REACH: Journal of Inclusive Education in Ireland, Vol. 34.1 (2021), 18-28.

Identification of Autism in Girls: Role of Trait Subtleties, Social Acceptance and Masking

In reaction to the increased amount of autism research and the greater prevalence of autism in boys, this study explored if autism traits in girls are more socially accepted and if this might be a factor in girls masking their difficulties/needs and prevent early identification. Using a Pragmatist paradigm, ten semi-structured interviews were carried out with five parents of daughters with autism, four teachers of female students with autism and a young woman with autism. The findings indicate that the traits of autism often present more subtly in younger girls. It is this subtlety that suggests that their traits may be socially accepted and therefore a factor in their under-identification. The data also revealed that girls increasingly mask their social difficulties as they reach adolescence, as social pressures increase which simultaneously elevates anxiety. In conclusion, this study highlights that those involved in identification/intervention of autism should be aware of the trait subtleties of autism in girls, masking and mental health in order to improve identification.

Keywords: *Girls and Autism, masking, traits, social acceptance, anxiety*

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INTRODUCTION

In recent years, the strong male bias prevalence of autism and the possible under-estimation of occurrence of autism in girls has been under investigation (Werling and Geschwind, 2013). Carpenter, Happé and Egerton (2019) suggest that many girls with autism are presenting with different and more subtle autism traits to boys, although with some overlap.

This research was inspired by previous research and theory, where the under-recognition of autism in girls is influenced by the fact that society is not excessively concerned or surprised by autism traits in girls and accepts the way in which these traits manifest themselves. The effects of under-identification in girls, the masking that girls engage in to camouflage their social difficulties and the associated anxiety due to masking these social difficulties are explored. Overall, this study aims to investigate if the traits of autism in girls are socially accepted and if this prevents early identification and continues to conceal girls' social needs and anxiety. The research questions include:

- What traits of autism are identified in girls and are these socially accepted?
- What masking behaviours do girls exhibit?
- What influence has masking on girls and their anxiety?

LITERATURE REVIEW

The theoretical literature is reviewed, discussing autism traits, masking and socialisation. From this exploration, the uniqueness of autism and its subtleties in girls is suggested to be more apparent.

Traits of Autism

Autism or Autism Spectrum Disorder (ASD) occurs on a continuum and is "characterised by persistent deficits in the ability to initiate and to sustain reciprocal social interaction and social communication and by a range of restricted, repetitive, and inflexible patterns of behaviour and interests" (International Classification of Diseases (ICD-11), 2018) and can appear later "when social demands exceed limited capacities" (Diagnostic and Statistical Manual of Mental Disorders (DSM–5), 2013). The DSM-5 (2013) also refers to individuals with autism having difficulty building friendships appropriate to their age.

Most autism studies have concentrated mainly on males, which may further concrete the notion of autism as a male condition (Lai, Baron-Cohen and Buxbaum, 2015). Current studies propose that autism may present itself differently in girls while other theories postulate differing social expectations between boys and girls. These preconceptions may hinder our ability to identify girls with autism and reduce their chances of accessing support (Carpenter et al., 2019). Kirkovski, Enticott and Fitzgerald (2013) found that of 113 studies of gender differences in ASD, 78% support the theory that a different female phenotype for ASD exists. Whether these traits are completely distinct from those of boys with autism or are a result of other factors remains under question (Baldwin and Costley, 2016). These factors

include questions whether current measures which are predominantly based on knowledge of male autistic traits adequately capture all manifestations of autism in females, (Mandy and Lai, 2017) and prevent/delay the identification of autism in girls. Rabbitte, Prendeville and Kinsella (2017) looked at the diagnostic process for seven girls with autism in Ireland and found that six had commenced school, including two girls reaching adolescence, before receiving an identification. Other factors include societal expectations of girls, and masking which refers to the ability of females with autism to blend in, as they attempt to mimic social skills of others (Carpenter et al., 2019).

While biological and developmental differences are common identifiers of autism between genders (Werling, 2016), social and environmental influences also play a part. As a society we can place very differing social expectations on boys and girls. Sedgewick, Hill and Pellicano (2019) found that girls are socialised from birth in different ways, and gender-focus activities and environments may influence this. These preconceptions may hinder identification of girls with autism. Van Wijngaarden-Cremers, Van Eeten, Groen, Van Deurzen, Oosterling and Van der Gagg (2013) found that girls with ASD show alternative and less severe social and communicative difficulties than boys which can lead individuals in the child's immediate circle to associate difficulties with shyness or anxiety. These types of internalising difficulties where emotions are withheld and are more subtle, may be considered normal in females (Rucklidge, 2010). Geelhand, Bernard, Klein, Van Tiel and Kissane (2019) discuss the presumption that girls will grow out of atypical behaviours in contrast to boys, and parents may be less concerned about atypical traits in girls.

