What are the lived experiences of strengths in autistic individuals? A systematic review and thematic synthesis

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Abstract

Background

Research about strengths in autistic individuals has often been based on informant perspectives. These may not align with subjective experiences and perspectives of autistic people themselves. This study therefore aimed to centre the perspectives of autistic people through a qualitative synthesis investigating the lived experiences of strengths in autistic individuals.

Methods

A systematic search identified 26 qualitative papers which met the inclusion criteria, of papers which used qualitative methods to understand autistic participants' perspectives on strengths in autism.

Results

A thematic synthesis approach generated four themes: Wired differently; Focused interests enrich life; Embracing an autism identity; Context dependent strengths. The review findings showed that autistic individuals value abilities and attributes that they can use to help them thrive in their daily lives, for example by enhancing their performance at work, enjoyment during an activity, or to help others. Participants had differing views about whether their strengths were attributable to their autism. Autistic strengths extended beyond abilities to pride in having an autism identity and self-knowledge. Participants recognised that their ability to express themselves or their strengths often depended on the context.

Conclusion

Recommendations include supporting autistic individuals to openly explore their interests and experiences, to recognise for themselves the characteristics and skills they value, for example, how to draw upon focused interests to develop relaxation strategies.

Community Brief

Why is this an important issue?

Autism research has often focused on the difficulties faced by autistic people, rather than on their strengths. Also, research has often asked parents or professionals their opinions rather than asking autistic people themselves.

What was the purpose of this study?

We wanted to understand how autistic people experience and talk about their own strengths. Strengths are the things we are good at.

What did the researchers do?

This type of research is called a systematic review and meta-synthesis. We searched online databases to find all the published research articles in this area. We looked for studies which asked autistic people how they experience their own strengths. We collected the findings from the studies and identified themes across them. The themes tell us what autistic people think about their strengths.

What were the results of the study?

We found 26 published articles which could be included in our review. We generated four themes. Autistic people described different thinking abilities and traits which they linked to autism: some brought enjoyment whilst others were useful life skills. Focused interests were described as enriching life through bringing well-being, knowledge and skills, and opportunities for social connection. Autistic participants described that having an autistic identity could be a strength, for example through reflecting on their past, or taking pride in their differences. Strengths changed over time and depended on the context of the time or situation.

What do these findings add to what was already known?

This adds to our knowledge by providing an integrated and robust summary of all the published literature in the area. Our findings show that autistic people experience some of their autistic traits as strengths, including thinking skills and focused interests.

What are potential weaknesses in the study?

Not many of the included articles set out to explore strengths, so we did not always have a large amount of data to analyse from each study. We are just focusing on one aspect of the autistic experience: some people may not experience autistic strengths, either through not associating their experiences with autism or because they experience mostly challenges associated with autism.

How will these findings help autistic adults now or in the future?

The findings show that autistic people identify strengths and benefits to being autistic. It could help to share these findings with newly diagnosed autistic people or those who are struggling with understanding autism and what it means for them personally. It might help autistic people who have mostly identified challenges associated with being autistic to identify some of their strengths.

What is the lived experience of strengths in autistic people? A systematic review and thematic synthesis

Autism is a neurodevelopmental condition that affects the way someone communicates, interacts with and experiences the world. Under the Diagnostic and Statistical Manual of Mental Disorders¹ autism is defined by social communication and social interaction difficulties and restrictive and repetitive behaviours, activities or interests, which have been present since childhood and significantly impair everyday functioning. Traditionally, autistic differences have been conceptualised from a deficit angle, such as the impaired theory of mind², social motivation theory³ and executive dysfunction hypothesis⁴. Research often focused on the poorer outcomes experienced by autistic people in terms of physical health, mental health, quality of life, education and employment^{5,6,7,8}. The concept of neurodiversity, that there is natural diversity in brain development and function, and that autistic features should be described as divergent rather than deficient⁹, supports a more balanced perception of autism. Moreover, there is increased recognition of the role of social factors in shaping neurotypical norms and notions of disability¹⁰. Excessive focus on impairments means that services risk perpetuating autism stigma and ignoring strengths, prevent individuals from reaching their potential¹¹.

Research has often taken an empirical approach to explore autistic strengths, comparing autistic abilities to the wider population e.g. cognitive skills. For this reason, historically, the definition of autistic strengths revolved around 'savant' skills, i.e. above population norms and the person's overall ability level, or abilities such as memory, drawing or music¹². Interest in understanding why such talents may particularly be found amongst autistic individuals has also focused on classifying the processes underlying these skills, such as hyper systemising¹³ or locally orientated processing which enhances abilities to detect patterns¹⁴. But such research relies on testing methods that are dependent on normative framing¹⁵. Autistic strengths are thus defined by their performance in relation to non-autistic individuals, rather than what makes them meaningful as strengths in their own right to autistic people. Strengths identified by autistic people and families have been suggested to be markedly different from researchers, whose focus on neurological processes may have limited practical positive implications for autistic people¹⁶.

Some also argue that disproportionate attention on superior abilities may be unhelpful¹⁷ if it creates overgeneralised assumptions and stereotypes about autistic talents. Labels such as 'high functioning' autism have been said to be unhelpful clinical descriptors¹⁸. It furthermore highlights the wider issue of how language and discourse surrounding autistic abilities can perpetuate ableism¹⁹. Studies conducted amongst the autistic community including professionals and family indicate a growing

preference to view autism in terms of 'difference' over 'disability/disorder', and for autistic people to be referred to with identity first language over person first language^{20,21,22}. This demonstrates the importance of conducting inclusive research that keeps pace with the interests and experiences of those in the autistic community.

Emerging qualitative research regarding perceptions and experiences of autistic strengths has often been explored from the perspective of informants such as family/carers, professionals or employers^{23,24,25}. Such reports often revolve around cognition including attention to detail, visual perception and memory, technical abilities, mathematical abilities and artistic skills. Other studies investigate traits such as loyalty, morality, preference for monotonous tasks and 'out of the box thinking'²⁶. Similar observations have been reported in the employment context, where attention to detail, intellectual skills, tolerance for repetitiveness, persistence and agreeableness have been seen as positive or advantageous autistic attributes in the workplace²⁷. Families and carers have been found to focus on adaptive strengths that enable autistic people to thrive in their environment such as academic abilities, gross motor skills, social and personal characteristics such as humour and creativity although this varied considerably across studies¹⁶. A challenge with such findings is they describe context-dependent strengths, based on what the informant perceives to be beneficial or positive relative to the autistic individuals' other abilities. Autistic strengths are therefore often defined in terms of what others value or how they are affected, rather than what autistic individuals themselves report.

Autistic people have been described as 'lacking epistemic authority'²⁸ because of an impaired ability to reflect on their own mental state. But evidence suggests that autistic people demonstrate reliable and scientific knowledge of autism and should be recognised as autism experts by experience²⁹. The reported strengths from an informant perspective also may not necessarily align with autistic people's subjective perceptions and experiences³⁰, which may also have implications for the usefulness of support interventions. For instance, autistic people are more likely to recognise their own intellectual strengths but value having personal and emotional strengths, which they positively associate with subjective wellbeing³¹. This demonstrates the importance of exploring subjective experiences and personal meaning of autistic strengths.

In summary, strengths in autism remains a growing area of research that has started to shift from a neurological perspective to focus more on experiences. However, the literature is sparse and varied due to differences in participant ages, methodology and context. There are also different definitions of strengths, ranging from vague and subjective to quantitative measures, or in terms of being a relative strength for the person as opposed to comparatively to others. We argue that self-identified

autistic strengths represent an area of knowledge that warrants further exploring and understanding. A review of the literature focussing on this would therefore help to ascertain what evidence is currently available, and the key findings or themes that emerge most strongly. This may tell us about the types of strengths autistic people identify with, and what makes them meaningful to them.

For the purposes of reviewing the lived experiences of self-identified autistic strengths, a strength will be recognised as any personal, emotional or intellectual ability or attribute, that is perceived in a positive or enabling way. This study aimed to carry out a qualitative synthesis of the existing evidence regarding the strengths or positive attributes of autism from the perspective of autistic people. The review question thus focused on: What are the lived experiences of strengths in autistic individuals?

Methods

The review followed the ENTREQ (Enhancing transparency in reporting the synthesis of qualitative research) guidelines³² to conduct and report the meta-synthesis. This framework includes a 21 item checklist covering 5 domains: introduction, methods and methodology, literature and selection, appraisal and synthesis of findings. Data extraction and analysis followed a thematic synthesis approach³³, which is grounded in critical realism and acknowledges the role of the researcher's beliefs and perspectives in the construction of knowledge³⁴. This approach also recognises the importance of a methodologically flexible stance and ensuring that findings remain rooted in participant perspectives.

Search methods

The following databases were included in the search: PsychInfo, EMBASE, APA PsycNET, PubMed, conducted on 3rd August 2023. The search strategy involved the terms: autistic spectrum disorder, Asperger, autism, qualitative, lived experience, focus group, interview, phenomenology, perception, strengths, positives, positive attributes, advantages. These were (Autis* OR "autism spectrum disorder" OR asperger*) AND (Strengths OR positives OR attribute* OR advantage*) AND (Qualitative OR interview OR "focus group*" OR experience OR phenomenolog* OR perception).

Inclusion criteria

Inclusion and exclusion criteria were developed prior to the searches being conducted, in line with the review aims and key principles of the synthesis approach, namely that studies included findings that explicitly related to autistic participant perspectives. Operational definitions were refined and expanded as necessary to ensure the presence of autistic participants, qualitative data, and selfreported strengths explicitly in connection to autism or the autistic person.

