



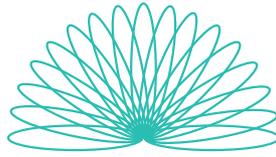
CENTRE FOR AUTISM
MIDDLETOWN

Play and Autism



RESEARCH BULLETIN ISSUE NO. 9

Supporting the promotion of excellence throughout Northern Ireland and Ireland in the education of children and young people with autism.



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This is the ninth Research Bulletin produced by Middletown Centre for Autism. The aim of the Centre's Research Bulletin Series is to provide accessible summaries of relevant peer-reviewed research articles. The current Bulletin contains 13 summaries of articles related to play and autism, and commences with an interview with Professor Melanie Nind.

Melanie Nind BEd, Phd is Professor of Education at the University of Southampton. Her particular areas of interest and expertise lie in the fields of interactive and inclusive pedagogy, and inclusive research methods. She also maintains a keen interest in inclusion, and gender, sexuality and disability rights issues within a broad social justice framework, but is best known for her work on Intensive Interaction. She is editor of the *International Journal of Research and Method in Education* and on the international advisory or editorial boards for the *Journal of Research in Special Educational Needs*, *European Journal of Special Needs Education*, *British Journal of Learning Disabilities* and *Disability and Society*.

Melanie began her teaching career in special schools as a teacher of students with severe and complex learning difficulties and autism. She has also worked in further education where she has coordinated support for students with learning difficulties and disabilities. In higher education she has worked as an Associate Research Fellow in the Centre for Autism Studies at the University of Hertfordshire, as a Senior Lecturer in Special Education at Oxford Brookes University, and at The Open University developing and teaching undergraduate and postgraduate distance learning courses in inclusive education. She has been researching for three decades and is currently a co-director of the ESRC National Centre for Research Methods.

Please note that the views represented in this document do not necessarily reflect the views of Middletown Centre for Autism. Reviewers have, where possible, used the original language of the article which may differ from UK and Ireland usage and the usage of a range of terminologies for autism.

AN INTERVIEW WITH MELANIE NIND

Melanie Nind,
Professor of Education,
University of Southampton

1. What do educators mean by play and why is it important?

As educators, when we talk about play we tend to be referring to an activity we see as integral to childhood and to learning. Particularly in Western Europe and Northern America, we are steeped in cultures in which play is seen as a “good thing”, not just in and of itself, but for fostering children’s development. Even within these cultures, educators are not a homogenous group, of course, and the sector we work in and the kind of training we have undergone is likely to influence just what it is we mean by play. Early childhood educators, for instance, are often highly committed to play as the business of young children – their work – but also what comes naturally to them. Tony Booth and colleagues (2006) sum this up in the Index for Inclusion (Early Years) when they assert that young children are experts at play and that it is through their play experiences that they learn.

Play has long been at the heart of early education, valued for being the way that children make sense of the world, get to know and enjoy it, and feel that they belong. Being included in play is about being included in the social world of childhood. There are many examples of champions of early childhood education seeking to protect the place of play in the early years, where trends toward more formalised curricula have put this under threat. Special educators, by comparison, often have a view of play in which the instrumental value dominates over the intrinsic qualities of play, and in which certain kinds of play are valued over others. Thus, rather than a play-based curriculum one is more likely to find play therapies and interventions designed to teach or enhance the play skills of children with autism and various impairments, not so much to enable the child’s entitlement to play but as a vehicle to achieving other goals. This perspective has recently come under considerable criticism within disability studies because it positions the play of the disabled child as flawed or lacking; Dan Goodley and Katherine Runswick-Cole (2010) and Jenene Burke (2012), for instance, offer powerful challenges.

My own view is that play is more than a collection of

play skills or behaviours; it is about being playful in a variety of ways, shaped by sociocultural contexts and everyday settings as well as individual dispositions. It is important in its own right and it is important for children’s well-being and for their learning, for what it offers in supporting children’s social connectedness. Yet there are not right and wrong ways to play. If we are celebrating play we need to celebrate the ways in which all children play and have a concept of it that is expansive and inclusive.

2. Why do children with autism have difficulties with some types of play? How do children display/communicate this difficulty?

Children with autism have difficulties with some types of play when a normative framework is applied. These difficulties can be continuously exposed by a research tradition in which the play of children with autism has been compared with that of matched, non-disabled peers. Here, so-called play skills are assessed in what is presented as objective tests of play with a focus on those areas of play that are perceived to be lacking: joint attention and comprehending pretence in particular. Diana Seach (2007) has argued that cognitive developmental theories have played a part in building up this deficit orientation. These research and theoretical approaches have inevitably orientated educators towards focusing on children’s deficits rather than their strengths, which has led to the preoccupation with therapeutic intervention to improve or normalise their play skills. Ironically, at the same time children with autism are often placed in educational environments with structured, adult-led philosophies that provide them with fewer opportunities to just play, without the holistic approach that would be enabling.

At the level of individual play interactions, children with autism sometimes do not play their part as expected and as a result they may not stimulate playful interactions in others. There is, then, an interaction between what children with autism bring and what the adults (or even other children around them) bring, making play feel like an area of

difficulty. Assessments of play skills or playfulness can turn this fluid situation into more of a problem than it is, but play-based assessment does not have to act in this way. It can also be used to get to know children as people with preferences and personalities that vary as their play contexts vary. I prefer to see a focus on supporting children's right to play through focusing on the whole child in the context of the whole curriculum, rather than focusing on remedying particular difficulties. When we observe carefully we can see that in some environments children with autism have an ability to play that challenges assumptions of deficits. I would not wish to negate the difficulties of individual children, merely put them into a context in which we can view them with a different lens.

3. Does this have an impact on their development?

For me, as educators we cannot ignore the educative potential of play; the potential for fostering development in all children. This does not mean that the best way forward is to find out what is broken in a child's play repertoire and fix it. It means that we need to provide children with rich and varied play environments that work for them. It means that we need to observe so that we can value the play that does happen and the contexts that foster this. It means that the adults in those play environments need to be skilled supporters and mediators of play, and sometimes play partners. In all these ways play can have the positive impact on children's development that we know it can have.

4. Can children and young people with autism be taught to play?

This may depend on your model of teaching and learning. When I think about this I do not have in mind telling a child how something is done, or some elaborate training programme to model and reinforce distinct skills and behaviours. I have in mind the educator's role in creating an environment in which learning happens - often the outcome of a good mix of ethos, human and physical resources, activities and support. Fani Theodorou found in her doctoral

research that adult intervention programmes may actually reduce or impoverish children's play with each other, and the act of intervening in or removing individual children from naturally occurring peer play is not, as I see it, the way to teach play.

I would encourage educators to focus on the opportunities for play that they offer and their role within these. We can certainly plan for play. We can go back to the sensible argument that what is needed is a balance of the teaching and learning suited to all children (common pedagogy), that suited to children with specific/impairment-related difficulties (specific pedagogy), and that suited to the unique individual (individual pedagogy). This focuses us first on what children on the autistic spectrum share with all children, including (as Rita Jordan would remind us) the need to be emotionally engaged in learning, hence the regular play opportunities. But it also prompts us to consider where they might need something extra. This means tuning in to the child and to what we can do to assist, while retaining as far as possible the spontaneity and intrinsic pleasure of play. Teaching play must not equate to taking over the play agenda and seizing control from the child.

5. How can practitioners and parents unlock the motivation for play and move learning forward? Are there key strategies?

It follows from everything I have already said that motivation for play needs to come from following the child's lead. We need to create settings in which being playful is irresistible, and keep an open mind about what form that play might take. Once we have created carefully considered contexts for play we need to allow children to be active meaning-makers within those contexts, often intervening as little as possible in the flow of children's playful interactions. Supporting the motivation to play can mean being non-directive and optimally facilitative, with support being most effective when adults follow the lead given by children, enabling them to enjoy participating in an activity they show an interest in, and avoiding styles of interaction in which we dominate. Based on fieldwork in which one child with autism was observed being optimally supported

AN INTERVIEW WITH MELANIE NIND

by very skilled practitioners, we concluded that adults helpfully adopt roles as supporters or mediators of play or as active play partners. Supporting play is likely to mean enabling it to happen and observing, perhaps offering an occasional commentary to children's activity, but encouraging familiar playful rituals in which children gain confidence. A mediating role is more purposefully interventionist, yet still intervening no more than is needed; most often this will be in the face of real or potential breakdown in playful exchanges or to provide minimal, timely assistance. As supporting, possibly mediating adults we need to make ourselves available to children - in quiet proximity to their play - ready to be drawn in as a resource if needed. Sometimes the play will be with us, when we need to take on the role of active play partner. In this case we need to learn to read children's cues and intentions, however idiosyncratic, and support the establishment of reciprocity and mutual fun. We have to relax into play and genuinely enjoy it. We need to act with spontaneity, but retain our ability to reflect, in the moment, on how to optimise play interactions. All of this is helped enormously by supportive cultures where there is an ethos of valuing play and playfulness.

