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PLAY AND AUTISM SPECTRUM DISORDER: A PERSPECTIVE ON THEORY AND EDUCATION APPROACHES

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A PEER-REVIEWED ARTICLE

ABSTRACT

Play is an effective tool used by children to interact with the world set around them. In fact, play develops through a combination of experiences and interactions supported by people, toys, and places. When children get involved in activities, they do not only expand their range of emotions, but also improvise their social competence and play skills. However, since many schools fail to value the importance of play beyond early years, they dismiss the pressing need and aid required by children with ASD during play. The substantial theories regarding the importance of play from the light of children's development, along with their vast contributions to effective teaching, have been undermined. In fact, some studies have revealed the benefits of engaging autistic children in play at school after implementing interventions within school setting. As such, this review highlights play as an intervention strategy specifically for children with ASD within school setting. The objectives of this review are: (a) to identify peer-reviewed studies and to describe the characteristics of evidence-based practices pertaining to play within school setting; (b) to describe the theories underpinning the notion of play within social context; and lastly, (c) to illustrate the selection toys for play sessions in classrooms so as to expand play skills and social interactions among children with ASD. Since play is absolute significance for with ASD to indulge in at school, it is vital to determine evidence-based interventions that are effective in promoting engagement with play within school setting. Additionally, it is essential to comprehend the context in which these interventions are effectively implemented so as to meet the individual needs of children with ASD and to maximise the benefits of play as an effective intervention strategy.

ABSTRAK

Bermain adalah alat yang berkesan yang digunakan oleh kanak-kanak untuk berinteraksi dengan dunia yang ada di sekeliling mereka. Malah, bermain berkembang melalui gabungan pengalaman dan interaksi yang disokong oleh orang, mainan, dan tempat. Apabila kanak-kanak terlibat dalam aktiviti, mereka bukan sahaja mengembangkan rangkaian emosi mereka, tetapi juga meningkatkan kecekapan sosial dan kemahiran bermain mereka. Walau bagaimanapun, kerana banyak sekolah gagal menghargai pentingnya bermain di luar tahun-tahun awal, mereka menolak keperluan mendesak dan bantuan yang diperlukan oleh kanak-kanak dengan ASD semasa bermain. Teori-teori penting mengenai kepentingan bermain dari cahaya perkembangan kanak-kanak, bersama-sama dengan sumbangan besar mereka kepada pengajaran yang berkesan, telah terjejas. Sebenarnya, beberapa kajian telah menunjukkan manfaat melibatkan kanak-kanak autistik dalam bermain di sekolah selepas melaksanakan campur tangan dalam persekitaran sekolah. Oleh itu, kajian ini menyoroti permainan sebagai strategi intervensi khusus

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untuk kanak-kanak dengan ASD dalam suasana sekolah. Objektif kajian ini adalah: (a) untuk mengenal pasti kajian semula rakan-rakan dan untuk menggambarkan ciri-ciri amalan berasaskan bukti yang berkaitan dengan bermain dalam suasana sekolah; (b) untuk menggambarkan teori-teori yang menyokong konsep bermain dalam konteks sosial; dan akhirnya, (c) untuk menggambarkan mainan pemilihan untuk sesi bermain di bilik darjah untuk mengembangkan kemahiran bermain dan interaksi sosial di kalangan kanak-kanak dengan ASD. Memandangkan mainan adalah mutlak penting bagi ASD untuk memasuki sekolah, sangat penting untuk menentukan campur tangan berasaskan bukti yang berkesan dalam mempromosikan penglibatan dengan bermain dalam suasana sekolah. Di samping itu, penting untuk memahami konteks yakni campur tangan ini dilaksanakan dengan berkesan untuk memenuhi keperluan individu kanak-kanak dengan ASD dan untuk memaksimumkan manfaat permainan sebagai strategi intervensi yang berkesan.