Studies were included if they used qualitative or mixed methods where an established qualitative analysis methodology (e.g. thematic analysis) had been employed and clearly stated. Studies involved first person accounts from autistic people, collected using any open-ended methods such as surveys, interviews, focus groups. The abstract had to highlight strengths or positives of autism as an interview question, key theme from the findings, or was the main focus of the study. These strengths had to be self-reported, not given by a third-party informant (e.g. family member). The theme of strengths could be expressed or referred to in different ways e.g. positive attributes, advantages. Strengths could be in relation to autistic traits or being an autistic person, e.g. diagnosis, identity.

Studies were included if they recruited participants of any age group, although for younger ages data had to be collected directly from the child or young person themselves rather than informants. Participants with an autism diagnosis or individuals who self-identified as autistic were included. Studies with multiple participant groups (e.g. family, professionals) had to clearly show a distinct data analysis or results section from the autistic participants that generated the finding about autistic strengths. Studies from any time period or geographical location were accepted, provided they were published in peer-reviewed journal and written in English.

Studies were included where they were quantitative, observational or secondary data studies, reviews or commentary articles, or unpublished literature.

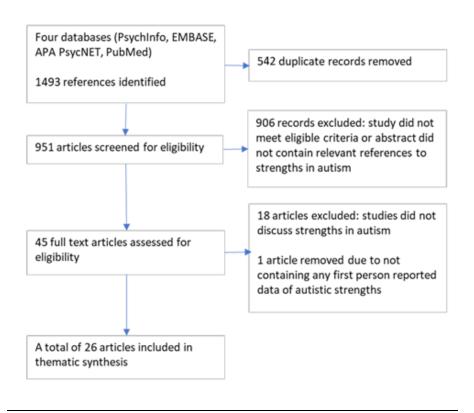
The search yielded 951 articles once duplicates were removed (see Figure 1), all of which were uploaded to Covidence for screening. 906 of these records were excluded based on the abstract not containing any relevant references to strengths in autism, leaving 45 full text articles to be screened for eligibility. A further 18 articles were excluded due to lack discussion about strengths in autism, and one excluded for not containing any first person reported data of autistic strengths.

To improve reliability in the screening process, 10% of the search results were randomly selected and sent to a second rater to screen independently using the same criteria. The second rater carried out a full text screen if it was unclear from abstract alone whether inclusion criteria was met. Disagreements were resolved by discussing rationale for inclusion/exclusion, until a final decision was agreed. There was inter-rater agreement of 98%, with disagreement around three papers which were resolved by discussing rationale for inclusion/exclusion until a final decision was agreed to exclude these.

A total of 26 studies were included in the analysis. Nine (35%) of the included studies were conducted in the UK, seven (27%) were in the USA, six (23%) were in Australia, and there was one each (4%) in Sweden, Israel, Canada, and across multiple countries. Twelve studies (46%) recruited from the community, five (19%) from workplaces, four (15%) from mixed settings, three (12%) from schools and two (8%) at Universities. Twenty studies (77%) recruited adult participants, 3 (12%) recruited adolescents, 2 recruited adolescents and adults (8%) and one (4%) recruited children. Twenty-two studies (85%) recruited participants of mixed genders, three (12%) recruited only female participants, and one (4%) did not report this information. (see Table 1 for more detailed characteristics of included studies). Information regarding co-occurring intellectual disability was not consistently described or reported: two studies included participants with co-occurring intellectual disability or learning disability, two explicitly stated this as exclusion criteria and the other studies acknowledged in their limitations section the likelihood of missing this demographic.

Figure 1.

PRISMA flow diagram of search process and results

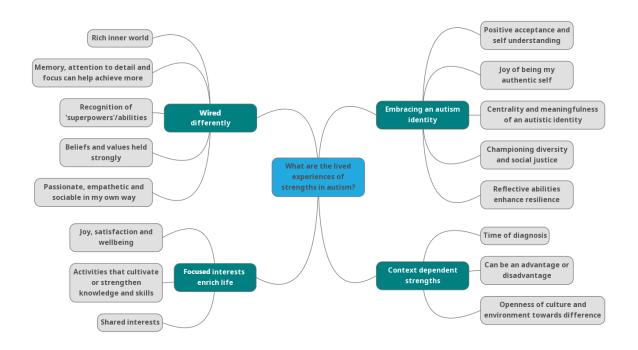


Data extraction and analysis

The quality of the studies were appraised using the Critical Appraisal Skills Programme (Critical Appraisal Skills Programme, 2010) qualitative appraisal tool, which involves a 10 point quality criteria. A second rater also appraised 10% of the included studies (rounded up to three studies), from which an inter-rater reliability of 0.84 was calculated. The CASP was used not as a definitive guide but as a framework to reflect on the impact of the study quality on its findings, considering the trustworthiness of each paper's results.

The first author read each article and identified results related to autistic strengths. The extracted data were uploaded onto Nvivo for qualitative data analysis. Data was analysed in three stages; 1) coding the extracted texts line by line 2) organising codes into descriptive themes 3) developing analytical themes. In the first stage, each unit of meaning (which could be a phrase or several lines) was highlighted and electronically 'tagged' with a code, created inductively to capture meaning and content of that particular text. The second stage involved grouping codes into descriptive themes based on perceived similarities and differences. This process included the translation of concepts33; where the same concept described in one study was recognised as being expressed differently in another study. The end product of stage two was an initial map (or tree structure) of descriptive themes. At stage three, analytical themes were developed by exploring conceptual links across descriptive themes. This involved 'looking beyond' the findings of the primary studies to consider the relevance of the descriptive themes and extent to which they answered the current review question. Draft themes were reviewed and discussed with the second author, which included practising reflexivity. This cyclical process of refinement and reorganisation continued until the themes captured the key aspects and experiences of autistic strengths as described by descriptive themes. The end product was a thematic map of themes and subthemes. Samples of data that illustrate each subtheme are also provided in the supplementary table, selected to best represent a range of studies and participant experiences.

Figure 2.Thematic map of themes and subthemes



Results

Four themes were identified: [1] Wired differently, [2] Embracing an autism identity, [3] Focused interests enrich life, and [4] Context dependent strengths (see Figure 2).

1) Wired differently

Participants highlighted particular cognitive abilities or styles as an autistic strength. Participants referred to different abilities and traits that they associated with autism, which they believed made them stand out from other people. Some of these were important and personally meaningful to them, and gave them a sense of satisfaction and joy; others were skills and abilities that participants recognised as serving a beneficial function in their lives.

Rich inner world

Some participants spoke about having rich imaginations or perceptions, often influenced by heightened sensory experiences. They provided vivid descriptions of the way they pictured or heard things in their mind and an ability to immerse themselves in that vision", which they enjoyed and appreciated, e.g. "The first thing your eye will be drawn to is the colour... it just walks you through the film and continues. It's beautiful ¹⁵(p128).

Memory, attention to detail and focus can help achieve more

Studies focussing on workplace and education contexts demonstrated how participants were able to channel cognitive abilities into their work, such as good memory, attention to detail and capacity to focus on tasks. This allowed participants to accomplish more or perform at a noticeably higher standard, which could be helpful to colleagues especially if they were able to complete work that might otherwise be missed or be delayed, e.g., "...without having the attention-to-detail ability I wouldn't have been able to obviously spot the things that obviously other people wouldn't" 15 (p128). Sometimes, it was not just about being good at something but about the positive feelings derived from being skilled at their work. This could be the thrill of having a job that they loved and excelled at, "some days I cannot believe I am as lucky as I am to be in the position I am in" 35 (p827), or feeling mentally stimulated, "I feel that I am finally using my brain properly" 35 (p827). Being able to channel their cognitive strengths gave participants a sense of purpose.

Recognition of 'superpowers'/abilities

Participants reported receiving attention and recognition from colleagues or peers for their cognitive abilities. This could be informally whereby they became known by reputation for being good at something, or formally receiving awards for excelling in their area of work. For some, this acknowledgement increased their awareness of a previously overlooked skill, for others the external validation added to their sense of pride in their abilities.

Beliefs and values held strongly

Participants discussed the importance of certain values and beliefs e.g., honesty, perseverance and a strong worth ethic. Some were seen as an inherent characteristic of autism, although not all participants made this connection explicitly and this was sometimes an author interpretation. Participants demonstrated commitment and integrity in their effort to uphold these values in everyday life, regardless of other people's opinions. Participants emphasised the importance of doing so, as described by study authors, "...did not simply express a discomfort with deception, but rather discussed a marked prioritization of honesty, and a desire to act within a prescribed code of ethics." ³⁶ (p1194). This was reflected in the strong dislike expressed for barriers to living in line with one's values. Some autistic people recognised how standing firm to their beliefs in the face of resistance could lead to positive changes, as described by authors, "...they believed was wrong and had spoken out where their [neurotypical] colleagues had not. This led to various changes being implemented that improved outcomes for people they were working with." ⁴⁴ (p.27). For others, independent thinking was seen as beneficial, "I would say I am less susceptible to group think when being asked for an opinion about something" ⁴⁴ (p.27).

Passionate, empathetic and sociable in my own way

Participants reflected on how their autism connected to or emphasised certain character traits, such as being kind, caring, passionate and empathetic. Some challenged the assumptions others might hold about autism and social or empathy difficulties. They described channelling other innate skills, e.g. cognitive abilities, to empathise with others. Participants were motivated to share activities and knowledge of certain topics, demonstrating how different situations and contexts drew out their strengths.

2) Focused Interests enrich life

A wide range of interests were mentioned across the studies, and there were commonalities in terms of the meaning and function of these interests. Participants were able to channel these interests for different purposes and yield multiple benefits. However, it was not always clear how consciously participants recognised the versatility of their interests. Participants varied in whether they experienced these benefits as incidental to the activity, or proactively used them with a goal in mind.

Joy, satisfaction and wellbeing

Participants reported a range of feelings derived from engaging in their focused interests. For some, the enjoyment came from the way it made them feel free or gave them a sense of achievement and mastery. Other people identified benefits of strategically engaging in their interests as a way of managing stress or protecting mental health.