6. Should we support and modify solitary play to encourage inclusion with their peers?

If we value the social world then obviously we want to open it up to all children, to foster their inclusion in social activities and playful interactions. This is best helped by creating the right environment and adopting the roles I have described. We might want to create situations in which play is happening alongside children with autism, coaxing them in, or we might need to be their play partners ourselves sometimes. This might be separate to children's solitary play, or it might mean joining in with their solitary play. I would not use the language of modifying play as it creates all the wrong expectations, and it devalues the child and whatever the play activity is that is important to them.

I am largely convinced by the argument that children

make the best play partners for each other - that they can create and sustain mutual interest that is rich and undirected. The accompanying argument is that the shared interest is usually more authentic than when adults attempt to establish mutual play with children. We can act as a play partner and simultaneously and intuitively model how to play, but to perform these roles we need to let go of some of our other roles, particularly "being in charge".

Being social is something I aspire to for all children. If that necessitates adults being play partners rather than other children, then we are still opening up the social world, and we may have a vital role to play here. Through social play we come to enjoy spending time together, making sense of things together, and so playing with other children is central to children's social inclusion. I would work hard to facilitate this, starting with creating social play opportunities.

7. How does the regulation of sensory input influence play scenarios and engagement?

We are sensory beings and play is a sensory experience. For some children with autism typical play environments like playgrounds and paddling pools can be overwhelming on the senses and thereby interfere with play. We need to get to know children and what environments suit them best. Play-based assessment can even be a means for getting to know them holistically and to know what they can do in what optimally supportive social situations. Toni Linder's (1993) transdisciplinary play-based assessment, which involves a team observing the child in unstructured and structured play, in play with other children and with parents, and in various environments, can shed light on the sensory features that are facilitative or detrimental to play. Understanding children's responses to the sensory world can inform our planning for play. Phoebe Caldwell & Jane Horwood (2008) are good on this theme in relation to those individuals with autism who experience sensory distress. They recommend combining the approaches of Intensive Interaction and Sensory Integration, thus bringing together tuning in to the whole person and awareness of sensory overload.

8. The advent of technology is potentially a motivating means of play engagement for the child with autism. It has its benefits, but does it also have disadvantages?

This is not something I have much experience of myself. The technology I am wed to is the video camera and the role video can play in helping us to reflect on play interactions and our own role in them. Beyond that, the answer I could give, based on what I do know, is that if some form of technology is what is interesting and engaging for a child with autism, then we would be foolish to ignore its potential for playfulness and play interactions. I also know that there is enthusiasm for the potential of the technology of virtual reality to offer a vehicle for children with autism to engage in simulations of real-world social situations and learn about them without being threatened by them. Thus a child might engage in virtual play with virtual children in a controlled way, learning about the social while avoiding the social! There might be potential for real children playing collaboratively in this way, and there might be motivating elements. My colleague at Southampton, Sarah Parsons, has research experience of this, but she also warns of over-optimism regarding the role virtual environments are as yet able to play in supporting real-world, especially non-rule-bound, social abilities (Parsons & Cobb, 2011). My own view is that there is plenty of potential in the ready availability of everyday children, adults and social situations, and that we have the ability to make play safe and motivating without the need for such technology. We need to be careful not to disempower ourselves, or to de-value the human resource of the children in our classrooms, families and neighbourhoods.

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Alone and in a Group: Ethnographic Research on Autistic Children's Play

RESEARCH AIMS

This research aimed to study the social interaction and play of children with autism, and the role of the adult in developing play skills. The researchers expected the children with autism to encounter significant challenges in:

- Learning how to play and socialise with their peers
- Entering the play arena
- Listening and catering to others
- Arousing and maintaining the interest of others
- Ending the play.

The uses of play as a learning tool in both academic and social fields were also highlighted by the researchers.

RESEARCH METHOD

Forty-five children (11 girls and 34 boys) with autism in 11 groups were observed, with documented written notes and videotapes, in organised and free play situations.

- Twelve children were under 6 years of age
- Eighteen were between 6 and 11 years
- Fifteen were aged between 12 and 16 years.

The study addressed the question, "How do children with autism play?" and sought to answer this through analysis of the lone and group play activities of children with autism.

RESEARCH FINDINGS

Lone Play

In the majority of situations, the children with autism played alone without paying attention to other children and engaged in:

- Sensomotoric practice play, manipulating and arranging items

- Imitation, re-enacting the play of adults rather than peers
- Simple functional play, with the preferred toy of choice being a car
- Imaginative play. Although the children used the toys in what appeared to be imaginative play scenarios, some may have been re-enactments from previous experience, playing in a manner that follows a story.

Group Play

There appeared to be differences between playing together, creative action, cooperation, interaction and directing the action. The children who had greater language skills were more able to interact with their peers. One child tended to be dominant, controlling the play, with the others following imaginative play in such situations.

Television, video, music video, computer or the Play Station were all popular forms of introducing shared activity. The children also engaged in rough-and-tumble play scenarios, appearing to enjoy them, but it became apparent that the children with autism had difficulty discriminating when this moved to inappropriate and harmful behaviour.

IMPLICATIONS FOR PRACTICE

(by the authors)

- If there is a route to open the social world of children with autism, then teachers, parents and allied health professionals need access to methods to support the child on an individualised basis.
- When children with autism are playing, we must be aware that there may be a logical pattern or story to the play and that the child may be deriving some form of comfort. The child may also engage at particular times within the re-enactment, which could be opportunities for new learning.

- As the child frequently re-enacts the play of an adult, a structured approach, with a script designed to support social interaction, can be used to develop opportunities for group activities.
- Adults and peers may be used to teach more complicated play skills, yet focused repetition and practice will be needed to allow the child to master the skill.
- Use the motivator of television, video, music video, computer or the Play Station to initiate group play experiences, as the children actually supported one another as they discussed and guided the play.
- Vigilance is needed when children engage in rough-and-tumble play, as the children may not be able to see or interpret how another is feeling, when this is then changing to play that is hurting another. However, as rough-and-tumble play appears to be appealing and important for children with autism, the children may need to be specifically taught a safe place and safe way of engagement.
- Children with autism will engage in functional play during unstructured times, yet the development to symbolic functional play may be dependent on cognitive and communication skills.
- The children's play may be controlled by their compulsion for repetition, sensory needs and personal interest, reflective of lone sensomotoric rather than group play activities. Having said that, novelty or the introduction of a motivator can interrupt lone play for engagement in a group activity. Having a memorable experience seems crucial for encouraging play progression.

Full Reference

Kangas, S., Määttä, K. and Uusiautti, S. (2011). Alone and in a Group: Ethnographic Research on Autistic Children's Play. *International Journal of Play*, 1 (1), p. 37-50.

Mothers' Reports of Play Dates and Observation of School Playground Behaviour of Children having High-functioning Autism Spectrum Disorders

RESEARCH AIMS

Children with Asperger's syndrome or high-functioning autism have been observed to initiate and reciprocate peer interactions much less frequently than peer-matched children with developmental disabilities. Play dates, which are popular in our society among neurotypical children, are thought to be an important contributing factor to the formation and maintenance of friendships. The current study set out to assess the relationship between play date frequency and amount of conflict, with peer interaction observed on the school playground. It was hypothesised that children with autism who experienced less conflict and more frequent play dates would have more friends at school and this would be reflected in more positive peer interaction in the playground.

RESEARCH METHOD

Twenty-seven boys and four girls and their families participated in the study. Twenty-nine of the participants were in mainstream education and two were in special education placements.

Parents were asked to complete the Autism Spectrum Screening Questionnaire, the Social Skills Responsiveness Scale, the Quality of Play Questionnaire and the Conflict Scale. Children's interactions were also observed in playground situations and their behaviour was coded to allow for quantitative analysis.

RESEARCH FINDINGS

The hypothesis that children with less conflict and more frequent play dates would have more positive peer interaction in the playground was partially confirmed. The frequency of play dates, but not conflict on play dates, was related to rates of peer interactions in the playground. It was also found that

children with autism who had more play dates in their home tended to engage for longer time in mutual behaviours such as offering of objects, conversing and joint attention. Importantly, they also received more positive responses to their overtures from peers.

Results revealed that the frequency of play dates was most important in predicting joint engagement and positive responses to overtures from peers, and these relationships remained highly significant even after accounting for other demographic, general social and cognitive variables, including verbal IQ.

It is noteworthy that the most important contribution of play dates to the development of friendship was their persistence rather than their quality; it would appear from these results that even play dates that were characterised by higher levels of conflict and lower quality of interactions still fostered more interaction in the playground.

IMPLICATIONS FOR PRACTICE

(by the authors)

Increasing the frequency and quality of play dates for children with autism may be an important outcome of school-based social skills training and may result in the formation and maintenance of best friendships. This is important as authors have found that where a child with autism has a "best friendship" with a neurotypical child, the friendship has been found to be more durable and stable and both children have been found to display higher levels of goal-oriented social behaviours and positive affect.