Socialisation and Masking

Milner, McIntosh, Colvert and Happe (2019) report that females are pressured to be more social than males and that social pressures increase particularly in more complex social settings (Sucksmith, 2012) while they simultaneously cope with autism. Baldwin and Costley (2016) suggest that females with autism may present with a greater interest in socialisation, more in line with social and gender norms but experience higher levels of comorbid/coexisting emotional difficulties. The concept of masking (Dworzynski, Ronald, Bolton and Happe, 2012) is predominantly associated with girls, as they attempt to conceal their difficulties and use their stronger social strengths to mimic the social skills of typically developing girls.

It has been an established assumption that people with autism are not socially motivated and struggle with friendships (Chevallier, Kohls, Troiani, Brodkin and

Schultz, 2012). Tierney, Burns and Kilbride (2016) found that girls with autism desire to have friends and to fit in but rely on compensatory behaviours, for example learning rules or social behaviours, to be allowed to participate in the group. These types of behaviours can mask their social difficulties (Dean, Harwood, and Kasari, 2017) resulting in delayed detection/intervention. Sedgewick et al. (2019) found that girls with autism differ from neurotypical girls in that they predominantly had only one or two best friends, albeit more intense friendships. As social environment demands change, alongside pubertal changes and psychological factors, May, Cornish and Rinehart (2014) assert that the severity, manner and expression of difficulties may alter as the child matures, thereby increasing identification of girls with autism in their teens.

Another consequence of masking is anxiety, where girls are more inclined to hide their traits and keep their emotions under wraps (Carpenter et al., 2019). Tierney et al. (2016) found that the use of this strategy impacted negatively on wellbeing, while Mandy and Lai (2017) reported exhaustion and extreme stress. Girls with autism may be more prone to internalisation of their autism traits putting undue pressure and stress on themselves (Young, Oreve and Speranza, 2018), thus increasing anxiety.

METHODOLOGY

Qualitative research using a Pragmatist paradigm was chosen as the most relevant for this study. Gonzales, Brown and Slate (2008, p. 3) state that qualitative research "gives voices to participants and it probes issues that lie beneath the surface of presenting behaviours and actions". The Pragmatist paradigm offered a method which was best suited to the research questions (Tashakkori and Teddlie, 1998) without getting into philosophical debates about the best approach. The sample included 10 participants; namely 4 mainstream primary teachers teaching girls with autism, 1 young woman (19 years) with autism and 5 parents of these girls and young woman. Multiple-participants and three interview-schedules aided triangulation.

Ten semi-structured interviews with open-ended questions were carried out with teachers, parents and the young woman with autism. A pilot interview was conducted with one parent and one teacher of a girl with autism, to gauge timing, user-friendliness and to review proposed interview questions. Each interview was recorded and transcribed for analysis and the data was processed in accordance with the Data Protection Act 2018 (Government of Ireland, 2018). Thematic

analysis (Clarke and Braun, 2017) using NVivo identified patterns, codes and common themes and its use allowed flexibility in interpreting and making sense of the data. Credibility and trustworthiness were ensured through prolonged engagement with the data, different categories of interviewees and interviewee debriefing and checks. Final analysis of data resulted in three themes: traits of autism, socialisation and masking, and anxiety.

Research ethics' advice (BERA, 2018) and the principles for carrying out research were adhered to throughout the research process. Approval was obtained from the researchers' university of study/work. Participants including the young woman with autism and her mother were informed about what the participation involved (verbally and written), the voluntary and autonomous nature of their consent and participation, their right to not answer questions or withdraw at any time. Assurances of anonymity and confidentiality were given.

FINDINGS

This study explored whether autism traits in girls are more socially accepted and if this contributes to the concealment of girls' needs and prevents early identification. This section presents the findings under three themes, *traits of autism, socialisation and masking* and *anxiety*. Parents and teachers are referred to as P and T respectively.

Parents confirmed their daughters' ages on identification. Two girls were identified at 3 and 4 years, two girls at 11 years and one girl at 14 years. Of the four teachers interviewed, only one had taught a female student prior to this year.