Activities that cultivate or strengthen knowledge and skills

Some participants found that their focused interests aligned well with their cognitive strengths, e.g. "She said she was very good at being imaginative and that looking at the comic helps her to keep her imagination positive and productive". This had a mutually reinforcing effect, and enabled them to derive more positive feelings from activities. Being passionate about an interest meant participants were naturally more inclined to invest time, focus and attention in the activity, further strengthening their knowledge and skills. This was especially beneficial if the interest overlapped with their job, "Because teaching is a special interest, I am always trying to learn about ways to improve my teaching." ⁴⁴ (p.28).

Shared interests

Focused interests served social purposes for participants, who found them a helpful way to start conversations or make friends by connecting with like-minded people. This connection could be based on the shared passion *e.g.*, "I've met a lot of people who are academically at the same level as me and have common interests like all enjoy calculus." ⁴⁷ (p.4). For some, it was also a way to meet other autistic people and feel a sense of shared identity e.g., "...without my knowledge of the English".

language I would not have met several people who are important to me, and who have enriched my life as an autistic person, and helped me in gaining an identity." ⁵⁰ (p.315).

3) Embracing an autism identity

A key strength participants described was the meaning and significance of an autism diagnosis for one's sense of identity. For some it was about being able to reflect on past experiences in a new light, make sense of their difference, and move forward in life with more self-understanding and knowledge. For others it was about freedom of expression and pride in their difference, with some embracing roles as diversity champions. It is important to highlight the variety of positions held with regards to how strongly participants felt about an autistic identity, which was reflected in the spectrum of emotions expressed. Adults described shifting perceptions of autism identity over time, indicating that the impact of a diagnosis can vary at different developmental stages. Identity influenced participants' appraisal of their strengths and whether they connected these experiences with their autism. For those who also aligned with other identities, it was less likely that they would attribute as many strengths to being autistic.

Positive acceptance and self understanding

Much data addressed the impact of receiving an autism diagnosis. Some participants reflected on how this facilitated a journey of self-discovery as they began to learn more about autism and used this to make sense of their own experiences. This enabled them to reframe the way they perceived themselves and their strengths and weaknesses in a more compassionate way. For some, it felt empowering to use this increased self-understanding to assert more control over their lives. Some participants spoke about meeting other autistic people with whom they could identify similarities or shared experiences; the sense of community and belonging seemed to help them better understand and accept their own autistic identity, "You're accepted. You don't have to sort of hide anything." ⁴⁶ (p.363).

Joy of being my authentic self

There were feelings of relief, joy and freedom that followed formal diagnosis, "other than having my children, my diagnosis is the best thing that ever happened to me" ⁴⁰ (p38). For some participants it gave them a sense of permission to be their authentic selves, relieved from the pressure of hiding their personality or behaviours in order to fit in. Others described how embracing autism as part of their identity enabled them to develop confidence and pride in their individuality.

Centrality and meaningfulness of an autistic identity

Participants varied in how central autism was to their identity. Some participants reported it to be

the core of what otherwise felt like a fragmented sense of self; thus the label was significant in itself as well as providing a framework for conceptualising their strengths and abilities. Others preferred a broader or holistic view of themselves where autism was a key, but not necessarily whole, part of their identity and therefore perceived their strengths as a reflection of their uniqueness as a human being rather than autism per se. Intersectionality was also highlighted by participants. Some found it hard to separate their autism from other aspects of themselves but appreciated the way this complexity enriched their sense of identity or perspective on the world, "Having kind of these extra non-normative identities means that with people with those identities I can really connect and we totally understand each other." ⁴⁸ (p7). Some participants did not see autism as a significant part of their identity or were conscious of negative perceptions and associations with a deficit model of autism. This influenced the way they positioned themselves, for example some focussed on the practical function of diagnosis; "I don't classify it as a disability, but at the same time I still need help."

Championing diversity and social justice

It was recognised amongst some participants that being autistic often involved actively resisting dominant norms of behaviour. Participants were aware of stereotypes and assumptions about how autistic people appear and behave. As autistic individuals they were potentially in a position to challenge this, "I suppose that's the good thing about being an Aspie, you don't have to buy into that media image of what's fashionable." This was experienced as liberating and empowering from a personal and social justice perspective. For some participants who also identified with other minority social identities, being autistic reinforced their desire to reach out and help others who were 'different'; "Several reported being inspired to create blogs or online groups to not only make connections but also to support other LGBTQ+ autistic people." ⁴⁸ (p7). What came across strongly was a sense of comradery that being autistic gave them, which enhanced their empathy and drive to support others with stigmatised identities, "I tend to do very well with creating a safe space for people [who] for some reason are misfits." ⁴⁴ (p26).

Reflective abilities enhance resilience

Participants demonstrated strong reflective skills through their insightful statements within interviews. They also referred directly to their ability to draw upon and learn from past experiences, although individuals varied in terms of how much they recognised this as a strength in itself. Challenging experiences in the past heightened their self-awareness and understanding of their own needs, which taught them to adapt their skills to cope or thrive in new environments; "I've learned to try not to plan too many activities in the same week." ⁴¹ (p1420). Their experiences as autistic people also provided transferable skills and knowledge that enabled them to better manage the challenges associated with other aspects of their identity, "being autistic has made my gender identity issue a lot

easier than it otherwise would." ⁴⁸ (p5). Some also reflected on how their learning from positive or negative experiences could be shared to help other autistic people, as described by study authors; "their experience of being autistic helped them to adapt their teaching methods in a way which made sense to their students." ⁴⁴ (p27).

4) Context dependent strengths

An important theme discussed amongst some participants was how strengths, just like autistic identities, changed depending on time and context. Perceptions of autistic strengths evolved with time, and participant appraisal of these strengths depended on past experiences and the context in which they took place. There was also an awareness that social attitudes towards neurodiversity fluctuated in different contexts, which impacted on how openly participants could express themselves or advocate for their needs. Participants also recognised that attributes they usually saw as strengths could come with pros and cons depending on the situation and how others might react. Overall, different studies and participants discussed the impact of context with varying degrees of frustration or hope, but there was commonly awareness of a need to respond flexibly to the environment.

Time of diagnosis

Participants reflected on how the timing of diagnosis was significant; those who had been diagnosed earlier had longer to adjust, making sense of their autism and learning to develop their skills and strengths. For some this fostered confidence, contentment and a sense of comfort in being themselves; they could reflect on their experience of difference in a positive way and associate their strengths with being autistic, "This two sided me is a trait of Autism, and I feel my peers admire me because of it. when I'm in a relaxed environment the real me comes out, and I think they are taken....by that" ⁴⁹ (p260). Other participants were more hesitant about whether early diagnosis facilitated or hindered strengths, stating that the impact of negative attitudes towards autistic people may have restricted opportunities for skills development and positive growth of an autistic identity.

Can be an advantage and disadvantage

Participants were aware that certain traits or skills could sometimes be problematic when rigidly applied to some situations for example, when striving to maintain high standards of work despite time constraints. Honesty posed social challenges; some felt their honesty could disadvantage them because they were too open or trusting, or made them hypervigilant towards lies. Others recognised that their honesty might become negative if it was inappropriate to the context, "being honest with people, and open, therefore people like you, but metaphorically "dropp[ing] a brick when refusing to

express an appropriate white lie" (p129). For some, being autistic or having a particular skillset could be advantageous or disadvantageous depending on how it affected other people's expectations of them. For example, a skill could facilitate allowances with schoolwork but also increase pressure to perform well due to a reputation for being good at something.

Openness of culture and environment towards difference

Participants were able to utilise strengths when situated in environments that had a culture of openness towards neurodiversity and were receptive to difference, "my mentor asked me how having autism was helping me with my career..." This was particularly the case in workplace or academic settings, where colleagues or teachers proactively made accommodations or supported participants to make helpful adjustments; "When I had three final exams I could take them on three separate days and that helped me prioritize my study plans." ⁴⁷ (p.5). Having such flexibility improved performance by maximising strengths. For example, participants might be able to focus more time on an area of interest, pay more attention in class, or manage deadlines or pressures. Participants described confidence in being openly autistic, asserting their autonomy and drawing upon available support to balance their abilities and needs. Participants could assess their surroundings and respond accordingly. However, it was unclear whether participants explicitly recognise this as a skill, e.g., still putting on the public mask because socially, that's what you have to function" ⁵³ (p.1559), or if it was predominantly interpreted second hand by the authors.

Discussion

This thematic synthesis identified four main themes related to the lived experiences of strengths in autism. Two of these, wired differently and focused interests enrich life, represented more concrete abilities and attributes which led to practical or enjoyable gains in different roles and settings. The other two themes, embracing an autism identity and context dependent strengths, were related in a more abstract way to experiences as an autistic person, and how individual or wider contextual factors influenced their perception and expression of strengths.

Previous research regarding the cognitive talents associated with autism^{12,13} appeared to be validated to some extent in this review. Skills in memory, attention to detail, focus and visual perception featured strongly in participant experiences. Autistic people therefore identify with and experience these as strengths, in line with strengths identified via tests and observer report²⁶. Participants valued these attributes and worked hard to apply them to different roles or tasks and

optimise benefits. Participants were motivated to use their skills or experiences to help others or influence positive change. Positive self-evaluation of abilities appeared to be more strongly connected to concrete benefits and experiences they could relate to; external sources of validation such as compliments or formal awards/recognition were appreciated by some individuals but seemed less influential.

This similarly applied to focused interests, an area sometimes framed negatively as narrow or obsessive rather than a potentially adaptive strength¹⁷. The current findings instead highlighted the multiple functions of interests such as personal enjoyment, stress management and making social connections, and how individuals could sometimes channel these interests for different purposes. This speaks to the positive value of having focused interests: autistic people described a capacity to flexibly use interests to manage challenges, enhance wellbeing and cultivate useful skills.

The emphasis on channelling skills and interests to thrive also echoes previous findings with family, carers and employers about the importance of adaptive strengths^{16,27}. This indicates that there can be good alignment between informant perspective and self-reported strengths in autism, despite some of the uncertainty raised by previous research³⁰.