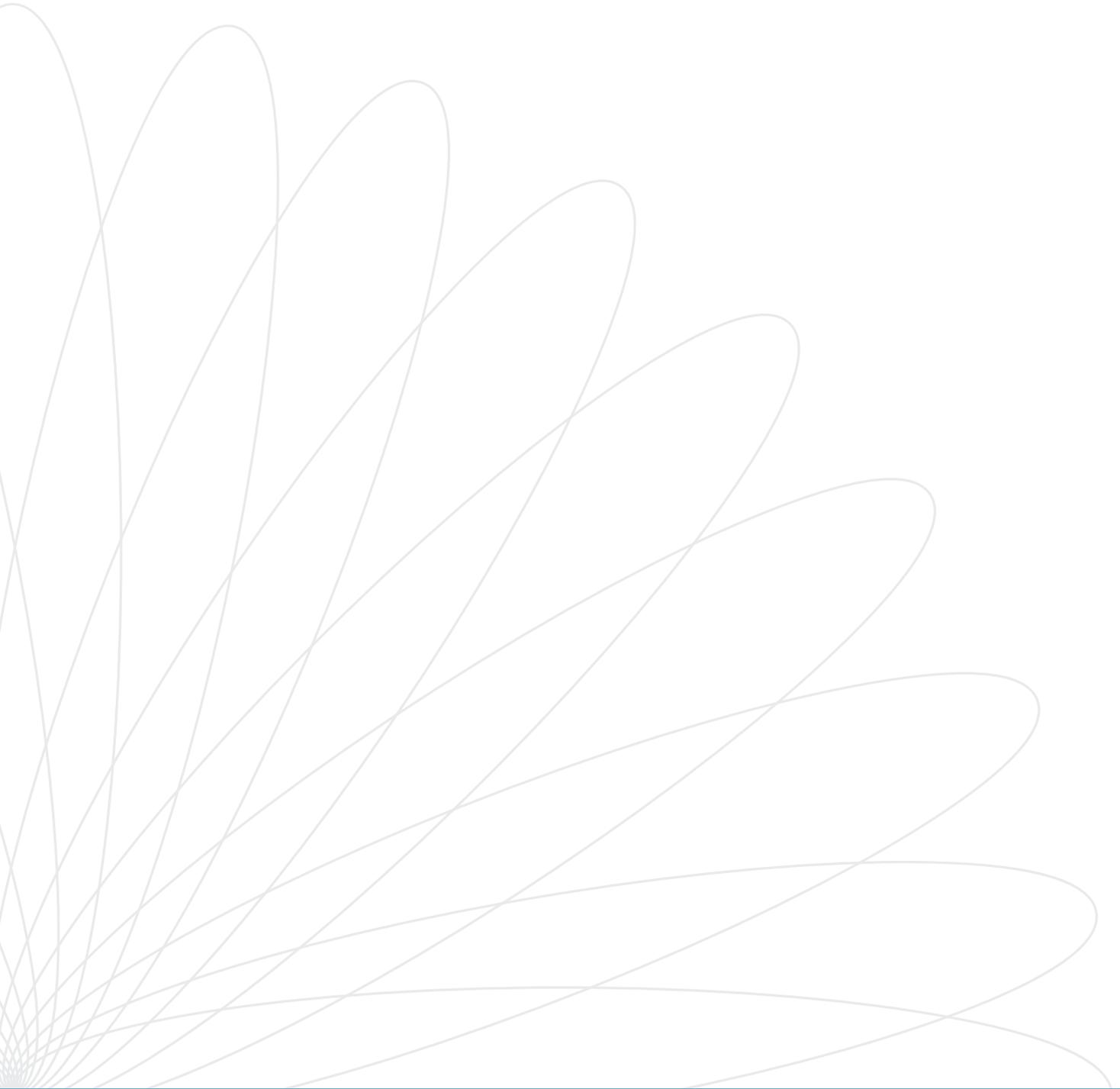
Additionally, friends in mixed dyads were more responsive to one another, showed higher levels of positive social orientation and cohesion, and demonstrated a more complex level of coordinated play that those in non-mixed dyads.

As a consequence of these findings, it seems crucial that parents are supported by the professionals working

with their child to organise play dates that are held outside of the school day.

Full Reference

Frankel, F. D., Gorospe, C. M., Chang, Y. and Sugar, C. A. (2011). Mothers' Reports of Play Dates and Observation of School Playground Behaviour of Children having High-functioning Autism Spectrum Disorders. *Journal of Child Psychology and Psychiatry*, 52, p. 571-579.



A Description of a Mother's Play Guidance for her Child with Autism in the Process of Playing by the Rules

RESEARCH AIMS

The purpose of this study was to provide a description of the strategies employed by a mother of a child with autism during games activities with typically developing peers, to help support the child with necessary social skills.

RESEARCH METHOD

This was a qualitative single-subject case study. The participants were a mother and her nine-year-old son with autism, one brother, and three typically developing peers. The participants were determined via a purposeful sampling technique.

The study was carried out in the family home and at the children's park. The researcher took part in the study as "participant observer". The mother gave the researcher the role of "teacher". The brother was instructed to participate in the playgroup as a play partner, in the same way as the peers and the child with autism.

Data were collected using field notes, interviews, audio- and videotape recording during normal interactions between the mother and her child.

Figure 1

RESEARCH FINDINGS

In order to examine the interactions of the mother with her child, the mother created a group of five people for her child to play hide-and-seek, tag, and other games with. The game of hide-and-seek, for example, was played in a park near the child's home. Video recordings of the game were examined. The analysis of the recordings showed that the mother used 13 verbal and seven non-verbal communication strategies during the game (Figure 1). How the mother used the strategies was as important as the kind and frequency of the strategies.

The methods by which the mother used these strategies are explained under the headings of:

Mother's contribution

The mother determined the child's play preferences and play initiations, made environmental arrangements, guided the participation process, found playmates and invited them to play.

Verbal communication strategies	Non-verbal communication strategies
Giving instruction	Physical prompting
Whispering	Modelling
Asking question	Gestural prompting
Making explanation	Making eye contact
Reminding	Touching
Approving	Waiting
Verbal prompting	Using gestures and mimics
Self-talk	
Encouraging	
Comical action	
Giving feedback	
Rewarding	

Mother monitoring play initiations and the preferences of her child.

Once the mother knew her child's play preferences, games were planned accordingly. The mother also used what the child liked to do as a reward, in this case playing computer games and cycling.

The mother initially played with the child alone to monitor play initiations in the hide-and-seek game. When it was apparent that the child was not meeting the tasks of the game, the mother invited the child's brother to participate in the game. She then hid with the child and jointly tried to find his brother. A few days after the first hide-and-seek game the mother played the game again in her home, helping her child to find the other children when he was "it".

Environmental arrangements.

The mother used the slide unit in the park for the children's hide-and-seek game. The street lamp located near the playground was chosen as the home base.

Finding playmates and inviting them to the game.

The mother found the friends to play with her child and invited them to play the game.

Mother's process of guided participation.

The mother participated and guided the children. This process of guided participation can be examined under the following three headings:

- **Social communication guidance.**
By participating in the game the mother guided her child's initial interaction with his peers, responded to the subsequent interactions and helped sustain his interaction.
- **Scaffolding interactions.**
The child was supported by his mother according to his needs. Through giving instructions, acting as a model and providing verbal assistance, the child's initiations increased and the mother withdrew her support; however, she never carried out any independent application.

- **Play guidance.**

The mother played with her son to help him take part in the game. She gave him reminders to help him focus and to complete tasks in the game.

Mother's contribution in making her child participate in a "play by the rules" game

Hide-and-seek is a game with five aspects: starting the game, counting out, hiding, being "it" and ending the game. The mother's guidance process in these aspects, the strategies she used to make her child participate in the game and the child's participation process are explained through the descriptions below.

Starting the game activities.

At the beginning of the game the mother wanted the children to gather in the playground and greet each other. She guided them in planning the game and remembering the rules. To assist the child in the greeting aspect, the mother attracted her child's attention by touching him and asking him the question, "Did you say hello to your friends?" to remind him to greet his friends.

Counting out and choosing "it".

The children were gathered around. The mother chose one of the other children to count out. The child sang out a counting-out song whilst pointing to each child. When the child with autism was "it" the mother pulled her child to her chest (touching), getting his attention and making him wait. After the other children told him he was "it" his mother explained he was "it" and directed him towards the home base using physical prompts.

Hiding.

The child's activities consisted of finding a place to hide, waiting in that place, controlling home base and tagging home base. For example, when the child had to hide the mother told her son that they had to hide. The child waited and looked at his mother. The mother then grabbed his arm and walked with him behind the trees. The child crouched down when she touched his shoulders and pointed for him to sit. She also gave him verbal instructions to hide quietly by whispering, and then asked him to verify whether he understood what they were doing.

