Play in the Education and Care of Young Autistic Children

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Abstract:
In this chapter, we argue for the importance of prioritising play as a proactive and naturalistic way of supporting the wellbeing of young autistic children in Early Childhood Education settings. We present arguments showing that as well as being a right for all children, play presents an important opportunity in the education and care of young autistic children to celebrate neurodiversity and to promote meaningful social engagement for all children. We focus on play as a support for social and communication differences in autism as these are often framed as a significant challenge for autistic children (Lyall et al., 2017), compounded by the social demands of education (Parsons et al., 2013). However, more recent conceptualisations in the field of autism studies emphasise that successful communication is a two-way street, arguing that communication challenges are not inherent to autism but rather a property of interactions in which diversity of communicative styles is not considered (Williams, Wharton & Jagoe, 2021). We argue that play provides a powerful and protective context for the development of all children's social and communication skills, making play an important part of early education approaches to foster communication between children of all neurotypes (Gibson, 2020; Barnett, 2018). We conclude by noting research evidence on the potential of play in interventions aimed at supporting autistic children within educational contexts (e.g. Kossyvaki & Papoudi, 2016; Wolfberg et al., 2015) and highlighting key take-aways for contemporary approaches to Early Childhood Education (ECE) for autistic children. By supporting a neurodiversity-informed and inclusive perspective on play, we propose that families, early childhood educators, and the broader community can directly impact children's resilience and wellbeing.

3-5 keywords: Play; Autism; Early Childhood Education; Social Communication Skills; Neurodiversity

Play in Inclusive Early Childhood Education

The United Nations Convention on the Rights of the Child (UNCRC, 1989) recognises the right to play for all children. In addition to being a fundamental right, play has been identified as a

"universal design to promote inclusion" (UNCRC, 2013) providing the ideal context in which to promote a culture of acceptance and inclusion in education and as a way to help all children to reach their full potential. Indeed, play has been adopted as central to early childhood curricula across the globe (in the *Te Whãriki* curriculum in New Zealand for example and in the *Aistear* curriculum in Ireland). In Early Childhood Education (ECE) practice, this means providing play opportunities and play-based learning while also adapting play in the classroom to meet children's developmental level and individual interests (Carrero, Lewis, Zolkoski & Lusk, 2014; Papoudi & Kossyvaki, 2018).

While the right to play is recognised in early childhood curricula, gaining consensus as to what play looks like in ECE settings and how play can and should be used in pedagogical practice is more challenging (O'Keeffe & McNally, 2021a; 2022). To begin with, there is no one definition of play (Jensen et al., 2019; Zosh et al., 2018). Rather, play has been defined in terms of both objective characteristics such as active engagement (Wolfberg, 1999) and subjective characteristics such as playfulness (Eberle, 2014), as well as in terms of the different types of play (e.g. object, symbolic, pretend, games with rules; Whitebread et al., 2017). Increasingly there has been a move towards a broader understanding of play as a continuum (Bergen, 1998; Broadhead, 2010; Wood, 2010) or a spectrum recognising the value of different types of play (Wood, 2010; Jensen et al., 2019). For the purposes of this chapter, we adopt a spectrum view of play to reflect the multifaceted nature of the construct while capturing the heart of play and its important characteristics for learning (Zosh, et al., 2018). Within a spectrum view, play ranges from free play (with no adult guidance or explicit learning goals), to guided play and games, to playful instruction (with some purposeful adult support and learning goals), (Zosh et al., 2018).

Play to Foster Social and Communication Skills for Wellbeing

Research on the play of autistic children has historically regarded autistic play as "abnormal" (Jarrold, Boucher & Smith, 1993; p.295) or "impoverished" (Riguet, Taylor, Benaroya & Klein, 1981), yet more contemporary research highlights the need to acknowledge children's differences in play (Jordan, 2003) and to recognise the play of autistic children as different, not less (Grandin, 2012). Psychological definitions of resilience emphasise children's ability to adapt and cope in the face of challenges (Ameis et al., 2020) and, importantly, link the process of resilience to both children's psychological makeup and socio-ecological contexts (Ungar, 2015). In this approach to resilience, children's social and communication skills and early educational contexts are protective factors that work to support children's wellbeing and build resilience through the development of peer relationships, which are especially important for wellbeing in later childhood.

