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Autistic people's perspectives on stereotypes: An Interpretative Phenomenological Analysis.

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Abstract

Autism stereotypes can often portray autistic people in a negative way. However, few studies have looked at how autistic people think they are perceived by others, and none have specifically asked autistic people what they think the autistic stereotypes are. Semi-structured interviews with twelve autistic adults (aged between 20-63 years) were conducted. Using Interpretative Phenomenological Analysis, three main themes emerged from the data. These were: (1) primary stereotype is that autistic people are ‘weird’; (2) autistic stereotypes have negative effects and consequences; (3) autistic people are heterogeneous. This study makes an important and novel contribution to understanding the experience of being autistic in several ways by exploring how autistic people feel they are perceived by others and identifying some of the ways in which negative stereotypes are believed to have negative consequences for autistic people.

Keywords: Autistic spectrum condition, autistic spectrum disorder, stereotypes, interpretative phenomenological analysis, disability.

Introduction

Human beings exist in a social world, in which impression formation serves an important and necessary function in helping people to socially interact with others (Fiske, Neuberg, Beattie et al., 1987; Quinn, Macrae and Bodenhausen, 2007). Impression formation is influenced by a number of different factors, which include salient features about the person such as their group membership, for example their race or gender (Fiske and Neuberg, 1990). In order to form an impression of a person based on their group membership, people often use 'stereotypes'. These are knowledge, beliefs and expectations of social groups and their members (Sherman, Stroessner, Conrey et al., 2005). Stereotypes develop as part of social and cognitive development, where the environment is instrumental in shaping the development of beliefs about others, especially in relation to how people identify others and categorise them into groups (Lineweaver, Roy and Horth, 2017; Niwa, Boxer, Dubrow et al., 2014). The ubiquity of stereotypes is also explained by their resource-saving nature. Stereotypes save cognitive resources by accessing existing group schemas already stored in long term memory, thus simplifying people perception (Kirchner, Schmitz and Dziobek, 2012; Macrae, Milne and Bodenhausen, 1994).

Whilst stereotypes may simplify perception, such categorical thinking is problematic for two main reasons. The first is that stereotypes allow for little consideration of the individuality or heterogeneity of group members; the second is that negative stereotypes or attitudes may lead to negative behaviour towards others (Fazio, 1986; Fazio and Roskos-Ewoldsen, 2005; Glassman and Albarracin, 2006; Kraus, 1995). There are several groups of people in society towards whom mostly negative stereotypes are held, including those differentiated by age (Hummert, Garstka, Shaner et al., 1995; Nelson, 2016), race (Devine, 1989; Nasir, Mckinney de Royston, O'Connor et al., 2017) and disability (Farnall and Smith, 1999; May and Stone, 2010).

People with learning disabilities are often stereotyped as having low intelligence (May and Stone, 2010), whilst Fiske, Cuddy and colleagues (2002) found that disabled people are often stereotyped as being warm, but incompetent. One way in which stereotypes can be reinforced is via the media. Media representations of autistic people, for example, often portray them in a negative way (Anjay, Palanivel and Palanivel, 2011; Maras, Mulcahy and Crane, 2015), though an exception is the “autistic savant” (Anjay, Palanivel and Palanivel, 2011; Conn and Bhugra, 2012; Draaisma, 2009; Tang and Bie, 2016). Other stereotypes depict autistic people as either dangerous and uncontrollable or unloved and poorly treated (Jones & Harwood, 2009), in addition to having a range of negative traits such as being disruptive and distracting to others (White, Hillier, Frye et al., 2016), unsocial, quiet and emotionless (Harnum, Duffy and Ferguson, 2007).

However, the accuracy of autistic stereotypes has been brought into question, with evidence suggesting that the vast majority of autistic people are not savants (Conn and Bhugra, 2012; Draaisma, 2009; Freeman-Loftis, 2015), or emotionless (Tierney, Burns and Kilbey, 2016). With this in mind, Garner, Jones and Harwood (2015) conducted a study using the Childhood Autism Rating Scale (CARS, 2) (Schopler, Van Bourgondien, Wellman et al., 2010) to measure the accuracy of film portrayals of autistic people according to 15 behavioural categories (e.g., relating, listening and intellect). Findings demonstrated that 13 out of the 15 films rated characterised autistic people as having a higher total mean score on the scale, indicative of more severe symptoms according to the CARS 2, than would be found in the normal population of people with ASD. Furthermore, representations of outliers or those with severe autistic symptomology also included misrepresentations of the autistic savant. Taking this further, Kelley, Cardon and Algeo-Nichols (2015) used DSM-5 (APA, 2013) diagnostic criteria to look at which Autism Spectrum Disorder (ASD) symptomology is portrayed in fictional picture books for children. A content analysis of 15 picture books

portraying individuals with ASD, demonstrated that the most commonly occurring symptomology was repetitive and/or restrictive behaviours, with social communication deficits also prevalent. However, whilst accurate, some of the character depictions were considered stereotypic of autistic people. An example of this is in relation to eye gaze and eye contact, which Kelley, Cardon and Algeo-Nichols (2015, p.414) assert were presented in a stereotyped way, such as people having no eye contact, as opposed to having ‘inappropriate eye gaze’ as defined in the DSM-5. Whilst on the whole character depictions did show symptomology contained in the DSM-5, some depictions were stereotyped.