Traits of Autism

Parents of girls (N=2) receiving an earlier autism identification reported in keeping with 'traditional' concepts of autism, characteristics such as communication and sensory difficulties. Parents of girls (N=3) receiving a later diagnosis, identified no traits definitively associated with autism but more as a personality quirk, differences sometimes being put down to creativity and artistic talent or the child potentially "*growing out of atypical behaviours*". One parent (P4) described that many people "*wouldn't even know*" her daughter had autism and two parents stated their daughters were assessed for other reasons and not autism. P5 stated how sociable her daughter was when younger, "*she was always part of a group of friends in primary school, there were never any alarm bells there*" while two parents described their daughters as very quiet by nature. P1 admitted denial on

identification and another stated how "*it was not obvious at all"* (P5). P5 explained that she began to realise that the anxiety, stress, and emotional outbursts may have been as "*a result of something underlying*" in her daughter. Another parent (P4) with a child (male) with autism reported how her daughter's traits of autism manifested differently.

All four teachers described their female students positively. Descriptions included, "*very capable, confident, responsible and independent*" (T2), "*very pleasant, very precise*" (T3) and "*quite chatty and talkative"* (T4), "*very bubbly and can be very friendly*" (T1). Two teachers described their female students as "*quirky*" (T3, T4) and admitted difficulty identifying autism, while T2 described her student as "*so mature, there was no nonsense with her".* T3 conveyed that without his autism training, he would not have been aware that his student had autism. Most teachers felt that autism traits were *"more pronounced in boys"*, with T2 stating that the female and male student with autism in her class were "*poles apart*". T4 suggested that the possible differences could be "*the coping mechanisms, and maybe their* (girls) *self-awareness of the diagnosis*."

Socialisation and Masking

All five parents interviewed stated their daughters struggled with acquiring social skills and acknowledged this gap widened as they got older. Parents of girls who received a later diagnosis stated that this assisted in the disclosure of their daughters' needs. Friends were described more accurately as "*acquaintances*", and P2 described it as a "*more clumsy, unnatural approach*", with some close school friendships not manifesting themselves in the same way that "*typical girls'* relationships" do, friendships not being "*as solid or as natural"* (T2) and a tendency to stick to 2-4 friends and preferring one best friend.

> "*There's a couple of close-ish friends, but her relationship with her friends mightn't look like a typical kid or typical girls' relationship, she wouldn't see her friends as frequently*." (P2)

When asked about friends, the young woman with autism explained "*it was difficult for me to keep up with a group and their conversation*", and how "*draining*" a friendship was when she was uncomfortable in it.

The concept of masking or camouflaging in relation to girls and autism was discussed. Two parents stated their daughters used masking. P2 stated it distressed her daughter.

> *"She was basically caging it all…. like putting on her mask for school life….*

she was just completely stressed out, sweating, very upset…. underneath that exterior she was just in turmoil herself which resulted in stress and anxiety, emotional problems at home." (P2)

This student's teacher didn't witness this masking; hence the student was able to "*mask*" without her teacher realising. The parent of the young woman with autism felt her daughter utilised "*masking*" in school, when she walked from class to class with a group of girls, to avoid being on her own, rather than friendship. P4 described how her daughter had received a present of slime but when asked in school about the present received, she said an iPad, in keeping with presents her peers had requested. This parent conveyed how her daughter felt more her own person at home, "*I love when I come home because I can be me*". In school, her teacher (T4) did not see evidence of this, suggesting there may be social elements within a classroom that even teachers are not privy to.

Anxiety

The need to fit in or conform to their peers caused much anxiety for the five girls and P2 and P5 described the internalisation of anxiety, where their daughters to the outside world seemed like they were coping, but at home, they weren't. Parents described how their daughters "*hold it together*" (P2, P4, P5) in school, where they consciously attempted to suppress their emotions but on arriving home, emotions would pour out. The young woman with autism identified anxiety around socialising where she would remain quiet for fear of being judged '*anxious'* around people she was not comfortable with, but vocal in her family environment.

DISCUSSION

The current study found that girls presented with more subtle traits of autism than boys which is supported by Kirkovski et al.'s (2013) theory regarding a female phenotype for autism. There has been debate whether these traits are totally distinct or due to other factors (Baldwin and Costley, 2016) such as diagnostic assessments designed for male participants, girls' ability to mask their autism, the effect of societal expectations regarding gender and behaviour, and how autism traits in girls are perceived. Findings in this current study indicated that girls identified later were described as *quiet, responsible*, *quirky, capable, precise, compliant* and *mature*.