Keywords: Play, Autism spectrum disorder, Theory, Selection toys

1. Introduction

Since the play is pleasurable, voluntary and intrinsically motivated, as well as flexible with non-literal orientation; one has to be actively engaged in play as the focus is solely on the process, instead of the end result (Wolfberg, 1999). Nevertheless, children diagnosed with autism spectrum disorder (ASD) often face difficulty to communicate (Kasari & Chang, 2014; Flippin & Watson, 2011). In fact, most children suffering from ASD appear to be limited with the incapability of being motivated or to enjoy interactions. Indications of such condition have gained special interest to identify the related factors so as to develop efficient management approaches (Chandler *et al*., 2013). Studies have shown that ASD accounts for various characteristics, including impulsiveness, repetitive behaviours, and compulsive tendencies. As a result, children with ASD often spend less time playing, as compared to their typically developing peers. Besides, observations from the educational setting reveal that children with ASD prefer to have only a particular child as their companion. Children with ASD rarely approach another person for the company, even in the absence of that one preferred child (Wong *et al*., 2007). Eventually, these children spend more time alone and avoid group activities (Kasari & Chang, 2014). They mostly express an inherent lack of flexible motivation, understanding of social experience, and lingual approach that restrict their ability to develop speaking skills (Kasari *et al*., 2006).

According to Centers for Disease Control and Prevention (CDC), 1 in 59 children had a diagnosis of Autism Spectrum Disorder (ASD) in 2018, a 15 per cent increase in prevalence from 1 in 68 in 2016 (Autism Speak, 2018). The escalating rate of ASD diagnosis points toward the need for wider implementation of effective interventions to mitigate the impacts of autism on social skills and speech development (Howlin, 2010). Hence, several interventional programmes have been devised in educational settings to promote interactions between the children, their peers, teacher, and parents in an attempt to overcome social reluctance displayed by children with ASD.

Play intervention refers to an intervention that has been widely discussed in many studies (Bratton *et al*., 2005) due to its effectiveness in treating children's behavioural and emotional problems by catering to their unusual needs and requirements. A majority of children below the age of 11 do not possess the complete ability to process abstract thoughts, which is integral to verbal expression, as well as comprehension of complex thoughts and feelings (Piaget, 1962). Children with ASD characteristically experience cognitive and behavioural complications throughout their life, particularly at the developing age (Lillard *et al*., 2013; Jana Mertz, 2013). Play skills, hence, are considered imperative as they promote a healthy learning environment during preschool years. Classroom participation is a necessary skill as it includes contributions to group activities, purposeful and self-directed activity, as well as deliverance towards instructions and questions. Children seem to possess the ability to express themselves naturally during play and other similar activities. Play intervention, therefore, offers a platform for communication

between the child and the therapist due to the postulation that children make use of play materials to demonstrate their thoughts and emotions when they are unable to express through speech (Landreth, 2012).

1.1 Play characteristics of children with ASD

Children with ASD experience difficulties in play from infancy (Charman *et al*., 1997), in spontaneous interactive social play (Chawarska & Volkmar, 2005; Wimpory, Hobson, Williams, & Nash, 2000), and later on, in social play (Jordan, 2003) or in group play (Wolfberg *et. al*., 2012). These difficulties are intricately linked with the nature of autism that involves substantial obstacles in social interaction, communication, and symbolic thinking (Wing & Gould, 1979). Furthermore, children with ASD also display hiccups in functional and symbolic play, in peer play, and in forming friendships. According to the Diagnostic and Statistical Manual DSM-5 (American Psychiatric Association (APA), 2013), play in children with ASD can be considered as stereotyped and/or repetitive with keen in sensory qualities of objects. As for the social and imaginative aspects of play, children with ASD are likely to exhibit difficulties in sharing imaginative play and in being interested with peers or in making friends.

Besides, children with ASD often display deficits in play skills and get involved in stereotypic behaviour, although it is an important part of daily routine. A study discovered that children with ASD are likely to improve their play skills as a result of direct intervention embedded during their play therapy (Jung & Sainato, 2013). Similar to the collateral effects, play intervention brings significant improvement in play skills among children with ASD by enhancing their social interactions and decreasing their inappropriate behaviours. A study conducted by Landreth *et al*. (2009) revealed that play intervention encourages children to express themselves more openly, thus improvising their cognitive development. Hence, play intervention is reckoned as a helpful modality that must be implemented in schools for children in early ages.