In order to establish what the public, as opposed to the media, think the autistic stereotypes are Wood and Freeth (2016) asked university students who did not have a family member or close friend who was autistic, to define the autistic stereotype. Utilising a free response method, participants were asked to name as many autistic stereotypes/traits as possible, from the perspective of the general public. Findings showed the ten most frequently mentioned characteristics/traits were: poor social skills, introverted, withdrawn, poor communication, difficult personalities or behaviour, poor emotional intelligence, special abilities, high intelligence, awkward, obsessive and low intelligence, most of which had negative valence. Overall, the majority of literature relating to autistic stereotypes demonstrates that autistic people are perceived in a negative light, which if left unchallenged may give rise to negative consequences for autistic people.

Several studies have found that stereotyping can impact negatively on autistic people. Van Hees, Moyson and Roeyers (2015) found that participants at university resisted disclosing their autism diagnosis, at least partially due to the generalisations people have about autism – such as people thinking they had ‘superpowers’ or a photographic memory. Mogensen and Mason (2015) also found a similar effect of perceived stereotypes on disclosure in a sample of autistic participants. In particular participants reported that due to

the stereotypes and negative attitudes people hold towards diagnosis of autism, this led to resistance to disclose diagnosis. Similarly, Bargiela, Steward and Mandy (2016) examined the experiences of late diagnosed women with autistic spectrum conditions. Their participant sample reported that due to their atypical or counter-stereotypical presentation (e.g. having good social skills), people did not believe they were autistic, impacting on the willingness of professionals to make a diagnosis. It is therefore evident that societal stereotypes can lead to non-disclosure and delayed diagnosis, both of which may prevent autistic people accessing the services they are entitled to.

Moreover, the use of stereotypes to simplify perception may have even more profound consequences for autistic people, such as bullying. Whilst there is no direct evidence to suggest that negative stereotypes of autistic people lead directly onto bullying, negative stereotypes that inaccurately dehumanise autistic people may lead to prejudiced attitudes that have been found to exist towards disabled people (Deal, 2007; Rohmer and Louvet, 2016; Schimchowitsch, and Rohmer, 2016).

Furthermore, evidence suggests that stereotypes can act to justify prejudice and discrimination (Crandall, Bahns, Warner et al., 2011; Devine, 1989; Rutland and Brown, 2001), which may also add to any stigma that people may face. Self-stigmatisation involves a process where people are both aware of and agree with group stereotypes, and then apply these stereotypes to themselves (Corrigan, Bink, Schmidt et al., 2016). This can have negative consequences for people, including low self-esteem and a range of other psychological problems (Corrigan, Bink, Schmidt et al., 2016; Link, Struening and Neese-Todd, et al., 2001; see Livingston and Boyd, 2010, for a review). Further, stereotype threat, where individuals feel at risk of confirming negative stereotypes held about their group (Good, Woodzicka and Wingfield, 2010) has also been found to have negative effects on people (see Lamont, Swift and Abrams, 2015 for a review; Silverman and Cohen, 2014). In

summary, holding negative stereotypes towards autistic people may lead to negative consequences for autistic people which go beyond non-disclosure and delayed diagnosis to prejudiced attitudes, negative behaviour, self-stigmatisation and stereotype threat.

Whilst there have been numerous studies looking at what autistic stereotypes are, particularly in relation to media representations, no studies to date have specifically asked autistic adults what they think the autistic stereotypes are. It is important to know what they feel the perceptions of autistic people are, as if autistic people feel they are perceived in a negative light then this could result in negative consequences for autistic people. Asking autistic adults how they feel they are perceived by others will also provide a valuable source of information to facilitate better understandings of the nature of autistic people's experiences (Griffith, Totsika, Nash et al., 2011; Huws and Jones, 2015; Punshon, Skirrow and Murphy, 2009). The present study therefore seeks to identify how autistic people think they are perceived by others, including what they think the autistic stereotypes are.

Method

Methodological approach

Given the aims of the current study, a qualitative research design was used. Interpretative Phenomenological Analysis (IPA) (Smith, Flowers and Larkin, 2009) was chosen as a methodology for the study because it allows the researcher insight into the lived experience of particular phenomenon and has a large, and growing, body of literature surrounding its application to a range of experiences to explore phenomena from the point of view of participants (Brocki and Wearden, 2006; Clarke, 2009; Larkin, Watts and Clifton, 2006; Smith, 2004, 2011). In the current study this relates to finding out how autistic people think they are perceived by others.

