



This is a repository copy of *Understanding and harnessing differences in women with ADHD: A qualitative study*.

White Rose Research Online URL for this paper:
<https://eprints.whiterose.ac.uk/223123/>

Version: Published Version

Article:

Bradley, S., Parzych, I. orcid.org/0009-0002-8797-8767, Platts, J. orcid.org/0009-0004-7901-1833 et al. (1 more author) (2025) Understanding and harnessing differences in women with ADHD: A qualitative study. *Neurodiversity*, 3. ISSN 2754-6330

<https://doi.org/10.1177/27546330251317199>

Reuse

This article is distributed under the terms of the Creative Commons Attribution (CC BY) licence. This licence allows you to distribute, remix, tweak, and build upon the work, even commercially, as long as you credit the authors for the original work. More information and the full terms of the licence here:
<https://creativecommons.org/licenses/>

Takedown

If you consider content in White Rose Research Online to be in breach of UK law, please notify us by emailing eprints@whiterose.ac.uk including the URL of the record and the reason for the withdrawal request.



eprints@whiterose.ac.uk
<https://eprints.whiterose.ac.uk/>

Understanding and harnessing differences in women with ADHD: A qualitative study

Neurodiversity
Volume 3: 1–12
© The Author(s) 2025
Article reuse guidelines:
sagepub.com/journals-permissions
DOI: 10.1177/27546330251317199
journals.sagepub.com/home/ndy



Sarah Bradley¹, Izabela Parzych¹ , Jessica Platts¹  and Lauren Powell¹ 

Abstract

Women with attention deficit hyperactivity disorder (ADHD) are often misunderstood which is reinforced by deficit-focused research and gendered societal expectations that overlook neurodivergent women. Grounded in the neurodiversity approach, this work views ADHD as a cognitive difference, not deficit. Authors recognise the importance of sharing and understanding these differences as they can harness achievements, empowerment, self-advocacy skills and identity acceptance. This study invited 11 women with ADHD, to share their voices to contribute to a holistic understanding of ADHD in women with particular focus on how differences can facilitate rewarding and positive experiences. Reflexive thematic analysis identified four themes: (1) Social and communication differences can facilitate positive relationships in women with ADHD; (2) Rewarding experiences in women with ADHD are driven by differences, not deficits; (3) ADHD diagnoses in women can be ‘massive’ for identity sense-making and (4) Gendered challenges create barriers to support for women with ADHD (subtheme: Language can reinforce harmful and stigmatised views of ADHD in women). This work will facilitate improved outcomes for women with ADHD by sharing their differences, and how society can adapt to harness these differences through more gender-sensitive approaches.

Lay abstract

Women with attention deficit hyperactivity disorder (ADHD) experience challenges that are different to men with ADHD. There is little research around women with ADHD and the research that does exist usually focuses on their deficits, not their differences or how their differences can facilitate positive experiences. It is important that this changes, because we know this can be beneficial for women with ADHD. Benefits include improved self-esteem, reduced stigma and improved support and understanding women with ADHD. Therefore, this study interviews 11 women with ADHD about their experiences, with a focus on how differences can facilitate rewarding and positive experiences. Participants shared how their ADHD-related differences can help them to gain positive life experiences through pursuing hobbies, developing meaningful relationships and making rewarding decisions around their studies and occupations. Participants also shared challenges they had with gaining their ADHD diagnosis, and others misunderstanding their ADHD which was often reflected through use of negative language by others. By including the lived experience voices in this work, we can improve understanding of the differences experienced by women with ADHD and share how society can adapt to support women with ADHD.

Keywords

ADHD, women, gender, neurodiversity approach, communication and language, difference not deficit

Submission date: 28 October 2024; Acceptance date: 13 January 2025

Introduction

The Diagnostic Statistical Manual (DSM 5) defines attention deficit hyperactivity disorder (ADHD) as a neurodevelopmental condition characterised by deficits with inattention, hyperactivity and impulsivity (APA, 2013). ADHD presents differently in individuals whose sex is assigned female at birth (Mahendiran et al., 2019; May et al., 2019) with subtle hyperactivity presentations,

exhausting masking behaviours, (to act in a way to disguise their ADHD), more inattentive presentations, and social and communication challenges that can lead to challenges

¹School of Education, University of Sheffield, Sheffield, UK

Corresponding author:

Lauren Powell, School of Education, University of Sheffield, The Wave, 2 Whitham Road, Sheffield S10 2AH, UK.
Email: L.A.Powell@sheffield.ac.uk



maintaining friendships (Morley & Tyrrell, 2023) and mental health challenges (Quinn & Madhoo, 2014). The latter is reported to be due to challenges with communication, emotion regulation (Kelly et al., 2023), and social cue interpretation (Morley & Tyrrell, 2023) and are compounded by missed and delayed diagnosis of ADHD in women (Kooij et al., 2019; Morley & Tyrrell, 2023). It is posited that challenges experienced by women with ADHD stem from pressures to conform to expected societal norms due to the socialisation of women who are expected to be well behaved and quiet (Quinn & Madhoo, 2014). This can create pressure on women with ADHD to mask, so they appear to align with such gendered norms.

There are recent calls for ADHD studies to follow the paradigmatic shift demonstrated by autism studies that advocate a neurodiversity approach viewing divergence as cognitive differences, not deficits (Bertilsdotter Rosqvist et al., 2023a; Goetz & Adams, 2024; Pellicano & den Houting, 2022). Although deficit approaches can be useful in identifying support and consistent categorisation for clinical purposes (Sonuga-Barke, 2023), they omit acknowledgement of strengths associated with neurodivergence.

Conversely, ADHD has been denoted as a ‘superpower’ to describe unique neurodivergent abilities such as creativity, resilience, energy and passion (Kelly et al., 2024). However, this view has been criticised for undermining challenges neurodivergent individuals face (Sonuga-Barke & Thapar, 2021).

Therefore, research that adopts a neurodiversity approach places voices of lived experiences at the fore, conducting research *with* communities, acknowledging their differences without assumptions around perceived challenges or strengths (Bertilsdotter Rosqvist et al., 2023a; Kapp, 2020). Therefore, neurodiversity-led research views challenges experienced by neurodivergent individuals as a product of living in the demanding environments of a neurotypical world that is not inclusive of neurodivergent differences.

Further work has highlighted the significance of how individuals relate to their environment can impact their experience of ADHD. Prosser (2015) stresses this relationality of ADHD and how varied environment components (e.g. family dynamics, education settings, societal expectations) interact with one’s behaviour and influence experiences of ADHD (Prosser, 2015).

