

Which children were more likely to be identified with ASD?

Boys were 4 times more likely to be identified with ASD than girls.



White children were still more likely to be identified with ASD than black or Hispanic children. Black children were more likely to be identified with ASD than Hispanic children. However, these differences were smaller when compared with estimates from previous years.

Background

Autism is a developmental disability which affects mostly boys, Autism affect’s communication and social and interaction with the world around them. One in every 100 people are affected with Autism and there is 700,000 autistic people in the UK. Autism affect’s people in different ways, they have their own strengths and weaknesses. They live their lives by routine and repetitive and restrictive behaviour, extreme anxiety. There is no cure for Autism it is difference and not a disadvantage (National Autistic Society, no date). According to the Diagnostic and Statistical Manual of Mental Disorders (DSM-5), which was created by American Psychiatric Association that professionals diagnose people with ASD – Communication and interaction difficulties, repetitive behaviours and having issues that affect their everyday life. Autism is known as a “spectrum” has it has a wide variation of levels and severity of the condition, like an umbrella effect (National Institute of Mental Health, no date). Autism children use stimming as a self-stimulating behaviour which involves repeating speech or motion.

This action has a negative and positive outcome it can be a helping mechanism with coping with sensory overload however, it can get in the way of a daily day or cause harm to the person (Cherney, and Seladi-Schulman, 2021).



Identified Prevalence of Autism Spectrum Disorders ADDM Network 2000-2008 Combining Data from All Sites				
Surveillance Year	Birth Year	Number of ADDM Sites Reporting	Prevalence per 1,000 Children (Range)	This is about 1 in X children...
2000	1992	6	6.7 (4.5-9.9)	1 in 150
2002	1994	14	6.6 (3.3-10.6)	1 in 150
2004	1996	8	8.0 (4.6-9.8)	1 in 125
2006	1998	11	9.0 (4.2-12.1)	1 in 110
2008	2000	14	11.3 (4.8-21.2)	1 in 88

Causes

It is suggested that Autism is genetic, researchers have been attempting to suggest which genes implicate the Autism, it is said that there are multiple genes are the cause. It has been suggested in the past that Autism is the cause of having the **MMR vaccine, researchers have been working on this and there is no connection to Autism and the MMR** vaccine (National Autistic Society, no date). In the 1990’s Andrew Wakefield put forward that the (MMR) Measles, Mumps and Rubella vaccine was the cause of Autism, his work has been dis-continued and is not allowed to practice medicine in the UK (Ambitious about Autism, 2022). Data has indicated that children with ASD are vaccinated until the age of two, however, new data shows that their vaccine receipt will be lower in later childhood. It is suggested that younger siblings of children with ASD they have a lower rate of vaccine compared with their older siblings and the younger siblings without ASD. Parents with a child with ASD are becoming hesitant about vaccines – having them delayed or refusal (Goin-Kochel, Fombonne, Mire, Minard and Sahni, 2020).

Strategies

As (ASD) autism spectrum disorder has increased, there is a wide range of educational and medical therapies for ASD. Early behavioural and developmental strategies such as applied behaviour analysis treatment, have been of some benefit of children with ASD (Roane, Fisher, Carr, 2011). Lego therapy is used to promote the natural interest in play to support behavioural change and it can be an effective tool to support social and communication skills (Lindsay, Hounsell and Cassiani, 2017). A child with autism lives through routines throughout the day for security and safety, to support a child in a school environment visual aid – charts, pictures with support the child to understand what is happening throughout the school day, sitting down with the child at the beginning of the day to run through the routine, to enable the child to progress their day ahead. Allowing the child a safe space for them to express their feelings and emotions (Sensory Direct, 2024).

Autism Spectrum Disorder

Statistics

Autism is three times more likely to present in boys than girls. Autism in girls present differently that boys, girls masked the conditioned which can lead to misdiagnosed boys don’t mask and there are getting diagnosed easier. Seven in Ten autistic pupils say that school would be more beneficial if teachers understood Autism. £32 billion pounds are spent in the UK each year to care and loss earnings to support autistic children, if the correct support was to be put in place autistic people would be able to live more independently (Beyond Autism, 2024). There are more than 70% autistic children being taught in a mainstream school, autism being the most common type of ALN. Having a diagnosis of ASD has positive outcomes, the brain works differently, the memory section of the brain is heightened. Children with autism find is difficult to achieve in a mainstream as the school environment is not suitable – noisy, crowds, busy walls, these factors will heighten the child’s anxiety. Autistic children are more likely to be vulnerable to social exclusion and their self-esteem and confidence will be compromised (Kennedy, 2023). In the last 50 years (ASD) autism spectrum disorder has gone from being low refined and rare disorder, to a well-publicised condition, it is a lifelong condition. The main difficulty of ASD is communication and repetitive and high sensory overload. Now autism is seen to be an umbrella affect ranging from mild to severe. However, people with ASD will require support throughout their lives (Lord, Elsabbagh, Baird, veenstra-Vanderweele, 2018).