IPA is underpinned by theory which looks at both phenomenology, where a person's subjective experience of a particular phenomenon is examined, and heuristics which looks at how people understand and make sense of their experiences (Smith et al, 2009). Furthermore, IPA has been shown to be an effective methodology for studies with autistic people as research participants adding to the strength of this approach for the current study (Griffith, Totsika, Nash et al., 2011; Huws and Jones, 2015; MacLeod, Lewis and Robertson, 2013; Punshon, Skirrow and Murphy, 2009). In order to conduct an IPA study, researchers must 'engage in a double hermeneutic', a process whereby the researcher 'tries to make sense of the participant trying to make sense of what is happening to them' (Smith, Flowers and Larkin, 2009, p.3). In the current study the first author engaged in the double hermeneutic requirement of IPA by bracketing, or metaphorically putting to one side, any preconceptions they may hold about what the participants were saying in order to prioritise participants meaning making before their own. The first author did this by keeping a reflective diary both pre and post interview, and referred to this during the analysis to ensure that the first author's own preconceptions were not unduly influencing their interpretation of participants making sense of their own experiences. The method of data collection used was semi-structured interviews.

Ethical Considerations

Ethical approval was granted for the study by the Department of Psychology Ethics Committee at the University of Sheffield.

Participants

Participants in the current study: (1) were aged 18 and over; (2) had an Autism Spectrum Disorder, including Asperger's Syndrome, or were actively in the process of obtaining a formal diagnosis; (3) attended a social group for autistic people; (4) were verbally

fluent. Participants were recruited from three different social groups across South and West Yorkshire. The sample consisted of 12 participants, with an age range of 20 to 63 years ($M=37.33$, $SD=15.02$), all of whom, with the exception of Participant 3 who self-diagnosed as having autism, had received a formal diagnosis of Asperger's Syndrome. Eight of the participants were male and the remainder were female. See Table 1 for demographic details of each participant. All participants received a £10 Voucher for their participation.

[Insert Table 1 about here]

Procedure

Prior to the study a Public and Participant Involvement event (PPI) was undertaken, where autistic adults were involved in commenting on the draft interview questions, information sheet and consent forms for the study. This involved the first author contacting a local organisation that runs social groups for autistic people, attending groups in person to seek feedback about the suitability of the above materials. Following feedback from the event, the materials were then used for the main study.

The first author recruited participants for the main study in person, by going along to the social groups they attended. Participants and staff at the organisations where the study took place were given information about the study by the first author, both verbally and in writing via an information sheet. The information sheet contained specific details regarding who the study participants would be (people with autism), the aim and purpose of the study, what the information would be used for, how data would be protected and participants would be compensated for their time. Participants were able to decide whether they would like to take part by either participating before/after a future social group meeting or at an alternative time of their convenience. To ensure that all participants could make an informed choice about participation in the study, and in line with other studies that recruited autistic people as

participants (Bottema - Beutel, Mullins, Harvey et al., 2016; Carrington and Graham, 2001), the interview questions, information sheet and consent forms were provided in advance. The interview questions were:

1. (a) What do you think the stereotypes* of people with autism are?

*a stereotype is a belief about a group of people that can be true or untrue

(b) Are the stereotypes positive or negative?

2. (a) Think about a person with autism. Is this person like the stereotypes that you have mentioned in question 1?

(b) Give me an example of the ways in which they fit the stereotypes that you have mentioned in question 1?

(c) Give me an example of the ways in which they do not fit the stereotypes that you have mentioned in question

3. Do you feel think that you fit the stereotypes you have mentioned in question 1?

The first author conducted the interviews, following the interview schedule verbatim, at various premises in South and West Yorkshire. Following consent being given, participants were given the opportunity to have someone else present – the majority of whom, apart from one participant, declined. Participants were then interviewed, and their responses were audiotaped. In addition to the research questions, various prompts and probes were used throughout the interviews such as: ‘tell me more about that’ to help facilitate responses from participants. Following the interview participants were debriefed and thanked for their participation. The time length of each interview varied between participants, ranging from 10-45 minutes, ($M=28$ minutes). All participants’ interviews were transcribed verbatim prior to analysis.

Analysis

Following transcription, the first author analysed each individual transcript using IPA (Smith, Flowers and Larkin, 2009). Each transcript was read carefully several times, and the tape recordings were listened to. This was to ensure full emersion in the data, and to capture all aspects of the participants' voices, such as subtle nuances of speech, in addition to sounds, feelings, appearance or meanings in the data. The first author coded the individual scripts for (1) linguistic content (participants' use of language), (2) descriptive content (what the participants were describing) and finally (3) conceptual understanding (interpretation of possible meanings). The first author then created a list of emergent themes based on interpretation for each participant, which were then placed into super-ordinate themes for each individual participant. This process was repeated for all 12 transcripts. The final part of the analysis involved looking across the 12 transcripts as a whole to check for recurrent themes and compiling a list of master themes. In order for a theme to be classed as recurrent, it needed to be present across at least half of participants, or in the current study - in six or more participants. In the present study themes 1 (The primary stereotype is that autistic people are 'weird') and 2 (Autistic stereotypes have negative effects and consequences) were evident in 7/12 participants, with the final theme (Autistic people are heterogeneous) evident in 8/12 participants. Data from Participant 3, who self-diagnosed as having autism, did not contribute to the final themes, suggesting that their experiences of stereotyping may be different to those who had a formal diagnosis.