A key finding was how autistic strengths were about not just participant abilities and traits, but who they were, both as individuals and a collective group. This represents a more abstract interpretation of autistic strengths. The benefits of a diagnosis included being able to improve understanding of abilities and needs and to make sense of past experiences, including reframing difficulties more compassionately. The label therefore seemed to be about facilitating self-acceptance, and providing a framework for further exploration of identity. For those who strongly identified as being autistic, it brought opportunities including to connect with communities with shared experiences or interests, autism related knowledge and support resources, and permission to be their authentic self without self-judgement. The latter point is particularly powerful in the context of neurodiversity: participants varied in how much assimilating they did in different contexts e.g. amongst peers or colleagues. This highlighted the privilege associated with a neurotypical status and the pressures of belonging to a minority group³⁷. Although for some, this tapped into another area of strength around resilience: being an autistic advocate or champion by resisting stereotypes, asserting ones needs, and openly challenging attitudes or norms. There was a sense of empowerment in being able to appreciate and express their individuality, as well as representing and contributing in their own way to a wider social justice movement. For some, the strength of being an autistic person was also how it helped them to embrace other aspects of their identity and reflect on their beliefs and principles e.g. fairness, diversity, rejecting medical models of disability. This enabled them to recognise or forge connections

with others based on shared values, rather than the diagnostic label alone. This highlights the significance of social identity and how autism identification may be particularly rooted in psychological connection to the group³⁸ rather than necessarily finding concrete similarities or socialising together- something that was rarely discussed in our sample of studies.

Identity was especially relevant because of its connection to appraisal of strengths, and the extent to which it was attributed to autism. Participants who described autism as central to their identity seemed to more strongly make the connection between being autistic and positive experiences. There was also variation in what counted as autistic strengths. Those who expressed more ambivalence seemed less certain about whether their strengths and experiences were to do with being autistic, or focussed more on the function of the diagnosis (e.g. receiving support). The findings highlight the nuances involved in defining strengths in autism and how key moderating factors such as time and social context influenced the perception, development or function of autistic attributes/abilities. It also echoes previous findings regarding the growing awareness and relevance of understanding autism in terms of difference and identity^{20,21}. The findings questions the role others and the wider community have around facilitating or hindering both the development and recognition of strengths in autism, especially in a neurotypically dominant world. The studies discussed the significance of both an inclusive culture and having key individuals in their network that were receptive to difference, but also curious about their individual abilities, character traits and what works best for them.

This review comprised of a small sample of participants, so the findings should be interpreted cautiously in terms of how transferable they are to other autistic people, especially for such a diverse population. The studies' aims also varied in terms of how much focus there was on strengths and context of experiences, such as studies which directly asked about workplace abilities, which naturally skewed the amount and type of relevant data. Studies varied widely in terms of reporting of first-hand accounts in their results, the availability of which may have valuably contributed to the current review. There are also missing voices from key subgroups that are important to acknowledge, such as autistic people with social communication or cognitive difficulties that may have excluded them from participating in the original studies. Understanding their self-identified strengths is important given the increased difficulties around self-reporting and mental health issues associated with autism and learning disabilities³⁹. The majority of the studies also involved young-middle aged adults; more research with children and older adults could offer useful insight regarding strengths in autism from a lifespan and developmental perspective.

From a self-reflexivity angle, it is important to acknowledge the primary author's position as a non-autistic person and how this affects analysis of primary and secondary data and construct development. As initially stated, this may not necessarily invalidate current findings but invites the possibility of alternative interpretations and conclusions especially from the lens of an autistic person. It is also worth emphasising that this review, whilst focussed on strengths, does not aim to overlook the challenges that autistic people in reality can face in everyday life, but hopes to provide a more balanced perspective.

The findings may contribute to the emerging literature about strengths in autism, drawing particular attention to the role of identity, subjective experiences and personal meanings. Amidst the growing interest around strength based interventions in autism¹¹, a learning point from this study may be around being mindful to not reinforce stereotypes about autistic 'talents' but guiding individuals to understand different types of strengths that are commonly identified in autism e.g. benefits of focused interests and supporting them to curiously explore relevant experiences. This may be particularly pertinent for newly identified/diagnosed autistic individuals who may benefit from being supported to better understand their particular profile of strengths and challenges. Our findings also indicates that autistic identity and perception of strengths changes with time; perhaps it is helpful to encourage longer term skills and opportunities that enable individuals to reflect on experiences and connect to their own strengths/needs. Additionally, these findings may also offer helpful ideas beyond the clinical context, particularly within a work context. Our findings could encourage employers and supervisors to consider ways to support autistic employees to capitalise on their strengths in a way that enables them to thrive at work. In sum, this systematic review and metasynthesis provides robust qualitative findings on the lived experience of strengths in autistic individuals, which should be built upon in future research and clinical practice.

Author Contribution Statement. Author 1 - Conceptualisation; Methodology; Analysis; Writing - Original Draft. Author 2 - Conceptualisation; Methodology; Analysis; Writing - Review & Editing. Author Disclosure Statement. No conflicts of interest to declare.

References

- American Psychiatric Association: Diagnostic and Statistical Manual of Mental Disorders, 5th ed.
 Arlington (Virginia), American Psychiatric Publishing, 2013.
- Baron-Cohen S. Mindblindness: An Essay on Autism and Theory of Mind. Cambridge, MA: MIT Press; 1995.
- 3. Chevallier C, Kohls G, Troiani V, Brodkin ES, Schultz RT. The social motivation theory of autism.

 *Trends Cogn Sci. 2012;16(4):231-239. doi:10.1016/j.tics.2012.02.007
- Hill EL. Executive dysfunction in autism. *Trends Cogn Sci.* 2004;8(1):26-32.
 doi:10.1016/j.tics.2003.11.003
- Hirvikoski T, Mittendorfer-Rutz E, Boman M, Larsson H, Lichtenstein P, Bölte S. Premature mortality in autism spectrum disorder. *Br J Psychiatry*. 2016;208(3):232-238. doi:10.1192/bjp.bp.114.160192
- 6. Lai MC, Kassee C, Besney R, et al. Prevalence of co-occurring mental health diagnoses in the autism population: a systematic review and meta-analysis. Lancet Psychiatry. 2019;6(10):819-829. doi:10.1016/S2215-0366(19)30289-5
- Taylor JL, Mailick MR. A longitudinal examination of 10-year change in vocational and educational
 activities for adults with autism spectrum disorders. *Dev Psychol*. 2014;50(3):699-708.
 doi:10.1037/a0034297
- van Heijst BF, Geurts HM. Quality of life in autism across the lifespan: a meta-analysis. Autism.
 2015;19(2):158-167. doi:10.1177/1362361313517053
- 9. Singer J. Neurodiversity: The birth of an idea. 2017.
- 10. Radulski EM. Conceptualising autistic masking, camouflaging, and neurotypical privilege: Towards a minority group model of neurodiversity. *Human Development*. 2022 Mar 21;66(2):113-27.
- 11. Huntley MK, Black MH, Jones M, Falkmer M, Lee EA, Tan T, Picen T, Thompson M, New M, Heasman B, Smith E. Action briefing: Strengths-based approaches. 2019. Available at

- https://www.autistica.org.uk/downloads/files/FINAL-Strengths-Based-Approaches-ActionBriefing.pdf. (Accessed 20/08/2023)
- 12. Meilleur AA, Jelenic P, Mottron L. Prevalence of clinically and empirically defined talents and strengths in autism. *J Autism Dev Disord*. 2015;45(5):1354-1367. doi:10.1007/s10803-014-2296-2
- 13. Baron-Cohen, S., Ashwin, E., Ashwin, C., Tavassoli, T., & Chakrabarti, B. (2009). Talent in autism: hyper-systemizing, hyper-attention to detail and sensory hypersensitivity. *Philosophical Transactions of the Royal Society B: Biological Sciences*, 364(1522), 1377-1383. https://doi.org/10.1098/rstb.2008.0337
- Mottron L, Dawson M, Soulières I, Hubert B, Burack J. Enhanced perceptual functioning in autism: an update, and eight principles of autistic perception. *J Autism Dev Disord*.
 2006;36(1):27-43. doi:10.1007/s10803-005-0040-7
- Russell G, Kapp SK, Elliott D, Elphick C, Gwernan-Jones R, Owens C. Mapping the Autistic
 Advantage from the Accounts of Adults Diagnosed with Autism: A Qualitative Study. *Autism Adulthood*. 2019;1(2):124-133. doi:10.1089/aut.2018.0035
- 16. Devenish BD, Mantilla A, Bowe SJ, Grundy EA, Rinehart NJ. Can common strengths be identified in autistic young people? A systematic review and meta-analysis. *Research in Autism Spectrum Disorders*. 2022 Oct 1;98:102025.
- 17. Happé F, Frith U. The beautiful otherness of the autistic mind. *Philos Trans R Soc Lond B Biol Sci*. 2009;364(1522):1346-1350. doi:10.1098/rstb.2009.0009
- Alvares GA, Bebbington K, Cleary D, et al. The misnomer of 'high functioning autism': Intelligence is an imprecise predictor of functional abilities at diagnosis. *Autism*. 2020;24(1):221-232. doi:10.1177/1362361319852831
- 19. Bottema-Beutel K, Park H, Kim SY. Commentary on Social Skills Training Curricula for Individuals with ASD: Social Interaction, Authenticity, and Stigma. *J Autism Dev Disord*. 2018;48(3):953-964. doi:10.1007/s10803-017-3400-1