We focus on early educational settings as key socio-ecological contexts that help to build resilience and support the wellbeing of autistic children by supporting social and communication skills, skills which are often framed as a significant challenge (Lyall et al., 2017) in socially demanding educational contexts (Parsons et al., 2013). For example, autistic children experience challenges in forming and maintaining friendships (Bauminger & Shulman 2003; Locke et al. 2010), which in turn are associated with loneliness (Bauminger & Kasari 2000; Deckers et al. 2017) and bullying and victimisation (Cappadocia, Weiss & Peppler, 2012). However, recent conceptualisations in the field of autism studies emphasise that successful communication is a negotiated process and highlight that communication challenges are not inherent to autism but rather a property of interactions in which diversity of communicative styles may not be considered (Williams, Wharton & Jagoe, 2021). Increased social difficulties as autistic children progress through formal schooling (Bauminger-Zviely, 2014) highlight the need for early supports for social and communication development among autistic children within naturalistic educational contexts (Fuller & Kaiser, 2019; Boyd et al., 2019; Goldberg et al., 2019; Sutton et al., 2019).

Playful activities and behaviour often prompt or motivate social engagement, which can take a variety of forms. Examples commonly encountered in ECE contexts include exercise play, rough and tumble play, social role play, shared pretence, and engagement in simple, ruled-based turn-taking games. Such activities require children to attend to and 'read' the social environment, as well as playing their part in constructing it through self-regulation and co-operation. It is therefore unsurprising that an established literature suggests strong links between different types of play and social communication development (Lillard et al. 2013; Uren & Stagnitti 2009; Pellegrini et al. 2002; Veiga et al. 2016). Play also has a role in children's agency, meaning-making and emotional processing (Rao & Gibson, 2019) and has been linked to mental health and wellbeing (Zhao & Gibson, 2022; Dodd & Lester, 2021). These social and emotional corollaries of play map closely to established psychological components of resilience e.g. social supports, locus of control, a sense of self-efficacy, and acceptance (Iacob et al, 2020).

Links between play and social-emotional development have been shown to apply to autistic children. For example, Zhao & Gibson (2021) found a longitudinal association between peer role play behaviours at 3 years and aspects of language and communication skill aged 7 years in a sample of autistic children, and Wilson and colleagues (2017) report that play behaviours from as early as 15 months are predictive of status on later behavioural assessments used to diagnose autism. Early intervention approaches aiming to support development of social communication skills and wellbeing in autistic young people have used such associations to leverage the power of play as both

a context for intervention delivery and a key mechanism designed to promote beneficial outcomes (see Francis et al., 2022; Gibson et al 2022; O'Keeffe & McNally, 2021a). Of particular interest in the current volume is a view of play as providing an authentic context for social communication interactions embedded within the classroom (Reifel, 2014; Shire et al. 2020) and researchers have emphasised the potential of play in supporting the social communication skills of autistic pupils within educational contexts (Jordan, 2003; Kossyvaki & Papoudi, 2016; Manning & Wainwright, 2010; Wolfberg et al., 2015).

Given that many ECE settings and many early childhood educators have a strong play ethos (O'Keeffe & McNally, 2021b) we here outline some key considerations that can help settings to adjust their play offer to the needs of autistic children and help to support their wellbeing. Firstly, the social and relational aspects of resilience point towards friendship and peer relations as an important aspect of the ECE environment. The role of play with peers in supporting play of autistic children has also been underestimated in previous research (Yang, Wolfberg, Wu & Hwu, 2003). Play contributes to peer acceptance levels within early years classrooms and is essential in the formation of classroom social hierarchies (Flannery & Watson, 1993; Ladd et al., 1988). Play and peer acceptance are thus likely to be important considerations for young autistic children who often remain on the periphery of classroom social networks (Chamberlain, Kasari & Rotheram-Fuller, 2007) and who may experience isolation and rejection which can continue through to adulthood (Rotheram-Fuller et al., 2010). Given the centrality of play in influencing peer acceptance levels, it is likely that play is an important context for supporting peer acceptance though more research is needed on the potential of play to support peer acceptance (e.g. Santillian, Frederick, Gilmore, & Locke, 2019).