Conclusion

Children with the diagnosis of (ASD) compared to 50 years ago, has improved greatly, the services available today to parents, schools are at a high. People can be reassured that the support has improved and continue to improve. Professional working with school, families and the community, professionals can make a big difference to a person living with autism by providing correct and realistic information, support and hope moving forward.

Challenges

Anxiety is part of our development, evidence has shown that people with Autism their level of anxiety is much higher, according to White et al, (2009) 84% of people with autism suffer with clinically diagnosed anxiety disorders. Change in routine can be very stressful due to processing information and the sensory issue. Days need to be planned and preparing for changes in routine needs to be anticipated (autism Tasmania, 2024). When people see a child with autism, they judge on what they can see and not the individual communicating – this often resonate with the author and parent Henry Normal (Normal and Pell 2018, p.50 cited in Cobbe, 2019) Henry cites that Alain de Botton states that people view themselves from the inside, and other people from the outside (Cobbe, 2019).

Group Script

Hello and welcome to this webinar on ALN (Additional Learning Needs).

I will now introduce myself and then hand over to my colleagues to introduce themselves, hello, my name is Amanda White, I will be chairing today, and I will also be discussing autism spectrum disorder.

Hi, I am Eira Mainwaring, and I will be discussing Verbal dyspraxia today.

My name is Lindsay Turner, and I will be discussing attention deficit hyperactivity disorder.

Before we begin, I would like to talk a little about what ALN means. A child has ALN when they have learning difficulties or disabilities which call for additional learning provisions. One in every five children has additional learning needs. All children have difficulty throughout their education, however, children with ALN are going to need extra support to learn and progress. Children can have additional learning needs as a result of a medical condition or disability, or possibly from an undiagnosed condition or disability (Snap Cymru, no date).

There have been major changes in the way we view disabilities in recent decades and situations have improved dramatically since the education reform in 1944. The Warnock report in 1978 challenged traditional views on disabilities in children and was the basis for the Education Act 1981. The Children Act 1989 promoted the integration of disabled children into mainstream education. Following on from the Equality Act 2010, 'Every Disabled Child Matters' campaigned for rights and resources for disabled families and their children.

The (ALN) additional learning needs framework has changed recently to support children and young people aged 0-25 in Wales. It replaces the (SEN) Special Educational Needs system introduced in 1994. The ALN framework was formed as a result of the passing of new legislation; the Additional Learning Needs Education Tribunal (Wales) Act 2018 and the Additional Learning Needs

Code for Wales 2021. Through this statutory framework, the Welsh Government is going to ensure that children with ALN have extra support to conquer barriers, to achieve their full potential (Welsh Government, 2020).

The earlier an ALN is recognised, the earlier provisions are put in place to support the child, and the more effective they will be. Identifying ALN at the early stage and ensuring the child is receiving the correct support can also prevent costly and less effective provisions in the future. A review is needed annually to assess the progress of the child and any changes (Welsh Government, 2018, p.28).

With regards to children with ALN, the educational setting needs to be inclusive to all, removing barriers and challenges to learning. The inclusive approach is designed to ensure the success of all children (Devarakonda, 2013). Equity in education is ensuring all children have fair learning experiences regardless of the learning statement, all children should have the opportunity to be successful (Lowell and Morris, 2019:92).

And on that note, I would like to hand over to Lindsay who will be presenting to us today on attention deficit hyperactivity disorder.

Thanks, Amanda. I am just going to start by sharing my screen and showing you all a poster on ADHD which I would like to talk about.

What is ADHD?

According to NICE (2018), ADHD affects between 3 and 9 per cent of children attending UK Schools and is one of the most common childhood mental health disorders (Ramos et al., 2022).