In order to ensure credibility of the analysis an 'independent audit' (Smith et al, 2009) was conducted on a subset of scripts by the third and fourth co-authors. IPA differs from other qualitative research in relation to the auditing process. The independent auditor's role is to ensure that the account provided is a credible one, rather than the only one (Smith et al, 2009). The aim of validity checks in this type of qualitative data are therefore to check how

systematic and transparent the account that the interpreter has produced is. Further validity checks such as the researcher keeping a diary of their thoughts and feelings pre, during and post - interview, were also undertaken to ensure that researchers' thoughts and ideas were bracketed out of the analysis and didn't unduly influence the analytic process.

Results

Three main themes emerged from the analysis of the data. These were:

1. The primary stereotype is that autistic people are 'weird'
2. Autistic stereotypes have negative effects and consequences
3. Autistic people are heterogeneous

In order to protect each participant's identity and maintain confidentiality, pseudonyms have been used in the results section.

The primary stereotype is that autistic people are 'weird'.

Most participants thought that autistic people are perceived by others as being 'weird'. When asked what he thought the autistic stereotypes are, Bob's understanding of how others may perceive autistic people was in relation to their general weirdness, or sense of being odd.

They just sort of like, just generally weird I guess and sort of in their own world most of the time. (Bob)

Bob's use of the phrase in 'their own world' suggests that people may perceive autistic people as inhabiting a different world to non-autistic people. In contrast, the 'weirdness' of autistic people, rather than the world they inhabit, is emphasized by Margaret in the following quote:

One of the stereotypes I think is quite interesting is people behave in an obviously weird way; they'll move in a weird way, they'll rock, they'll drool. (Margaret)

Margaret demonstrates how autistic peoples' behaviour may be perceived by others as being weird in the context of neurotypical behaviour. The use of the word 'obviously weird' is used to highlight this, as if the behaviour is in some way emphasizing that there is something atypical or 'weird' with autistic people. By presenting the stereotype as being someone who rocks and drools, this also emphasizes the 'weirdness' of autistic people, or how far they are from being 'normal' or neurotypical. The use of the words 'behaving and moving in a weird way' denotes behaviour that cannot otherwise be explained or is outside the accepted norm, which again emphasizes a sense of weirdness, or being odd.

Autistic stereotypes have negative effects and consequences

Many participants highlighted that negative stereotypes can lead to negative consequences for autistic people. The negative effect of stereotypes can be seen most profoundly in both Bob and Steven's utterances when they state that negative stereotypes may lead to both bullying and exclusion of autistic people.

Probably more leaning to negative, I imagine, I guess, like any sort of like, you know, just like you excluding other people is pretty bad in my book I guess. So, I imagine it would be like that. (Bob)

Well, they probably like support bullying of people that have it, no, it's not good. (Steven)

In their utterances both Bob and Steven highlight the power that negative stereotypes may have to both exclude and oppress autistic people. In his utterance, Bob expresses how negative stereotypes may lead to exclusion of autistic people, by neurotypical people. This is expressed by the use of the word 'you' which in this context means the group that the researcher represents which is neurotypical, or non-autistic. The negative impact this can have on autistic people is also evident when Bob expresses how bad this is according to his

‘book’ or his moral code. Steven also echoes this point, where he asserts how stereotypes give power to others or in his words ‘support bullying’, which is also ‘not good’. The tone of both Bob and Steven’s utterances and the words used: ‘pretty bad’ (Bob) and ‘not good’ (Steven) add emphasis to the points they are making - which is ultimately that negative stereotypes may lead to negative consequences for autistic people as a group of people in society.

Similarly, Margaret also highlights the negative effects of stereotypes in the way that she depicts stereotypes as being restrictive, tight spaces within which autistic people have to operate.

Margaret: I think most stereotypes are negative, because the very nature of a stereotype is to create a perimeter within which you should or ought to operate, and people are just not like that, and the minute you step outside the boundary of a stereotype, so if someone says ‘oh, you’re like this, therefore you’re not allowed to do that,’ the idea that you’re creating a boundary around that person, beyond which they shouldn’t or ought not to cross, so it’s saying, well, if you can do that, that means you’re not disabled. (Margaret)

By defining stereotypes as being restrictive or as creating perimeters around people, Margaret’s words evoke a sense of being trapped within the stereotype. Use of the word ‘perimeter’ also sets out the parameters of how autistic people should behave, or that stereotypes define how autistic people should be. By using physical space as a metaphor, Margaret is able to not only emphasize a sense of confinement, but also how stereotypes define specific ways of being or behaving for autistic people, both of which leave little or no room for autistic people to be themselves. Margaret’s assertion that autistic people are ‘just not like that’ indicates that she believes that autistic people are not like the stereotypes, they are in fact unique. Margaret’s use of the phrase - ‘crossing the boundary’ is indicative of people who do not fit the stereotype or who may not be considered autistic at all, or that failure to live up to the stereotype or live within its boundaries, may result in them being seen

as non-autistic. Furthermore, stereotypes define the boundaries in which disabled people exist, and if they are seen as being in some way atypical, or not like the stereotype this is equally as damaging as it takes away their identity and disability. Stereotypes therefore have the power to define who autistic people are, how they should act and what may result if people resist or don't live up to said stereotypes. To sum up, in addition to stereotypes leading to the exclusion/bullying of autistic people, participants feel they are also restrictive, leave no room for individuality and if people are seen as being counter-stereotypic, may lead to autistic people being seen as non-disabled, all of which have negative consequences for autistic people.