- Kenny L, Hattersley C, Molins B, Buckley C, Povey C, Pellicano E. Which terms should be used to describe autism? Perspectives from the UK autism community. *Autism*. 2016;20(4):442-462. doi:10.1177/1362361315588200
- Botha M, Hanlon J, Williams GL. Does Language Matter? Identity-First Versus Person-First
 Language Use in Autism Research: A Response to Vivanti. *J Autism Dev Disord*. 2023;53(2):870-878. doi:10.1007/s10803-020-04858-w
- Bury SM, Jellett R, Haschek A, Wenzel M, Hedley D, Spoor JR. Understanding language preference: Autism knowledge, experience of stigma and autism identity. *Autism*.
 2023;27(6):1588-1600. doi:10.1177/13623613221142383
- 23. Warren N, Eatchel B, Kirby AV, Diener M, Wright C, D'Astous V. Parent-identified strengths of autistic youth. *Autism*. 2021;25(1):79-89. doi:10.1177/1362361320945556
- 24. Mahdi S, Viljoen M, Yee T, et al. An international qualitative study of functioning in autism spectrum disorder using the World Health Organization international classification of functioning, disability and health framework. *Autism Res.* 2018;11(3):463-475. doi:10.1002/aur.1905
- Scott M, Jacob A, Hendrie D, et al. Employers' perception of the costs and the benefits of hiring individuals with autism spectrum disorder in open employment in Australia. *PLoS One*.
 2017;12(5):e0177607. Published 2017 May 18. doi:10.1371/journal.pone.0177607
- 26. de Schipper E, Mahdi S, de Vries P, et al. Functioning and disability in autism spectrum disorder:

 A worldwide survey of experts. *Autism Res*. 2016;9(9):959-969. doi:10.1002/aur.1592
- 27. Black MH, Mahdi S, Milbourn B, et al. Perspectives of key stakeholders on employment of autistic adults across the United states, Australia, and Sweden. *Autism Res.* 2019;12(11):1648-1662. doi:10.1002/aur.2167
- 28. Frith U, Happé F. Theory of mind and self-consciousness: What is it like to be autistic?. *Mind & language*. 1999 Mar;14(1):82-9. doi.org/10.1111/1468-0017.00100

- Gillespie-Lynch K, Kapp SK, Brooks PJ, Pickens J, Schwartzman B. Whose Expertise Is It? Evidence for Autistic Adults as Critical Autism Experts. *Front Psychol*. 2017;8:438. doi:10.3389/fpsyg.2017.00438
- 30. Clark M, Adams D. The self-identified positive attributes and favourite activities of children on the autism spectrum. *Research in Autism Spectrum Disorders*. 2020 Apr 1;72:101512.
- 31. Kirchner J, Ruch W, Dziobek I. Brief Report: Character Strengths in Adults with Autism Spectrum

 Disorder Without Intellectual Impairment. *J Autism Dev Disord*. 2016;46(10):3330-3337.

 doi:10.1007/s10803-016-2865-7
- 32. Tong A, Flemming K, McInnes E, Oliver S, Craig J. Enhancing transparency in reporting the synthesis of qualitative research: ENTREQ. *BMC Med Res Methodol*. 2012;12:181. Published 2012 Nov 27. doi:10.1186/1471-2288-12-181
- 33. Thomas J, Harden A. Methods for the thematic synthesis of qualitative research in systematic reviews. *BMC Med Res Methodol*. 2008;8:45. Published 2008 Jul 10. doi:10.1186/1471-2288-8-45
- 34. Spencer L, Ritchie J, Lewis J, Dillon L. Quality in qualitative evaluation: a framework for assessing research evidence. National Centre for Social Research and Cabinet Office. 2004. Available at https://www.cebma.org/wp-content/uploads/Spencer-Quality-in-qualitative-evaluation.pdf (accessed 20/08/2023)
- 35. Jones SC. Autistics working in academia: What are the barriers and facilitators?. *Autism*. 2023;27(3):822-831. doi:10.1177/13623613221118158
- 36. Atherton G, Lummis B, Day SX, Cross L. What am I thinking? Perspective-taking from the perspective of adolescents with autism. Autism. 2019;23(5):1186-1200.
 doi:10.1177/1362361318793409
- 37. Botha M, Frost DM. Extending the minority stress model to understand mental health problems experienced by the autistic population. *Society and mental health*. 2020 Mar;10(1):20-34.
- 38. Cooper K, Smith LG, Russell A. Social identity, self-esteem, and mental health in autism. *European Journal of Social Psychology*. 2017;47(7):844–854. doi: 10.1002/ejsp.2297.

- 39. Bakken TL, Helverschou SB, Høidal SH, Martinsen H. Mental illness with intellectual disabilities and autism spectrum disorders. *Psychiatric and behavioral disorders in intellectual and developmental disabilities*. 2016 Mar 3:119-28.
- 40. Arnold SRC, Huang Y, Hwang YIJ, Richdale AL, Trollor JN, Lawson LP. "The Single Most Important Thing That Has Happened to Me in My Life": Development of the Impact of Diagnosis Scale-Preliminary Revision. *Autism Adulthood*. 2020;2(1):34-41. doi:10.1089/aut.2019.0059
- Bertilsdotter Rosqvist H, Hultman L, Hallqvist J. Knowing and accepting oneself: Exploring possibilities of self-awareness among working autistic young adults. *Autism*. 2023;27(5):1417-1425. doi:10.1177/13623613221137428
- 42. Cohen SR, Joseph K, Levinson S, Blacher J, Eisenhower A. "My Autism Is My Own": Autistic Identity and Intersectionality in the School Context. *Autism Adulthood*. 2022;4(4):315-327. doi:10.1089/aut.2021.0087
- 43. Cooper R, Cooper K, Russell AJ, Smith LGE. "I'm Proud to be a Little Bit Different": The Effects of Autistic Individuals' Perceptions of Autism and Autism Social Identity on Their Collective Selfesteem. *J Autism Dev Disord*. 2021;51(2):704-714. doi:10.1007/s10803-020-04575-4
- 44. Cope R, Remington A. The Strengths and Abilities of Autistic People in the Workplace. *Autism Adulthood*. 2022;4(1):22-31. doi:10.1089/aut.2021.0037
- 45. Hickey A, Crabtree J, Stott J. 'Suddenly the first fifty years of my life made sense': Experiences of older people with autism. *Autism*. 2018;22(3):357-367. doi:10.1177/1362361316680914
- 46. Madaus J, Reis S, Gelbar N, Delgado J, Cascio A. Perceptions of factors that facilitate and impede learning among twice-exceptional college students with autism spectrum disorder. *Neurobiol Learn Mem.* 2022;193:107627. doi:10.1016/j.nlm.2022.107627
- 47. Maroney MR, Horne SG. "Tuned into a different channel": Autistic transgender adults' experiences of intersectional stigma. *J Couns Psychol*. 2022;69(6):761-774. doi:10.1037/cou0000639

- 48. Mogensen L, Mason J. The meaning of a label for teenagers negotiating identity: experiences with autism spectrum disorder. *Sociol Health Illn*. 2015;37(2):255-269. doi:10.1111/1467-9566.12208
- 49. Lilley R, Lawson W, Hall G, Mahony J, Clapham H, Heyworth M, Arnold SR, Trollor JN, Yudell M, Pellicano E. 'A way to be me': Autobiographical reflections of autistic adults diagnosed in mid-to-late adulthood. *Autism*. 2022 Aug;26(6):1395-408.
- Nolte K, Fletcher-Watson S, Sorace A, Stanfield A, Digard BG. Perspectives and Experiences of Autistic Multilingual Adults: A Qualitative Analysis. *Autism Adulthood*. 2021;3(4):310-319. doi:10.1089/aut.2020.0067
- 51. North G. Reconceptualising 'reasonable adjustments' for the successful employment of autistic women. *Disability & Society*. 2023 Jul 3;38(6):944-62.
- 52. Raymaker DM, Sharer M, Maslak J, et al. "[I] don't wanna just be like a cog in the machine":

 Narratives of autism and skilled employment. *Autism*. 2023;27(1):65-75.

 doi:10.1177/13623613221080813
- 53. Santhanam SP, Hewitt LE. Perspectives of adults with autism on social communication intervention. *Communication Disorders Quarterly*. 2021 May;42(3):156-65.
- 54. Seers K, Hogg RC. 'You don't look autistic': A qualitative exploration of women's experiences of being the 'autistic other'. *Autism*. 2021;25(6):1553-1564. doi:10.1177/1362361321993722
- 55. Shaw SCK, Doherty M, Anderson JL. The experiences of autistic medical students: A phenomenological study. *Med Educ*. 2023;57(10):971-979. doi:10.1111/medu.15119
- Sosnowy C, Silverman C, Shattuck P, Garfield T. Setbacks and Successes: How Young Adults on the Autism Spectrum Seek Friendship. *Autism Adulthood*. 2019;1(1):44-51. doi:10.1089/aut.2018.0009
- 57. Sullivan J. 'Pioneers of professional frontiers': the experiences of autistic students and professional work based learning. *Disability & Society*. 2023; Aug 9;38(7):1209-30.