Alongside these relational considerations, and consistent with recognising play as a human right for all children (UNCRC, 1989; Davey & Lundy, 2011), we advocate that individual preferences and differences in play should be respected. The neurodiversity approach is a helpful framework to reference here, given its emphasis on understanding that many different ways of experiencing and processing the world exist across the spectrum of human cognition (Dwyer, 2022). The corollary of this for education settings is an understanding that we need to design for universal inclusion to accommodate everyone (Aitken & Fletcher-Watson, 2022) and we believe this applies to play. From both rights-based and neurodiversity perspectives, playtime should never be curtailed or withheld in an effort to ensure behavioural compliance (BPS, 2021). Such practices are inappropriate for all children, but may be particularly harmful for autistic children who need time for rest and self-regulation as they are frequently in environments that are not designed with support for

neurodivergent individuals in mind (McAllister & Sloan, 2009). While withholding playtime/recess can be more of an issue in primary school settings, it is not uncommon in Early Childhood Education settings for preferred play items (e.g. spinning tops, favourite objects or toys) to be withheld from autistic children and offered as 'rewards' for engagement or compliance (Charlop-Christy & Haymes 1998; Cló & Dounavi, 2020). We argue that use of preferred play items as a reward for compliance is unlikely to build confidence or intrinsic motivation and is contrary to the spirit of play and playfulness. Instead, we encourage settings to consider choice of behavioural support (if indicated) together with children and their families, and to consider how time can be made available for play with favourite activities and objects without framing them as contingent 'reward'.

A further observation is that both solitary and social aspects of play can be beneficial for social engagement and development. Rather than solitary play, parallel play and social play representing discrete stages of a developmental hierarchy, research shows us that these manifestations of play are states that children step into and out of during single play episodes and over developmental time (Howes & Matheson, 1992). Fine-grained observational research has shown that although autistic children, in contrast to neurotypical peers, may spend longer periods in 'disengaged,' 'repetitive' or 'sensory seeking' behaviours, these less socially oriented states can in fact be precursors to re-engagement and more socially oriented play behaviour (Farr et al., 2010; Francis et al., 2019). Reflections from autistic adults shed light on potential reasons for this (Dawson et al., 2017). In an interview study Pritchard et al (in prep) found that autistic adults reported that solitary and sensory play was essential for recharging social batteries and self-regulating in busy and overwhelming environments. Crucially, many adults in this study reported social play activities to be desirable and nourishing, stressing the need for an approach that balances demands and capacities.

The implications of these insights for ECE settings are that adults who have responsibility for shaping autistic children's play opportunities, materials and spaces should be mindful that autistic wellbeing may depend on activities having multiple entry and exit points. For example, a block play set up can allow for collaborative activity as well as independent activity, and engagement can be fostered by adults supporting showing and sharing of creations. Adults may also need to adjust their perception of what constitutes purposeful play. Allowing time, space and patience for meeting sensory needs and encouraging self-regulation may mean adults taking a step back from redirecting children into what is often considered more meaningful or 'appropriate' play. This is not to say that adults should not encourage and support autistic children to engage with peers in social play. Indeed, some research with autistic individuals has demonstrated a desire for interventions that build friendship and social understanding (e.g. Bauminger & Kasari, 2000). Rather, we are arguing for

a more flexible approach that does not immediately judge or curtail autistic play behaviours and is sensitive to the self-regulatory function that 'atypical' play engagement may serve.

