

What is Autism Spectrum Disorder?

According to Ildring *et al.* (2012, cited in Slob *et al.*, 2021) and Marshaly and Rice (2003, cited in Lord, 2011)

Autism Spectrum Disorder (ASD) is a neurodevelopmental disorder with prevalences of one to two percent in school-age children. Lord *et al.* (2020) and DSM-5 (2014, cited in Oya Onat and Yesim, 2018) state that individuals with ASD may display repetitive behaviours, impairments in social communication, sensory behaviours that begin in early life and highly restricted interests.

How is ASD Identified and Diagnosed?

According to Powell *et al.* (2007, cited in Taresh *et al.*, 2020a) and Andersson, Miniscalco and Gillberg (2014) preschool teachers can aid early identification of ASD in children. Bruggink, Goei and Koot (2016) say that results of a study show that teacher professional development and training is important and should include supporting and developing teachers' skills to identify students' additional support needs. Randall *et al.* (2018) and Lupindo, Maw and Shabalala (2022) point out that a false-negative result of ASD in children or not diagnosing it when present may result in families missing out on support and early intervention. However, Fletcher-Watson (2017, cited in Taresh *et al.*, 2020b) say that late identification of ASD is common, it is more likely that teachers will distinguish the characteristics of ASD than parents. Furthermore, Hosozawa *et al.* (2020) and Loubersac *et al.* (2021) believe that children will often be diagnosed late with ASD if they are from a deprived family background, their parents show lack of concern towards their development, the children display milder autistic features and if they are 'high functioning' with better developed cognitive abilities. Zwaigenbaum and Penner (2018) and Penner, Anagnostou and Ungar (2018) maintain that a team-based approach is recommended in most clinical guidance documents with regards to diagnosis of ASD. This team should be led by a paediatric specialist, clinical child psychologist or primary care provider who is trained to diagnose ASD. Bradstreet *et al.* (2016) and Hus and Segal (2021) state that ASD can be difficult to differentiate from other developmental disabilities due to similar symptoms which can



be challenging.

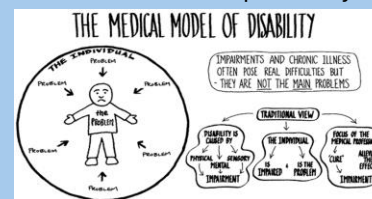
Source: Living on the spectrum, 2022

According to Robins *et al.* (2001, cited in Toh *et al.*, 2017) the Modified Checklist for Autism in Toddlers (M-CHAT) is a 23-item yes/no questionnaire for parents to report on their child's behaviour and development between ages 18 and 24 months. Robins (2008, cited in Khowaja, Hazzard and Robins, 2014) maintains that the M-CHAT is the most widely studied tool now used for population-based ASD screening. Parents fill out the written M-CHAT questionnaire, and at-risk responses are clarified using the Follow-Up process. Robins *et al.* (2001) found in results of a study that the M-CHAT tool was reliable, alongside the six most discriminating items. Children that had an autism diagnosis failed more items than the other children and showed a significantly different result on each item. However, Carbone *et al.* (2020, cited in Schjølberg *et al.*, 2021) and Stenberg *et al.* (2021) believe that recent studies show that use of the M-CHAT tool often results in a high number of false positives and false negatives which demonstrates apparent non-optimal performance.

What barriers may children with ASD face?

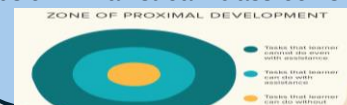
According to Ghanouni *et al.* (2019) and Weiss and Harris (2001, cited in Safer-Lichtenstein, Hamilton and McIntyre, 2019) evidence shows that social participation is restricted with children that have ASD. Relationships are often affected by these impairments as they limit children's ability to sustain friendships and social networks. Craig *et al.* (2017) maintain that some children with ASD may be non-verbal and experience more difficulty with social interactions and some may be verbally fluent but rely on social behaviour and previously learned scripts of speech, therefore the presentation of ASD varies widely. This links to the medical model of disability. Zaks (2022) points out that the medical model of disability states that all forms of disability are abnormalities that must be eradicated or cured.

The goal of medical care for disabled people has been to make their brains and bodies conform to be as close to society's definition of normal as possible. However, Guevera (2021, p. 277) says that viewing an impairment such as ASD as something that needs to be treated, eliminated or cured diminishes the intrinsic value and hidden gifts that children with ASD provide by existing.



