



Play as a Mediator of Autism: Concerns and Possibilities

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Introduction

The published literature on potential treatments for young children with autistic tendencies has suggested a variety of ways to assist such children in gaining positive developmental progress. At one time most of these recommended options focused on methods using ideas from behavior modification theory and this theoretical approach still is advocated today and conducted by many practitioners, especially in relation to suggested language and social skill treatments for children with autism [1]. Many of these approaches involve parental training in the use of the reinforcement techniques [2,3]. Publications evaluating the effectiveness of this methodology have indicated that some of the studies showed positive effects, especially on language responses, and some have showed only minimal effectiveness [4,5]. However, for many years the techniques, based on behavior modification theory, have been the prevailing model of treatment reported in the literature.

There also has been a competing theoretical view point regarding treatment of children with autism, however, and this approach draws on human developmental theory rather than on behaviorist learning theory. It focuses specifically on the promotion of typical play development as a mediator of autistic behaviors [6,7]. According to Greenspan, emotional organization is a primary task of young children and the typical phases of such organization are engagement (1-8 months), two-way communication (6-18 months), shared meanings (18-36 months), and emotional thinking (3-6 years). He recommended a play-based approach, which he called "Floor Time" that involves the child and adult caregiver in play interactions. The steps in such play involve the parent or other adult entering into the child's activities and following the child's lead within a warm affective interaction setting. After shared engagement is established, the adult then elaborates the actions and draws the child into more complex interactions. The method is very similar to "directed play", which involves adult/child complementary interactions in play activities [8]. At the present time, there are a number of therapists and researchers who are investigating how such play interactions in various forms may affect the language, social, and especially the emotional development of children diagnosed with autism.

The Role of Play in Young Children's Development

Many authors have discussed the way that children's play development interacts with physical, social, language, and emotional development in young children and really provides a "learning medium" for these other developmental areas [9]. For example, one theorist who outlined how play development stages parallel and foster cognitive development was Jean Piaget who proposed three stages of play development: practice play, pretence and games with rules, which occur in the infant-toddler age period, the preschool age period, and the early elementary age period, respectively [10]. Another theorist who especially valued pretence for its language and self-regulation

contributions to children's development is Vygotsky [11]. Play theorists agree that there are certain behavioral characteristics that must be present for an activity to be considered to be play. For example, a number of elements generally agreed upon by such theorists and researchers are that it involves flexibility, positive affect, non-literality, and intrinsic motivation [12]. Pretence in particular involves a form of meta-communication in which the behavioral and verbal signals do not convey the same message as they would convey if used outside that play frame. Instead they convey the message, "this is play" [13]. The other qualities, such as nonliterarity, positive affect, and intrinsic motivation, which define all types of play, are also necessary if the pretence is to be actual play, not required "playful-work."

Play Deficits of Young Children with Autism

A characteristic that has been noted in the majority of young children diagnosed as autistic is that they rarely exhibit the play developmental progress that occurs in typically developing children [14]. In fact, observation of deficits in typical play behaviors is a diagnostic tool for these children [15]. For example, these children may engage in types of practice play, which involves repeating actions on objects with increasingly complex interactions, but they do not progress to the more complex actions stages but continue to act in repetitive modes. Often they do not comprehend pretence but remain literal in their interactions with both people and objects and they may be unable to understand game rules such as turn-taking. They may not exhibit positive affect or show enjoyment in play. Thus, researchers and practitioners who have noted the importance of the parallels between play development and other developmental areas have begun to use a variety of play-based strategies to enhance the development of children diagnosed with autism.

Suggested Uses of Play as a Mediator of Autism

One of the suggested methods of using play to help young children with autism is based on the recommendations of Greenspan and others who indicate that adult involvement, particularly parental involvement, in such play may facilitate the development of these children [7,16,17]. More recently techniques similar to those suggested by Greenspan have been used effectively in school settings that involve peer play with children diagnosed with autism. Another recent method using play-based interventions involves video modelling of play actions and emotions that may lead to enhancement of these children's play-related behaviors [18,19]. Also, the development and use of technology-augmented toys and human-like robots now have shown some promising results [20]. While there is variation in the reported effectiveness of these play-based approaches, they do seem to give evidence that using methods that incorporate facilitation of play and that foster play development is a promising strategy that may enhance the social, emotional, and cognitive development of young children who have autism diagnoses.

Conclusion

While direct behavioral interventions have been one method of improving communication and social behaviors of children diagnosed with autism, methods that use play as a mediator for improving these children's abilities may add some important qualities and possibly show ability to foster emotional engagement in these children. However, because the emotionally-based interactions that naturally occur in play many not be present or may occur only occasionally in such play-based methods with children who have autistic tendencies, these methods still may result in a range of outcomes, depending on the child's capabilities and the types of adult, peer, video, or robotic play initiations and responses that are being used. Most of the reportedly effective play interventions have been short term and cross-sectional, with small participant samples, and therefore, it will be especially important to add studies that can provide longitudinal results as well as effects on children with a wide range of autistic-like symptoms in order to validate the effectiveness of the methods. Because play development is such an important aspect of early human development, however, these play-based approaches hold great promise for improving the course of these children's development. In particular, if such methods can enhance later stages of emotional development, such as enabling these children to engage in "shared meanings," play-based methods may provide important enhancements of their development and result in a long-term prognosis that is more promising and developmentally effective for these children.

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