Environmental considerations are key to enabling inclusive play in this way. Classroom setups that provide variety, with easy access from one zone to the next, can be helpful. For example, provision of quiet corners and sensory spaces that can be accessed independently by children who need them (McAllister & Maguire, 2012). Outdoor spaces, too, can be beneficial environments to support autistic children's play and engagement. Setting up outdoor play areas with large loose parts (e.g. milk crates, tyres, tarpaulins) can create an 'affordance' for engagement and collaboration between children with different social profiles and skill sets (Gibson et al., 2017; 2018). Beyond typical ECE settings, Friedman et al (2022) found that Forest School could be beneficial in promoting wellbeing of autistic children as viewed through the lens of self-determination theory. Crucially, however, this study also observed that a 'one-size fits all' approach is unhelpful, and some autistic children found forest school overwhelming. Again, a personalised approach to understanding and supporting individual needs is essential for creating a context that can help build resilience.

Implications for Practice: Key Messages

What is autistic play?

- Autistic play can look different to neurotypical play. Play activities that may appear 'purposeless' to non-autistic adult observers often have a meaning to the player and may fulfil important self-regulation needs.
- Autistic children are likely to need a mix of solitary, sensory and social play opportunities to meet their needs.
- Like all children, autistic children have a right to play.

What are the connections between play, autism and resilience?

- Resilience is an interaction between individual characteristics, social relationships and environmental contexts that helps promote positive outcomes and protect against negative outcomes.
- Play is a crucial medium that early childhood educators can use to boost resilience and build wellbeing for autistic children.
- Play provides contexts that are intrinsically motivating, and that help support the development of self-regulation and social competencies for all children. It also supports the expression of emotion and skills in coping with uncertainty. These aspects of development are associated with having higher quality friendships and with better wellbeing and mental health.

What can practitioners do?

- Take an individualised approach to planning to meet the play needs of autistic children, bringing together insights from individual preferences, social relationships and environmental contexts.
- Recognise that it is inappropriate to use play as a reward or punishment, including withholding play opportunities.
- Acknowledge that autistic and non-autistic children alike may benefit from help and strategies to support them in creating enjoyable and inclusive social play opportunities with each other.
- Respect that autistic children may choose solitary, sensory and/or repetitive play over social play.
- Celebrate difference and diversity in play, encouraging all children to express themselves through play and to respect the playful preferences of others.

Conclusion

To conclude, the neurodiversity approach encourages us to recognise that diversity of human cognition and experience is valuable and desirable, while recognising that neurodivergent individuals may need different kinds of support to the majority of learners. By applying this inclusive perspective to play, and by highlighting the right of all children to play in ways that they prefer, we argue that autistic play should be fostered and encouraged to thrive. We have illustrated that autistic play can sometimes have a different presentation to that of the neurotypical majority and can serve important self-regulatory functions that can help build resilience processes.

It is important to note that these perspectives have *not* led us to conclude that play should never be used as part of interventions. There is growing research evidence on the potential of play in interventions aimed at supporting autistic children within educational contexts (e.g. Kossyvaki & Papoudi, 2016; Wolfberg et al., 2015) and specifically on social and communication development (see O'Keeffe & McNally (2021) for a review of the research evidence on play for social communication in educational contexts and Gibson et al. (2020) for a review of play for the social communication development of young autistic children). Our core message is that interventions must be respectful of difference, inclusive and, above all, desirable and acceptable to the children involved.

References:

Ameis, S.H., Lai, MC., Mulsant, B.H. *et al.* Coping, fostering resilience, and driving care innovation for autistic people and their families during the COVID-19 pandemic and beyond. *Molecular Autism* **11**, 61 (2020). https://doi.org/10.1186/s13229-020-00365-y

Aitken, D., & Fletcher-Watson, S. (2022). Neurodiversity-affirmative education: why and how? *The Psychologist*.

Barnett, J.H. (2018). Three evidence-based strategies that support social skills and play among young children with autism spectrum disorders. *Early Childhood Education Journal, 46*(6), 665-672. https://doi.org/10.1007/s10643-018-0911-0

Bauminger, N. & Kasari, C. (2000). Loneliness and friendship in high-functioning children with autism. *Child development, 71*(2), 447-456. https://doi.org/10.1111/1467-8624.00156

Bauminger, N. & Shulman, C. (2003). The development and maintenance of friendship in high- functioning children with autism: Maternal perceptions. *Autism, 7*(1), 81-97. https://doi.org/10.1177%2F1362361303007001007

Bauminger-Zviely, N., et al. (2014). School age children with ASD. In F. R. Volkmar (Ed.), *Handbook of autism and pervasive devel- opmental disorders* (4th ed., pp. 148–175). John Wiley and Sons Inc.

