Bradshaw, J. L., Ashbaugh, K., & Koegel, L. K. (2013). Improving Question-Asking Initiations in Young Children with Autism Using Pivotal Response Treatment. Journal of Autism and Developmental Disorders, 44(4), 816–827. https://doi.org/10.1007/s10803-013-1932-6

Minjarez, M. B., Williams, S. E., Mercier, E. M., & Hardan, A. Y. (2010). Pivotal Response Group Treatment Program for Parents of Children with Autism. Journal of Autism and Developmental Disorders, 41(1), 92–101. https://doi.org/10.1007/s10803-010-1027-6

Gengoux, G. W., Abrams, D. A., Schuck, R., Millan, M. E., Libove, R., Ardel, C. M., Phillips, J. M., Fox, M., Frazier, T. W., & Hardan, A. Y. (2019). A Pivotal Response Treatment Package for Children With Autism Spectrum Disorder: An RCT. PEDIATRICS, 144(3). https://doi.org/10.1542/peds.2019-0178

Pierce, K., & Schreibman, L. (1995). INCREASING COMPLEX SOCIAL BEHAVIORS IN CHILDREN WITH AUTISM: EFFECTS OF PEER-IMPLEMENTED PIVOTAL RESPONSE TRAINING. Journal of Applied Behavior Analysis, 28(3), 285–295. https://doi.org/10.1901/jaba.1995.28-285

Zaheri, F. M., Rafiei, S. M., Rezaei, M., & Bakhshi, E. (2013). Effect of pivotal response treatment on social skill of 6-11 years old autistic children of Hamedan. DOAJ (DOAJ: Directory of Open Access Journals). https://doaj.org/article/7d68646a9eb94368aed7dbd4c3ded17b

Ventola, P., Friedman, H. E., Anderson, L. C., Wolf, J. M., Oosting, D., Foss-Feig, J., McDonald, N., Volkmar, F., & Pelphrey, K. A. (2014). Improvements in Social and Adaptive Functioning Following Short-Duration PRT Program: A Clinical Replication. Journal of Autism and Developmental Disorders, 44(11), 2862–2870. https://doi.org/10.1007/s10803-014-2145-3

Zhou, B., & Xu, X. (2019). Progress and challenges in early intervention of autism spectrum disorder in China. Pediatric Medicine, 2, 26. https://doi.org/10.21037/pm.2019.06.03

Silveira-Zaldivara, T., Özerk, G., & Özerk, K. (2021). Developing Social Skills and Social Competence in Children with Autism. Lnternational Electronic Journal of Elementary Education, 13(3), 341–363. https://doi.org/10.26822/iejee.2021.195

Koegel, R. L., Koegel, L. K., & Kim, S. (2019). Pivotal Response Treatment for Autism Spectrum Disorders. In Paul H. Brookes Publishing Co. https://brookespublishing.com/wp-content/uploads/2020/05/Koegel-2e_excerpt.pdf

Koegel, R. L. (2019). Pivotal Response Treatment for Autism Spectrum Disorders, Second Edition. http://books.google.ie/books?id=nqnQuQEACAAJ&dq=PIVOT+RESPONSE+TREATMENT+FOR+AUTISM+SPECTRUM+DISORDERS&hl=&cd=1&source=gbs_api

Smith, I. M., Flanagan, H. E., Garon, N., & Bryson, S. E. (2015). Effectiveness of Community-Based Early Intervention Based on Pivotal Response Treatment. Journal of Autism and Developmental Disorders, 45(6), 1858–1872. https://doi.org/10.1007/s10803-014-2345-x

Koegel, L. K., Koegel, R. L., Koegel, J. K., & Carter, C. M. (1999). Pivotal Response Intervention I: Overview of Approach. In JASH (Vol. 24, Issue 3, pp. 174–185).

Gitimoghaddam, M., Chichkine, N., McArthur, L., Sangha, S. S., & Symington, V. (2022). Applied Behavior Analysis in Children and Youth with Autism Spectrum Disorders: A Scoping Review. Perspectives on Behavior Science, 45(3), 521–557. https://doi.org/10.1007/s40614-022-00338-x

Salorio, C. (2010). Pediatric Neuropsychology: Research, Theory and Practice, Second Edition. Archives of Clinical Neuropsychology, 25(5), 471–472. https://doi.org/10.1093/arclin/acq041

Rue, H. C. (2015). Findings and Conclusions. http://books.google.ie/books?id=NZKSrgEACAAJ&dq=National+Standards+Project+Phase+2:+Findings+and+Conclusions&hl=&cd=1&source=gbs_api

Fereshteh, J., Saeid, H., & Akbar, A. A. (2014). The Effectiveness of Pivotal Response Treatment (PRT) on Decrease Of Clinical Symptoms in Children with Autism and their Parental Stress. The Neuroscience Journal of Shefaye Khatam, 5(3), 55–69. http://shefayekhatam.ir/files/site1/user_files_a8010a/shefayekhatam-A-10-24-120-19aa70f.pdf

Cardemil. (n.d.). Cultural adaptations to empirically supported treatments: ... https://wordpress.clarku.edu/wp-content/uploads/sites/234/2013/02/Cardemil-SRMHP-2010a.pdf