- 58. Teti M, Cheak-Zamora N, Lolli B, Maurer-Batjer A. Reframing Autism: Young Adults With Autism Share Their Strengths Through Photo-Stories. *J Pediatr Nurs*. 2016;31(6):619-629. doi:10.1016/j.pedn.2016.07.002
- 59. Tierney S, Burns J, Kilbey E. Looking behind the mask: Social coping strategies of girls on the autistic spectrum. *Research in Autism Spectrum Disorders*. 2016 Mar 1;23:73-83.
- 60. Vinayagam R, Tanner C, Harley D, Karatella S, Brooker K. "My Autism is Linked with Everything": at the Crossroads of Autism and Diabetes. *J Autism Dev Disord*. Published online July 22, 2023. doi:10.1007/s10803-023-06033-3
- Waisman-Nitzan M, Gal E, Schreuer N. "It's like a ramp for a person in a wheelchair": Workplace accessibility for employees with autism. *Res Dev Disabil*. 2021;114:103959.
 doi:10.1016/j.ridd.2021.103959

Table 1.Included studies and descriptions

Author	Year	Title	Journal	Country	Setting	Participant group	Number of	Approach	Data collection	Aims of paper
							participants		method	
Arnold et	2020	"The Single Most Important Thing	Autism in	Australia	Community	Adolescents &	92	Thematic	Questionnaire-	To develop a revision of the Impact of Diagnosis
al. 40		That Has Happened to Me in My Life":	Adulthood			adults (15-71, mean		analysis	2 open ended	Scale
		Development of the Impact of				age 36), mixed			questions	
		Diagnosis Scale- Preliminary Revision				gender				
Atherton et	2019	What am I thinking- perspective	Autism	USA	School	Adolescents (13–17,	12	IPA	Interviews	To explore the experiences of individuals with
al. 36		taking				mean age 14.4),			using Strange	ASD in relation to Theory of Mind
						mixed gender			Stories	
Bertilsdotter	2023	Knowing and accepting oneself:	Autism	Sweden	Community	Adults (20's-40's),	4	Inductive	Interviews	To explore young autistic adults' own ways of
Rosqvist et		Exploring possibilities of self-				mixed gender		content		trying to understand their functionality and who
al. 41		awareness among working autistic						analysis		they are in working and private life contexts
		young adults								
Clark &	2020	The self-identified positive attributes	Research in	Australia	Community	Children, (age not	83	Content	Online	To explore self perceived positive qualities in
Adams. 30		and favourite activities of	Autism			reported), mixed		analysis	questionnaire	children on the spectrum
		children on the autism spectrum	Spectrum			gender				
			Disorders							
Cohen et	2022	"My Autism Is My Own": Autistic	Autism in	USA	School	Adolescents &	10	Critical	Interviews	To examine autistic perspectives of how school
al. 42		Identity and Intersectionality in the	Adulthood			adults (15-25, mean		constructivist		experiences shape autistic identity and other
		School Context				age 20.6), mixed		/grounded		intersecting identities
						gender		theory		
Cooper et	2020	"I'm proud to be a little bit different":	Journal of	UK	University	Adults, mixed	15	Thematic	Focus groups	To explore how positively they perceived the
al. ⁴³		The effects of autistic individuals'	Autism and		students &	gender (mean age		analysis		attributes of autism.
		perceptions of autism and autism	Developmen		adult	18.67), mixed				
		social identity on their collective self-	tal Disorders		community	gender				
		esteem			social group					
Cope &	2022	The strengths and abilities of autistic	Autism in	UK	Workplace	Adults (19-67, mean	82	Thematic	Questionnaire	To find out what strengths autistic people have in
Remington. ⁴		people in the workplace	Adulthood			age 40), mixed		analysis		the workplace
0						gender				

Hickey et	2018	Suddenly the first fifty years of my life	Autism	UK	Community	Adults age 50+ (51-	13	Thematic	Interviews	To explore the lived experience of autism in later
al. 45		makes sense				71, mean age 60.4),		analysis		adulthood
						mixed gender				
Jones. 35	2023	Autistics working in academia:	Autism	Mixed	Academic	Adults (unspecified	37	Thematic	Written	To explore the perspectives and experiences of
		What are the barriers and			workplace	ages), mixed gender		analysis	reflections	autistic individuals working in academia on the
		facilitators?								benefits and barriers to pursuing a career in the
										academy
Lilley et al. 49	2022	'A way to be me': Autobiographical	Autism	Australia	Community	Adults born pre	26	Thematic	Interviews	To offer insight into lived experiences of autistic
zmey et am		reflections of autistic adults diagnosed				1975 (ages 45-70,		analysis	(online, email	adults diagnosed mid-late adulthood
		in mid-to-late adulthood				mean age 52.89)			& face to face)	
						diagnosed 35+,				
						mixed gender				
Madaus et	2022	Perceptions of factors that facilitate	Neurobiolog	USA	University	Young adults	40	Thematic	Interviews	To explore the personal perceptions and
al. 46		and impede learning among twice-	y of Learning			(unspecified ages),		analysis		institutional factors that facilitated academic
ai.		exceptional college students with	and Memory			mixed gender				success, as well as challenges
		autism spectrum disorder								
Maroney &	2022	"Tuned into a different channel":	Journal of	Canada	Community	Young adults (18-29,	13	Critical-	Interviews	To explore the experiences of being TNG and
Horne. ⁴⁷		Autistic transgender adults'	Counseling			mean age 23.38),		constructivist		autistic
nome.		experiences of intersectional stigma	Psychology			mixed gender		/ grounded		
								theory		
Mogensen &	2015	The meaning of a label for teenagers	Sociology of	Australia	Community	Adolescents (13-19,	5	Thematic	Interviews,	To explore the experiences of having a diagnosis in
Mason. ⁴⁸		negotiating identity: experiences with	Health &			mean age 16.2),		analysis	emails	young people
Widson.		autism spectrum disorder	Illness			mixed gender				
Nolte et	2021	Perspectives and experiences of	Autism in	UK	Community	Adults (18-64, mean	5.1	Thematic	Questionnaire	To understand the experiences of autistic
	2021	autistic multilingual adults: A	Adulthood	OK	Community	age 32.7), mixed	34	analysis	Questionnaire	multilingual adults
al. ⁵⁰		qualitative analysis	Additiiood			gender		anaiysis		mutumguai audits
51	2021	Reconceptualising 'reasonable	Disability &	UK	Workplace	Adult females (age	15	Thematic	Focus groups +	To study the employment experiences of autistic
North. ⁵¹	2021	adjustments' for the successful	,	UK	Workplace		15		individual	, , , , ,
		•	Society			not reported)		analysis		women
	2022	employment of autistic women		116.4		A L II. (24.65	45		interviews	(4) T. J
Raymaker et	2022	"[I] don't wanna just be like a cog in	Autism	USA	Workplace	Adults (21-65, mean	45	Thematic	interviews	(1) To learn what successful
al. ⁵²		the machine": Narratives of autism				age 36), mixed		analysis		skilled employment looks like for autistic
		and skilled employment				gender				employees (2) To understand barriers and
										facilitators of successful employment, and (3)

										consider what outcomes might be important to
										assess success in skilled employment.
Russell. ¹⁵	2019	Mapping the Autistic Advantage from	Autism in	UK	Community	Adults (age 21-65,	28	Thematic	Interviews	To examine first person accounts regarding
		the Accounts of Adults Diagnosed	Adulthood			mean age 38.5),		analysis		abilities autistic adults report as advantageous
		with Autism: A Qualitative Study				mixed gender				
Santhanam	2020	Perspectives of adults with Autism on	Communicat	USA	Support	Adults (18-28, mean	8	IPA	Interviews	To explore experiences related to social
& Lewitt. ⁵³		social communication intervention	ion		services	age 21.7), mixed				communication and intervention for social
			Disorders			gender				communication difficulties
			Quarterly							
Seers &	2021	You don't look autistic- A qualitative	Autism	Australia	Community	Adult females, 'High	8	Thematic	interviews	To understand the impact of social & gender
Hogg. ⁵⁴		exploration of women's experiences				functioning' females		analysis		expectations on women's presentation &
55		of being the 'autistic other'				(age 24-53, mean				experience of ASC
						age 39.12)				
Shaw et	2019	The experiences of autistic medical	Medical	UK	University/wor	Young adults (22-27,	5	IPA	Interviews	To explore the experiences of autistic medical
al. ⁵⁵		students: A phenomenological study	Education		kplace	mean age 25),				students
						mixed gender				
Sosnowy et	2019	Setbacks and successes: how young	Autism in	USA	Community	Young adults (18-29,	20	Inductive	Interviews	To describe the perspectives of young adults on
al. ⁵⁶		adults on the autism spectrum seek	Adulthood			mean age 23.5),		approach/		the autism spectrum about how they seek and
ui.		friendship				mixed gender		Grounded		make friends
								Theory		
Sullivan. 57	2021	'Pioneers of professional frontiers':	Disability &	UK	University	Undergraduate	5	IPA	interviews	To examine how autistic students experience a
James		the experiences of autistic students	Society		work based	students, age not			(Face to Face,	diverse range of work-based placements
		and professional work based learning			learning	reported, gender			email or skype)	
						not reported				
Teti et al. ⁵⁸	2016	Reframing Autism: Young Adults with	Journal of	USA	Community	Young adults (18-23,	11	Thematic	Photovoice-	To explore strengths & resilience from
reti et ui.		autism share their strengths through	Pediatric			mean age 20),		analysis	group	perspectives of young adults with autism
		photo-stories	Nursing			mixed gender			discussion +	
									individual	
									interviews	
Tierney et	2016	Looking behind the mask: social	Research in	UK	School	Adolescent girls (13-	10	IPA	Interviews	To explore whether adolescent females with ASO
al. ⁵⁹		coping strategies of girls on the	Autism			16, mean age 14.4)				use social management strategies
···		autistic spectrum	Spectrum							
			Disorders							

Vinayagam	2023	"My Autism is Linked with	Journal of	Australia	Community/	Adults (21-70, mean 8		Thematic	Survey &	To explore the experience of Autistic adults self-
et al. ⁶⁰		Everything": at the Crossroads of	Autism and		healthcare	age 44.6), mixed		analysis	interviews	managing diabetes
		Autism and Diabetes	Developmen			gender				
			tal Disorders							
Waisman-	2021	"It's like a ramp for a person in a	Research in	Israel	Workplace	Adults (age 22-41, 19	9	Thematic	Interviews	To explore accessibility of a competitive work
Nitzan et		wheelchair": Workplace accessibility	Developmen			mean age 26.8),		Analysis		environment according to perceptions of adults
al. ⁶¹		for employees with autism	tal			mixed gender				with ASD
			Disabilities							

Supplementary table

Sample data and quotes illustrating themes and subthemes. Quotes from participants represented in italics, text by the author is in standard format.