Being “it”.

When it was her child’s turn to count out, the mother used a sign clue to get him to close his eyes and reminded him to count by saying “one”. When he had completed his counting his mother attracted his attention by grabbing the child’s right shoulder (touching) and saying “let’s seek now” (giving instruction). When the child went in the wrong direction, his mother called out his name to get his attention, then called him near her by giving instruction.

Ending the game of hide-and-seek.

In the process of ending the game, planning the activities of another game and saying goodbye were carried out. The child’s mother grabbed his shoulder from behind and leaned slightly towards him. The mother reminded the child to say goodbye by asking him the question “Did you say goodbye?” The mother also helped to make plans for arranging another appointment for the day after. After the child had said goodbye the mother gave her approval by saying “Ok, let’s go”. She waved at the other children (modelling).

An examination of the video recordings revealed that the sequence of how the mother took part in play activities with her child showed similarities to that of the integrated playgroups model. In this study no instructions were given to the mother. The child with autism and the mother have no educational experience about the integrated playgroups model. It is thought that this model could be an easily applicable one.

This research was not aimed at observing the increase in the participation rate of the child at play or the usage of verbal expression. The gradual withdrawal of the mother’s guidance in the play and going back to verbal guidance while counting and being the person who looks for others hiding in the game can be interpreted as a way of increasing the child’s participation in play. A child with autism can learn how to play games.

The data examined in this study revealed that a mother having a child with autism acts as a guide during games and uses verbal and non-verbal

interaction strategies in this guidance process. In doing so she contributes to the process of participation in the games by the child with autism and in the child’s social interaction with his peers.

IMPLICATIONS FOR PRACTICE

(by the authors)

If adopting the integrated playgroups model the research highlights that:

- It is important before starting to engage in play the abilities and interests of the child should be observed and interpreted. The play environment and play materials should be prepared, and friends found and invited to play.
- Skills should be taught in natural environments that are full of peers who have social capabilities and where children often display difficulties in social skills, such as in the home, at school and in social areas.
- Playgroups should consist of familiar children, siblings, at least three people, at most five people, and there should be more peers who have social competences in the group as this has been shown to help children with autism to improve their social skills.
- The role of the adult should be to determine what the child can do independently and offer guidance to assist the child to participate in an activity that the child cannot do independently. The adult should then act as a support to assist the child’s performance in the play activity.
- The authors also recognise that in future research, a child’s acquisition of play skills with the guidance of the mother could be examined by carrying out experimental studies. Further research could also examine the interactions of the children in the playgroup with each other using qualitative research methods.

Full Reference

Ökcun, M. C. and Akçin, N. (2012). A Description of a Mother’s Play Guidance for her Child with Autism in the Process of Playing by the Rules. *Journal of Research in Special Educational Needs*, 12 (2), p. 96-106.

Inclusion in Play: A Case Study of a Child with Autism in an Inclusive Nursery

RESEARCH AIMS

This ethnographic case study aimed to understand and describe the play of a child with autism in a naturalistic early years setting. It discusses the play interaction of a child and the strategies adopted by her teachers to facilitate her successful inclusion. The authors hold the view that the promotion of play as a vehicle for social interaction and learning is central to support teachers to provide for successful inclusion and the subsequent benefits for all in this classroom environment. Teachers must plan their practice to ensure the inclusion of children with autism.

RESEARCH METHOD

The study was conducted in an early years setting that aims to meet the educational needs of 50 children between the ages of three and five years, coming from a diverse range of ethnic backgrounds in an urban setting. The focus was a girl with autism described as being intelligent, computer-wise and having a keen interest in the character “Thomas the Tank Engine”. Data derived from field and video observations, field notes of brief jottings, direct quotations and episodes of dialogue and interviews were collected in week-long blocks across a six-month period. The study observed the child with autism and her play but did not compare the child to her typically developing peers.

RESEARCH FINDINGS

The case study concluded that teachers attempting to ensure successful inclusion facilitated the child by operating in three distinct capacities:

- Teacher as supporter - supporting the children’s play by modelling cooperative involvement whilst offering occasional commentary. To aid inclusion, the teacher asks the child a direct question and gives her a role within the play.
- Teacher as mediator – intervening in the face of potential misunderstanding or exclusion.
- Teacher as active play partner – acting as a role model while engaged in the play scenario. The skilled exponent can be both playmate and facilitator.

IMPLICATIONS FOR PRACTICE

(by the authors)

- When a child wishes to engage in an interaction with a peer, he/she may not have the necessary skills and in such an instance an adult should provide the child with autism with the necessary vocabulary and commentary.
- The adult can motivate, engage and maintain attention by modelling the acceptable format of the play using the appropriate pedagogical interactions and framing. Children with autism rely on the adult to provide the opportunities and the resources to enhance interactions and learning.
- Without over-interference the adult may have to explain the expectation of the play scenario on an individual basis to the child with autism. If he/she does not know the rules of the play, he/she cannot be expected to learn them without specific guidance.
- Such explanations must also be carried out in a timely fashion to ensure that others do not become frustrated when the child with autism does not comply with the rules and expectations of the play.
- Children with autism learn from observing, modelling and interacting with their peers. However, teachers may have to teach the rudiments of the play activities to ensure understanding and inclusion. This direct involvement can lead to sustained attention, more shared experiences, and greater

opportunities for learning and cognitive development.

- Teachers have the opportunity to teach appropriate interactions with consideration and cooperation when immersed in the play situation.
- The use of a collaborative and supportive curriculum framework assisted the teacher and other staff members to include, and the child to be included.
- The strategies used by the setting were supportive of all of the children, all-inclusive, contextually and culturally appropriate, and not seen as explicitly “autism-specific” approaches – good practice can be just that, good practice.

Full Reference

Theodorou, F. and Nind, M. (2010). Inclusion in Play: A Case Study of a Child with Autism in an Inclusive Nursery. *Journal of Research in Special Educational Needs*, 10 (2), p. 99-106.

Parents as Play Date Facilitators for Preschoolers with Autism

RESEARCH AIMS

Although most social play interventions have been designed and implemented in school settings, research suggests that typically developing children often invite friends to play at home. To date there has been little research to examine the home play date as a potential intervention context for children with autism.

The aims of this study were to assess the effectiveness of parent-implemented contextually supported play dates.

RESEARCH METHOD

Two boys with autism, their mothers and two playmates were recruited for the study through an agency providing early intervention services to children with autism. Children with autism were included in the study if they:

- Were aged between four and six years with a diagnosis of autism from a medical professional
- Were able to understand English as their first language and had a receptive language age equivalent of at least three years
- Were engaged primarily in parallel play with peers
- Were able to remain independently engaged with preferred play activities for at least 10 minutes at a time
- Had access to a regular peer play partner who was no more than three years younger or older and had no identified social, cognitive or behavioural problems
- Had a parent who agreed to the time commitment required for play date facilitator training. Children with autism were excluded if they engaged in serious peer-directed problem behaviour in peer play situations.

The two parents were taught how to design cooperative play arrangements to facilitate social

interactions between their children with autism and their typically developing peers. Play dates occurred in each family's home across a variety of natural play settings. Materials for the play dates varied according to the interests of the children and the play date activity. Materials were supplied by the parent except for a few special toys that were provided by the researcher.

To prepare for implementation, each parent received instructions on how to host a contextually supported play date that involved:

- Mutually reinforcing activities – activities that were motivating to both the child with autism and the peer.
- Cooperative arrangements – activities that encouraged the participation of both children, i.e. coaching child-child interactions only as needed.

The primary dependent variable measured in this study was the percentage of 30-second intervals during which the children with autism engaged in synchronous reciprocal interactions (SRIs) for the majority (i.e. at least 16 seconds) of the interval. An SRI began when a child made a verbal statement or question, eye contact, facial expression or gesture/action that was directed toward the other child and was related to engagement in a joint activity. If the child with autism was prompted by the parent to make any of these, the subsequent SRI was not counted. An SRI ended as soon as either child stopped participating in a cooperative motor act (e.g. one child pulling his hand off a spoon when two children were stirring together).

Secondary measures included affect ratings for the children with and without autism and parents, plus a measure of social validity completed by the parents immediately following completion of the study and one year later. In addition, a follow-up survey related to parents' use of the key play date strategies.

Two independent reversal designs were used to demonstrate functional relationships between parent-implemented, contextually supported play dates and an increase in synchronous reciprocal interactions in both participants.

All sessions were videotaped for data collection. A

research assistant (RA) who was blind to the condition she was coding was enlisted to observe the videotapes and record occurrences of the target behaviours. The RA was provided with a scoring manual containing operational definitions of examples and non-examples of target behaviours, and a scoring protocol. Training was provided until the RA achieved 90% accuracy over three practice play date activities that were not part of the study. The data were coded and scored from all videotaped sessions. Videotapes were also reviewed to examine the parents' ability to implement the intervention accurately. For each activity, a checklist was used to evaluate the parents' use of the 10 strategies that were presented during training. Each strategy was scored as either correct or incorrect for each play date session.