Boyd, B. A., Dykstra Steinbrenner, J. R., Reszka, S. S., & Carroll, A. (2019). Research in autism education: Current issues and future directions. In R. Jordan, J. Roberts, & K. Hume (Eds.), *The SAGE handbook of autism and education* (pp. 595–605). SAGE.

Broadhead, P., Howard, J., & Wood, E. (2010). *Play and Learning in the Early Years: From Research to Practice*. London: SAGE Publications.

Cappadocia, M.C., Weiss, J.A. & Pepler, D. (2012). Bullying experiences among children and youth with autism spectrum disorders. *Journal of autism and developmental disorders, 42*(2), .266-277. https://doi.org/10.1007/s10803-011-1241-x

Carrero, K. M., Lewis, C. G., Zolkoski, S., & Lusk, M. E. (2014). Research-Based Strategies for Teaching Play Skills to Children with Autism. *Beyond Behavior*, *23*(3), 17–25. https://doi.org/10.1177/107429561402300304

Chamberlain, B., Kasari, C., & Rotheram-Fuller, E. (2007). Involve- ment or isolation? The social networks of children with autism in regular classrooms. *Journal of Autism and Devel- opmental Disorders, 37*(2), 230–242. https://doi.org/10.1007/ s10803-006-0164-4

Charlop-Christy, M. H., & Haymes, L. K. (1998). Using objects of obsession as token reinforcers for children with autism. *Journal of Autism and Developmental Disorders*, *28*(3), 189-198.

Cló, E. & Dounavi, K. (2020) A systematic review of behaviour analytic processes and procedures for conditioning reinforcers among individuals with autism, developmental or intellectual disability, *European Journal of Behavior Analysis*, *21*(2), 292-327, DOI: 10.1080/15021149.2020.1847953

Davey, C. & Lundy, L. (2011). Towards greater recognition of the right to play: An analysis of Article 31 of the UNCRC. *Children and Society*, 25(1), 3–14.

Dawson, M., Courchesne, V., Mineau, S., Mottron, L., & Jacques, C. (2017). Repetitive behavior and object exploration in Young autistic children: How are they associated? Paper Presented at International Meeting for *Autism Research*.

Deckers, A., Muris, P. & Roelofs, J. (2017). Being on your own or feeling lonely? Loneliness and other social variables in youths with autism spectrum disorders. *Child Psychiatry & Human Development, 48*(5), 828-839. https://doi.org/10.1007/s10578-016-0707-7

Dodd, H.F., & Lester, K.J. (2021). Adventurous Play as a Mechanism for Reducing Risk for Childhood Anxiety: A Conceptual Model. *Clinical Child and Family Psychology Review,* **24**, 164–181. https://doi.org/10.1007/s10567-020-00338-w

Dwyer, P. (2022). The Neurodiversity Approach(es): What Are They and What Do They Mean for Researchers? *Article Human Development*, *66*, 73–92. https://doi.org/10.1159/000523723

Eberle, S. G. (2014). The elements of play: Toward a philosophy and a definition of play. *American Journal of Play*, *6*(2), 214-233.

Farr, W., Yuill, N., & Raffle, H. (2010). Social benefits of a tangible user interface for children with autistic spectrum conditions. *Autism The International Journal of Research and Practice*, *14*(3) (2010), pp. 237-252

Flannery, K. A., & Watson, M. W. (1993). Are individual differences in fantasy play related to peer acceptance levels? *The Journal of Genetic Psychology, 154*(3), 407–416. https://doi.org/10.1080/ 00221325.1993.10532194

Francis, G., Farr, W., Mareva, S. and Gibson, J. L. (2019). Do Tangible User Interfaces promote social behaviour during free play? A comparison of autistic and typically developing children playing with passive and digital construction toys. *Research in AutismSpectrum Disorders*, *58*, 68-82 https://doi.org/10.1016/j.rasd.2018.08.005

Friedman, S., Gibson, J., Jones, C., & Hughes, C. (2022). 'A new adventure': a case study of autistic children at Forest School. *Journal of Adventure Education and Outdoor Learning*, 1-17.