Children with ASD can gain considerable benefits from early intervention programme, mainly because these programmes emphasise on enhancing the rates of recurrence and functions as certain forms of play elicit improvements in communication (Paul, 2008). Children with ASD unable to acquire interactively or play skills due to limited communication skills. Interventional programmes have indicated enhanced and improved social, communicative, and language behaviours among children with ASD (Chandler *et al*., 2013). Moreover, studies have highlighted these intervention programmes as significant to improve play skills among autistic children in particular (Kasari & Chang, 2014; Flippin & Watson, 2011; Miltenberger & Charlop, 2014).

2. Theories underpinning play in the context of Autism Spectrum Disorder (ASD)

2.1 Social cultural theory- Lev Vygotsky

Vygotsky (1978), a social constructivist, projected that learning among all children takes place within a social context, and therefore, learning appears on the social level before being internalised on the psychological plane. Vygotsky promulgated that all forms of play grow from imagination, but that, over time, will be governed by rules. In imaginative play, children free themselves from reality and its constraints. In a play, the correlation between imagination and rules changes over time from an initial emphasis on the imaginary situation to a later dominance of rules. Vygotsky asserted role-play as the leading source of development amongst young children, but this is not a dominant form of activity. In a play, children engage in imaginary situations that are free from situational constraints, create definitions of roles, and subordinate themselves to rules created within the imaginary scenario.

A theme emerges that instead of providing individual support away from peers, children with ASD need extensive opportunities to experience inclusive practices that provide the required socio-cultural stimulation in enabling appropriate cognitive growth, such as inclusion class wherein peer-mediated intervention is integrated into activities (Humphrey, 2008). The practices of Integrated Play Group model are grounded in sociocultural theory (National Autism Center, 2009; Wong *et al*., 2013; Reichow & Volkmar, 2010). It specifically draws from the social constructivist work of Vygotsky (1967, 1978) who ascribed prime importance to the role of play as both mirroring and leading development. This approach of integrated play groups, as described by Wolfberg and Schuler (2006), caters for somewhat older children who are ready to start playing with peers, in which the immediate aims of the therapy are to improve the level and the quality of play, as well as to teach autistic children on how to participate in social play within small groups. The longer-term goal of this integrated play groups approach is to reduce the effects of social isolation on overall development.

Imaginary play refers to a primary collective social activity through which children learn and develop capacities to symbolise, socialise, and culturally construct meaning. Learning and development take place during social interactions within the child's "zone of proximal development" (ZPD) or "the distance between the actual developmental level as determined by independent problem solving, and the level of potential development as determined through problem solving under guidance or in collaboration with more capable peers" (Vygotsky 1978, p. 86).

Scaffolding play systematically adjusts the amount and type of support needed based on the degree to which children and peers/teachers can coordinate their own play interactions. Guiding play based on ZPD embeds strategies that support ASD children in peer play experiences that are slightly beyond their capacity while fully immersed in the whole play experience at their present level.

Pretend play is a form of external performance that incorporates both conventional imaginative play and symbolic play (Stagnitti & Unsworth, 2000). Conventional imaginative play involves perceiving objects (or conventional toys) as real or small copies of things and then using them in a functionally proper way outside the typical context (Lewis *et al.*, 1992; Stagnitti & Unsworth, 2000). Pretend play has a positive influence on the development of social competence and social skills (Peter, 2003; Whitington & Floyd, 2009). Pretend play is linked to several processes related to social competence, such as instilling cooperation, becoming sensitive to the needs of others, extending ideas of others, acquiring interpersonal skills, and building relationships (Peter, 2003; Whitington & Floyd, 2009).

Some glitches have been reported regarding pretend play in autism. However, children with ASD do seem to possess the ability to engage in pretend to play if it is highly structured or elicited in some manner. Social contact with peers is a highly eliciting situation and it may be the absence of this elicitation that is at the heart of presumed deficits in pretend play. After weighing in all evidence, Jordan (1999) suggested that symbolic play itself may not be disturbed in ASD, but once general cognitive difficulties are accounted for, it is the social aspects of pretend play (both functional and symbolic) that are affected.