RESEARCH FINDINGS

The results of this study suggest that teaching parents/caregivers to support social play in their homes is both feasible and desirable. There was a steady increase in the number of implementation strategies used by both parents. Activities for both children increased during this phase and there was an immediate and dramatic increase in synchronous reciprocal interactions (SRIs) for both children. Supplemental measures also indicated improvements in child affect and an increase in the number of social invitations (e.g. sleepovers, birthday parties) received by the children with autism over a one-year follow-up period.

Upon completion of the study both parents rated their confidence in their ability to plan and execute play date strategies as very high. They also felt that their children's ability to participate in play dates had increased. Approximately one year after the intervention ended, none of the social validity scores had changed dramatically. Both parents continued to rate the strategies as useful, displayed confidence in their ability to use them and continued to host play dates using the strategies they had been taught. The results therefore suggest that parents can learn skills to become skilled play date facilitators within their own homes within a reasonable length of time.

IMPLICATIONS FOR PRACTICE

(by the authors)

Each approach to play is best suited to children with autism with specific skills profiles; however, there is little information available to inform decisions regarding this. Parents in the study found that using motivating material, avoiding distracting stimuli, providing only one of each item so the children needed to share, and preparing materials in advance all helped with implementing this type of intervention.

The authors of the approach examined in the present study recognise that it is more appropriate for the home setting that involves only a few children and is supported by parents. It is the first time a study involved teaching parents to conduct contextually supported play dates and to use preschool children with autism and young school-aged children as partners. Future research is therefore required to explore the effectiveness of this intervention across a variety of settings and across a more varied group of individuals.

A limitation to this study is that the sample size was small involving participants with distinctive characteristics. Future research would also be needed to replicate the training procedures with many different types of parents and with children of varying ages, backgrounds and abilities, and to examine the relative effectiveness of various approaches for supporting children with autism of various ages and abilities.

This study did not anticipate the importance of parent-to-peer prompting during the intervention and therefore did not assess the frequency of parent prompts across the videotapes. Future research should include a specific measure of this component to determine its importance as part of the overall training aspect of the study.

Full Reference

Jull, S. and Mirenda, P. (2010). Parents as Play Date Facilitators for Preschoolers with Autism. *Journal of Positive Behaviour Interventions*, 13(1), p. 17-30.

Picture Me Playing: Increasing Pretend Play Dialogue of Children with Autism Spectrum Disorders

RESEARCH AIMS

This study examined the effectiveness of the Picture Me Playing intervention for increasing the play dialogue (PD) of preschool children with autism during pretend play opportunities with typical peers.

Picture Me Playing is a pictorially enhanced, script-based intervention targeting character role play through a narrative vignette.

The following research questions were investigated:

1. Would the intervention group exhibit greater gains in PD than the comparison group?
2. After both groups received the intervention would the participants demonstrate increases in their ability to produce PD with peers while playing with the trained toy?
3. Would the participants demonstrate increases in scripted as well as unscripted utterances?

RESEARCH METHOD

The study was conducted at a private comprehensive treatment centre for children with autism. Twelve children were selected and parental permission given. Children were aged between 55 months and 75 months and had a diagnosis of autism or pervasive developmental disorder - not otherwise specified (PDDNOS). The children were all able to follow group-directed instructions as well as comply with and attend to group activities. Eight typically developing peers, four from each classroom, also took part in the study but were not targeted or assessed. They simply acted as communicative partners.

Attendees from two of the preschool classrooms were assigned to comparison and intervention groups based on which class they attended. Each group consisted of 6 children with ASD (five males and one female) and four typically developing peers (2 males

and 2 females). Prearranged schedules and roles were in place prior to the intervention for this study.

Prior to the baseline observations, a toy survey was completed by caregivers of each child in order to choose materials that were of equal familiarity and skill to each child. The Picture Me Playing story was only used during the intervention and was not available to the participants during data collection.

Baseline measures were taken for all the participants divided into the two groups of six. One group was randomly selected to receive the intervention during the first condition. The second group served as the comparison group.

Data were collected in a quiet office within the centre on two separate days, to limit the influence of a participant's individual mood on a given day. Adult prompting was not permitted with the exception of ending problematic or dangerous behaviour. Each interaction was video recorded and timed with a stopwatch. In the baseline and intervention phases, the children were given the opportunity to interact with the target toy (castle set) during two five-minute sessions occurring on separate days. Different peers were utilised to avoid the possibility that a particularly engaging or inhibiting peer might skew the performance of an individual child. The peers participating in data collection also served as the peers participating in the group intervention and each child participated in data collection with at least one same-sex peer. Data from only two play sessions were added together, resulting in the amount of PD exhibited by each participant.

Transcriptions were coded in order to determine whether participants would directly repeat the scripted utterances or if increases would be noted in novel, unscripted utterances.

Social validity questionnaires were distributed to participating families. Respondents were asked to rate play skills on a three-point scale. Additional

questions required the respondent to agree or disagree on a scale of whether they had observed behavioural changes in the children.

RESEARCH FINDINGS

Results of this study indicate that the Picture Me Playing intervention was effective for increasing the PD of the children with autism during interactive play activities with typically developing peers. Significant differences were displayed between the intervention and comparison groups and for the within-subjects comparisons following introduction of the intervention to the comparison group. Participants were able to generalise the increased levels of PD to a novel toy. A significant 60% of the post-intervention PD was coded as unscripted, novel utterances, indicating that the children were not strictly following the scripts provided. Overall the participants demonstrated high levels of appropriate dialogue across the study and reduced the level of inappropriate utterances by 4% after participating in the intervention.

With regard to the children's ability to maintain their level of PD with an untrained toy, post-intervention data were compared to generalisation data in order to evaluate whether there was a reduction in PD between the trained and untrained toys when scripted utterances were not provided. Results indicated no significant difference, demonstrating that the level of PD was maintained from intervention to generalisation.

Results of this study are consistent with previous studies indicating that children with autism can increase pretend play behaviours following intervention. The Picture Me Playing intervention allowed children to engage in high levels of pretend play with no adult prompting, and to maintain the learned skill when only provided with a basic play structure.

IMPLICATIONS FOR PRACTICE

(by the authors)

This research highlighted a number of implications for practice:

- Peers are a critical component of research focusing on child-to-child interaction. This study provided some evidence for the effectiveness of an integrated playgroup. There is no need to specifically train peers to prompt or cue children with autism.
- It is essential to provide specific and direct instruction, even scripted dialogue, to children with autism; it is just as important to provide intervention in the natural environment during meaningful communicative interactions.
- The Picture Me Playing intervention, because of its visual strategy, could be incorporated as an independent learning centre in a preschool classroom.
- Results of the study are limited due to the small sample size and the lack of random group structure. Ideally, an additional generalisation condition should be implemented to mirror the baseline condition. Thus, baseline to generalisation comparisons from this study should be interpreted with caution. Emphasis in this study is, however, more appropriately placed on comparisons between post-intervention and generalisation data. Future research could repeat and extend these findings using both older and younger participants, and children with lower verbal ability.

Full Reference

Murdock, L. C. and Hobbs, J. Q. (2011). Picture Me Playing: Increasing Pretend Play Dialogue of Children with Autism Spectrum Disorders. *Journal of Autism and Developmental Disorders*, 41, p. 870-878.

Qualities of Symbolic Play among Children With Autism: A Social-Development Perspective

RESEARCH AIMS

This study's aim was to determine if children with autism engaged in less playful pretend play. This involves self-conscious awareness of pretending, and the symbolic representation of the materials provided. It hoped to gain insight into the nature of the play amongst children by paying close attention to those qualities of symbolic representational play that might derive from and reflect specific aspects of social engagement. The assumption made at the beginning of the research was that children with autism display a limited capacity for creative symbolic play.

RESEARCH METHODS

The study tested pretend play activities in 16 boys with autism between the ages of 7:1 and 13:9 years, and 16 children (11 boys and 5 girls) between the ages of 7:10 and 12:3 years who did not have autism, but did have a learning difficulty or a developmental delay. All children were matched through verbal ability ascertained using the British Picture Vocabulary Scales (BPVS).

The children were tested individually and this was videotaped for future reference and rating by an independent clinician, who was not given any insight into diagnosis, through two play scenarios: Doll Condition and School Condition. The test consisted of:

1. Play without modelling – spontaneous play with the instruction, “Use these things to make up a story”
2. Modelled play, with the tester describing all of his actions.

The tester commented, encouraged and talked with the children, yet did not participate in the play. The children's interactions were then rated in the six areas of:

- Attribution of symbolic meaning to play objects
- Potential for flexible use of objects

- Self-awareness
- Investment in symbolic meanings
- Creativity
- Fun.