Source: Johnson, 2017

Sedgewick, Leppanen and Tchanturia (2019) maintains that when it comes to developing friendships autistic girls were more socially motivated than boys. However, they had less friends than neurotypical girls and showed higher difficulty and increased effort when discussing creating friendships. Additionally, Sturrock *et al.* (2021) and Sedgewick, Leppanen and Tchanturia (2019) point out that because females with autism tend to place a larger value on reciprocal friendships, autistic girls may be more vulnerable to anxiety or depression if their friendships are less frequent. Jamero (2019) and Leuwol *et al.* (2023) states that Vygotsky believed that children learn and develop from opportunities to engage and play with more knowledgeable others. Play in mainstream classrooms provides opportunities to observe and participate in social interactions which can aid social development. Nevertheless, Majoko (2015) points out that inclusive settings can be challenging for children with ASD due to continuous social situations. Social skills deficits, 'self imposed' social isolation and lonely play negatively impacted inclusion in mainstream classrooms for children with ASD.



Source: Legg, 2020

What is a strategy to support children with ASD?

According to Deckers, Muris and Roelofs (2017) social skills training is a valuable intervention for children with ASD. They help to expand children's social abilities and they may be able to satisfy their need to engage in social interaction for small periods of time, which could prevent or lessen feelings of loneliness.

Kasari *et al.* (2012, cited in Wolstencroft *et al.*, 2018) point out that group social skills interventions (GSSIs) have been proven to be beneficial for children with high functioning ASD. The overall aim is for them to improve social skills with a focus on improving social knowledge and social performance.

Hotton and Coles (2016) state that the interventions are carried out in small groups and aim to improve social skill usage through role play, parents coaching and explicit instruction of necessary skills. However, White *et al.* (2007, cited in Gates, Kang and Lerner, 2017) and Gilmore *et al.* (2022) states that previous research indicates that, while parents often express high satisfaction with the GSSIs and advances in social awareness, they rarely report changes in their behaviours in naturalistic contexts.

Choque Olsson *et al.* (2017) and Freitag *et al.* (2016) states that there were greater social skills improvements in girls than boys. Therefore, sex can have an effect in outcomes with regards to GSSI's. However, Dekker *et al.* (2020) and McVey *et al.* (2017) disagree, results of their studies show that sex has no significant effects on treatment outcomes. Furthermore, according to Montrenes and Matson (2019) GSSI's are more effective for children with high-functioning autism due to the target focus being social skills deficits. They may be less effective for lower functioning children with ASD as there is less focus on cognitive impairment characteristics.

Conclusion

To conclude, children with ASD are individuals that face challenges in everyday life. There are many interventions that can support these children and help them to overcome these challenges, some of which I have discussed, with early diagnosis and intervention being key.

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Script

What is Autism Spectrum Disorder?

According to Idring *et al.* (2012, cited in Slob *et al.*, 2021) and Marshaly and Rice (2003, cited in Lord, 2011) Autism Spectrum Disorder (ASD) is a neurodevelopmental disorder with prevalences of one to two percent in school-age children. Lord *et al.* (2020) and DSM-5 (2014, cited in Oya Onat and Yesim, 2018) state that individuals with ASD may display repetitive behaviours, impairments in social communication, sensory behaviours that begin in early life and highly restricted interests. Furthermore, Welsh Government (2019) and Greenlee *et al.* (2016, cited in Rhodes *et al.*, 2023) maintain that these challenges can result in children suffering from high levels of anxiety, stress and depression which sometimes leads to a decrease in academic achievement. Stewart *et al.* (2021) say that a recent study reports rates of up to 83.33% of children with autism experience depression.

How is Autism Identified and Diagnosed?

According to Powell *et al.* (2007, cited in Taresh *et al.*, 2020a) and Andersson, Miniscalco and Gillberg (2014) preschool teachers can aid early identification of ASD in children. Preschool teachers are well educated in child development, and they are regarded as reputable resources for intervention issues. They can liaise with parents and provide them with information about the support available. Randall *et al.* (2018) and Lupindo, Maw and Shabalala (2022) point out that a false-negative result of ASD may result in families missing out on timely support and education therefore the children may not be given early intervention which is key due to the plasticity of the brain at a young age. However, Fletcher-Watson (2017, cited in Taresh *et al.*, 2020b) say that late identification of ASD is common, it is more likely that teachers will distinguish the characteristics of ASD than parents. There will be early warning signs during the preschool stage which may be highlighted by evidence of developmental delays or potential disorders when they start school. Furthermore, Hosozawa *et al.* (2020) and Loubersac *et al.* (2021) believe that children will often be diagnosed late with ASD if they are from a deprived family background, their parents show lack of concern towards their development, the children display milder autistic features and if they are 'high functioning' with better developed cognitive abilities. This may be

due to the parents having a poor education or they display no concern as the children are showing progression and not clearly displaying autistic features.