Symbolic play involves using objects (or unstructured toys) as something else by attributing properties to objects or pretending the existence of an absent object. Pretend play reflects and facilitates the development of emotions, language, cognition, social skills, and perspective-taking ability (Baron-Cohen *et al*., 1996; Lillard *et al*., 2013; Vygotsky, 1976). Furthermore, pretend play is linked with the capacity of symbol use and thus, language development (Vygotsky, 1966).

Social play is precisely essential respect because it captures multiple aspects of development. Once acquired, social play incorporates intention, interrelatedness, emotional directedness, and narrative ability. Typically, play development mirrors other aspects of development in children, such as cognitive, social,

linguistic, and emotional elements (Rubin *et al*., 1983; Vygotsky, 1966). Cognitive development is reflected in the move through a sensory exploration of objects, simple repetitive play, relational and constructive play with objects, as well as purposeful problem solving with awareness of the functional and the physical properties of objects. In line with Vygotsky's theory, the Integrated Play Group intervention embraces Rogoff's (1990) notion of guided participation, whereby children's learning and development are mediated through active engagement in play activity.

According to Wolfberg (1999), the socio-cultural theory of play as a social play that constructs shared meanings, apart from transforming and understanding skills, values, and knowledge of one's culture. Social play is one of the earliest social exchanges that take place between babies and caregivers during feeding, bathing, and nappy changing, to the complex interactions between primary school-age children acting out cops and robbers or mothers and fathers. The social play also teaches children about social relationships and how to engage in them, including the cultural norms of the society the child is growing up in.

2.2 Social learning theory- Bandura

Children with autism can have problems learning from society, and vicarious reinforcement is the key aspect of Bandura's social learning theory. Bandura's (1977) social learning theory helps to bridge both cognitive and behavioural principles. It postulates that people can learn from modelling and observing others' behaviour, attitudes, and the outcomes of those behaviours. Based on Bandura's (1977) social learning theory, human behaviours and environment are in interaction. Individuals learn new behaviours and renew their present behaviours via imitation, observation, and modelling techniques (Bandura, 1977).

Imitation is a skill that emerges early in typical human development. It relies on and reflects both social and cognitive processes, apart from playing a pivotal role in learning throughout development. From a pedagogical standpoint, it is particularly important to comprehend the nature of imitation abilities among those diagnosed with ASD, mainly because imitation is a key mechanism in transmitting information and facilitating learning in individuals who have yet to develop language.

One defining the feature of children with ASD is 'lack of varied and spontaneous make-believe play or social imitative play appropriate to developmental level' (APA, 1994). It is not that they do not play–they do, in their own particular ways. Their play, eventually, gets stuck at the early toddler level of manipulating objects and enjoying sensations – tasting, touching, smelling, banging, shaking, or rocking/rotating their body. Meanwhile, typically developing toddler moves on by imitating and exploring, engaging with others, as well as learning to use objects and their own body movements in make-believe play. Children with ASD usually narrow down to a small number of preferred manipulative or sensation-giving solitary activities that are repetitive.

Despite lacking in imitation skills among children with ASD, teachers can improve their imitation skills via pretending play activities. Teachers can use a variety of materials to prompt children to imitate them. Children can imitate sounds, facial expressions, actions or imitate the way to play toys. Object play and pretend play can be used to teach children to enhance their imitation skills. Whiten and Singh's (2004) systematic review of action imitation in autism (in which imitated tasks were most broadly classified as actions upon objects or gestures) showed that studies classify the domains of imitation into an oral-facial, body, and object-oriented. Children without speech or non-verbal can learn simple pretend sequences, such as feeling a doll or putting a doll to sleep. As their language develops, they can build their imitation skills and develop more complex pretend to play skills.