Language and societal expectations influence understanding of ADHD in women

Language use and gendered societal expectations reinforce misinformation, harmful stigma and misunderstanding of neurodivergence (Colbert & Powell, 2024). For example, male-centric language around ADHD within society and diagnostic criteria create barriers to support and ADHD diagnoses in women (Gershon & Gershon, 2002). Further, reports of language such as ‘lazy’ describing

inattention in women with ADHD reflect misunderstanding and can encourage internalisation of problems (Sedgwick et al., 2019). Conversely, qualitative evidence demonstrates that positive language can empower individuals to define their experiences and needs (Brown, 2023) and improve self-esteem (Sedgwick et al., 2019).

Societal gendered expectations and socialisation of women to be organised, empathetic and compliant often conflict with ADHD traits in women and can create specific challenges for women with ADHD. For example, the impact on family relationships can cause internalised feelings of shame and inadequacy (Solden, 2012), missed and delayed diagnosis and support (Craddock, 2024) and negative workplace experiences. Women with ADHD face specific workplace challenges around time management and organisational skills, focus and also face discrimination which causes feelings of being confused and overwhelmed and viewing their ADHD as an obstacle to employment success (Schreuer & Dorot, 2017).

Importance of a neurodiversity-affirming approach to understanding ADHD in women

First-person accounts of lived experiences can contribute to community-based theorising to gain a broader understanding of ADHD. For example, the concept of ‘normative time’ describes how societal expectations influence how non-disabled and neurotypical individuals experience time. The concept of ‘Crip time’ challenges this and refers to how ADHD communities experience and understand time differently (Basten, 2023). It rejects rigidity and accepts different, more flexible ways of productivity (Basten, 2023).

Importance of current understanding of differences in women with ADHD

It is important to have a *current* understanding of differences in women with ADHD due to societal developments such as those that resulted post COVID-19 pandemic. Evidence indicates a shift in the experiences of women with ADHD due to their increased reliance on strengths that enable them to adapt, and problem solve with a reliance on their hyperfocus abilities to navigate remote working practices (Dal-Pai et al., 2024).

Although recent efforts have been made to include and represent women with ADHD in research, they remain under-represented (Brown, 2024). Further, although there is a modest but growing body of evidence exploring the strengths of individuals with ADHD (Niemic & Tomasulo, 2023; Schippers et al., 2024), little work has been undertaken exploring how differences in women with ADHD can be harnessed.

Therefore, this study will adopt a neurodiversity approach to robust qualitative methods, to explore experiences of women with ADHD with a particular focus on

how differences can facilitate rewarding and positive experiences in women with ADHD. Findings will have significance in translation into operational strengths-based language use in educational, clinical and occupational settings and will contribute to important conversations to mitigate against harmful, and often gendered, stigma. Recommendations for future research are also made. This will ultimately contribute to improved outcomes for women with ADHD.

Methodology and methods

Methodology

It is important to be transparent about author positionality as this can impact approaches to data collection and interpretation. Authors have a combination of the lived experience of ADHD in women from multiple perspectives. Authors SB, JB and IP conducted the interviews and analysis and are not diagnosed with ADHD. All author's sex was assigned female at birth. Author SB has experience of ADHD in an educational setting. Author LP supported the research design, data analysis and write up and was late diagnosed with ADHD (combined presentation) and Autism in her adulthood. Pre diagnoses, LP navigated three decades in a world build for neurotypical people and experienced barriers posed by this that have left lasting impressions and fuels her determination to support change to help reduce such barriers for others. This insider perspective is deemed valuable in ADHD knowledge production, understanding of our differences (Bertilsdotter Rosqvist et al., 2023b; Brown, 2024) and is also considered to add value to science due to the intellectual and motivational characteristics that neurodivergence can add to a research team (Sonuga-Barke, 2023). All authors are from different geographical contexts but all share values and beliefs around the importance of social justice and equality. The positionalities of the authors of this study are considered a strength of this work as they enabled unique insights into data analysis and interpretation (Braun & Clarke, 2021).

This work moves beyond a neurotypical frame of analysis that assumes interactions and behaviour that deviate from the norm are evidence of individual (Schneid & Raz, 2020) and adopts a neurodiversity approach that challenges the neurotypical approach, and celebrates difference and rejects deficits models (Bertilsdotter Rosqvist et al., 2023a).

Methods: design and procedure

Ethical approval was gained (reference 051196) prior to recruitment and data generation, in 2023. Participant inclusion criteria were: (1) sex assigned female at birth, (2) aged 18 years or over, and (3) to have a clinical diagnosis of ADHD. Convenience and snowball sampling were

adopted to prevent restricting the sample to authors' existing networks. Electronic consent forms were shared with participants to complete prior to online semi-structured interviews that lasted up to 60 min. Interviews included open questions that explored what ADHD in women meant to participants, possibilities and differences attributed to their ADHD and if and how participants felt these may have facilitated their life choices. Interviews were audio recorded and transcribed verbatim. Transcripts were anonymised and pseudonyms replaced participant names.

Data analysis

A semantic approach to a reflexive thematic analysis was applied initially to identify observable participant responses. A latent approach was then employed to explore underlying meanings behind the observable responses. This is hoped to achieve a deeper understanding of the data which was analysed through six iterative steps (Braun & Clarke, 2021):

1. Data familiarisation: Authors immersing themselves in the data, listening to and reading participant responses multiple times, taking detailed notes including reflections around potential codes and themes.
2. Generate initial codes: Authors manually highlighted segments of data and assigned relevant words or phrases ('codes') to data.
3. Search for themes: Iteratively grouping codes to identify patterns (potential themes) across the dataset by identifying relationships and patterns among codes. Researchers considered the broader context the themes were identified from to ensure they reflected participant perspectives.
4. Review of themes: Checking each theme reflected a range of participant voices accurately. Some initial themes were identified as too large and divided into sub-themes (see Figure 1). Authors discussions deepened understanding of the data ensuring that themes captured participant's views comprehensively.
5. Define and name themes: Articulation of name and description for each theme aimed to capture the essence of the data.
6. Write up results: Identification of participant quotations to evidence and accurately represent each theme and views from a broad spectrum of participants. Authors reviewed selected quotations to ensure they represented each theme and included evidence that represented the voice of all participants. Further, the Standards for Reporting Qualitative Research (SRQR) (O'Brien et al., 2014) and the Big Q Qualitative Reporting Guidelines (Braun & Clarke, 2024) were considered when analysing and reporting the data to ensure rigour and reporting transparency.