Bruggink, Goei and Koot (2016) say that results of a study show that teacher professional development and training is important and should include supporting and developing teachers' skills to identify students' additional support needs. Busby *et al.* (2012, cited in Gómez-Marí, Sanz-Cervera and Tárraga-Mínguez, 2021) maintain that teachers' knowledge predicts their capacity to provide inclusive learning opportunities for students with ASD and facilitate early screening and identification. Nevertheless, Curran (2020) states that Special Educational Needs Coordinators believe that staff training is important when identifying Additional Learning Needs but pointed out that this did not take place often.

Zwaigenbaum and Penner (2018) and Penner, Anagnostou and Ungar (2018) maintain that a team-based approach is recommended in clinical guidance documents with regards to diagnosis of ASD. This team should be led by a paediatric specialist or clinical child psychologist. Bradstreet *et al.* (2016) and Hus and Segal (2021) state that ASD can be difficult to differentiate from other developmental disabilities which can be challenging. Language disorders and Attention Deficit Hyperactivity Disorder (ADHD) have similar symptoms to ASD for example difficulties with social interactions, co-occurring challenging behaviours and delayed speech development. Referring to the Ven diagram on the poster it displays more similarities and differences between ADHD and ASD. Brian, Zwaigenbaum and Ip (2019) state that the three main objectives of the diagnostic assessment for ASD are to investigate disorders that resemble ASD symptoms and detect co-morbidities, assess the child's adaptive functioning, and to arrange interventions effectively. Also, to provide a conclusive diagnosis of ASD that is categorical.

According to Robins *et al.* (2001, cited in Toh *et al.*, 2017) the Modified Checklist for Autism in Toddlers (M-CHAT) is a 23-item yes/no questionnaire for parents to report on their child's behaviour and development between ages 18 and 24 months. Robins (2008, cited in Khowaja, Hazzard and Robins, 2014) maintains that the M-CHAT is the most widely studied tool now used for population-based ASD screening. Parents fill out the written M-CHAT questionnaire, and at-risk responses are clarified using the Follow-Up process. Robins *et al.* (2001) found in results of a study that the M-CHAT tool was reliable, alongside the six most discriminating items. Children that had an autism diagnosis failed more items than the other children and showed a significantly different result on each item. However, Carbone *et al.* (2020, cited in Schjølberg *et al.*, 2021) and Stenberg *et al.* (2021) believe that recent studies show that use of the M-CHAT tool often results in a high number of false positives and false negatives which demonstrates apparent non-optimal performance. Furthermore, Robins (2020) maintains that parent reports may not always be accurate about behaviours that display risk of ASD and parents are sometimes unwilling to endorse those symptoms. They may worry about stigma of diagnosis and fears about their child's future which can lead to false-negatives using the M-CHAT tool.

What barriers may children with ASD face?

According to Ghanouni *et al.* (2019) and Weiss and Harris (2001, cited in Safer-Lichtenstein, Hamilton and McIntyre, 2019) evidence shows that social participation is restricted with children that have ASD. Relationships are often affected by these impairments as they limit children's ability to sustain social networks. Craig *et al.* (2017) maintain that some children with ASD may be non-verbal and experience more difficulty with social interactions and some may be verbally fluent but rely on social behaviour and previously learned scripts of speech. Pisula (2010, cited in Burzawa, 2018) and Clarke *et al.* (2020) states that children with ASD struggle with communication which can be manifested in non-verbal communication, many children with ASD find it difficult to understand reading emotions, hand gestures or facial expressions. This makes it challenging for them to understand expectations and recognise if peers are happy or upset.

This links to the medical model of disability which is represented in the second image on the poster. Zaks (2022) points out that the medical model of disability states that all forms of disability are abnormalities that must be eradicated or cured. The goal of medical care for disabled people has been to make their brains and bodies conform to be as close to society's definition of normal as possible. However, Guevera (2021, p. 277) says that viewing an impairment such as ASD as something that needs to be treated, eliminated or cured diminishes the intrinsic value and hidden gifts that children with ASD provide by existing.