Autistic people are heterogeneous

The heterogeneous nature of the autistic spectrum was a key theme for many participants, with participants highlighting the diverse nature of the spectrum, including where they see themselves and other autistic people on it. This included making the distinction between the ends of the spectrum, ranging from mild to severe, as well as using the spectrum as a marker to locate themselves' on. Many participants also used the spectrum to differentiate how people may be stereotyped according to where they exist or were placed on the spectrum, with people placed at the severe end of the spectrum attracting more negative stereotypes than those considered to be at the less severe end.

The diverse nature of the spectrum can be seen in how participants viewed the spectrum in relation to their own traits, and the differences of people on the spectrum. An example to illustrate this point is from Steven, a gentleman with Asperger's Syndrome, who defines his autism as being a small part of autism, or as being on the less severe end of the spectrum:

Like my Asperger's, that's only like a tiny part of autism. And it affects people in a lot of different ways, but they seem to just say, 'he's got autism, he's like this' and it's not right. (Steven)

Steven's use of the word 'tiny' depicts the way he sees his Asperger's in relation to the wider autistic spectrum, by saying that it is a tiny part of the autistic spectrum. By defining his Asperger's as being a tiny part of the whole, Steven is able to locate it as being small or at the less severe end of the spectrum. By adding that autism affects people in different ways, Steven is also able to demonstrate that the spectrum is varied and will affect people differentially according to where they are placed on it, such as at the mild or severe end. Sue also highlights the diversity of the autistic spectrum in the comparison that she makes about herself and others on the spectrum in relation to stereotypes:

Because I'm more mild, so I'm more not got the worst of it, like I can – like most people don't know I've got it, because I can deal with situations better, but I know there are people worse who might fit it a bit more. (Sue)

Sue clearly feels that her autism is mild or not the 'worst kind' of autism. By making this comparison Sue is able to place her autism on the less severe end of the spectrum in terms of how it affects her ability to function. The invisible nature of her autism is also apparent - where Sue describes her autism being invisible, or not visible in her behaviour. Sue also indicates that those people on the autistic spectrum whose autism may be more visible through their behaviour may indeed fit the stereotypes more, or that autistic stereotypes are indicative of those on the severe end of the spectrum, rather than those who have milder symptoms. The diverse range of the autistic spectrum is also emphasized by Kevin, who highlights differences in autistic people, acknowledging the heterogeneous nature of this group.

Because as I say, this person, to me, from my point of view, she's totally different to what I would think – obviously I don't know her personally, I would think somebody else, because she seems quite easy talking to me and other people she always – what's

the word – nothing seems to trouble her from my point of view, the things that she does, like without, thinking I'd struggle to do, like talking or communicating. (Kevin)

Kevin bases his observations on an autistic person who is both talkative and finds social interaction relatively easy, in this way disconfirming the autistic stereotype. Having already said that he does fit the stereotypes, which he defines to be: 'a bit slow and as having poor social and people skills', Kevin then makes a comparison between himself and the lady who he feels is unlike him. By making this comparison Kevin places emphasis on how diverse autistic people are.

Discussion

The aim of this study was to identify how autistic people think they are perceived by others, including what they think the autistic stereotypes are. Three main themes emerged from the data: (1) primary stereotype is that autistic people are 'weird'; (2) autistic stereotypes have negative effects and consequences; (3) autistic people are heterogeneous. The first theme indicated that participants felt they were perceived in a negative way by others, as being 'weird' or 'odd'. Notions of 'weirdness' or negative difference have also been found in other studies where autistic people have spoken about not feeling 'normal' or as being 'alien like' (Hickey, Crabtree and Stott, 2017; Humphrey and Lewis, 2008; Vincent, Potts, Fletcher et al., 2017). This finding is important because if autistic people were to internalise negative stereotypes or believe them to be true, this may have a negative impact on their identity and subsequent behaviour, which is something that has been shown to occur with other minority groups who are negatively stereotyped (Lamont, Swift and Abrams, 2015; Spencer, Logel and Davies, 2016; Steele, Spencer and Aronson, 2002; Wheeler, Jarvis and Petty, 2001). Furthermore, if non-autistic people hold such negative beliefs about autistic

people, this could affect non-autistic people's behaviour towards others (Fazio, 1986; Fazio and Roskos - Ewoldsen, 2005; Glassman and Albarracin, 2006; Kraus, 1995).