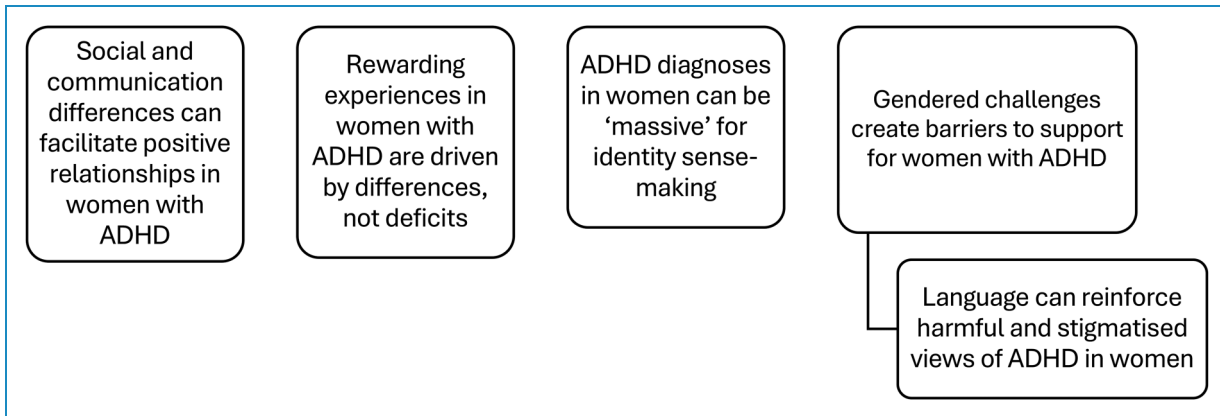


Figure 1. Themes and subthemes.

Results

Eleven women with ADHD aged 22–38 years who received their diagnosis between the ages of 16–38 years took part in this study (Table 1). All participants expressed clear and patterned ideas about their experiences of living with ADHD as women, including the benefits of their differences and challenges encountered. Four themes and one sub theme were identified from the data (Figure 1).

Social and communication differences can facilitate positive relationships in women with ADHD

All participants expressed how their ADHD enables them to be sociable and build valuable relationships. For example, Claire referred to connections with others and how they respond to her, suggesting she finds her interpretation of others' reactions to her rewarding.

I tend to have more fluid conversations... I am personable... empathetic. It's (ADHD) helped me have better connections with people... because of my ADHD, I'm really energetic and bubbly, and people seem to respond quite well to that. So, I find it easy to connect with different people... it's helped me... having a lot of nice, cool people in my life.—Claire

Anna and Beth explained how their social and communicative abilities enable them to support others and feel comfortable in social groups. Beth explained this translates into success in her tennis team as she is known as the group motivator:

I always make friends... because I know I can just talk to anyone... It's meant I've been able to join the social side of things at university, which has helped me manage myself because I can burn energy I have. I'll play tennis then I can focus better. Everyone always calls me the team motivator because apparently, I get everyone excited...—Beth

Beth noted that she can 'manage' herself better through social activities. This could indicate that her social and communication differences are beneficial to her alongside recognising that her ADHD poses challenges, reflected by the term 'manage'.

Deidre explained that her ADHD sociability supported success in her nursing career due to her patients feeling comfortable in her presence. She was empowered enough to identify her strengths and described how she meaningfully channelled her social and communication differences into her career choice as demonstrated by her positive language choices:

I'd say it's (ADHD) probably helped me achieve everything I have achieved... I tend to get on well with people, people are automatically more comfortable around me. That benefits me socially in a very big way and probably why I was so good at nursing...—Deidre

Stephanie described increased self-awareness following her ADHD diagnosis. This empowered her to talk about her ADHD positively and confidently with her young daughter who also has ADHD:

You've got a brain like mummy (...) But look I'm okay and I can tell you it's gonna be okay.—Stephanie

Participants also placed value on interacting with and relating to others who have shared experiences of ADHD. These interactions were deemed to support individuals to feel more understood and to understand others:

It's funny because my husband, I'm pretty sure he has ADHD as well and he kind of agrees that he possibly does. But it's also helped me to understand him—Maeve

I think having people who share the bad parts of it (ADHD) validate that it's... ok that you're struggling... because you're not alone...—Zoe

Table 1. Participant information.

Name (pseudonym)	Age (years)	Age at diagnosis (years)	Nationality	Occupation	Co-occurring conditions	ADHD presentation
Zoe	22	20	British	University student	Glaucoma	Inattentive
Roberta	22	20	British	University student	Depression, anxiety	Inattentive
Maeve	32	31	British	GP	None reported	Combined
Stephanie	38	38	British	Teacher	OCD, depression, anxiety	Combined
Asiyah	26	24	Indian	University student, part time SEND TA	Anxiety	Inattentive
Anna	23	20	British	University student	Mental health challenges	Inattentive
Beth	24	16	British	University student	Dyslexia	Combined
Claire	22	22	British	University student	Dyslexia	Inattentive
Deidre	27	26	British	University student	Mental health challenges	Combined
Edie	22	20	British	University student	None reported	Inattentive
Fiona	28	27	British	University student	Anxiety, depression	Combined

OCD: obsessive compulsive disorder; SEND TA: special educational needs teaching assistant.

Rewarding experiences in women with ADHD are driven by differences, not deficits

Participants reflected favourably upon their differences such as their hyperfocus abilities in varied contexts such as in education settings. Similarly to sociability facilitating rewarding experiences, Maeve and Fiona described how their ADHD manifests through rewarding periods of hyperfocus, as it enabled achievements and progressed learning topics of interest:

... there's a real drive for learning which ... does stem from getting bored easily and you can really harness that, if you (...) direct your brain in the right way (...) you can achieve a lot.—Maeve

When I get hyperfocused on a topic, I soak in everything and I do really well in them at university. This means I am able to go into things knowing what I'm interested in, which is great.—Fiona

Anna explained how she “would study for hours and hours for French and Spanish” but didn't revise for subjects she wasn't interested in, something Fiona and Beth also experienced.