Fuller, E. A. & Kaiser, A. P. (2019). The effects of early intervention on social communication outcomes for children with autism spectrum disorder: A meta-analysis. *Journal of Autism and Developmental Disorders*, 1–18. https://doi.org/10.1007/ s10803-019-03927-z

Gibson, J.L., Cornell, M. & Gill, T. A Systematic Review of Research into the Impact of Loose Parts Play on Children's Cognitive, Social and Emotional Development. *School Mental Health, 9*, 295–309 (2017). https://doi.org/10.1007/s12310-017-9220-9

Gibson, J. L., Pritchard, E., & de Lemos, C. (2021). Play-based interventions to support social and communication development in autistic children aged 2–8 years: A scoping review. *Autism & Developmental Language Impairments*. https://doi.org/10.1177/23969415211015840

Goldberg, J. M., Sklad, M., Elfrink, T. R., Schreurs, K. M., Bohlmei- jer, E. T., & Clarke, A. M. (2019). Effectiveness of interventions adopting a whole school approach to enhancing social and emotional development: A meta-analysis. *European Journal of Psychology of Education, 34*(4), 755–782. https://doi. org/10.1007/s10212-018-0406-9

Grandin, T. (2012). *Different not less.* Arlington: Future Horizons.

Howes, C., & Matheson, C. C. (1992). Sequences in the development of competent play with peers: Social and social pretend play. *Developmental Psychology, 28*(5), 961–974. https://doi.org/10.1037/0012-1649.28.5.961

Iacob, C.I., Avram, E., Cojocaru, D., & Podina, I.R. (2020). Resilience in familial caregivers of children with developmental disabilities: a meta-analysis. *Journal of Autism and Developmental Disorders, 50*(11), 4053-4068. doi: 10.1007/s10803-020-04473-9.

Jarrold, C., Boucher, J., & Smith, P. (1993). Symbolic play in autism: A review. *Journal of Autism and Developmental Disorders, 23*(2), 281-307.

Jensen, H., Pyle, A., Zosh, J. M., Ebrahim, H. B., Scherman, A. Z., Reunamo, J., & Hamre, B. K. (2019). *Play facilitation: The science behind the art of engaging young children*. The LEGO Foundation.

Jordan, R. (2003). Social play and autistic spectrum disorders: a perspective on theory, implications and educational approaches. *Autism, 7*(4), 347–360. https://doi.org/10.1177/1362361303 007004002

Kenny, L., Hattersley, C., Molins, B., Buckley, C., Povey, C., & Pellicano, E. (2016). Which terms should be used to describe autism? Perspectives from the UK autism community. *Autism, 20*(4):442-62. doi: 10.1177/1362361315588200.

Kossyvaki, L. & Papoudi, D. (2016). A review of play interventions for children with autism at school. *International Journal of Disability, Development and Education, 63*(1),.45-63. https://doi.org/10.1080/1034912X.2015.1111303

Ladd, G. W., Price, J. M., & Hart, C. H. (1988). Predicting preschoolers' peer status from their playground behaviors and peer contacts. *Child Development, 59*, 986–992.

Lester, K. (2020). Allowing young children to play with their friends must be prioritised as soon as possible when lockdown is eased. *The Association for Child and Adolescent Mental Health*. DOI: 10.13056/ acamh.12119

Lillard, A. S., Lerner, M. D., Hopkins, E. J., Dore, R. A., Smith, E. D., & Palmquist, C. M. (2013). The impact of pretend play on children's development: a review of the evidence. *Psychological Bulletin, 139*(1), 1. https://www.psycnet.apa.org/doi/10.1037/ a0029321

Lillard, A.S. & Witherington, D.C. (2004). Mothers' behavior modifications during pretense and their possible signal value for toddlers. *Developmental Psychology, 40*(1), 95. https://psycnet.apa.org/doi/10.1037/0012-1649.40.1.95