The link between negative attitudes and behaviour is evident in the second theme, autistic stereotypes have negative effects and consequences. Whilst there is no current evidence to support a direct link between autistic stereotypes, bullying and exclusion, there is evidence to suggest that stereotyping and prejudice are related (Amodio, 2014; Dovidio, Hewstone, Glick et al., 2010). Furthermore, there is evidence to suggest that a high percentage of autistic people have been subjected to bullying at various time points throughout their lives (Cappadocia, Weiss and Pepler, 2010; Hanley and Cullen, 2017; Humphrey and Symes, 2010; Schroeder, Cappadocia, Bebko et al., 2014) and this may be a result of the negative way in which they are viewed by others.

In the second theme, autistic stereotypes have negative effects and consequences, it is also evident that stereotypes have the potential to take away people's individuality. Indeed, stereotypes by definition are: 'generalizations about a group of people in which certain traits are assigned to virtually all members, regardless of variation' (Aronson, Wilson and Akert, 2007:418), which, by necessity, allows little room for diversity or individuality. Margaret expresses this clearly when she describes how restrictive stereotypes can be and that if autistic people step outside or behave in a manner that is considered to be counter-stereotypic, then they may not be considered autistic at all. This finding is similar to Bargiela, Steward and Mandy (2016), who found that diagnosis may be delayed for some autistic females due to them presenting in atypical ways, such as having adept social skills. In short, negative perceptions may lead to negative consequences for autistic people if they go unchallenged, as they take away autistic people's individuality and allow no room for diversity. This finding is significant since it highlights the potential consequences that

negative stereotypes may have on people if they are used as a basis from which to form impressions of other people.

The third theme, autistic people are heterogeneous, highlighted the diverse nature of autistic people. This is evident when Steven describes his Aspergers' as being a small part of autism and the extent to which autism affects people in different ways. Sue also echoes this point, by describing her autism as being mild, or not the worst type. These varying 'degrees of autism', or the extent to which participants see themselves as having mild autism, or as being on the less severe end of the spectrum in terms of symptomology, has been found in others studies (Huws and Jones, 2015). The diversity of autistic people was also evident in the range of traits that autistic participants reported having, or more specifically that autistic people can have traits that are both stereotypic and counter-stereotypic. This demonstrates that some autistic people feel they fit the stereotypes, or that certain autistic stereotypes may be accurate, and that some autistic people don't fit the stereotypes, or they have counter-stereotypic or atypical traits. The idea that autistic people can have traits that may be considered counter-stereotypic or atypical has also been found in previous research (Macintosh and Dissanayake, 2006). In addition, the heterogeneous nature of autism, has been highlighted by other authors, including clinicians who are involved in diagnosing autism (Georgiades, Szatmari and Boyle, 2013; Hassall, 2016; Lord, 2011; Verhoeff, 2012). This finding is important because whilst autistic people share the same condition, there are profound differences in the traits they have and the extent to which these traits affect their behaviour.

Strengths, limitations and directions for future research

This study makes an important and novel contribution to understanding the experience of being autistic in several ways. Firstly, it looks at stereotypes from the

perspective of autistic people, offering a unique insight into how autistic people feel that they are perceived by others. It is important to ascertain how autistic people feel they are being perceived as this helps us to understand the lived experiences of autistic people. Interestingly, the individual themes for Participant 3 (who was still seeking diagnosis) did not contribute to the final 3 themes, and thus may suggest a different perspective to participants who had a more longstanding diagnosis. While the current data/analytical approach does not allow us to compare the differences in lived experience of those with a long-standing diagnosis vs. awaiting diagnosis, this would be a worthwhile topic for future study.

Secondly, participants who took part in this study felt that negative stereotypes may have a profound effect on people's attitudes and behaviour towards them. Suggestions for future research could include interventions aimed specifically at changing negative stereotypes held by non-autistic individuals with regards to autistic individuals. Example interventions could include counter-stereotyping strategies (Dasgupta and Asgari, 2004; Gokglowska, Crisp and Labuschagne 2013) mental imagery tasks (Blair, Ma and Lenton, 2001) or interventions based on ameliorating negative attitudes and behaviour, such as imagined intergroup contact (see Miles and Crisp, 2014; for a review; West, Hotchin and Wood, 2017). While the autistic community should not have to be responsible for enacting coping strategies to deal with societal stereotypes, there are some techniques that can be employed which autistic people may find helpful. These include interventions such as those that target altering the stigmatised beliefs of the individual concerned or enhance the person's ability to cope via increased self-esteem, empowerment and help seeking behaviours (see Mittal, Sullivan, Chekuri et al., 2012 for review). These strategies may help autistic people to overcome any negative feelings that may occur as a result of internalising negative stereotypes.

Finally, findings from this study have also highlighted the diverse nature of both the autistic spectrum and autistic people themselves, and that whilst autistic people share the same diagnosis, no two autistic people are the same. It is important to acknowledge the heterogeneity of autistic people as if we see autistic people as being unique individuals then we may be less likely to stereotype them as being all the same (Fiske and Neuberg, 1990; Fiske, Lin and Neuberg, 1999; Verplanken, Jetten and Knippenberg, 1996). Further, it is also important to note that in the current study there is a lack of participants with intellectual disabilities and major speech delays, and that this lack of developmental diversity has been acknowledged. Furthermore, it could be argued that due to autistic adults' difficulty in perceiving others' thoughts and intentions (Baron-Cohen, Leslie and Frith, 1985; Baron-Cohen, Jolliffe, Mortimore et al., 1997; Baron-Cohen, 2000) asking them how they consider they are perceived would be of limited value. We, the authors, disagree with this view and propose that the person concerned will always be the most appropriate person to provide insight into their own experiences. Perception of one's own experience is the most important thing to consider when trying to understand the impact of the behaviour of others.