Benefits of impulsivity were shared by Beth, Edie and Fiona who believe it creates new and exciting experiences such as booking last-minute holidays, volunteering, and trying new and varied activities. Similarly, Deidre's account could be interpreted as more spontaneity than impulsivity as a deficit:

I'm impulsive, like, I would throw my hand up and be like, yeah I'll volunteer, because I'm really excitable and impulsive which makes me do fun things I wouldn't have done otherwise.—Deidre

Zoe, Roberta and Asiyah credited their impulsivity with helping them achieve goals. Asiyah shared beliefs that her ADHD is behind the success of her blog that is followed by over 150 k people including international celebrities and led her to being invited to prestigious workshop. Asiyah's interest in her blog enabled her resilience and determination to its success, something she found rewarding and motivated her continued work on it:

I don't think I would have been able to do it (create the blog) ... if I didn't have ADHD ... because I was constantly, going back to it—Asiyah

Anna, Beth, Claire, Evie and Fiona described how their ADHD facilitated enjoyment of hobbies and interests. Claire and Evie stated they have ‘lots of hobbies’ (Evie) making the ‘positives of ADHD, in ... outweigh the negatives’ (Claire). Evie, Anna and Beth felt that their ADHD enabled them to be passionate about their interests. In particular, Beth demonstrated how her ADHD helps her pursue her hobby as a tennis coach and harness positive social interactions, as indicated by Beth sharing her love of talking to people. This demonstrates a connection between impulsivity and hyperactivity and rewarding social and communication experiences as presented in the previous theme:

I won the best employee for the week as a tennis coach as I had the most positive comments from guests saying I was really engaging and fun to be around. I know that couldn't have happened without ADHD because as soon as I got on the tennis court, I got so excited because I love tennis and talking to people so much.—Beth

ADHD diagnoses in women can be ‘massive’ for identity sense-making

All participants explained that they were experiencing challenges with relationships, work, and university studies prior to their ADHD diagnosis. They reported that their diagnosis helped them to better understand themselves, which provided a sense of validation and self-discovery. This was demonstrated by Beth's use of the word ‘massive’. Additionally, Beth's words could represent pressures on women to conform to societal gendered expectations as depicted by her reference to being pleased she is now ‘really organised’:

I've learned to be really organised, and I think it's just through self-awareness which I didn't have before, so I think gaining the diagnosis has been massive. It gave me understanding because before I didn't really know.—Beth

Similarly, six participants (Zoe, Asiyah, Stephanie, Maeve, Roberta, Fiona) reported a sense of relief following their diagnosis:

As soon as I got the diagnosis, it was just this unbelievable feeling of validation that I'd never had before ... It was life changing.—Fiona

Further, Roberta indicated that her ADHD is a big part of her identity:

...if my ADHD went away, I just wouldn't feel like myself, it's a big part of who I am...—Roberta

Gendered challenges create barriers to support for women with ADHD

All participants reported challenges and obstacles to receiving their diagnosis—something they attribute to a widespread societal lack of understanding of ADHD in women by society and clinical professionals:

... he (psychiatrist) was very dismissive of everything ... his career ... has been about Obsessive Compulsive Disorder (OCD), he tends to diagnose everybody and everything with OCD (not ADHD).—Asiyah

Zoe described misdiagnosis of other conditions, which delayed support she needed:

The diagnosis (ADHD) came as a result of me struggling at Uni and struggling in relationships ... I was in therapy, and it was originally posed that I had borderline personality disorder (BPD). ... when I went to the GP she said “...do you have any difficulties with organisation, things like that?” I was like, actually I do, and she was like, ‘it sounds to me like you're describing ADHD not BPD.’—Zoe

Asiyah, Zoe and Stephanie also explained how they received their ADHD diagnosis after treatment for co-occurring mental health conditions. These challenges were deemed to be because they are women and was often detrimental to their self-esteem, exacerbated negative self-image and resulted in Maeve blaming herself for her delayed diagnosis:

...when I first got the diagnosis I was just really surprised and a bit ashamed of myself at not having realised that sooner, given my job ... and a bit ashamed at my ignorance of it in general—Maeve

Specifically, the power of workplace environments to harness ADHD-related differences in women was recognised. Zoe stated that she can ‘massively thrive in fast paced (working) environments’, something Maeve concurred with. Additionally, Maeve reflected on feeling restless in her current occupation, something that may demonstrate struggles to conform to gendered societal expectations such as women being quiet, compliant and organised:

I've worked in hospitals ... the hospital environment ... quite chaotic ... there's lots of distractions. It's also quite physically active. ... the physical activity helps but the noise and everything doesn't help. I'm working in GP (general practice) now, and I'm finding that it because it's much more sedentary, ... sitting down all day, I feel more ... physically restless so I'm struggling —Maeve

Language can reinforce harmful and stigmatised views of ADHD in women

All participants described challenges posed by the language used by others that indicated stigma around ADHD in women. Stephanie and Maeve described dismissal of their ADHD by close family members. Similarly, all participants reported experiences of people without ADHD over-relating to their experiences of their ADHD which they felt was ‘discrediting’ (Asiyah) and dismissive. All participants also described experiences of stigmatised assumptions around ADHD as a predominantly male condition. Participants attributed others’ language choices to a distinct lack of ADHD generally, and ADHD in women with more negative and gendered language being used in relation to women with ADHD compared to men with ADHD:

I feel like a lot of the time if a woman has ADHD, she’ll be considered ditsy, clumsy and forgetful whereas if a guy has ADHD, he might be considered to be playful and fun and like a big kid...—Roberta

Discussion

This study explored experiences of ADHD in women by providing accounts of those with lived experience. This work adopted a neurodiversity approach whereby cognitive differences were not viewed as deficits (Bertilsson Rosqvist et al., 2023a). The research placed the voices of lived experience at the fore with an added insider perspective from author LP, who was diagnosed with Autism and ADHD in adulthood (Bertilsson Rosqvist et al., 2023a; Schneid & Raz, 2020). Participants shared that their neurodivergence often led to positive experiences harnessed by their differences in social and communication skills that benefited relationships and hyperfocus and impulsivity which enabled achievements and exposure to new and interesting experiences. Participants also acknowledged their environments can harness their differences. Reflections were made around the challenges of gaining a diagnosis as a woman and how societal stigma and gendered language can fuel societal misunderstanding of ADHD in women.

Translating differences in women with ADHD positive social and communication skills experiences

Participants identified that they can be very sociable, which can facilitate meaningful relationships. Existing evidence supports this finding and reports that women with ADHD may channel their hyperactivity into hobbies and interests, which can make them appear sociable, outgoing and to have lots of friends (Quinn & Madhoo, 2014). This can be explained by evidence that suggests how hyperactivity in women with ADHD does not always manifest as physical

hyperactivity and can present as being overly talkative and sociable (Young et al., 2020). However, this analysis is refuted by evidence that states women with ADHD may have many friendships, but they may be strained, short-lived and not meaningful due to their impulsivity and inattentiveness (Blachman & Hinshaw, 2002; Hoza, 2007). emotion regulation challenges and misinterpretation of social cues (Morley & Tyrrell, 2023).