RESEARCH FINDINGS

The study found that the playful pretend play of children with autism, in both the spontaneous and modelled interaction, was distinctive due to difficulties in the lack of awareness of self in creating meanings, investment in symbolic meanings, creativity and fun, which may be deemed as essential and reflective of normative social and creative play development.

Children with autism demonstrated relative competence and ability with the mechanics of pretend play, yet experienced difficulty with the expression of this playfulness. Children with autism matched their peers in terms of inventing imaginary objects, making one item represent another and flexibility in using the play objects. The children with autism appeared to engage more confidently and creatively when the play had been modelled, particularly when using the toys for more than one purpose, and to illustrate the playfulness that can be achieved.

IMPLICATIONS FOR PRACTICE

(by the authors)

- Children with autism can play and can engage in symbolic play activities. They may simply be less emotionally expressive, and may be so in a manner that is difficult to recognise.
- We may not realise what exactly is at the heart of their pretend play experience. Therefore close attention must be given to the child's expression of motivation and engagement in an array of play opportunities and situations.
- Children with autism have difficulty with overt, easily recognised means of self-expression, the use of verbal and non-verbal communication, and practitioners may have to look for more subtle indicators. We cannot categorically state from

observation whether the child is discriminating through his or her facial or bodily expressions.

- As the child with autism experiences difficulty reading his or her own self-expression, he or she may have difficulty discerning the enjoyment and engagement of another, which may influence the development of perspective taking and interpersonal engagement.
- Modelling play may be a suitable introduction to an activity for children with autism and may allow them to see a range of functions for particular toys and resources.
- The fun experienced by a child with autism may also be indicated in an unusual manner. As practitioners, we may have to look more closely to see if the child is having a positive experience.
- As practitioners, we must foster creativity in symbolic play by offering opportunities for joint engagement and negotiation with a range of partners.
- More research is needed in the full curricular area and leisure activity of play across other age ranges and developmental levels. This study asserts that the researchers have much still to learn on the quality of the child with autism's play.

Full Reference

Hobson, R. P., Lee, A. and Hobson, J. A. (2008). Qualities of Symbolic Play among Children With Autism: A Social-Development Perspective. *Journal of Autism and Developmental Disorders*, 39, p. 12-22.

Relationships between the Responsiveness of Fathers and Mothers and the Object Play Skills of Children with Autism Spectrum Disorders

RESEARCH AIMS

- To research differences in levels of object play demonstrated by children engaged in both free play and play with their mothers and fathers
- To investigate concurrent relationships between the levels of object play demonstrated by children with autism and the verbal and play responsiveness of their mothers and fathers.

RESEARCH METHOD

Parents confirmed their child's diagnosis of autism and completed demographic questionnaires. In addition, assessments were completed regarding non-verbal quotients as well as receptive and expressive language skill levels. Subsequently three 15-minute free play observations involving mother and child, father and child and free play were conducted and analysed.

RESEARCH FINDINGS

Children were found to engage in more relational play (stacking objects, sorting objects and “put in”/“take out” type activities) in play with their mothers than in either free play or in play with their fathers. This suggests that the play interactions with mothers mirror the quality of play interactions of mothers and typically developing children. However, children with autism fail to develop functional and symbolic (higher levels) of object play in comparison to typically developing peers and doing so is linked to better developmental outcomes. Therefore, targeting higher levels of play may be particularly important for play intervention delivered by mothers of children with autism.

The study found a strong connection between parent verbal responsiveness and higher levels of object play for children with autism. For both parents the use of verbal responses was linked with their child engaging

in a higher level of object play. There was a particularly strong correlation in play interactions with fathers. There are a number of interpretations of this finding:

- Fathers' use of responsive play behaviours may stimulate more frequent child play at the symbolic level
- Fathers may use more responsive play behaviours with their children who can engage in symbolic levels of play
- Fathers do not use as many responsive play behaviours if their children engage only in lower-level object play
- Fathers' responsive behaviours may encourage more symbolic child play, especially for children who are developmentally ready to engage in symbolic-level play.

However, there is no evidence in this study to suggest whether fathers' responsive play fosters child symbolic play, or vice versa, or both.

IMPLICATIONS FOR PRACTICE

(by the authors)

This research indicates that object play skills may increase play development and have long-term benefits for joint attention and language development for young children with autism. Targeting parental responsiveness to children's play may be a useful intervention strategy for young children with autism.

Full Reference

Flippin, M. and Watson, L. R. (2011). Relationships between the Responsiveness of Fathers and Mothers and the Object Play Skills of Children with Autism Spectrum Disorders. *Journal of Early Intervention*, 33, p. 220-234.

The Role of High-Level Play as a Predictor of Social Functioning

RESEARCH AIMS

It is established that children with autism engage less in imaginative play than their typically developing peers.

The research aimed to examine the play and social abilities of high functioning children with a diagnosis of autism (HFA) and compare these abilities with those of a group of children with a diagnosis of developmental language disorder (DLD). It was hypothesised that the children with a diagnosis of high functioning autism would produce less developed forms of play than their DLD peers.

RESEARCH METHODS

The sample consisted of 30 children with a diagnosis of high functioning autism and 33 age- (7-9 years) and gender-matched peers.

The children were observed and videoed over a 25-minute period, during which they were presented with a puzzle box. Their play was observed for 10 minutes with this and then in a 15-minute unstructured play session with an unfamiliar adult. The adult was non-directive for the first five minutes of the play session but then became increasingly directive to elicit age-appropriate play.

The child's play and social functioning was then coded from the 25-minute video.

RESEARCH FINDINGS

The children with autism demonstrated impaired play skills and there were differences between the groups in the area of symbolic play, functional play and in overall play. None of these differences was significant and the researchers concluded that neither the children with autism nor their DLD peers were engaging in this kind of play at a high level.

The significant differences between the groups were in the areas of engaging in rule-based play and

engaging in conversation. The children with autism scored significantly lower than the DLD group in both of these areas. Rule-bound game playing and successfully participating in a conversation both require the child to have an understanding of turn-taking, and this may be impaired in children with autism.

Another interesting finding was in the area of overall social rating. As expected, the children with autism scored significantly lower than their DLD peers in the early part of the play session. However, as the play session continued the children with autism became more socially engaged and the differences became non-significant by the end of the encounter. This appears to be correlated with the degree of direction by the adult, and it would appear that social engagement of the children with autism increased as the adult became more directive and involved.

The final notable finding was a relationship between play and social functioning; the authors report play to be a significant predictor of social function. The researchers suggest that play could be a useful method of increasing or improving the quality of social functioning.

IMPLICATIONS FOR PRACTICE

(by the authors)

The research has a number of useful points for practitioners:

- There tends to be a relationship between social engagement and play; professionals working with younger children can use play as a way of engaging the child and for addressing any social impairment.
- The research indicated that the child's initial social difficulty decreased with the amount of engagement from the adult involved in directing the play. This suggests that guided one-to-one engagement may be a useful way of working with children who have impairments in play and social interactions.

- The relationship between play and social engagement requires much more teasing out; the research addressed only those children said to be highly functioning, within a narrow age frame and within a relatively small sample. Future research with a larger and more representative sample size could focus in on mapping the broader correlations and potential causations between social engagement and play.

Full Reference

Manning, M. and Wainwright, L. (2010). The Role of High-Level Play as a Predictor of Social Functioning. *Journal of Autism and Developmental Disorders*, 40, p. 523-533.

The Impact of the Advancing Social-communication And Play (ASAP) Intervention

RESEARCH AIMS

This research aimed to determine the impact of the Advancing Social-communication And Play intervention (ASAP) on the play skills of three children with an average age of 4.2 years. All of the children presented with limited and impaired language skills and identified needs in social communication and play.

RESEARCH METHODS

The ASAP intervention is designed to target social communication and play of children with autism in a preschool setting. The intervention targets 20 social-communication objectives across the areas of social interaction, requesting and joint attention, and 21 play objectives across the areas of exploratory, relational, functional and symbolic play.

Following assessment to determine the level of intervention, ASAP is delivered on a one-to-one basis for 40 minutes once a week, and daily in 10-15-minute group instruction sessions to promote generalisation. The success of the programme is judged by the frequency of spontaneous social communication or play, specifically three unprompted occurrences of targeted behaviours in one day.

The children were then observed in the school setting and their social communication and play behaviours were recorded and coded.

RESEARCH FINDINGS

All of the children demonstrated increases in both social communication and pretend play following the full implementation of the ASAP programme. For the single case design data, the strongest increases were observed during one-to-one settings. However, they were also observable in group settings, but these increases were more variable. For social validity, the results of an analysis of variance

(ANOVA) on the pre- and post-intervention data indicated that all three children had significant increases in their social communication and play behaviours.

IMPLICATIONS FOR PRACTICE

(by the authors)

The ASAP was an effective intervention to increase social communication and play for this small group of children. The findings were variable across one-to-one and group settings.