ADHD is a neurodevelopmental condition that affects areas of the brain responsible for regulatory behaviours and can cause significant delays (Wales Healthcare, no date; Crowley, 2014). The origin of ADHD is mostly genetic but approximately 20 per cent of cases are acquired through epilepsy or brain injury (Bundgaard et al., 2017; Ramos et al., 2022). ADHD is defined as a persistent pattern of behaviours that interfere with development and can hamper functioning and is characterised by symptoms of inattention, impulsivity, and hyperactivity (Maniadaki and Kakouros, 2018; ADHD Aware, no date). This impairment to cognitive functioning and therefore learning abilities will increase the risk of academic underachievement (Schmiedeler and Schneider, 2013), which in turn can lead to an impoverished and dependent lifetime, as was highlighted in the DEMOS report published in 2018. This report was commissioned to demonstrate the social and economic impact of ADHD (Wales Healthcare, no date; DEMOS, 2018).

How is ADHD identified and diagnosed?

The main symptoms of ADHD can be categorised into inattention or hyperactivity/impulsivity. Inattention symptoms include difficulty with sustained attention, task completion and following instructions, whereas symptoms of hyperactivity and impulsivity include excessive talking, impulse control, and fidgeting (Maniadaki and Kakouros, 2018; Greenway and Rees Edwards, 2019; ADHD Aware, no date). These symptoms can mean that children are challenged by classroom environments because of the expectations placed upon them to listen, sit quietly, and complete tasks. Additionally, impulsivity will make it difficult for children to wait their turn meaning they are prone to interrupting conversations and activities (Greenway and Rees Edwards, 2021). These children, therefore, may be at risk of developing further learning difficulties and could suffer long-term academic underachievement (Greenway and Rees Edwards, 2019).

Assessment of ADHD in children is initiated at the point the parent or teacher becomes concerned and decides to seek professional help. The assessment process is multidimensional (Maniadaki and Kakouros, 2018). Therefore, thorough awareness of ADHD is essential when observing initial ADHD-type behaviours, as misinformation and poor attitudes can cloud the ability to identify and respond to children with ADHD (Greenway and Rees Edwards, 2019).

Diagnosis is made when children exhibit six or more symptoms of inattention and hyperactivity-impulsivity before turning 12 years and for at least a period of six months, while in two settings (Greenway and Rees Edwards, 2019). However, getting a diagnosis for ADHD can take well over a year on the NHS in Wales, and this timescale varies regionally (ADHD Aware, no date). There is no single definitive test and since diagnosis is reliant on symptoms being observed across two or more settings, clinicians will often use formal observations within a school setting and informal evaluations of the children's daily social interactions (ADHD Aware, no date). Specialists will base the clinical diagnosis on a combination of observations of the patient, discussions, questionnaires with the patient and their families and information from the patients' school (Maniadaki and Kakouros, 2018; Young Minds, 2024). The longevity of symptoms will be taken into consideration in addition to the impact they have on daily life and whether or not they can be attributed to another condition.

The necessity for a referral is usually because the child's behaviour is considered unacceptable for the classroom setting, as teachers have routinely reported that ADHD symptoms provide one of the biggest teaching challenges and it is possible that this can result in damaged relationships between teachers and peers (Greenway and Rees Edwards, 2021). Symptoms of other conditions can also overlap and there is an estimated 40 percent comorbidity across the neurodevelopmental spectrum which increases the difficulty for teachers (Schmiedeler and Schneider, 2013). Moreover, characteristics such as those exhibited by children with ADHD can also be found in non-ADHD children (Peer and Reid, 2021) and it is important to be able to distinguish between ADHD, an overactive child and those who may have other emotional or physical disabilities which can affect concentration and effort. The key difference between children with ADHD and those who are just overactive lies in the ability to control motor function in a situation when required to do so.