Participants in the present study also reflected that they often had multiple hobbies and interests. This is supported by evidence that shows how women with ADHD can channel their hyperactivity (Quinn & Madhoo, 2014) and impulsivity into varied interests leading to curiosity and taking on new tasks to ease their restlessness and meet their stimulation needs (Rucklidge, 2010; Sasser et al., 2016). This is supported by the Optimal Stimulation Theory that states the impulsivity, hyperactivity and inattentiveness in ADHD result from attempts of individuals to be optimally (Zentall, 1975). Further, findings from the present study indicated how their motivational abilities can positively impact others, which is supported by evidence that acknowledges how high energy in women with ADHD can translate into motivational abilities (Hinshaw et al., 2006; Kelley, 2024; Wiklund et al., 2017).

ADHD in women: differences, not deficits

Hyperactivity is a medical term that describes a deficit/symptom of ADHD. However, scholars have adopted a neurodiversity approach and reframed hyperactivity as a difference in pace or intensity (Bertilsson Rosqvist et al., 2023a). This better describes some of the benefits of hyperactivity described by participants in this study. Participants acknowledged that their differences can be harnessed by their environment. A fast-paced work environment, that fosters crisp time (Basten, 2023) was described to enable physical activity can to channel hyperactivity and meet stimulation needs. Crisp time has been called for in education settings where ADHD is reported as under-recognised and framed as a deficit (Bertilsson Rosqvist et al., 2023b).

However, it may be that it is not as simple as finding the most appropriate environment, but more about how individuals relate to different aspects of an environment and how they impact experiences of ADHD in women (Prosser, 2015). Therefore, understanding and harnessing differences in women with ADHD can help individuals channel their unique abilities and make suitable educational and/or occupational decisions (Kelley, 2024; Schippers et al., 2022).

Similarly, inattention is a medical term describing a deficit of ADHD, which has been reframed in line as ‘variable (not deficient) attention’ (Hallowell & Ratey, 2022). This is supported by work that refers to an ‘interest based nervous system’ that argues those with ADHD ‘pay too much attention to everything’ and that there are no

impairments during hyperfocus periods, which are reliant on the task being of interest (Dodson, 2022) and the environment and individual at the time (Hupfeld et al., 2019). This is supported by participants in this study who acknowledged benefits of their hyperfocus abilities such as in education settings with reports of the ability to focus and work on assignments around topics of interest, something which should be harnessed in education by allowing self-directed learning or reward creativity and innovation (Gutman et al., 2020).

Similarly, participants in this study describe intense interests in single topics, which although they referred to as hyperfocus, could be considered as monotropism; a term used in relation to autistic individuals to describe narrow and intense interests, which is distinct to more flexible and context-dependent hyperfocus (Dwyer et al., 2024). This supports recent reports that monotropism may also be present in ADHD (Dwyer et al., 2024).

Further, participants in this study felt that their impulsivity enabled them to access and create new and interesting experiences they otherwise would not be able to. These experiences may contribute to academic or occupational success or pursuing individual interests and hobbies. Empirical evidence states that although impulsivity can be a challenge for those with ADHD, it can often materialise as spontaneity and bring new experiences. This spontaneity can lead to creative breakthroughs, innovative thinking, positive outcomes and enriching life experiences but remains under explored (Sedgwick et al., 2019; White & Shah, 2016). The term ‘impulsivity’ is however a medical term that describes ADHD deficits. In line with the general paradigmatic shift to a neurodiversity approach to ADHD, authors of this paper propose impulsivity should be reframed as ‘adaptive risk taking’ to acknowledge individual abilities to adapt spontaneous decision making to different contexts that can create new exciting.

To label or not to label?

The benefits of diagnostic labels are widely debated (Sims et al., 2021). One argument could be that labels themselves are not problematic, but gendered societal factors that contribute to harmful stigma exposure (Metzger & Hamilton, 2021; Solden, 2012; Werkhoven et al., 2022) and misunderstanding of ADHD in women are more detrimental (Visser et al., 2024). This may explain participants from this study who reported experiences of gendered, minimising, ableist and stigmatised language that they attributed to misunderstanding, delayed diagnosis of ADHD in women (Kooij et al., 2019; Visser et al., 2024) and mental health challenges (Colbert & Powell, 2024), findings that are replicated elsewhere (Hinshaw et al., 2022; Visser et al., 2024). Further evidence shows these language choices can lead to feelings of shame and inadequacy in women with ADHD (Solden, 2012), feelings reported by Maeve

in this study. Such inaccurate and negative language can impact individuals who receive a future diagnosis who are then more likely to feel devalued (Jones & Hesse, 2018) and have unrealistic treatment expectations (Sims et al., 2021) and fuel the reinforcing cycle of stigma (Visser et al., 2024). In contrast, those with more accurate, positive understanding of ADHD are more likely to experience empowerment and a pivotal moment of self-discovery that helps them to understand themselves, their behaviours, and differences (Almeida, 2023; Frondelius et al., 2019; Sims et al., 2021; Werkhoven et al., 2022). These experiences are also shared by participants in this study and in older women with ADHD (Henry & Hill Jones, 2011). Relatedly, evidence posits that self-advocacy in women with ADHD is of high importance to empower them to advocate for accommodations and related policy changes that allow them to reclaim agency in shaping their own identities and societal perceptions of neurodivergence (Brown, 2023). Although this is not something participants shared in the present study, they did share how the environment can harness or hinder their ADHD.

Strengths and limitations of this study

This study presents a neurodiversity approach to understanding ADHD in women including how their differences can be harnessed and not viewed as deficits. The work explores notable challenges and benefits of intersections between being a woman and having ADHD such as consequences of harmful derogatory, ableist and gendered language. This will contribute to encouraging strengths-based language in educational, clinical and occupational contexts and encourage important conversations to mitigate against harmful stigma (Brown, 2024). This will ultimately contribute to improved outcomes for women with ADHD.

The research team comprised women who share values and beliefs around the importance of social justice and equality. This includes author LP who provided an insider perspective as a late-diagnosed autistic woman with ADHD being which is deemed to add value to learning and data interpretation (Sonuga-Barke, 2023).

Author’s neurodiversity approach mean findings support literature around reframing the ADHD deficits, hyperactivity and inattention, as a ‘difference in pace and intensity’ and ‘varied attention’ (Bertilsdotter Rosqvist et al., 2023a), and additionally suggested impulsivity be reframed as ‘adaptive risk taking’ to acknowledge differences, not deficits and contextual influence on these behaviours. This reflected participant views in this study who viewed these differences as strengths with examples including thriving in fast paced work environments, sociability facilitating meaningful relationships and spontaneity facilitating new exciting experiences.

However, this work is not without limitations. As the approach was differences not deficits, it is possible that individuals with alternate views did not volunteer to partake.