The acceptance of atypical behaviour (for example quirkiness and shyness) in girls seems to be higher than in boys and this may contribute to the under/later identification of autism in girls. Three girls received diagnoses at an older age,

similar to Rabbitte et al. (2017), suggesting that their characteristics/traits didn't unduly concern parents/teachers. Whether these traits are hidden, or merely cannot be seen due to blending into the various components that constitutes being a girl in society, is in question here. Geelhand et al. (2019) hypothesised that gender may play a role in parents' presumptions that their child and particularly daughters will '*grow out of atypical behaviours'* - similar to findings in this current study. Another factor linked with later identification is the association of atypical behaviours with personality traits. The findings demonstrated that the term '*quirky'* was associated with slightly '*atypical'* behaviour but not behaviour that caused great concern that required further assistance/intervention. May et al. (2014) reinforces the idea that autistic female traits present in some girls prevents attention being brought to them, suggesting that girls internalise their autism traits and these 'internalising' behaviours can be considered 'normal' (Rucklidge, 2010).

Milner et al. (2019) discuss the pressure on girls to be sociable in comparison to boys. Masking/camouflaging (Carpenter et al., 2019) by girls with autism abilities allows mimicking of social skills of their typically developing female peers. Chevallier et al. (2012) presume that individuals with autism are not socially motivated and struggle with friendships. However, Tierney et al. (2016) found that most girls with autism want to fit in with their peers. The current findings seem to confirm this social motivation in all 5 girls, masking their feelings to fit in. The second element regarding friendships was also apparent in the findings. All girls had some difficulty making and maintaining friendships, with four of the girls experiencing greater problems nearing or during adolescence when autism traits may not become apparent until a person is older "when social demands exceed limited capacities" (ICD-11, 2019). The intensity of friendships for some girls with autism and the desire to have a best friend has been reported (Sedgewick et al., 2019) and confirmed in this current study. Dean et al. (2017) suggest that girls with autism may be able to hide their social challenges from teachers similar to the findings reported here.

Tierney et al. (2016) report that girls with autism using masking strategies, often became overwhelmed and emotional, as they exceed their threshold to maintain their efforts. All parents and teachers in this current study referred to anxiety in relation to their daughter/student as they got older. Increased social pressures, changes in friendship dynamics and expectations as puberty approaches suggest that female autism traits, if previously socially accepted by their peers may begin to pose a problem. The findings indicated that as girls' anxiety increased, the female traits of autism become more pronounced, thus creating difficulties being socially accepted. Mandy and Lai (2017) found that masking and social pressures

of friendship can cause a great deal of exhaustion, anxiety and stress for adolescent girls which may be due to the internalisation of their autism traits.

CONCLUSION

In conclusion, this study highlights that autism traits in younger girls may be more subtle and hence, they are socially accepted. However, as girls mature, these traits are less subtle, and increased masking is apparent as girls struggle to keep up with the social ability of their peers. Although 'masking' can provide them with more social acceptance, it elevates anxiety. Those involved in identification/intervention should be made aware of the trait subtleties of autism in girls, masking and mental health in order to improve identification and intervention strategies.

REFERENCE LIST

Baldwin, S. and Costley, D. (2016) The Experiences and Needs of Female Adults with High-functioning Autism Spectrum Disorder, *Autism,* Vol. 20 (4), pp. 483-495.

British Educational Research Association (2018) *Ethical Guidelines for Educational Research* (4th ed), London.

Carpenter B., Happé, F. and Egerton J. (2019*) Girls and Autism, Educational, Family and Personal Perspectives,* Oxon & New York: Routledge.

Chevallier C., Kohls G., Troiani V., Brodkin E.S. and Schultz, R.T. (2012) The Social Motivation Theory of Autism, *Trends in Cognitive Sciences,* Vol. 16 (4), pp. 231–239.

Clarke, V. and Braun, V. (2017) Thematic Analysis, *The Journal of Positive Psychology*, Vol. 12 (3), pp. 297- 298.

Dean, M., Harwood, R. and Kasari, C. (2017) The Art of Camouflage: Gender Differences in the Social Behaviors of Girls and Boys with Autism Spectrum Disorder, *Autism*, Vol. 21 (6), pp. 678-689.

Dworzynski, K., Ronald, A., Bolton P. and Happe, F. (2012) How Different are Girls and Boys above and below the Diagnostic Threshold for Autism Spectrum Disorders? *Journal of the American Academy of Child and Adolescent Psychiatry,* Vol. 51 (8), pp. 788-797.