In 1978, the Warnock Report (cited in Education UK, no date; Armstrong and Squires, 2012) stated the importance of early identification of special educational needs and this is reflected in the Additional Learning Needs Code for Wales 2021 which notes that the earlier a need is identified the more responsive a child will be and the interventions can be put in place with minimal disruption to the child's education (National Assembly for Wales, 2016; Welsh Government, 2021). Accurate early intervention requires complex training for schoolteachers, but this training is considered by many to be inadequate (Taggart et al., 2006). Undiagnosed and unmanaged ADHD has been associated with numerous poor health outcomes such as stroke, high blood pressure, obesity, anxiety and depression, bipolar disorder, and even addiction and therefore early identification which leads to early intervention will ultimately provide more positive academic outcomes (Taggart et al., 2006). Recent policy changes have made significant improvements in identifying, diagnosing and treating ADHD in children (Greenway and Rees Edwards, 2021; NICE, 2018), however these improvements have not resulted in a similar improvement in adult services and the ADHD Foundation report in July 2019 entitled 'Will the doctor see me now?', shows that a lack of planning due to the increase in diagnoses has resulted in many children being left without adequate support as they transition to early adulthood (ADHD Foundation, 2019; Welsh Government, 2020). In addition, recent research has indicated an increase in occasions of self-harm and attempted suicide within the ADHD population. Access to healthcare is a controversial issue with patients currently waiting between one and five years to see a specialist. The Department for Education states that fourteen per cent of school-age children have some form of learning impairment and two in five of those impairments will remain unidentified until after age 16. Children and young people are already vulnerable and can struggle with their mental health, but having ADHD means that they already have many challenges to negotiate such as struggling to manage emotions and social difficulties, along with frequently having other developmental or mental health conditions. The NHS states that around 60-80 per cent of children with ADHD have at least one other condition, be it autism, dyslexia, dyspraxia, anxiety, or behavioural issues (Young Minds, 2024).

Impact barrier - ADHD in girls

On the whole, girls who have ADHD will suffer even more of a disadvantage as studies have demonstrated that the symptoms they tend to display are less disruptive and fit more the inattentive type of ADHD. It is therefore common that they are diagnosed much later than their male counterparts frequently not until adulthood (Maniadaki and Kakourus, 2018; Overgaard et al., 2022). This could be due to masking which is a trait more commonly associated with autism but is frequently observed in ADHD females, this is thought to be due to girls needing to make more considerable efforts to respond to social expectations. With diagnosis methods requiring patients to meet a clinical threshold value, girls who mask the critical symptoms of ADHD can fall outside the clinical range for treatment (Schmiedeler and Schneider, 2013). Furthermore, girls with ADHD are at a greater risk of displaying delinquent behaviours when in adolescence and will be more likely to have impaired peer relationships as a result of this, which could be a trigger for a later diagnosis. In addition to this, girls will be more likely to have a negative self-image and will internalise thoughts and issues. Stereotypes of femininity are directly opposed to the impression of ADHD and how one behaves when they have it. Consequently, girls who have a hyperactive presentation are more likely to receive an earlier diagnosis.

Impact barrier – Medical Model of Disability

Another major barrier faced by children with ADHD is the way that they are viewed by their communities. Although perceptions of disability are changing, disabilities are still viewed as afflictions which require accommodation by the 'normal' world (Rix, 2010). The Medical Model of Disability which is a term coined in the 1950s and influenced by the 1944 Education Act refers to disability as something to be diagnosed, treated, and cured through rehabilitation or normalisation (Armstrong and Squires, 2012; Devarakonda, 2013). This theory perpetuates the stigma and discrimination associated with disability. The discrimination faced by children with disabilities who do not fit into mainstream boxes is a social reaction to what is little more than a human variation (Guevara, 2021).

Children who are viewed as disruptive, who cannot sit still and focus, and who have trouble controlling their emotions do not fit the traditional classroom model and therefore are labelled as difficult and unruly, but in reality, these barriers are a consequence of the lack of social organisation in our current school system. The social model of disability centres on equality and human rights and takes the focus away from the impairment placing a greater responsibility on the establishment to adapt environments and practices (Rix, 2010).

Studies have found that young disabled children can often be overlooked as play partners by their peers and that this can be because of unorthodox or unpredictable behaviours (Parry, 2015). However, it has been shown that this lack of social connection is mainly down to a mismatch in the play competencies rather than an indifference to the disability itself (Parry, 2015). The development of friendships for children with ALN can often be dependent on play partners being comparable developmentally (Parry, 2015).

Strategies

An effective strategy used to manage ADHD in the classroom is known as behaviour modification. Behaviour modification techniques are a key component of ADHD behavioural therapy. They focus on identifying and modifying specific behaviours associated with ADHD (National Library of Medicine, 2023). This approach is based on the principle that behaviours can be learned and changed through consistent reinforcement and environmental modifications and is based on Skinner's theory of operant conditioning (Skinner, 1938, cited in Nutbrown and Clough, 2014; Christina and Mathew, 2021). Behavioural modification has been shown to successfully manage disruption and defiance in the classroom, particularly for younger children (AFA Education, 2023; Ogundele and Ayyash, 2023). It is important to note that most studies that have produced positive results have been undertaken using predominantly male students (Ogundele and Ayyash, 2023).