Locke, J., Ishijima, E.H., Kasari, C. & London, N. (2010). Loneliness, friendship quality and the social networks of adolescents with high-functioning autism in an inclusive school setting. *Journal of Research in Special Educational Needs, 10*(2), 74-81. https://doi.org/10.1111/j.1471- 3802.2010.01148.x

Lyall, K., Croen, L., Daniels, J., Fallin, M.D., Ladd-Acosta ,C., Lee, B.K., Park, B.Y., Snyder, N.W., Schendel, D., Volk, H., et al. (2017). The changing epidemiology of autism spectrum disorders. *Annual Review of Public Health, 38*, 81–102.

McAllister, K., & Maguire, B. (2012). Design considerations for the autism spectrum disorder-friendly Key Stage 1 classroom. *Support for Learning*, *27*(3), 103-112.

O'Keeffe, C., & McNally, S. (2022). Teacher experiences of facilitating play in early childhood classrooms during COVID-19. *Journal of Early Childhood Research, 20*(4), 552–564. https://doi.org/10.1177/1476718X221087064

O'Keeffe, C., & McNally, S. (2021a). A Systematic Review of Play-Based Interventions Targeting the Social Communication Skills of Children with Autism Spectrum Disorder in Educational Contexts. *Review Journal of Autism Developmental Disorders*. ***10***, 51–81. https://doi.org/10.1007/s40489-021-00286-3

O'Keeffe, C., & McNally, S. (2021b). 'Uncharted territory': Teachers' perspectives on play in early childhood classrooms in Ireland during the pandemic. *European Early Childhood Education Research Journal*, *29*(1), 79-95.

Papoudi, D., & Kossyvaki, L. (2018). Play and children with autism: insights from research and implications for practice. In P. Smith & J. L. Roopnarine (Eds.), *The Cambridge handbook of play: Developmental and disciplinary perspectives* (pp. 563–579). Cambridge University Press. https://doi.org/10.1017/97811 08131384.031

Parsons, S., Charman, T., Faulkner, R., Ragan, J., Wallace, S. & Wittemeyer, K. (2013). Commentary– bridging the research and practice gap in autism: The importance of creating research partnerships with schools. *Autism, 17*(3), 268-280. https://doi.org/10.1177%2F1362361312472068

Pellegrini, A.D., Kato, K., Blatchford, P. & Baines, E. (2002). A short-term longitudinal study of children's playground games across the first year of school: implications for social competence and adjustment to school. *American Educational Research Journal, 39*(4), 991-1015. https://doi.org/10.3102%2F00028312039004991

Pritchard, E., de Lemos, C., Howard, K. & Gibson, J. (in preparation). Social play as a "double-edged sword": Exploring the experience of autistic play from the perspective of autistic adults.

Rao, Z., & Gibson, J. (2019). The role of pretend play in supporting young children's emotional development. In D. Whitebread, V. Grau, & K. Kumpulainen (Eds.), *The SAGE handbook of developmental psychology and early childhood education* (pp. 63–79). London, UK: SAGE Publications Ltd.

Reifel, S. (2014). *Developmental play in the classroom.* In E. Brooker, M. Blaise & S. Edwards (Ed.) The SAGE handbook of play and learning in early childhood (pp.157-168). London: SAGE.

Riguet, C. B., Taylor, N. D., Benaroya, S., & Klein, L. S. (1982). Symbolic play in autistic, Down's, and normal children of equivalent mental age. *Journal of autism and developmental disorders, 11*(4), 439- 448.

Rotheram-Fuller, E., Kasari, C., Chamberlain, B., & Locke, J. (2010). Social involvement of children with autism spectrum disorders in elementary school classrooms. *Journal of Child Psychology and Psychiatry, 51*(11), 1227–1234. https://doi.org/10.1111/j. 1469-7610.2010.02289.x

Santillan, L., Frederick, L., Gilmore, S., & Locke, J. (2019). Brief report: Examining the association between classroom social network inclusion and playground peer engagement among children with autism spectrum disorders. *Focus on Autism and Other Developmental Disabilities, 34*(2), 91-96.