Conclusion

Overall, participants in this study felt they were perceived in a predominantly negative way and that this may have negative outcomes for autistic people. This finding is important as negative attitudes towards others can lead to negative behaviour, if left unchallenged. The diversity and heterogeneity of autistic people is also evident in this study, where a range of traits, both stereotypic and counter-stereotypic can be seen. With this in mind the authors ask that people think about the diversity of this unique group of people before making judgements about them.

References

- American Psychiatric Association (2013) *Diagnostic and statistical manual of mental disorders* (5th Edition). Washington, DC, Author.
- Amodio DM (2014) The Neuroscience of Prejudice and Stereotyping. *Nature reviews Neuroscience* 15(10): 670-682.
- Anjay M A, Palanivel V and Palanivel J (2011) Beyond stereotypes: a historical analysis of how autism spectrum disorder is depicted in movies, 1962-2010. *Archives of Disease in Childhood* 96 (Supplement 1): A1-A100.
- Aronson E, Wilson T D and Akert RM (2007) *Social Psychology*. New Jersey. Pearson Education, pp. 413-457.
- Bargiela S, Steward R and Mandy W (2016) The Experiences of Late-Diagnosed Women with Autism Spectrum Conditions: An Investigation of the Female Autism Phenotype. *Journal of Autism and Developmental Disorders* 46(10):3281-3294.
- Baron-Cohen S, Leslie AM and Frith U (1985) Does the autistic child have a “theory of mind”? *Cognition* 21(1): 37-46.
- Baron-Cohen S, Jolliffe T, Mortimore C, et al. (1997) Another Advanced Test of Theory of Mind: Evidence from Very High Functioning Adults with Autism or Asperger Syndrome. *Journal of Child Psychology and Psychiatry* 38(7): 813-822.
- Baron-Cohen S (2000) Theory of mind and autism: A review. *Special Issue of the International Review of Mental Retardation* 23:169-204.
- Blair I, Ma JE and Lenton AP (2001) Imagining Stereotypes Away: The Moderation of Implicit Stereotypes Through Mental Imagery. *Journal of Personality and Social Psychology* 81 (5): 828-841.

- Bottema - Beutel K, Mullins TS, Harvey MN, et al. (2016) Avoiding the “brick wall of awkward”: Perspectives of youth with autism spectrum disorder on social-focused intervention practices. *Autism* 20 (2): 1–11.
- Brocki, JM and Wearden AJ (2006) A critical evaluation of the use of interpretative phenomenological analysis (IPA) in health psychology. *Psychology and Health* 21 (1):87-108.
- Cappadocia, M, Weiss J and Pepler D (2012) Bullying Experiences Among Children and Youth with Autism Spectrum Disorders. *Journal of Autism and Developmental Disorders* 42(2): 266-277.
- Carrington S and Graham L (2001) Perceptions of School by Two Teenage Boys with Asperger Syndrome and their Mothers: A Qualitative Study. *Autism* 5(1): 37-48.
- Clarke C (2009) An Introduction to Interpretative Phenomenological Analysis: A Useful Approach for Occupational Therapy Research. *The British Journal of Occupational Therapy* 72(1): 37-39.
- Conn R and Bhugra D (2012) The portrayal of autism in Hollywood films. *International Journal of Culture and Mental Health* 5(1): 54–62.
- Corrigan PW, Bink A B, Schmidt A et al. (2016) What is the impact of self-stigma? Loss of self-respect and the “why try” effect. *Journal of Mental Health* 25(1): 10–15.
- Crandall CS, Bahns AJ, Warner R et al. (2011) Stereotypes as justifications of Prejudice. *Personality and Social Psychology Bulletin* 37 (11), 1488-1498.
- Dasgupta N and Asgari S (2004) Seeing is believing: Exposure to counter stereotypic women leaders and its effect on the malleability of automatic gender stereotyping. *Journal of Experimental Social Psychology* 40 (5): 642-658.
- Deal M (2007) Aversive disablism: subtle prejudice toward disabled people. *Disability & Society* 22(1): 93-107.