Theme	Subtheme	Sample data
Wired	Rich inner world	"Sometimes I can really picture things really good in my head. And so I just thought about it
lifferently		and I did my best to get it all right, and then when I got it, I decided the answer, what I
		thought." ^h
		"I pictured not only the hot summer day but just it's a bright sunny day and you're in the
		apple orchard. And you hear a lot of sounds, maybe some birds chirping or something, or
		some apples or something dropping on the ground. So it's pretty cool." ^h
		"If you watch a film the colour goes green, red, light blue, yellow . The first thing your eye wil
		be drawn to is the colour and it just continues, it just walks you through the film and
		continues .It's beautiful". ^c
	Memory, attention	"Because with attention to detail, obviously outside of the house, in work, I've managed to
	to detail and focus	sort of win customer service awards. And without my attention you know, without having the
	can help achieve	attention-to-detail ability I wouldn't have been able to obviously spot the things that
	more	obviously other people wouldn't.". ^c
		"I'm so intense. I'm so thorough. I often do way beyond expectations at work" . ^m
		"A woman named R tells me I have special visual abilities, that I see everything If they are
		looking for something, they may ask me, as I have probably already seen it.". $^{\rm m}$
		"I think empathy and attention to detail and enjoying the structured work worked in my favour". $^{\rm g}$
		One participant explained how this helped them to proof-read more accurately than NT
		colleagues as they were good at "picking up errors that others miss e.g. in a book editing,
		one half came out perfect, the other (which I didn't handle) full of errors" (former sub-editor). q
		Several participants noted that superior pattern recognition skills gave them a similar
		advantage: "[I can] see patterns in data to come up with better systems" (lecturer). q
		The academic environment offers an opportunity to exercise many of the cognitive strength
		of autistic people, including our intense focus, capacity to recognise patterns and ability to
		generate novel solutions. As Olivia reflected, 'I feel that I am finally using my brain properly'

Recognition of 'superpowers'/ abilities

John saying that he could 'outthink' most of his peers at high school and that his patternmatching abilities sometimes make him 'actually feel a bit like the character that Dustin Hoffman was' in the 1988 film Rain Man. ^j

"From the people I've chosen to share [my diagnosis] with it's usually a positive response . . . like they know me and from seeing how I work with kids [with disabilities] they're like, oh that would explain why you're able to really zero in on that and you have this good rapport with that kid who's hard to reach, and I'm like oh yeah I guess so [laughs] using my superpowers [laughs].". O

Sarah mentioned that she "won an award for my post-grad studies because I came top in the State". ^j

He had won a prestigious customer service award and commented on his own abilities, "I am able to notice the colours and everything on the shelf"." $^{\rm C}$

Strengths related to creativity and 'thinking outside the box' were also commonly reported amongst those in caring professions: "[Autistic people] are famous for our ability to think outside the box. When it comes to solving conflicts this enables us to come up with often unconventional ideas ..." (childcare worker). ^q

A few respondents claimed to possess learning advantages that went above and beyond the norm. These included hyperlexia (five participants), hyperfocus (two participants), and eidetic memory (one participant). ^q

Beliefs and values held strongly

"One of the most prominent characteristics of people with ASD is that once we have accommodations, our work ethic is very high.". $^{\rm m}$

"Perseverance—not giving up. Like I'd much rather have worked on my maths homework than go for a party. It was my 18th party...I stayed at school as long as I could 'til the school closed at 6 o'clock that night so I could get my maths homework done. It was more important than having a party.". ^C

Honesty, reliability (when anxiety did not intrude), integrity, and a hatred of lies were all attributed to autism: *an "extreme sense of justice"*.' ^c

Some articulated a strong belief in self-reliance, urging others with ASD to exhibit resilience and courage in the face of adversity. $^{\rm k}$

For others, the reduced social emphasis led to greater efficiency: "Disinterest in small talk & general self-promotion leads to greater productivity" (Administrator).- q

In many examples, the participants had noticed something which they believed was wrong and had spoken out where their NT colleagues had not. This led to various changes being implemented that improved outcomes for people they were working with. One participant

		explained: "I have a strong sense of right and wrong and if I am asked to cover up something untoward I refuse" (police officer). $^{\rm q}$
	Passionate, empathetic and sociable in my own	"I have a very good memory so I can \dots relate that to a situation the other person's in \dots I sort of used that memory and just associated with what she knew.". n
	way	"I have the capacity to love stuff, to be interested in stuff, to be intense in stuff". $^{\rm j}$
		"But I realise I am very passionate and I tend to go on about these things a bit." f
		"People say that people with AS aren't empathetic I think that's so wrong I'm really actually quite good at putting myself into other peoples' situations.". ⁿ
		Participants described how they naturally absorbed a lot of information and had consciously turned their observations towards peer interactions. <i>Gemma: I [would] be quiet and listen and record that for next time."</i> . ⁿ
		A good friend or person to be around was the theme with the most responses which demonstrates a desire to engage with other children"I am friendly, I am a good person, I have a big heart, I am kind, I care about people".
		Participants also noted that being autistic gave them increased empathy when working with other autistic or disabled people, or others who were deemed somehow 'different' compared to societal norms. ^q
		For example, one participant, a university lecturer, explained how they enjoyed the repetitive nature of teaching the same course every year: "Colleagues do not believe that I am v happy to still teach the first year intro course after 15 years doing it" (university lecturer). q
Focused interests enrich life	Joy, satisfaction and wellbeing	"Sometimes I quite like to do ironing or hand sewing as a way of just doing something a bit repetitive. When I'm a bit stressed out". f
		She said that her interests – "Do crafts, be an artist, read books, watch TV, play the compute and stuff" also made her feel good - "free" and "creative". b
		The solitary pursuit of interests allowed for immersion in particular activities and experiences of mastery and achievement. It also offered participants a place of safety, which was in contrast with their anxiety-laden experiences of trying to engage with the social world: "I'm interested in machines. I can master them, if you like. I can understand them. I can relate to them". f
		However, there was talk of a real benefit, including experiencing "joy" (P3, P9, P12) and "flow" (P11, P18, P24), when participants felt they were in control. c

"I am being paid to conduct research that I am personally and professionally enamoured with. Call it a special interest or weird obsession or whatever other people may label it but for me there are some days I cannot believe I am as lucky as I am to be in the position I am in. (Flora)" u

Importantly, many stated that language learning was one of their special interests, thus facilitating their learning experience: "I find it fascinating and very fun. I do not learn languages for their usefulness, but for the joy I get from learning them". [P1152] ^p

Activities that cultivate or strengthen

knowledge and skills

"In the course of my education, anatomy, physiology, pathology, and symptom pattern recognition . . . became a special interest. This meant I could focus my autistic superpowers on succeeding at work." (employee, nursing). O

She said she was very good at being imaginative and that looking at the comic helps her to keep her imagination positive and productive. ^b

Zach shared a picture of him cooking and explained that the task was well matched to how he thought: "I would say that I can make brownies, cookies. The way my brain is just wired, I'm good at cooking just because [I can follow the recipes]. It's just how I am". b

For those fortunate enough to be in research or teaching areas aligned with their interests, academia provides a rare environment where autistic special interests are seen as valuable expertise (rather than 'weird obsessions')- ^u

Levi described the link between his reading skills and his content area interest, explaining "I feel like a lot of people struggle with doing the reading for any given course, that has been easy for me because that's been interesting to me."- $^{\rm v}$

[Multilingualism]...while also widening their horizon by learning more about autism through online forums that were not in their native language. ^p

Shared interests

"I perhaps should say my interest in [vehicle] registrations means that I've got a network of friends throughout the country and beyond. And I've sort of regularly, you know – we don't meet up very often but we're regularly emailing each other.". ^f

For example, LC, who demonstrated an art talent, explained how he used his painting to his advantage in social situations: "I show them my art, and it kind of 'breaks the ice'."

"What I love about my job, weirdly enough, is the connection with people. I love sharing a special interest with someone and watching the lightbulb go off as they 'get it' and appreciate how fascinating it is. Shared fascination is like shared awe: a singular, bonding experience" (Saskia) ^u

For one young woman whose main interests were video gaming and cosplay (i.e., dressing as characters from video games and comic books and attending conventions), these particular interests served as an entry point to conversation and ongoing connection. She described: "I

can only make friends when I am cosplaying, when I dressed up as an anime or a manga character and interact with other people who do that too..." r

Participants saw multilingualism as a tool increasing their ability to connect with autistic people from around the world and join the autistic community ^p

 Embracing an
 Positive acceptance

 autism
 and self

 identity
 understanding

Simon commented that his diagnosis "opened up the opportunity for growth", explaining that he can "still obsess and still collect . . . but not beat myself up". ^j

"I've come to accept, especially since getting my diagnosis, I'm not the same as other people and knowing it on a deep level since I was very young, and now understanding why that's the case, I'm pretty happy with the way I am, I'm not everybody's cup of tea, and that's okay.".

Kristen believed she had become more adept at balancing her strengths and her support needs since receiving her diagnosis, feeling able "to have a more useful purpose in an authentic way that takes into account my strengths, but also being able to ask for the supports for my weaknesses". ^j

For lan, actively exploring and using knowledge of the diagnosis also helped him to gain some control in his life: "It was really helpful because I suddenly understood myself a bit more. Because I read these books about heaps of people who had Asperger's in their lives or that – and I found out that there were certain similarities that all Asperger's people had with each other.". ⁱ

Meeting others with autism offered a sense of shared experience and understanding, which was lacking in participants' existing social networks..."You're accepted. You don't have to sort of hide anything. (P7) The people, some of them are on my wavelength.". ^f
For one participant...confidence to stop masking around health professionals and communicate their learning preferences. Y

One participant remarked with an improved sense of identity and self-acceptance that "It allowed me to see myself as a perfectly normal, average, Autistic person instead of a weird, failed, flawed non-Autistic person. It has completely changed the way that I perceive and describe myself" ^I

Some participants commented on a key benefit of diagnosis that "Maybe most importantly, getting my diagnosis prompted me to seek out the Autistic community, and connections and friendships within my Autistic tribe." ^z

Joy of being my authentic self

"Yeah, that's actually been the release of getting the diagnosis; I can stop trying so hard. I feel more freedom to be me, still putting on the public mask because socially, that's what you have to function, but within myself, I can be a lot more true to myself".