The research supports the use of this programme and practitioners may find it a useful tool for guiding individualised plans for children to assist the development of their social communication and play skills. It is worth noting that the intervention was most effective in a one-to-one setting and practitioners should consider the need to work individually with children prior to implementing group work. A final observation is that the research was conducted on a very small group of children, all of whom were being educated in an autism-specific classroom, and these factors might impact on the results.

Full Reference

Dykstra, J., Boyd, B., Watson, L., Crais, E. and Baranek, G. (2012). The Impact of the Advancing Social-Communication and Play Intervention on Preschoolers with Autism Spectrum Disorder. *Autism*, 16 (1), p. 27-44.

Symbolic Play of Preschoolers with Severe Communication Impairments with Autism and Other Developmental Delays: More Similarities than Differences

RESEARCH AIMS

Research into the symbolic play of children with autism in comparison to developmentally delayed peers has been equivocal. The majority of research confirms that children with autism have difficulties with symbolic play and also limited functional play. Children with autism demonstrated less interest in dolls and shorter play sequences than children with Down's syndrome.

The researchers also highlight the relationship between symbolic play, language and cognitive skills. Relationships have been identified between word usage and symbolic play, and also later language development and levels of symbolic play.

The researchers aimed to determine the differences, if any, between a group of children with autism and a group of children with developmental delay in symbolic play. They hypothesised that the children with autism would present with more limited symbolic play.

They also wanted to determine the relationship, if any, between measures of play and non-verbal and communication measures. They hypothesised that measures of cognitive ability and communication would be congruent with measures of play.

RESEARCH METHOD

The sample consisted of 35 children with autism and 38 children with developmental delay. The average age was 49.5 months. All of the children had a diagnosed learning difficulty as well as communication impairments.

The researchers used the Developmental Play Assessment, which measures play ability over eight levels and 15 categories. The children were observed in play situations, and their engagement in play was measured and coded by observers.

The children were also assessed for their cognitive and language abilities using a standardised measure of learning for preschoolers.

RESEARCH FINDINGS

The research findings indicated no significant differences between the two groups of children in levels of play or in expressed interest in playing with different toys. The groups were similar in their emergence and mastery of symbolic play, although this was the least observed type of play for all of the children. The diversity and functional symbolic play was not significantly impaired in the children with autism in comparison to their developmentally delayed peers. The most common type of play across both the groups was functional play, and a few of the children across both groups engaged in low levels of symbolic play.

The researchers' second hypothesis, that there would be correlations between play, language and cognition, was supported. There were high correlations between play, language and cognitive measures indicating that play is commensurate with these measures

IMPLICATIONS FOR PRACTICE

Although the researchers' hypotheses were not all borne out by the research findings, the research does have some useful elements for current practitioners. The importance of play in children across developmental abilities is worthy of note. Those living and working with children with autism and other developmental delays should note the importance of play in their lives and promote play and play opportunities with children.

Working on play skills may also have a positive impact on the future development of language, and the researchers confirm that there is a relationship between play and current and future language and cognitive abilities.

Full Reference

Thiemann-Bourque, K., Brady, N. and Fleming, K. (2012). Symbolic Play of Preschoolers with Severe Communication Impairments with Autism and Other Developmental Delays: More Similarities than Differences. *Journal of Autism and Developmental Disorders*, 42, p. 863-873.

The Relation between Social Engagement and Pretend Play in Autism

RESEARCH AIMS

To study the individual differences in social interaction and communication, symbolic play, and language among children diagnosed with autism, autistic spectrum disorder (ASD) and those with a developmental disorder (DD).

RESEARCH METHODS

Three groups of children between 2.11 years and 9.8 years with a verbal mental age (VMA) of at least 15 months were all tested on the Autism Diagnostic Observational Schedule-General (ADOS-G) and the Test of Pretend Play (ToPP).

The groups were divided as follows:

- Children with a previous clinical diagnosis of autism confirmed on the ADOS
- Children with ASD who had received a diagnosis of social communication disorder and met some of the criteria for autism
- Children with DD.

The hypothesis was that children with autism would display a relative absence of play features and that this reflects their underlying social-developmental impairment.

RESEARCH FINDINGS

On the composite measure of playfulness on the ToPP, children with autism were given significantly lower scores across the items (e.g. investment, creativity and fun) than participants with DD.

Across the three groups, the degree of children's communication/social interaction impairments on the ADOS was associated with lower scores for playful pretence. This indicates that social communication impairments explained some of the variance in quality of playful pretence, beyond the ability to play as assessed.

The correlation between individual differences in communication/social interaction impairment on the ADOS and playful pretence scores on the ToPP was only significant for the children with autism. The most severe cases of communication and social interaction disorder were correlated with those more severely impaired in playful pretence skills.

Children with autism tend to show impairment in playful pretence skills even when they have the mechanics of symbolic play and when other qualities of play, as matched by the ToPP, are similar.

Impairments in social communication skills are associated with limitations in play quality even when formal play skills (assessed by the ToPP) are accounted for.

The play of children with autism may be fundamentally different from that of other children.

The social communicative nature of the play of typically developing children is founded upon engagement with other people and the world. There is a mechanical component to the symbolic play displayed by children with autism. The lack of playfulness may be an indicator of how social communication skills contribute to the nature of symbolic play in typical children. *"They are tell-tale signs that the child is engaged in a...grounded process of symbolic meaning-making that seems relatively limited among children with autism."*

Full Reference

Hobson, A., Hobson, R., Malik, S., Bargiot, K. and Calo, S. (2013). The Relation between Social Engagement and Pretend Play in Autism. *British Journal of Developmental Psychology*, 31, p. 114-127.

Play and Communication in Children with Autism Spectrum Disorder: A Framework for Early Intervention

RESEARCH AIMS

This review of concurrent and longitudinal studies found an association between object play and intentional communication in children with autism, with the authors stating that a theoretical framework is needed as a means of devising a model for conceptualising intervention involving play and communication in children with autism. The review found four questions to be addressed:

1. Is there a positive association between object play and intentional communication in young children with autism?
2. Are there positive associations between specific categories of object play (i.e. non-symbolic and symbolic play) and intentional communication (i.e. non-verbal intentional communication and expressive language) within the population with autism?
3. Is the relationship among these aspects of development significant and even after controlling for other probable explanations for the relationship?
4. For those with autism, is there evidence that this association is causal, and if so, in what direction?

RESEARCH METHOD

Meta-analytic and narrative reviews were conducted to examine the association between object play and intentional communication, with a range of inclusionary and exclusionary criteria set. Twelve reports were finally identified as examining the association between the two and in relation to children with autism.

RESEARCH FINDINGS

Ten of the identified studies reported concurrent associations between intentional communication and object play in children with autism while five examined longitudinal associations, with several reporting both concurrent and longitudinal correlations. Findings included a suggestion that an increase in object play causes an increase in non-verbal intentional communication, and that such an increase in turn can cause an increase in symbolic

play. However, greater research is needed to determine if the influence is greater between the association of non-verbal intentional communication increasing symbolic play or if symbolic play leads to greater non-verbal intentional communication.

Associations were found between non-verbal intentional communication and symbolic play as well as a correlation between expressive language and symbolic play. The authors have suggested that in order to develop symbolic play, particularly as it has its roots in the social context, the child must be afforded a range of opportunities whereby he or she is interacting with and becoming aware of people, objects and actions in his or her environment, as a means of assimilating the information. It is assumed by the authors that through such repeated interactions, the child's attention to all within his or her environment will support development.

IMPLICATIONS FOR PRACTICE (by the authors)

- In order to develop expressive language with children with autism, the authors claim that there is a pathway to follow, with play as the medium to deliver development.
- Acquiring and achieving fluency within each area of non-symbolic play, non-verbal intentional communication, symbolic play, and eventually expressive language are interrelated and interdependent. With each aspect, the educator must build towards acquisition and generalisation until fluency is achieved.
- At the beginning, the child with autism may need a stepping-stones approach before full engagement in a joint action routine, a foundational interaction pattern or framework, can be established. For example, this may include building from “peek-a-boo” and “pat-a-cake”, to getting used to an interactive reciprocal game with an adult, to eventually partaking in a joint object-based play in a social environment. The reciprocity attained through play is a forerunner for the reciprocity needed for expressive communication.
- Choice of play objects and actions must be individualised to meet each child's stage of play development while cognisance is given to

chronological age. The level of social communication skills of each child must also be attained as a means of informing the goal and content of the play offered. The play can then be differentiated as the child develops, with the objects having more than one function. This diversity can be supportive of the child's opportunity to develop greater language and engagement.

- Opportunities to practice newly acquired non-symbolic play skills are thought to lead to fluency, which may result in generalisation of play actions across context. Use of generalised play actions can increase non-symbolic play skills, which can be supportive of turn-taking, a skill many children with autism find difficult. As non-symbolic play is generalised, non-verbal intentional communication is introduced, and with this change comes learning.
- This practice and communication development grows to include non-verbal intentional communication; once fluency is established, the child's symbolic play skills can evolve and with this their expressive language.
- This format of building on already attained skills will form the basis of other intervention planning and implementation to maximise functional use of skills and ultimately to optimise developmental and lifelong outcomes.