Behavioural modification leans more toward nonverbal direction alongside the traditional instructional teaching methods which is more effective for ADHD students (Du Paul and Stoner, 2014). Some examples of this technique could include moving closer to the child in the group setting to minimise disruption, simply standing behind or next to the child or the tactical ignoring of attention-seeking behaviour (Elis and Tod, 2018; Christina and Mathew, 2021). These effective teaching strategies can accommodate neurodiverse learners and can dampen activity with dramatic effect without the need for spoken word (Van de Oord and Tripp, 2020; AFA Education, 2023). Alternatively, behavioural techniques do not work for all children and this is not a one-fits-all philosophy, techniques should be applied to fit the child and the situation and oftentimes will need more than one strategy to guarantee success for example increasing ratios is one possible addition (Waxmonsky et al., 2008; Van de Oord and Tripp, 2020). It is recognised that to improve the quality of the education provided, the individual needs of the disabled child need to be met through a universally tailored response (Devarakonda, 2013; Elis and Tod, 2018; Christina and Mathew, 2021).

Conclusion.

To conclude, ADHD is prevalent in one-in-20 of the population, autism affects one-in-100 and dyslexia is estimated to affect between one in five and one in ten individuals. Considering these statistics and looking at them from an evolutionary perspective, if as many as one-fifth of humans are neurodiverse, isn't it time to challenge the medical definition that classifies them as 'disordered' individuals and problems to be solved? The need to improve public perception of spectrum conditions and the requirement to continue educating children on ability and inclusion is paramount.

Thank you all for listening, if you have any questions, I would be happy to answer them.

Eira – With such an increase in referrals in recent times, do you know how many of these do not result in diagnosis, and what are the knock-on effects of this?

Thank you, Eira. According to the ADHD Foundation, approximately 30% of referrals received from schools are not resulting in a diagnosis of ADHD. Teachers have reported that often parents are pushing so hard for a referral without the child needing one. This means that children who desperately require an assessment are often pushed further down the long waiting list and of course, this adds pressure to already stretched services and results in the inability to increase resources. This can lead to desperate families resorting to seeking private diagnoses which are often not recognised by local authorities, are incredibly costly and do not lead to the provision of interventions leaving many families out of pocket and back to square one.

Amanda – You mention that many girls are at risk of not being diagnosed, how do you think we can improve this?

To provide earlier interventions for girls we need to reform the entire system. Traditionally practitioners are looking out for symptoms of hyperactivity, these are noticed quickly because they are disruptive in the classroom. Girls who may be presenting as more inattentive are often subject to constant criticism rather than help. As practitioners, we need to educate ourselves better, there needs to be more comprehensive training which results in us looking at the whole picture and not just ‘fixing’ the elements that are disrupting the classroom environment and making it difficult for us to teach (Child Mind Institute, 2024).

Thank you, Lindsay.

Following on from that I would now like to ask Lindsay to share my screen with you and present to you about autism.

ASD (autism spectrum disorder).

The topic which I am going to discuss is ASD (autism spectrum disorder).

Autism spectrum disorder (ASD) comprises several symptoms and behaviours, which affect people in a different way to understand the world around them. An umbrella term covers autism, Asperger syndrome and pervasive developmental disorders (Learning disabilities, no date).

Autism is more common in boys (4:1) as girls mask and is not diagnosed or missed until later in life, “Social camouflaging is the use of action which autistic children use to minimise the visibility of the autism in social areas, camouflaging is used by females and children who have average and above intelligence (Hull et al., 2021). Autism can be diagnosed from the age of two, signs are visible from three years of age. An M-CHAT chart can be used for toddlers, signs can be found earlier. Children with autism have difficulty interacting and communicating with other people, they stay with the same friends they do not look for making new relationships with others. They do not understand how other people are feeling, they have no empathy. Having a diagnosis of Autism is not an illness or disease, the brain works uniquely. Being Autistic does not mean people cannot live a good life; they may need a little support. Every person with Autism presents differently, but there are positives of being autistic (High Functioning) which presents as above-average intelligence (NHS, 2022).

Diagnosing Autism involves a variety of diagnostic tools: these tools are in-depth to ensure the correct diagnosis and support is given to ensure the family is fully informed.