One participant, Ella, described embracing her 'geek' persona and openly expressing gender fluidity post-diagnosis. ^I

Lloyd contrasted his uncertain sense of self prior to diagnosis with a joyous feeling that now

"I can finally be me!". j

Interviewees related autism diagnosis to a sense of greater self-authenticity. As Danielle succinctly said: "Because I've got my diagnosis, I know I don't need to try and fit into these norms". ^j

Rebecca saw herself as 'creative' and 'quirky', noting "I prided myself in being different". j

"The people that I normally relate to are usually like people that try to be very different from the crowd" [YA_08]. For him, autism fits into his concept of uniqueness. r

"I discovered that I was 'faking' my way through most of life, so since my diagnosis I have been going through a lot of self-exploration and working out who 'I' really am, rather than who I might be pretending to be." ²

Centrality and meaningfulness of an autistic identity

"And what was my life before diagnosis? It was bits and pieces of disconnected things \dots I was a failure, right? And there was no centre. [But] there was a centre, me, the centre is I'm Autistic. And that explained all of that.". $^{\dot{\rm J}}$

The participants who made the point explicitly that there is no "autism—self" opposition thus saw their abilities and skills more holistically as generalized personality traits, which included autistic traits: "Really though I don't attribute anything about me to being autistic, it's just me. I can't answer the question properly because I am me, including being autistic". c

Participants highlighted that all humans are unique and experience challenges and have strengths, just like autistic people. ^a

"Having kind of these extra non-normative identities means that with people with those identities I can really connect and we totally understand each other...like 'oh let's talk about gender things, sensory stuff, and social cues' and we completely get it and it's kind of the same battle and it feels like an even closer relationship just because all these things about me that normally I have to hide, its completely open.(Female, Autistic, Latina)- w

"We're really weird to the rest of the world and the rest of the world is really weird to us."

This lessening of otherness led to deeper connections with partners and friends who shared identities, as they were able to be open and authentically themselves.- w

Another stating that autism diagnosis was "The single most important thing that has happened to me in my life." $^{\rm Z}$

"It makes it possible for me to interact with a wider set of people. Without my knowledge of the English language I would not have met several people who are important to me, and who have enriched my life as an autistic person, and helped me in gaining an identity." P

Championing diversity and social justice

"... You're pushing into something where most people with Aspergers don't stray, because they're not the defined rules that they like, or they think it's something that they can't do because it's artistic - because it's something different. ..You're sort of breaking the stereotype. And, I actually sort of came to that realization after the project was done, but I really do think you're breaking that mold of what an Aspy has to be" b

For Charlotte, a diagnosis gave her permission to not engage in gender performance, noting, "and I suppose that's the good thing about being an Aspie, you don't have to buy into that media image of what's fashionable". \(^{\mathbb{I}}\)

Participants were proud that they did not follow the crowd and acted in a way that was true to themselves, which could lead to more progress and diversity of thinking within society. ^a

Several participants in the present study explained how they felt this [empathy] benefitted them in their roles: "I tend to do very well with creating a safe space for people [who] for some reason are misfits" (learning support assistant, transcultural counsellor). q

"I love the opportunity this work gives me to make a difference in people's lives and create systems change that could make the world better for the next generations of autistic people and people with other disabilities or intersectional identities" (Sunny).

Being autistic carried strengths. For example, the desire to help autistic patients incentivised perseverance within their studies, despite negative experiences — 'to figure myself out and help others like me' (Maddie). ×

Participants reflected that "you seem to have more capacity for being empathetic towards people because you have been part of a group which has not necessarily been welcome" (female-to-male [FTM],2 Asperger's, Asian)- w

Several reported being inspired to create blogs or online groups to not only make connections but also to support other LGBTQ+ autistic people. w

"It's not a disability in and of itself. It can become a disability if the environment is hostile to it And I feel like that's a thing that a lot of people have a hard time quantifying because human brains naturally want to put things in a hierarchy. You naturally want to say, "Okay, well if you're this then you are above or below the average." But the idea of taking "it's not above or below, it's adjacent" is hard for a lot of people but this is what it is". t

Refl	ectiv	e ab	ilities
enh	ance	resi	lience

Learning from previous experience, Hugo tries to avoid situations that make him feel emotionally unbalanced: "I've learned to try not to plan too many activities in the same week. I try to schedule things like doctor's appointments and things like that. I try to be careful that I don't do anything else that week then. Because I know it'll take a lot [of energy]". S

"Being autistic has made my gender identity issue a lot easier than it otherwise would". w

"Their experience of being autistic helped them to adapt their teaching methods in a way which made sense to their students" q

I TA'd for a bit and seeing the way my students wrote, I definitely can see my strengths, I was definitely in a better place than a lot of my peers. If I wasn't a good writer, I wouldn't have made it through college.- $^{\text{V}}$

"And I was like hmm what is this gender thing? Cause I had never really thought about it even though like growing up I was always like a tomboy or a more butch girl or whatever. But it's interesting to think about how much of it like I had just never really internalized gender like properly because I'm autistic. (Nonbinary, Autistic, White)". "

Context dependent strengths

Time of diagnosis

Participants described several difficult aspects of autism as improving over time. Some participants explicitly linked these improvements to increased understanding and self-acceptance as they grew older, while others linked this to an increase in skills, e.g., time management. ^a

...Autism was something he had always known about, and the diagnosis had formed a significant part of his childhood. This knowledge meant that Lucas did not have the same struggle to understand his experiences of difference. Lucas framed his identity in relation to the diagnosis of autism and with a distinct sense of pride in being exactly as he was, including where he saw himself as different from the norm. ⁱ

Lloyd commented, "as a child I was in my own world – carefree, happy . . . I was pretty much my own person". $^{\rm j}$

Some participants expressed the notion that an early diagnosis may not have been beneficial. Early diagnosis could have suppressed their growth and development due to the deficit model of ASC [and lack of opportunities].

With a late diagnosis, most participants had somewhat successfully navigated the more challenging milestones of life such as moving out of home, completing tertiary education, marriage, children and employment, and therefore did not harbour the trepidation parents of ASC children or ASC adolescents may have about their future.

Can be an advantage and disadvantage

"...Being honest with people, and open, therefore people like you, but metaphorically 'dropp[ing] a brick when refusing to express an appropriate white lie'.' ^c

Social skills attributed to autism, such as openness, were also experienced as beneficial, but

became a problem when overexpressed or when taken too far: "I am too open with things". c

Her attention to detail when weeding, allowing her to complete tasks to a high standard, but that her perfectionism could be problematic with time constraints. ^c

Another participant described herself as "a human lie detector," revealing past problems "believing people too much, or not at all.". h

Adults in particular, saw him as different. He interpreted this difference positively in terms of the allowances that were sometimes made for him, explaining: "I know that if I wasn't autistic my Mum wouldn't let me get away with much stuff" and "I think I get a bit of easier work at school". i

While Katie discussed her accomplishments, which included a graduate degree, she also detailed her frustration with trying to keep up with expectations around her. $^{\rm k}$

"I think the autism matters because it makes me able to concentrate a lot on something I'm interested in (like learning [language]1 now, and [language] in the past), while also making it very hard to concentrate on something I'm not interested in (like learning [language] in the past)." P

Openness of culture and environment towards difference

"This two sided me is a trait of Autism, and I feel my peers admire me because of it. when I'm in a relaxed environment the real me comes out, and I think they are taken. . . by that". $^{\rm i}$

"My mentor asked me how having autism was helping me with my, career work with kids with special needs". ^B

"I was quite open with my autism in generally I think they were very abrasive to an extent with me... Also to talk about how autism impacted on me and also I think just come to terms with the difference, getting away from their assumption, challenging them. That was one of the barriers, but I liked it, to battle through: It's because I want it more.".

Autistic participants made it clear that workplace cultures that allowed them to be openly autistic and in control of their work were key to their success. ^o

Hannah (30) felt most comfortable at work when she reduced energy expended on social conventions and worrying about getting it wrong..." I don't make an effort to make eye contact with people anymore. And you know, that helps, it helps me sort of concentrate, because I can look at people, or I can talk and think, I can't do both at the same time". e

"My favorite professor was effective in accounting for neurodiversity, she posted slides, comprehensive readings, additional readings, low stress group projects, individual presentation options if you chose, a lot more freedom and flexibility with deadlines. Overall, the methods with which my professors taught with format was helpful, and office hours constantly" \(^{\text{V}}\)

Visible autistic role models were also felt to provide a sense of reassurance and support. For example "there's one member of [staff] who has been more understanding of things ... I recently found out that he got a diagnosis himself, so that makes sense now' (Maddie) $^{\times}$

^a Cooper et al., 2020, ^b Teti et al., 2020, ^c Russell, 2019, ^d Clark & Adams., 2020, ^e Gemma, 2021, ^f Hickey et al. 2018, ^g Sullivan, 2021, ^h Atherton, 2019, ⁱ Mogensen & Mason, 2015, ^j Lilley et al., 2022, ^k Santhanam & Lewitt, 2020, ^l Seers & Hogg, 2021, ^m Waisman-Nitzan, 2021, ⁿ Tierney et al., 2016, ^o Raymaker, 2022, ^p Nolte et al., 2021, ^q Cope & Remington 2022, ^r Sosnowy et al., 2019, ^s Bertilsdotter Rosqvist 2023, ^t Cohen et al., 2022, ^u Jones 2022, ^v Madaus et al., 2022, ^w Maroney et al., 2022, ^x Shaw et al., 2023, ^y Vinayagam et al., 2023, ^z Arnold et al., 2020.