Shire, S.Y., Shih, W., Bracaglia, S., Kodjoe, M. & Kasari, C. (2020). Peer engagement in toddlers with autism: Community implementation of dyadic and individual Joint Attention, Symbolic Play, Engagement, and Regulation intervention. *Autism, 24*(8), 2142-2152. https://doi.org/10.1177%2F1362361320935689

Sutton, B. M., Webster, A. A., & Westerveld, M. F. (2019). A systematic review of school-based interventions targeting social communication behaviors for students with autism. *Autism, 23*(2), 274–286. https://doi.org/10.1177/1362361317753564

Ungar M. (2015). Practitioner Review: Diagnosing childhood resilience--a systemic approach to the diagnosis of adaptation in adverse social and physical ecologies. *Journal of Child Psychology and Psychiatry, 56*(1):4–17.

United Nations (1989). *Convention on the Rights of the Child*, Geneva: United Nations.

United Nations Committee on the Rights of the Children (2013). *General comment No. 17 on the right of the child to rest, leisure, play, recreational activities, cultural life and the arts.* Geneva: United Nations.

Uren, N. & Stagnitti, K. (2009). Pretend play, social competence and involvement in children aged 5– 7 years: The concurrent validity of the Child-Initiated Pretend Play Assessment. *Australian Occupational Therapy Journal, 56*(1), 33-40. https://doi.org/10.1111/j.1440-1630.2008.00761.x

Veiga, G., de Leng, W., Cachucho, R., Ketelaar, L., Kok, J.N., Knobbe, A., Neto, C. & Rieffe, C., (2017). Social competence at the playground: Preschoolers during recess. *Infant and Child Development, 26*(1), https://doi.org/10.1002/icd.1957

Whitebread, D., Neale, D., Jensen, H., Liu, C., Solis, S. L., Hopkins, E., ... & Zosh, J. (2017). *The role of play in children's development: A review of the evidence.* Billund, Denmark: LEGO Fonden.

Williams, G.L., Wharton, T., & Jagoe, C. (2021). Mutual (mis) understanding: reframing autistic pragmatic 'impairments' using relevance theory. *Frontiers in Psychology, 12, 616664.*

Wilson, K. P., Carter, M. W., Wiener, H. L., DeRamus, M. L., Bulluck, J. C., Watson, L. R., ... & Baranek, G. T. (2017). Object play in infants with autism spectrum disorder: A longitudinal retrospective video analysis. *Autism & developmental language impairments*, *2*, 2396941517713186.

Wolfberg, P., DeWitt, M., Young, G.S. & Nguyen, T. (2015). Integrated play groups: Promoting symbolic play and social engagement with typical peers in children with

ASD across settings. *Journal of autism and developmental disorders, 45*(3), 830-845. https://doi.org/10.1007/s10803-014-2245-0

Wolfberg, P. J., & Schuler, A. L. (1999). Fostering peer interaction, imaginative play and spontaneous language in children with autism. *Child Language Teaching and Therapy*, *15*(1), 41-52.

Wood, E. (2010). Developing integrated pedagogical approaches to play and learning. *Play and Learning in the Early Years,* 9-26.

Yang, T. R., Wolfberg, P. J., Wu, S. C., & Hwu, P. Y. (2003). Supporting children on the autism spectrum in peer play at home and school: Piloting the integrated play groups model in Tai- wan. *Autism, 7*(4), 437–453. https://doi.org/10.1177/1362361303 007004009

Zhao, Y. V., & Gibson, J. L. (2022). Solitary symbolic play, object substitution and peer role play skills at age 3 predict different aspects of age 7 structural language abilities in a matched sample of autistic and non-autistic children. *Autism & Developmental Language Impairments*, *7*, 23969415211063822.

Zosh, J. M., Hirsh-Pasek, K., Hopkins, E. J., Jensen, H., Liu, C., Neale, D., ... & Whitebread, D. (2018). Accessing the inaccessible: Redefining play as a spectrum. *Frontiers in psychology*, *9*, 1124.