DISCO (Diagnostic Interview for Social and Communication Disorders)

ADI-R (Autism Diagnostic Interview-Revised)

ADOS (Autism Diagnostic Observation Schedule)

3DI (Developmental, Dimensional and Diagnostic Interview)

The ADOS tool is based on the child’s behaviour and skills (National Autistic Society, 2020).

Parents are offered an assessment for Autism because the school or Health Visitor may have noticed signs of Autism.

Having an assessment gives people the opportunity to discuss the signs which had been noticed. When a person has been referred for an assessment, it starts within 3 months and is completed by a team of autism specialists.

Parents are fully informed about the process of the assessment, after the assessment a written report is given to the parents, a copy to the GP and if consent is given a copy will be sent to adults who work with the child, to provide support moving forward (National Institute for Health and Care Excellence, 2024).

According to Vygotsky “We are aware of ourselves, we see others the same way as we know them, and this is because in relation to ourselves we are in the same position as other people see us” (Vygotsky, 1978, cited in Botonaki, no date). Vygotsky stated that people should conceive the individual and the environment, these are factors that will shape the process of growth and development this is of significant importance for children with ASD (Botonaki, no date).

In cognitive development, if a child is not engaged in play, or playing with their peers and has fewer opportunities and experience to explore will not make the links and connections which is needed later (Sutton-Smith, 1997, cited in Goldstein, 2012:5). Bronfenbrenner theory is the interaction with others and the environment, play is important for children with ASD as it gives the children the opportunity to interact with different people and new environments. Bronfenbrenner suggested that the more engaging and richer in resources the environment is the better the child’s development will progress (Kendal, 2023).

According to Play England (2020), 92% of parents felt that their children did not have the same opportunities as others in play, 81% stated that they had difficulties accessing playgroups in a mainstream setting, 51% of parents were turned away from a setting with their child present and 40% of parents said it was because of additional costs. Being diagnosed with autism is not a lone condition, it does come with other conditions, GI disorders are eight times more common in children with autism.

“Attention-deficit/hyperactivity disorder (ADHD) is a condition which runs alongside Autism it is a lifelong condition with negative outcomes, however the early developmental course of attention and hyperactivity-impulsivity with regards to the risk factors are still not clearly understood (Gelera et al., 2011).

Thank you for listening. Does anyone have any questions?

Eira – Yes Amanda I would like to know, in a setting what strategy you would recommend putting in place to accommodate a child with autism?

A chill-out area where the child could go to have time to reflect and process the environment and calm down would be beneficial. It would need to be a peaceful area away from the main classroom and would be filled with resources that will support the child and help them to self-regulate and should help the child to feel safe and secure.

Thanks, Amanda, I would like to ask you what could stop an autistic child from progressing in a mainstream school.

Social and communication skills are a barrier for autistic children as their communication skills are different. Autistic children find it difficult to read people’s body language and they need extra time to process language. Another barrier would be their aversion to being social and interacting with other children which could have an impact on the child’s learning. Autistic children sometimes do not understand what is being asked of them as their brains work in a more literal way. As a result of this lack of understanding, it is a possibility they could fall behind in school.

Thank you, if there are no more questions we can move on to Eira who will be speaking to us today about verbal dyspraxia.

Thank you, Amanda. Lindsay, would you please share my poster on verbal dyspraxia?

My chosen Additional Learning Needs (ALN) topic today is verbal dyspraxia, a speech and language delay where children have difficulty making and coordinating the movement needed to produce speech that is clear and easy to understand. Some children experience difficulties in controlling lips, jaw and tongue movement when speaking as the brain is not able to direct the movements

needed for speech properly. Children may also experience feeding difficulties, make homemade gestures to be understood, drooling, late development of motor skills overall and oral motor incoordination (Nijland et al., 2015; Miller et al., 2019).

Speech and language delays differ but often overlap and are difficult to diagnose in the early years children (Miller et al., 2019). A child with verbal dyspraxia is born with it, therefore it may be a genetic factor, the child often has family members who have a history of communication disorders or a learning disability or has a neurological condition such as autism (Nijland et al., 2015; Welsh Government, 2021). Children with verbal dyspraxia will not outgrow the problem therefore speech and language therapies are necessary. Each case is unique as each child is unique and will require individual assessments and early interventions, but this is not always easy (Brodie and Savage, 2015).