Geelhand, P., Bernard, P., Klein, O., Van Tiel, B. and Kissane, M. (2019*)* The Role of Gender in the Perception of Autism Symptom Severity and Future Behavioural Development, *Molecular Autism,* Vol. 10 (16), pp. 1-8.

Gonzales, L., Brown, M.S. and Slate, J. R. (2008) Teachers who left the Teaching Professions: A Qualitative Understanding, *The Qualitative Report*, 13 (1), pp.1-11.

Government of Ireland (2018) *Data Protection Act 2018,* Dublin: The Stationary Office.

Kirkovski, M., Enticott, P.G., and Fitzgerald, P.B. (2013) A Review of the Role of Female Gender in Autism Spectrum Disorders, *Journal of Autism Developmental Disorders,* Vol. 43, pp. 2584 -2603.

Lai, M.C., Baron-Cohen, S. and Buxbaum, J.D (2015) Understanding Autism in the Light of Sex/Gender, *Molecular Autism,* Vol. 6 (24), pp.1-5.

Mandy, W. and Lai, M. C. (2017) Towards Sex and Gender - Informed Autism Research*, Autism*, Vol. 21 (6), pp. 643-645.

May, T., Cornish, K. and Rinehart, N. (2014) Does Gender Matter? A One-year Follow-up of Autistic, Attention and Anxiety Symptoms in High-functioning Children with Autism Spectrum Disorder, *Journal of Autism and Developmental Disorders,* Vol. 44, pp. 1077-1086.

Milner, V., McIntosh, H., Colvert, E. and Happe, F. (2019) A Qualitative Exploration of the Female Experience of Autism Spectrum Disorder, *Journal of Autism and Developmental Disorders,* Vol. 49, pp. 2389-2402.

Rabbitte, K., Prendeville, P. and Kinsella W. (2017) Parents' Experiences of the Diagnostic Process for Girls with Autism Spectrum Disorder in Ireland: An Interpretative Phenomenological Analysis, *Educational & Child Psychology*, Vol. 34 (2), pp. 54-64.

Rucklidge, J.J. (2010) Gender Differences in Attention-deficit/Hyperactivity Disorder, *Psychiatric Clinics of North America,* Vol. 33 (2), pp.357-373.

Sedgewick, F., Hill, V. and Pellicano, E. (2019) 'It's different for girls': Gender Differences in the Friendships and Conflict of Autistic and Neurotypical Adolescents*, Autism*, Vol. 23 (5), pp. 1119-1132.

Sucksmith, E. (2012) *The Broader Autism Phenotype in the Parents of Children*

with Autism Spectrum Conditions (unpublished PhD thesis), The Open University.

Tashakkori, A. and Teddlie, C. (1998) *Applied Social Research Methods Series, Vol. 46. Mixed Methodology: Combining Qualitative and Quantitative Approaches.* Sage Publications, Inc.

The American Psychiatric Association (2013*) Diagnostic and Statistical Manual of Mental Disorders (DSM-5),* American Psychiatric Publishing.

Tierney, S., Burns, J. and Kilbride, E. (2016) Looking Behind the Mask: Social Coping Strategies of Girls on the Autistic Spectrum, *Research in Autism Spectrum Disorders,* Vol. 23, pp. 73-83.

Van Wijngaarden-Cremers, P.J.M., Van Eeten, E., Groen, W.B., Van Deurzen, P.A., Oosterling, I.J. and Van der Gagg, R.J. (2013*)* Gender and Age Differences in the Core Triad of Impairments in Autism Spectrum Disorders: A Systematic Review and Meta-analysis, *Journal of Autism and Developmental Disorders*, Vol. 44, pp. 627-635.

Werling D.M. (2016) The Role of Sex-differential Biology in risk for Autism Spectrum Disorder. *Biology of Sex Differences,* Vol. 7, DOI 10.1186/s13293-016-0112-8.

Werling, D.M. and Geschwind, D.H. (2013) Understanding Sex Bias in Autism Spectrum Disorder, *Proceedings of the National Academy of Sciences of the United States of America,* Vol. 110 (13), pp. 4868- 4869.

World Health Organisation (2018) *International Classification of Diseases,* (11th revision), World Health Organisation.

Young, H., Oreve, M. J. and Speranza, M. (2018) Clinical Characteristics and Problems Diagnosing Autism Spectrum Disorder in Girls, *Archives de Pédiatrie,* Vol. 25, pp. 399-403.