Early imitation enhances the expressive and receptive language development among children with ASD. As such, these children can gain increasing experience of other people and the world; eventually becoming gradually aware of the mental states of other people, for instance, intentions. Observation is a crucial element that helps children to learn social skills, such as play skills, turn-taking, sharing, and role-play activities. Children with ASD tend to observe another peer in the classroom, especially during play time. Through observation, children attempt to imitate the behaviour from the peer. In the context of the play, observation serves an important role where children with ASD observe the therapist or teacher to learn play skills and social behaviour in the classroom.

Modelling refers to target behaviours for children to imitate in enhancing their performance of the behaviour outcomes (Cox, 2013). Imitating is important as it is the foundation for young children to copy from someone in developing pre-social skills. They imitate movements, such as touching nose, clapping hands, making a thumb's up, and picking up a ball, which are effective for those from birth until 22 years olds. The play is often associated with social experience. In the play, children imitate social actions and learn to interact (Aeri & Verma, 2004). By modelling adults, infants enjoy playful intimacy and gain experience in social reciprocity (Bandura, 1989).

Schrandt *et al*. (2009) used modelling and prompting techniques to increase both physical and vocal responses that represented empathy among children with ASD aged between 4 and 8. The instructor used a doll or puppet to display short vignettes to students that exemplified sadness and pain, happiness and excitement or frustration. Next, the instructor modelled and prompted appropriate physical and vocal responses. The children were reported to increase their rates of making physical and vocal empathic responses during the intervention. On the other hand, Charlop-Christy *et al*. (2000) compared modelling and video modelling to determine the effects of emotion labelling, play skills, greetings, and conversational speech among five subjects diagnosed with ASD aged between 7 and 11. The intervention took place in a therapy room in an after-school programme that each subject attended. Depending on the phase, the subjects either watched the target behaviour modelled by familiar therapists in the programme, or they watched the behaviour modelled via video. The outcomes indicated that target behaviours increased during both modelling and video modelling, except for the fact that video modelling led to more rapid improvements (Corbett *et al.*, 2011).

2.3 Theory of mind (ToM)

Theory of mind (ToM) refers to the ability to attribute mental states in beliefs, desires, intentions, and emotions to other persons, besides predicting behaviour accordingly. Within the context of social competence, ASD children seem to exhibit undeveloped ToM as they can only partially understand the mental states of others and social cues of their peer. Thus, this inability leads to the poor relationship within their peer. Therefore, intervention programmes should establish two main goals: a) to broaden children's understanding of the mental states of other children, and b) to mediate and directly guide children in applying this knowledge to enhance reciprocity in daily social interactions (Howlin, 1998).

On the other hand, social cognition includes the ability among children to spontaneously read, as well as to correctly interpret verbal and nonverbal social and emotional cues; the ability to recognise central and peripheral social and emotional information; the knowledge of different social behaviours and their consequences in diverse social tasks; and the ability to make adequate attribution about another person's mental state (Nirit Bauminger, 2002). Such abilities are related to ToM.

Apart from social cognition, emotion recognition is also a common impairment displayed by children with ASD (Daou *et al.*, 2016). Emotion recognition is defined as the ability to distinguish various affective expressions in facial, gestural, and verbal displays, in oneself and in others, as well as to

understand their social-contextual meaning. In fact, there is studies have revealed that children with high-functioning understand basic emotions, such as happiness, sadness, anger, fear and complex emotions (e.g. embarrassment, surprise, and loneliness) and claimed that high-functioning ASD children performed well in recognising simple emotions, either explicitly or implicitly presented in various stimuli. However, it was reported that they faced problems in identifying complex emotions, such as surprise, empathy, and pride (Nirit Bauminger, 2002).

In line with the reports presented by Peterson, (2014) and Nirit Bauminger, (2002), other studies to have revealed that children with ASD experienced incomplete understanding of socially complex emotions, especially when compounded with social understanding of cultural norms, conventions, and rules of behaviour, such as guilt; inability to reflect on the self with others, such as embarrassment; and the inability to take responsibility for one's own behaviour, such as pride. Kasari *et al.* (2001) asserted that when compared with typical children, children with high-functioning who demonstrated narrower repertoire of complex emotions were able to provide only more scripted and general examples of complex emotions; were less likely to include attribution to an audience in their examples; and required longer duration and more prompts to generate an example of a complex emotion.