A child in early years will initially be under the primary health care of a health visitor, who will monitor the child's development at regular intervals, and will look for signs such as babbling, to begin with, speaking words followed by combining words by 24 months before starting in full-time school. If a child falls significantly behind peers, showing signs such as limited vocabulary, difficulty forming sentences, and struggles with understanding or expressing thoughts it could indicate a potential disorder (NHS Wales, no date). A speech and language delay is typically identified through observations of a child's communication skills compared to developmental milestones (Liang et al., 2023).

Professionals such as paediatricians, speech-language therapists (SLT), or early intervention specialists often assess and diagnose such delays with an evidence-based approach. (Kent and McDonald, 2020). Furthermore, Curran (2020) claims that collaborating with professionals, parents, and settings provides children with the best possible additional support and outcomes.

In addition, the therapist may visit the setting to discuss progression and the next steps with staff, recommending a few targets to follow such as memory or attention skills or free conversation during play. Once practitioners identify which specific areas of the child's development require support within the setting, an Individual Development Plan (IDP) can be agreed upon by practitioners

and the therapist, encouraging a collaborative process which places the child's needs at the centre of any decision. The IDP will ensure flexibility and consistent monitoring, as the child's needs develop and change. The child's progress will be discussed in a review meeting, which will involve further discussions and feedback between practitioners, parents, and therapists (Welsh Government, 2021).

Speech and Language skills are an important and essential requirement for development in areas of cognitive, emotional (Jeong, et al., 2021) and social and self-concept development (Norbury et al., 2016). Without these skills, children's development may be compromised. Levels of frustration may be experienced from the inability or limited ability to communicate. This may cause the child to become withdrawn affecting their well-being and to give up trying to be understood (Norbury et al., 2016).

Peer and Reid (2021, p. 87) and Ebbels et al., (2019) both state children with complex language disorders can progress by following a direct individual intervention programme with a therapist, and children with less pervasive difficulties may progress when intervention is managed by an Additional Learning Need Coordinator (ALNCo) within a setting or by appropriately trained practitioners who will support and monitor. This prevents future costly and less effective interventions (Welsh Government, 2021, p.39) However, according to Peer and Reid (2021) parents and carers sometimes find it difficult to refer or access professional services such as Speech and Language Therapists.

According to Pickles et al., (2016), some children who experience speech and language difficulties may experience other difficulties and challenges such as social isolation due to finding it difficult to express themselves effectively. The child may find it difficult to express thoughts and understand others, making it hard to form friendships and navigate social situations, resulting in the child needing the speciality of a language unit or special school provision.

However, since the 1978 Warnock report, inclusion has been the avowed educational goal for children in the UK with special educational, medical or health needs (Education UK, no date; Armstrong and Squires, 2012). This is also supported by the

Salamanca Statement (UNESCO, 1994) which called for all educational establishments to be inclusive (Centre for Studies on Inclusive Education, 2018). The demand for equal inclusion of all children in education refers to automatically advocating for more consideration of difference, inclusive education, and policies. This results in most children remaining in local mainstream schools with supporting provisions provided for them with additional funding and resourcing to be made available to ensure equal access to the curriculum (Smeets and Roeleveld, 2016; Crutchley, 2018; Welsh Government 2024).

However, Crutchley (2018) states that due to the increase of children with Additional Learning Needs in mainstream settings, staff with no prior experience were given new complex roles and felt unprepared and ill-equipped to deal with the higher demand. The ALN and Education Tribunal (Wales) Act 2018 and ALN Transformation Programme reassures support for staff through training and children who need extra support (Welsh Government, 2022).

Drawing on Bronfenbrenner's ecological system theory (1976) where a child is shaped by the immediate social system and wider communities and values over time, people's experience of inclusion around disability may influence their feelings about inclusion (Bradbury and Swailes, 2022, p. 22). Staff working in a setting such as Flying Start with adequate resources such as good links with a professional speech therapist may have a different view regarding inclusion to staff working in a funded non-maintained setting or a primary school sharing teachers assistants and limited links to professionals (Crutchley, 2018, p. 65).

Unfortunately, speech and language delays can sometimes be mistaken for other developmental disorders and may lead to misdiagnosis and inappropriate intervention. The misdiagnosis may lead to levels of frustration, resulting in unacceptable behaviour in the setting or within the home (Smeets and Roeleveld, 2016; Turner, 2017). According to Turner (2017), practitioners and parents may spend time focusing on behavioural difficulties without attempting firstly to alleviate the underlying cause. However, Madigan et al., (2019) suggest a higher level of positive responsive behaviour and support from caregivers and practitioners can facilitate stronger language skills in children.