According to Daugherty (2018) and Marsh *et al.* (2017) core deficits of ASD are pragmatic and social skills deficits which adversely affect social relationships and friendships. Schools can be socially demanding environments and these deficits can be further exacerbated in school. However, Locke *et al.* (2017) say that not all children with ASD will need intervention in school settings and experience negative social outcomes despite these common deficits in social communication skills. Sedgewick, Leppanen and Tchanturia (2019) maintains that when it comes to developing friendships autistic girls were more socially motivated than boys. However, they had less friends than neurotypical girls and showed higher difficulty when creating friendships. Additionally, Sturrock *et al.* (2021) and Sedgewick, Leppanen and Tchanturia (2019) point out that because females with autism tend to place a larger value on reciprocal friendships, autistic girls may be more vulnerable to anxiety or depression if their friendships are less frequent and characterized by conflict and greater victimization. Bauminger, Shulman and Agam (2003, cited in Daugherty, 2018) and Locke *et al.* (2010, cited in Ahlers *et al.*, 2017) believe that children with ASD can have a clear understanding of ideal friendship qualities despite their struggles to maintain friendships. These children often experience loneliness more than their neurotypical peers.

Welsh Government (2016) and United Nations (no date) state that the process of inclusion involves all children having access to common opportunities in ways that meet their individual and holistic needs. This ensures belonging within the school community. Campbell (2007, cited in Majoko, 2015) and Mathur and Koradia (2018) maintain that inclusive pedagogical settings can present benefits for children with ASD such as opportunities for numerous peer interactions and access to mainstream education curriculum, however inclusion does present challenges for these children. Jamero (2019) and Leuwol *et al.* (2023) states that Vygotsky believed that children learn and develop from opportunities to engage and play with more knowledgeable others in their Zone of Proximal Development, which is illustrated in the final picture on the poster. Play in mainstream classrooms provides opportunities to observe and participate in social interactions which can aid social development. Nevertheless, Majoko (2015) points out that inclusive settings can be challenging for children with ASD due to continuous social situations. Social skills deficits, 'self imposed' social isolation and lonely play negatively impacted inclusion in mainstream classrooms for these children.

What is a strategy that can be used to support children with ASD?

Roy and Chiat (2019) maintain that if a child receives a late diagnosis of ASD or social communication difficulties, they may miss out on receiving interventions that support social communication. According to Deckers, Muris and Roelofs (2017) social skills training is a valuable intervention for children with ASD. They help to expand children's social abilities and they may be able to satisfy their need to engage in social interaction for small periods of time, which could prevent or lessen feelings of loneliness. Bandura (1991, cited in Habib, Montreuil and Bertone, 2018) and Foti *et al.* (2014) point out that if children directly observe human behaviour, it gives them an understanding of appropriate behaviour and social norms. It can aid understanding of facial expressions, implicit communication, and eye contact.

Kasari *et al.* (2012, cited in Wolstencroft *et al.*, 2018) points out that group social skills interventions (GSSIs) have been proven to be beneficial for children with high functioning ASD. The overall aim is to improve social skills with a focus on improving social knowledge and performance. Hotton and Coles (2016) say that GSSI's are usually carried out in small groups with less than ten children in them in a school or clinical setting. The interventions aim to improve social skill usage through role play, parents coaching and explicit instruction of necessary skills. However, White *et al.* (2007, cited in Gates, Kang and Lerner, 2017) and Gilmore *et al.* (2022) states that previous research indicates that, while parents often express high satisfaction with the GSSIs and advances in social awareness, they rarely report changes in their behaviours in naturalistic contexts. Furthermore, McMahon and Lerner *et al.* (2013, cited in Gates, Kang and Lerner, 2017) say that parents positive reports about the intervention being effective may be influenced by expectancy effects reflecting their commitment to and engagement in the intervention.

Tseng *et al.* (2020) and Gerber *et al.* (2022) maintain that GSSI's are resource and time intensive, therefore there are small sample sizes used in studies based on this intervention which limits the power. Also, for children that live in remote areas treatments that take place in person can be geographically inaccessible. Choque Olsson *et al.* (2017) and Freitag *et al.* (2016) states that there were greater social skills improvements in girls than boys. Therefore, sex can have an effect in outcomes with regards to GSSI's. However, Dekker *et al.* (2020) and McVey *et al.* (2017) disagree, results of their studies show that sex has no significant effects on treatment outcomes. Furthermore, according to Montrenes and Matson (2019) GSSI's are more effective for children with high-functioning autism due to the target focus being social skills deficits. They may be less effective for lower functioning children with ASD as there is less focus on cognitive impairment characteristics.

Conclusion

To conclude, children with ASD are individuals that face challenges in everyday life. There are interventions that can support these children and help them to overcome these challenges. Early intervention is key as it is more likely to be effective when the child is younger and earlier on in life. Children with ASD have unique qualities that deserve to be celebrated and with the right support in place can thrive in life.