Additionally, children with ASD exhibited the tendency to rely on and implement cognitive strategies and terms, such as "I think" and "maybe" in the process of recalling instances of the complex. In sum, children with ASD need help in broadening their repertoire of emotions and in linking emotions with various social situations. As a consequence, intervention programmes should establish two main goals: first, to broaden the child's understanding of other children's mental states' and, second, to mediate and directly guide the child in applying this knowledge to enhance reciprocity in daily social interactions. In fact, a number of studies have showcased enhancement in emotion recognition by embedding video modelling strategies in their interventions. The most well-known is using "Transporter" in teaching children to recognise the basic emotions during social skills intervention.

3. Play model for children with ASD

3.1 Structured play

Generally, structured play provides many choices for ASD children. (Asd, 2018). It is not about free play, but such play positions a child in a scenario to discover something or to achieve goals. Within the play context, children with ASD need structured play because they are different and they have impaired in motivation to interact, learn, and play like their neuro-typical peers. Instead, they display solitary and repetitive behaviour. They exhibit rigidity and often preserve 'sameness' in their play. Conversely, choice and freedom do not motivate children with ASD to play. Children with ASD need structured play because they have impaired motivation in both learning and playing.

Structured play is choosing an activity to play with children with ASD and observing if they can play appropriately or otherwise. During play, teachers monitor and see how the children interact. The purpose of structured play is to motivate children with ASD to have constructive interaction and play longer in one activity. This also makes children feel distressed and calmer by introducing a play environment that is more predictable and less chaotic.

Generally, structured play works by breaking a play activity into several components. In order to break down a play activity, the teacher would have to look at it as a series of tasks and teach each part separately. Breaking down a play activity into very simple parts enables children to work out with each element, interpret the activity, and give meaning. Children can also process incoming information better and achieve the targets according to their potential. It is important to ensure that the activities are

specifically designed for the targets, such as communication skills or play skills, which should be provided at the individual level of ability. Most activities are performed at a tabletop and the session is kept short by two to three minutes, whereby the duration is gradually increased.

3.2 Unstructured play

Floortime

Floortime refers to an approach that is designed to improve children's language, cognition, emotion, and social skills through meaningful interactive relationships. This model emphasises on the notion that real learning occurs not in artificial contexts, but in real contexts, apart from generalising acquired skills into various types of social interactions. Generally, DIR/FloortimeTM model involves intervention entirely with caregivers of children with ASD. A study that reported the effectiveness of the DIR/FloortimeTM intervention model took place in Taiwan (Yen *et al*., 2008). Two psychologists implemented this approach in a clinical setting for two preschool children (46 and 54 months old) with high-functioning autism. These children received 12 and 10 an hour weekly treatment sessions, respectively. The intervention outcomes were primarily assessed via qualitative observations that displayed positive responses towards social responsiveness among preschool children with ASD.

The DIR/Floortime model emphasises on naturalistic learning chances and often seen as child-directed, instead of therapist/caregiver-directed (Grertenspan & Wieder, 1999). The caregiver is instructed to follow the child's lead and respond directly to the child's play initiations. While these strategies often begin with a therapist and the child, the emphasis of most DIR/Floortime interventions is on the caregiver-child relationship, which is believed to be integral in developing and generalising joint attention, apart from promoting socio-emotional functioning (Mahoney & Perales, 2003; Schertz & Odom, 2004). Lewy and Dawson (1992) asserted that this model that offers opportunities for child-focused social interaction has the likelihood to enhance joint attention, as the adult can better elicit joint attention from the child in everyday interactions. This model adopts naturalistic teaching as it presents opportunities to create the motivation in children to give responses and to initiate joint attention. By experiencing the power of self-direction in a safe situation or without being judged, the child is able to develop an inner sense of control, relying less on negative behaviours to meet the need for attention (Landreth, 2012). Given the opportunity to express themselves freely, children are able to reach solutions and resolve their own emotional difficulties through play experiences and therapists' help.