Full Reference

Lieberman, R. G. and Yoder, P. (2012). Play and Communication in Children with Autism Spectrum Disorder: A Framework for Early Intervention. *Journal of Early Intervention*, 34, p. 82-103.

CONCLUSION

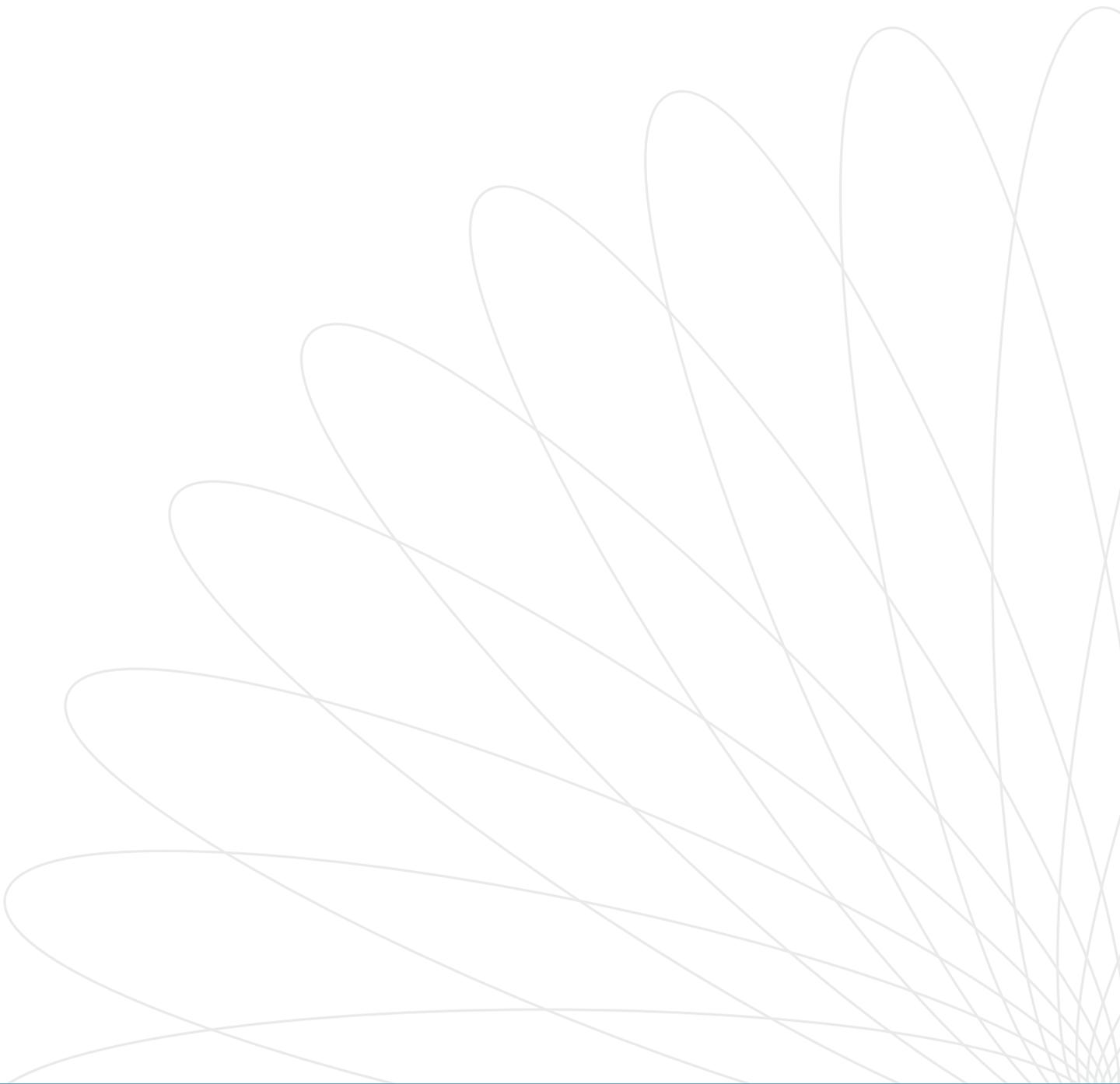
The quotation “The work of the child is play” is generally attributed to Jean Piaget; this current Research Bulletin certainly provides evidence of this.

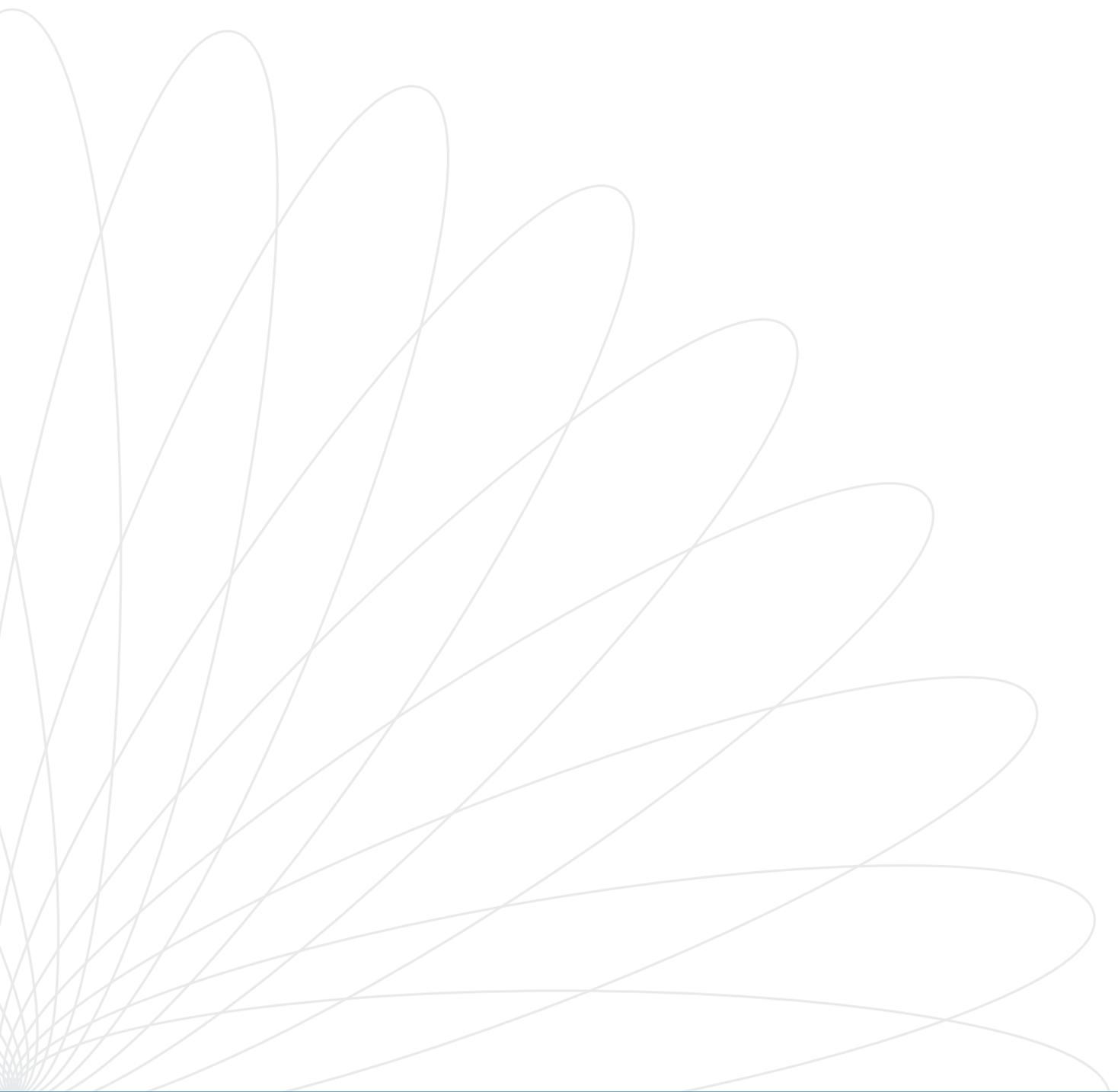
The articles summarised demonstrate the importance of play in the social and communicative development of the child.

Using novel and enjoyable media such as computers, music or TV can promote group play and address the child with autism’s preference for playing alone. However, the child with autism may not have the social skills to understand the boundaries of rough-and-tumble play, and group play should be monitored.

Both parents and teachers have a role in promoting and facilitating play skills, and also in supporting the maintenance of play once initiated. The promotion of play skills should be recognised as an opportunity to foster not just play but also social and communication skills.

The Centre’s tenth Research Bulletin is on the area of Autism and Inclusion, comments on current Bulletins and suggestions for future Bulletins are always welcome; please contact research@middletownautism.com





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Play and Autism](#)



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