The speech and language therapist may suggest Makaton as an additional resource to help with communication difficulties. Gestures and signs are easier to learn than spoken words and this is proven in babies as they use gestures before they can speak to tell others what they want or need (The Children's Trust, 2020).

Makaton is a unique language programme that uses signs, symbols, and speech to help children and adults communicate. Communication is one skill that is important in life from learning in a setting, asking for food or drink or during playtime and making friends (Makaton, 2023; BBC 2024).

According to Kate Duggan, BBC (2023), we all use gestures and other visual clues when communicating, but for children experiencing difficulties with expressive language, Makaton can give additional support and structure to enable communication without the need for the child to verbalise.

According to BBC (2023), Makaton enables communication and increases self-confidence, as it relieves the frustration of not being able to verbalise and communicate in the same way as others and encourages children to interact face-to-face (The Children's Trust, 2020). While Wall (2011) suggests that replacing verbalisation with signs and pictures removes the need and desire to speak, however, Rust (2019) states the opposite and says that using gestures alongside verbalisation supports, encourages, and motivates the use of language by allowing the child to make connections.

This is achieved by speaking slowly and simplifying speech, giving instructions in an orderly manner and repeating words, and encouraging children to become successful communicators (The Children's Trust, 2020). However, The Children's Trust (2020) also suggests Makaton is not a practical means of interacting socially with new people because the communication partner must also have prior knowledge of Makaton.

It is not always easy to learn Makaton but if introduced at an early age it will be used collaboratively while communicating in conversations. Makaton can be used within a setting and ideally should be introduced within the home to increase accessibility, but this depends on parental support and the willingness to participate (Wall, 2011). Words, signs, and symbols are introduced gradually, beginning with words the child would use daily such as drink and biscuit, then progressively it may be introduced during carpet time and while singing in settings where all the children participate and becomes the norm of a daily routine (Rust, 2019; Meadowbank School, no date). The most important element of Makaton is a total communication approach. By using Makaton alongside spoken language the desired outcome is verbal communication (The Children's Trust, 2020).

Training and courses are available locally, but according to the National Association of Head Teachers (2024), this is not always available due to schools being in financial crisis. Peer and Reid (2021) state services sometimes are inequitable and inaccessible due to the support for children with speech, language and communication needs being planned and funded rather than what is needed based on what resources are available, leading to levels of variation across the country which is unacceptable. Vinales (2013) noted the number of service users with communication difficulties is increasing, therefore training for alternative communication such as Makaton is valuable and should be made available to all. The CBeebies television show "Mr Tumble" uses Makaton signing. This is a great place to start learning Makaton signs. There are also many websites available on YouTube for free offering support for children and adults to learn and make it fun along the process.

To conclude, early diagnosis and intervention in speech and language disorders are crucial because they can significantly impact a child's development. Addressing these issues early can prevent potential academic, social, and emotional challenges later in life. Early intervention maximises the effectiveness of therapies and enhances a child's ability to communicate effectively, fostering better overall development. Regardless of the disability, every child has the right to live a full and decent life with dignity.

Thank you all for listening. Does anyone have any questions?

Amanda - Eira, you mentioned misdiagnosis, what future disadvantages may this cause the child?

The child may experience academic struggles in primary and secondary school in areas such as reading and writing (Miller et al., 2019; Wren et al., 2021). However, research by Ebbelse et al., (2019) found that the best suggestion for supporting children with communication difficulties such as verbal dyspraxia, is to not correct but instead to model language to support and minimise the effects that difficulties may have on the child. Effective and appropriate early interventions and therapy may prevent educational and social needs in the future and similarly, McKean et al., (2017) state it could prevent underachieving academically compared to peers. Therefore, appropriate interventions are crucial.

Lindsay – Eira, you mentioned Health Visitors. How would the health visitor help children and families living with verbal dyspraxia?

The health visitor will offer support, and advice and give guidance to parents with any concerns based on evidence. Developing a good relationship with parents is a priority as parents know the child best. When a speech and language delay is identified, a referral is made to specialists when appropriate and continued contribution to the statutory assessment process is followed. However, the report by Curran (2020) highlighted accessing health visitors is difficult at times and the process can be too lengthy causing a delay in receiving the required advice.

Thank you, Eira.

That concludes today's online seminar on Additional Learning Needs. I hope that you have found the presentations informative and may I take this opportunity to thank you all for your contributions and attendance.

Goodbye!

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