3.3 Child-centred play therapy (CCPT)

Greenspan and Wieder (2006) identified three core problems related to ASD that may not be easily addressed through behavioural interventions, namely establishing closeness; exchanging emotional gestures in a continuous way (e.g. engaging in emotional signalling with others in the form of smiles or frowns); and using words or symbols with emotional intent. "When conceptualising ASD according to these three core problems, it can be clearly observed that children who are correctly diagnosed with ASD are challenged in relationships" (Ray *et al*., 2012, p.166). As a result, relational interventions, such as CCPT, are suitable and necessary addition to the treatment protocol for ASD children. CCPT is an intervention method that supports social and emotional growth among children with ASD (Bratton *et al*., 2013; Josefi & Ryan, 2004; Landreth, 2002). Non-directive play therapy seems to be a particularly appropriate therapeutic approach for children with ASD and young people because it is empowering and it allows children to work on multiple emotional issues simultaneously.

This review shows that unstructured play and structured play both are equally important for children with ASD. Therapist and teacher can integrate both structured and unstructured play during the intervention in school in order to achieve the promising results.

4. Toys selection for play therapy session in classroom

The abundance of toys can be used in a playroom. What they are is not as important as having toys that make a statement to the child that a great range of behaviours is permitted in the session. The process of selecting toys can be daunting to play therapists who see children from diverse backgrounds and with varied issues. Besides, play therapists are often limited by funding and are required to be judicious in their decision-making. Ray (2011) suggested that a play therapist should ask three main questions when selecting toys: 1) What therapeutic purpose will this service for children? 2) How will this help children express themselves? and 3) How will this help me build a relationship with the children? When a play therapist has answered these questions affirmatively for each play material, there is a likelihood that the toy is indeed appropriate for the playroom. Landreth (2012) offered more specific guidelines by suggesting for toys selection, namely facilitate a wide range of creative expressions; facilitate a wide range of emotional expressions; engage children's interests; facilitate expressive and exploratory plays; allow exploration and expression without verbalisation; allow success without prescribed structure; allow non-committal play; and have sturdy construction for active use.

Both Ray and Landreth emphasised the need for a variety of toys when working with children from the stance of CCPT. Multiple toys/materials allow children to express themselves in their own unique ways. In CCPT, the playroom, including its toys and materials, is a place where children can express their worldviews and work towards their self-actualising processes. Just as adults are supported in their use of any word to express themselves in counselling, children are supported in their use of any toy/material to express themselves in the playroom.

4.1 Toy categories

Play therapists agree on the essential materials to be included in a play therapy room. In texts covering, a variety of theoretical approaches to play therapy, Carmichael (2006), Kottman (2011), and Landreth (2012) generated similar lists of individual toys as suggested by the literature. Landreth and Kottman provided categories of play materials in order to help play therapists in their decision-making pertaining to toy selection.

Landreth (2012) proposed the following three categories of toys: real-life toys, acting-out aggressive-release toys, as well as toys for creative expression and emotional release. Real-life toys allow direct expression of feelings, which include puppets, dollhouses, cash registers, and vehicles. Next, acting-out aggressive-release toys are materials used to express anger, hostility, and frustration, such as bop bags, soldiers, and weapons. Lastly, toys for creative expression and emotional release that allow a child to be spontaneous, expressive, and possibly messy are sand, water, and paints.

Meanwhile, Kottman (2011) specifically identified five categories of toys based on their therapeutic values and applicability across theoretical orientations. Instead of producing a definitive list of the most necessary toys, she argued that the primary focus should be on selecting toys that represent each of the five categories. Kottman's (2011) categories include: family/nurturing toys, scary toys, aggressive toys, expressive toys, and pretend/fantasy toys. Family/nurturing toys include items, such as baby dolls, baby bottles, dollhouse, several different families of dolls, sand in the sandbox, stuffed toys, dishes, pots, pans, empty food containers, a kitchen set, and puppets. Family/nurturing toys enable a child to express family and relationship concerns, besides building a relationship with the play therapist. Instances of scary toys are dinosaurs, alligators, dragons, insects, snakes, rats, and puppets with fierce expressions. Scary toys enable children to express feelings of fear or work through traumatic experiences. Aggressive toys include guns, knives, swords, handcuffs, plastic shields, a foam bat, a rope, toy soldiers, and a bop bag to enable children to express feelings of anger and aggression, explore control issues, and practice self-