Participants were University students or in post graduate professional careers. This is a rarity as those with ADHD are less likely to attend higher education (DuPaul et al., 2021), reflecting the homogeneity of the sample.

The sample was predominantly British with one Indian participant, thus reflecting dominant British views of women with ADHD. Understanding intersectionality's of gender, race and ADHD would have provided a broader understanding of ADHD in women. Nevertheless, women in this study highlight the significant role gendered expectations play in the experiences of ADHD in women and as results are supported by existing evidence this shows promise in the generalisability of findings.

Future research and implications

To broaden understanding of ADHD in women, future research must incorporate diversity of voices from women with ADHD who represent diverse ethnic groups and LGBTQ+ communities to help further understanding of how these diverse identities intersect with gender and ADHD. These intersecting identities can impact experiences of ADHD in women, which can further complicate access to diagnosis and support (Bowman-Campbell, 2013; Morgan, 2023).

To deepen our understanding, more qualitative work should explore the largely overlooked issue regarding how employers can incorporate a gender-sensitive approach to adapt working environments to harness differences in women with ADHD (Kelly et al., 2024).

Future work should not underestimate the significance of language choices. For example, revisions of clinical diagnostic criteria should reflect the evidence base this study contributes to and account for unique presentations of ADHD in women.

It is hoped this work will influence future work to follow the paradigmatic shift demonstrated by autism studies whereby we recognise differences and not deficits of ADHD. This can be achieved by working with communities to support development of community-based theorising (Basten, 2023; Bertilsdotter Rosqvist et al., 2023a).

Conclusions

This work offers fresh gendered and experiential perspectives on ADHD in women which challenges conventional narratives and provides practical insights for supporting women with ADHD in real-world contexts. Insights are provided as to how society can adopt gender-sensitive approaches to be more inclusive of women with ADHD. Authors therefore posit that impulsivity be rephrased as 'adaptive risk taking' to consider the benefits that can arise from 'impulsivity' and how the environment can influence such decisions.

Participants shared how gaining a diagnosis can be vital for identity sense-making and can be hindered by stigmatised and ableist language that stems from a widespread

lack of understanding of ADHD in women. This demonstrates the essentiality of working *with* underrepresented voices of women with ADHD to improve their outcomes, gain deeper, more holistic, understandings of their differences and how to harness them (Bertilsdotter Rosqvist et al., 2023b).

Participant reflections around language use enabled a more nuanced understanding of ADHD, hence it is important for future work to continue reflections on appropriate language use to break the reinforcing cycle of stigma (Visser et al., 2024) fuelled by societal gendered expectations.

As demonstrated in autism studies, future work should also follow the paradigmatic shift recognising cognitive differences rather than deficits by working with communities to support development of community-based theorising (Basten, 2023; Bertilsdotter Rosqvist et al., 2023a). This should involve voices of women from diverse backgrounds to enable exploration of inevitable intersectionality's between ADHD, gender, ethnicity, sexual orientation, and socioeconomic backgrounds.

Acknowledgements: The authors would like to thank participants for sharing their experiences and taking part in the research.

Data availability: Anonymised raw data is available upon request.

Declaration of conflicting interests: The authors declared no potential conflicts of interest with respect to the research, authorship, and/or publication of this article.


Ethical approval: The School of Education Ethics Review Committee at the University of Sheffield approved our interviews (approval: 051196) on 9 January 2023. Respondents gave written consent for review and signature before starting interviews.

Funding: The authors received no financial support for the research, authorship, and/or publication of this article.

Informed consent: Written informed consent was obtained from a legally authorised representative for anonymised patient information to be published in this article.

ORCID iDs: Izabela Parzych  <https://orcid.org/0009-0002-8797-8767>

Jessica Platts  <https://orcid.org/0009-0004-7901-1833>

Lauren Powell  <https://orcid.org/0000-0003-0230-8722>

References

Almeida, L. (2023). *ADHD and women's self-perception: The impacts of being diagnosed in adulthood dublin*. National College of Ireland].