protection. Expressive toys are Play-Doh®, paints and an easel, glue, crayons, markers, finger paints, scissors, tape, paper, egg cartons, and other craft supplies. Expressive toys enable children to express feelings, to be creative, gain a sense of mastery, and practice problem-solving skills. Lastly, pretend/fantasy toys include dress-up clothes, jewellery, masks, magic wands, telephone, a doctor's kit, puppets and a puppet theatre, zoo and farm animals, and blocks. Pretend/fantasy toys enable children to express feelings, role-play, act out a variety of scenes, and experiment with various behaviours.

Frequent use of all toys categories indicates that the playroom offers a full range of toys encompassing nurturing, family, aggressive, scary, pretend, fantasy, and expressive toys, as well as materials. Children appreciate the availability of diverse ways to express themselves as demonstrated by the frequency of use. If play therapy embraces the belief about children that toys are their words and play is their language (Landreth, 2012), it is logical that a multitude of toys would be needed; analogous to a multitude of words. Trotter, Eschelman, and Landreth (2003) highlighted that a playroom filled with only nurturing toys limits one's expression and sends a message that aggressive thoughts and feelings are unacceptable.

5. Strengths and limitations

The current study gains strength in which it pioneers an entirely new point of view from which researcher look insight about the play characteristic during play intervention. It is able to shed light on an overlooked gap in the previous studies, which has focused directly on improving the deficient skills or social behaviours, while overlooking the important of play among children with ASD on their social and emotional functioning, social skills as well as their behaviours at school. There are several limitations to this study. Overall, the present study is looking insight the play approach for children with ASD in school setting. However, studies in play intervention still very limited due to inadequate teacher in conducting the play intervention in school if compare in clinic. However, there are also many noteworthy strengths in play, which reinforce the significance of the results and emphasize the importance of play in children with ASD.

6. Conclusion and future research

In conclusion, autism is a neuro-developmental disorder with a diagnosis that is based on the presence of repetitive behaviours, as well as impairment in several critical areas of communication, flexibility, and the development of reciprocal social relations (APA, 2013).

The works of developmental psychologists, such as Piaget and Vygotsky, offer educators important knowledge and techniques regarding teaching in a developmentally and socio-culturally appropriate manner. From the theoretical stance, Vygotsky (1978) was concerned that disability effectively alters the way in which children develop and interact within the environment and how they will interact with others. In particular, Daniels (2009) asserted that the developmental cognitive growth of a child with special educational needs is facilitated through collaborative activity, including play activities. Daniels (2009) added that the importance of the teacher's role in mediating social consequences is when they arise and not just dealing with the organic nature of the disability.

Play has been commonly acknowledged to have a cognitive organisational function that reflects the varied stages of development (Piaget, 1962; Wilson & Ryan, 2005). Thus, the progression from functional to symbolic play is viewed as a complex process. This is because; it involves children to consolidate information from thoughts, imagination, and mental pictures (mental imagery), together with their current life experiences in order to integrate cognitive with personal schemas. This developmental step is supported in play therapy as it is receptive to the children exploring and integrating these constructs at their own pace.

Play therapy fosters development through joint attention, imitation response, ToM, as well as symbolic and functional play skills. Through the lens of joint attention, each child improves his social interactions; moving from having an intense focus on an interest area to having a more open view that enables greater responsiveness to both therapist and parents.

In response to the need for appropriate play interventions for children with ASD, future studies need to focus in play intervention to determine optimum learning times in maximising potential learning of both academic and social skills for ASD children. McGregor et al., (2008) posited an integration of research disciplines for future educational development, as there is a pressing need to move away from causal explanations of ASD towards developmental responses to developmental disorder.

Yet, educators are best placed to implement appropriate curricula and pedagogies to enable children to access the most pertinent forms of learning. School psychologists and special need teachers need to work together to develop the best practice in support of learning amongst children diagnosed with ASD.

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