- American Psychiatric Association (APA). (2013). *Diagnostic and statistical manual of mental disorders: DSM-5*, Vol. 5. American psychiatric association.
- Basten, L. (2023). The codex is always on crisp time: ADHD (ness) and Reading. *Reception: Texts, Readers, Audiences, History*, 15, 89–96. <https://doi.org/10.5325/reception.15.1.0089>
- Bertilsson Rosqvist, H., Hultman, L., Österberg Wiklund, S., Nygren, A., Storm, P., & Sandberg, G. (2023a). Intensity and variable attention: Counter narrating ADHD, from ADHD deficits to ADHD difference. *The British Journal of Social Work*, 53(8), 3647–3664. <https://doi.org/10.1093/bjsw/bcad138>
- Bertilsson Rosqvist, H., Hultman, L., Österberg Wiklund, S., Nygren, A., Storm, P., & Sandberg, G. (2023b). Naming ourselves, becoming neurodivergent scholars. *Disability & Society*, 40(1), 128–147. <https://doi.org/10.1080/09687599.2023.2271155>
- Blachman, D. R., & Hinshaw, S. P. (2002). Patterns of friendship among girls with and without attention-deficit/hyperactivity disorder. *Journal of Abnormal Child Psychology*, 30(6), 625–640. <https://doi.org/10.1023/A:1020815814973>
- Bowman-Campbell, M. (2013). *Dual stigma: Exploring the experiences of lesbian, gay, bisexual, and transgender (LGBT) college students who are diagnosed with Attention Deficit Hyperactivity Disorder (ADHD)*. Capella University.
- Braun, V., & Clarke, V. (2021). One size fits all? What counts as quality practice in (reflexive) thematic analysis? *Qualitative Research in Psychology*, 18(3), 328–352. <https://doi.org/10.1080/14780887.2020.1769238>
- Braun, V., & Clarke, V. (2024). Reporting guidelines for qualitative research: A values-based approach. *Qualitative Research in Psychology*, 1–40. <https://doi.org/10.1080/14780887.2024.2382244>
- Brown, A. I. (2023). The Univocity of attention: ADHD and the case for a renewed self-advocacy [Doctoral dissertation]. York University.
- Brown, A. I. (2024). ADHD, academics, and communities: Who are the “ADHD experts”? In *The palgrave handbook of research methods and ethics in neurodiversity studies* (pp. 399–409). Springer.
- Colbert, E., & Powell, L. (2024). *Why language matters: A qualitative inquiry into the implications of language used during provider-patient interactions on university students' perceptions and understandings of their own mental health. Psychology of Language and Communication*.
- Craddock, E. (2024). Being a woman is 100% significant to my experiences of attention deficit hyperactivity disorder and autism: Exploring the gendered implications of an adulthood combined autism and attention deficit hyperactivity disorder diagnosis. *Qualitative Health Research*, 34(14), 1442–1455. <https://doi.org/10.1177/10497323241253412>
- Dal-Pai, J., Soares, C. B., Fraga, V. C. d., Porto, A., Foerster, G. P., & Nunes, M. L. (2024). Consequences of the Covid-19 pandemic in children and adolescents with attention deficit hyperactivity disorder—a systematic review. *Jornal de Pediatria*, 100(1), 25–31. <https://doi.org/10.1016/j.jpmed.2023.06.003>
- Dodson, W. (2022). *Secrets of your ADHD brain*. ADDitude.
- DuPaul, G. J., Gormley, M. J., Anastopoulos, A. D., Weyandt, L. L., Labban, J., Sass, A. J., Busch, C. Z., Franklin, M. K., & Postler, K. B. (2021). Academic trajectories of college students with and without ADHD: Predictors of four-year outcomes. *Journal of Clinical Child & Adolescent Psychology*, 50(6), 828–843. <https://doi.org/10.1080/15374416.2020.1867990>
- Dwyer, P., Williams, Z. J., Lawson, W. B., & Rivera, S. M. (2024). A trans-diagnostic investigation of attention, hyperfocus, and monotropism in autism, attention dysregulation hyperactivity development, and the general population. *Neurodiversity*, 2, 27546330241237883. <https://doi.org/10.1177/27546330241237883>
- Frondelius, I. A., Ranjbar, V., & Danielsson, L. (2019). Adolescents' experiences of being diagnosed with attention deficit hyperactivity disorder: A phenomenological study conducted in Sweden. *BMJ Open*, 9(8), e031570.
- Gershon, J., & Gershon, J. (2002). A meta-analytic review of gender differences in ADHD. *Journal of Attention Disorders*, 5(3), 143–154. <https://doi.org/10.1177/108705470200500302>
- Goetz, T. G., & Adams, N. (2024). The transgender and gender diverse and attention deficit hyperactivity disorder nexus: A systematic review. *Journal of Gay & Lesbian Mental Health*, 28(1), 2–19. <https://doi.org/10.1080/19359705.2022.2109119>
- Gutman, S. A., Balasubramanian, S., Herzog, M., Kim, E., Swirnow, H., Retig, Y., & Wolff, S. (2020). Effectiveness of a tailored intervention for women with attention deficit hyperactivity disorder (ADHD) and ADHD symptoms: A randomized controlled study. *The American Journal of Occupational Therapy*, 74(1), 7401205010p1–7401205010p11. <https://doi.org/10.5014/ajot.2020.033316>
- Hallowell, E. M., & Ratey, J. J. (2022). *ADHD 2.0: New science and essential strategies for thriving with distraction—from childhood through adulthood*. Ballantine Books.
- Henry, E., & Hill Jones, S. (2011). Experiences of older adult women diagnosed with attention deficit hyperactivity disorder. *Journal of Women & Aging*, 23(3), 246–262. <https://doi.org/10.1080/08952841.2011.589285>
- Hinshaw, S. P., Nguyen, P. T., O'Grady, S. M., & Rosenthal, E. A. (2022). Annual research review: Attention-deficit/hyperactivity disorder in girls and women: Underrepresentation, longitudinal processes, and key directions. *Journal of Child Psychology and Psychiatry*, 63(4), 484–496. <https://doi.org/10.1111/jcpp.13480>
- Hinshaw, S. P., Owens, E. B., Sami, N., & Fargeon, S. (2006). Prospective follow-up of girls with attention-deficit/hyperactivity disorder into adolescence: Evidence for continuing cross-domain impairment. *Journal of Consulting and Clinical Psychology*, 74(3), 489–499. <https://doi.org/10.1037/0022-006X.74.3.489>
- Hoza, B. (2007). Peer functioning in children with ADHD. *Journal of Pediatric Psychology*, 32(6), 655–663. <https://doi.org/10.1093/jpepsy/jsm024>
- Hupfeld, K. E., Abagis, T. R., & Shah, P. (2019). Living “in the zone”: Hyperfocus in adult ADHD. *ADHD Attention Deficit and Hyperactivity Disorders*, 11(2), 191–208. <https://doi.org/10.1007/s12402-018-0272-y>
- Jones, S., & Hesse, M. (2018). Adolescents with ADHD: Experiences of having an ADHD diagnosis and negotiations of self-image and identity. *Journal of Attention Disorders*, 22(1), 92–102. <https://doi.org/10.1177/1087054714522513>
- Kapp, S. K. (2020). *Autistic community and the neurodiversity movement: Stories from the frontline*. Springer Nature.
- Kelley, A. (2024). *Powered by ADHD: Strategies and Exercises for Women to Harness Their Untapped Gifts*. Zeitgeist.

- Kelly, C., Kelly, C., Taylor, R., & Gullon-Scott, F. (2023). Neuropsychiatric and social consequences of attention deficit hyperactivity disorder in females: A narrative review. *Qeios*, 1–15. <https://doi.org/10.32388/6ODYSG.9>
- Kelly, C., Sharma, S., Jieman, A.-T., & Ramon, S. (2024). Sense-making narratives of autistic women diagnosed in adulthood: A systematic review of the qualitative research. *Disability & Society*, 39(3), 663–695. <https://doi.org/10.1080/09687599.2022.2076582>
- Kooij, J., Bijlenga, D., Salerno, L., Jaeschke, R., Bitter, I., Balazs, J., Thome, J., Dom, G., Kasper, S., & Filipe, C. N. (2019). Updated European consensus statement on diagnosis and treatment of adult ADHD. *European Psychiatry*, 56(1), 14–34. <https://doi.org/10.1016/j.eurpsy.2018.11.001>
- Mahendiran, T., Brian, J., Dupuis, A., Muhe, N., Wong, P.-Y., Iaboni, A., & Anagnostou, E. (2019). Meta-analysis of sex differences in social and communication function in children with autism spectrum disorder and attention-deficit/hyperactivity disorder. *Frontiers in Psychiatry*, 10, 804. <https://doi.org/10.3389/fpsy.2019.00804>
- May, T., Adesina, I., McGillivray, J., & Rinehart, N. J. (2019). Sex differences in neurodevelopmental disorders. *Current Opinion in Neurology*, 32(4), 622–626. <https://doi.org/10.1097/WCO.0000000000000714>
- Metzger, A. N., & Hamilton, L. T. (2021). The stigma of ADHD: Teacher ratings of labeled students. *Sociological Perspectives*, 64(2), 258–279. <https://doi.org/10.1177/0731121420937739>
- Morgan, J. (2023). Exploring women's experiences of diagnosis of ADHD in adulthood: A qualitative study. *Advances in Mental Health*, 22(3), 575–589. <https://doi.org/10.1080/18387357.2023.2268756>
- Morley, E., & Tyrrell, A. (2023). Exploring female students' experiences of ADHD and its impact on social, academic, and psychological functioning. *Journal of Attention Disorders*, 27(10), 1129–1155. <https://doi.org/10.1177/10870547231168432>
- Niemiec, R. M., & Tomasulo, D. (2023). Character strengths and attention-deficit/hyperactivity disorder (ADHD). In *Character strengths and abilities within disabilities: Advances in science and practice* (pp. 73–89). Springer.
- O'Brien, B. C., Harris, I. B., Beckman, T. J., Reed, D. A., & Cook, D. A. (2014). Standards for reporting qualitative research: A synthesis of recommendations. *Academic Medicine*, 89(9), 1245–1251. <https://doi.org/10.1097/ACM.0000000000000388>
- Pellicano, E., & den Houting, J. (2022). Annual research review: Shifting from 'normal science' to neurodiversity in autism science. *Journal of Child Psychology and Psychiatry*, 63(4), 381–396. <https://doi.org/10.1111/jcpp.13534>
- Prosser, B. (2015). Attention deficit hyperactivity disorder in Australia: Perspectives from the sociology of deviance. *Journal of Sociology*, 51(3), 596–612. <https://doi.org/10.1177/1440783313514643>
- Quinn, P. O., & Madhoo, M. (2014). A review of attention-deficit/hyperactivity disorder in women and girls: Uncovering this hidden diagnosis. *The Primary Care Companion for CNS Disorders*, 16(3), 27250. <https://doi.org/10.4088/PCC.13r01596>
- Rucklidge, J. J. (2010). Gender differences in attention-deficit/hyperactivity disorder. *Psychiatric Clinics*, 33(2), 357–373.
- Sasser, T. R., Kalvin, C. B., & Bierman, K. L. (2016). Developmental trajectories of clinically significant attention-deficit/hyperactivity disorder (ADHD) symptoms from grade 3 through 12 in a high-risk sample: Predictors and outcomes. *Journal of Abnormal Psychology*, 125(2), 207–219. <https://doi.org/10.1037/abn0000112>
- Schippers, L. M., Greven, C., & Hoogman, M. (2024). Associations between ADHD traits and self-reported strengths in the general population. *Comprehensive Psychiatry*, 130, 152461. <https://doi.org/10.1016/j.comppsy.2024.152461>
- Schippers, L. M., Horstman, L. I., Velde, H. v. d., Pereira, R. R., Zinkstok, J., Mostert, J. C., Greven, C. U., & Hoogman, M. (2022). A qualitative and quantitative study of self-reported positive characteristics of individuals with ADHD. *Frontiers in Psychiatry*, 13, 922788. <https://doi.org/10.3389/fpsy.2022.922788>
- Schneid, I., & Raz, A. E. (2020). The mask of autism: Social camouflaging and impression management as coping/normalization from the perspectives of autistic adults. *Social Science & Medicine*, 248, 112826. <https://doi.org/10.1016/j.socscimed.2020.112826>
- Schreuer, N., & Dorot, R. (2017). Experiences of employed women with attention deficit hyperactive disorder: A phenomenological study. *Work*, 56(3), 429–441. <https://doi.org/10.3233/WOR-172509>
- Sedgwick, J. A., Merwood, A., & Asherson, P. (2019). The positive aspects of attention deficit hyperactivity disorder: A qualitative investigation of successful adults with ADHD. *ADHD Attention Deficit and Hyperactivity Disorders*, 11(3), 241–253. <https://doi.org/10.1007/s12402-018-0277-6>
- Sims, R., Michaleff, Z. A., Glasziou, P., & Thomas, R. (2021). Consequences of a diagnostic label: A systematic scoping review and thematic framework. *Frontiers in Public Health*, 9, 725877. <https://doi.org/10.3389/fpubh.2021.725877>
- Solden, S. (2012). *Women with attention deficit disorder: Embrace your differences and transform your life*. eBookIt. com.
- Sonuga-Barke, E. J. (2023). Paradigm 'flipping' to reinvigorate translational science: Outlining a neurodevelopmental science framework from a 'neurodiversity' perspective. *Journal of Child Psychology and Psychiatry*, 64, 1405–1408. <https://doi.org/10.1111/jcpp.13886>
- Sonuga-Barke, E., & Thapar, A. (2021). The neurodiversity concept: Is it helpful for clinicians and scientists? *The Lancet Psychiatry*, 8(7), 559–561. [https://doi.org/10.1016/S2215-0366\(21\)00167-X](https://doi.org/10.1016/S2215-0366(21)00167-X)
- Visser, M. J., Peters, R. M., & Luman, M. (2024). Understanding ADHD-related stigma: A gender analysis of young adults and key stakeholder perspectives. *Neurodiversity*, 2, 27546330241274664. <https://doi.org/10.1177/27546330241274664>
- Werkhoven, S., Anderson, J. H., & Robeyns, I. A. (2022). Who benefits from diagnostic labels for developmental disorders? *Developmental Medicine & Child Neurology*, 64(8), 944–949. <https://doi.org/10.1111/dmcn.15177>
- White, H. A., & Shah, P. (2016). Scope of semantic activation and innovative thinking in college students with ADHD. *Creativity Research Journal*, 28(3), 275–282. <https://doi.org/10.1080/10400419.2016.1195655>
- Wiklund, J., Yu, W., Tucker, R., & Marino, L. D. (2017). ADHD, impulsivity and entrepreneurship. *Journal of Business Venturing*, 32(6), 627–656. <https://doi.org/10.1016/j.jbusvent.2017.07.002>
- Young, S., Adamo, N., Ásgeirsdóttir, B. B., Branney, P., Beckett, M., Colley, W., Cubbin, S., Deeley, Q., Farrag, E., & Gudjonsson, G. (2020). Females with ADHD: An expert

consensus statement taking a lifespan approach providing guidance for the identification and treatment of attention-deficit/hyperactivity disorder in girls and women. *BMC Psychiatry*, 20(1), 1–27. <https://doi.org/10.1186/s12888-019-2374-2>

Zentall, S. (1975). Optimal stimulation as theoretical basis of hyperactivity. *American Journal of Orthopsychiatry*, 45(4), 549–563. <https://doi.org/10.1111/j.1939-0025.1975.tb01185.x>