- Devine P (1989) Stereotypes and Prejudice: Their Automatic and Controlled Components. *Journal of Personality and Social Psychology* 56(1): 5-18.
- Dovidio JF, Hewstone M, Glick P et al. (2010) Prejudice, Stereotyping and Discrimination: Theoretical and Empirical Overview. In: Dovidio JF, Hewstone M, Glick P et al. (2010) (eds) *The SAGE Handbook of Prejudice, Stereotyping and Discrimination*. London: Sage Publications Ltd, pp. 3-28.
- Draaisma D (2009) Stereotypes of autism. *Philosophical Transactions of the Royal Society of London. Series B, Biological Sciences* 364(1522): 1475–1480.
- Farnall O and Smith K (1999) Reactions to People with Disabilities: Personal Contact versus Viewing of Specific Media Portrayals. *Journalism and Mass Communication Quarterly* 76 (4): 659-672.
- Fazio RH (1986) How Do Attitudes Guide Behaviour? In Sorrentino RM and Higgins ET (1986) (eds) *Handbook of motivation and cognition: Foundations of social behavior*. New York, Guilford Press.
- Fazio RH and Roskos-Ewoldsen DR (2005) Acting as We Feel. When and How Attitudes Guide Behaviour. In Brock, TC and Green MC (2005) (eds) *Persuasion: Psychological Insights And Perspectives*. Thousand Oaks: Sage.
- Fiske ST, Neuberg SL, Beattie AE et al. (1987) Category-Based and Attribute-Based Reactions to Others: Some Informational Conditions of Stereotyping and Individuating Processes. *Journal of Experimental Social Psychology* 23(5): 399-427.
- Fiske ST and Neuberg SL (1990) A continuum of impression formation, from category-based to individuating processes: Influences of information and motivation on attention and interpretation. *Advances in experimental social psychology* 23, 1-74.

- Fiske ST, Lin M and Neuberg SL (1999) The Continuum Model. Ten Years Later. In Chaiken S and Trope Y (Editors) *Dual-Processing Theories in Social Psychology*. London: The Guilford Press, pp. 231-254.
- Fiske ST, Cuddy AJ, Glick P, et al. (2002) A model of (often mixed) stereotype content: Competence and warmth respectively follow from perceived status and competition. *Journal of Personality and Social Psychology* 82(6): 878-902.
- Freeman- Loftis S (2015) *Imagining Autism. Fiction and Stereotypes on the Spectrum*. Bloomington, Indiana University Press.
- Garner A, Jones S and Harwood V (2015) Authentic representations or stereotyped ‘outliers’: using the CARS2 to assess film portrayals of Autism Spectrum Disorders. *International Journal of Culture and Mental Health* 8(4): 414-425.
- Georgiades S, Szatmari, P and Boyle M (2013) Importance of studying heterogeneity in autism. *Neuropsychiatry* 3:123-125.
- Glassman LR and Albarracín D (2006) Forming Attitudes That Predict Future Behavior: A Meta-Analysis of the Attitude-Behavior Relation. *Psychological Bulletin* 132 (5): 778-822.
- Gokglowska MA, Crisp RJ and Labuschagne K (2013) Can counter-stereotypes boost flexible thinking? *Group Processes & Intergroup Relations* 16(2): 217-231.
- Good JT, Woodzicka JA and Wingfield LC (2010) The Effects of Gender Stereotypic and Counter-Stereotypic Textbook Images on Science Performance. *The Journal of Social Psychology* 150(2); 132-147.
- Griffith GM, Totsika V, Nash S et al. (2011) “I just don’t fit anywhere”: support experiences and future support needs of individuals with Asperger Syndrome in middle adulthood. *Autism* 16(5): 532-546.

- Hanley JL and Cullen JA (2017) Learning About the Lived Experiences of Women with Autism from an Online Community. *Journal of Social Work in Disability & Rehabilitation* 16 (1): 54-73.
- Harnum M, Duffy J and Ferguson DA (2007) Adults' versus Children's Perceptions of a Child with Autism or Attention Deficit Hyperactivity Disorder. *Journal of Autism and Developmental Disorders* 37(7): 1337-1343.
- Hassall R (2016) Does Everybody with an Autism Diagnosis Have the Same Underlying Condition? In: Runswick-Cole K, Mallett R and Timimi S (2016) (eds) *Re-Thinking Autism: Diagnosis, Identity and Equality*. London: Jessica Kingsley, pp. 49-66.
- Hickey A, Crabtree J and Stott J (2017) ‘Suddenly the first fifty years of my life made sense’: Experiences of older people with autism. *Autism*. Electronic publication ahead of print 13 Feb 2017. DOI: 10.1177/1362361316680914.
- Hummert ML, Garstka TA, Shaner JL, et al (1995) Judgements about stereotypes of the elderly. Attitudes, Age, Associations and Typicality Ratings of Young, Middle -Aged and Elderly Adults. *Research on Ageing* 17(2): 168-189.
- Humphrey N and Lewis S (2008) “Make Me Normal”: The Views and Experiences of Pupils on the Autistic Spectrum in Mainstream Secondary Schools. *Autism: The International Journal of Research and Practice* 12(1): 23-46.
- Humphrey N and Symes W (2010) Responses to bullying and use of social support among pupils with autism spectrum disorders (ASDs) in mainstream schools: a qualitative study. *Journal of Research in Special Educational Needs* 10(2): 82-90.
- Huws JC & Jones RS (2015) ‘I’m really glad this is developmental’: Autism and social comparisons – an interpretative phenomenological analysis. *Autism* 19(1): 84-90.
- Jones SC and Harwood V (2009) Representations of Autism in Australian Print Media. *Disability & Society* 24(1): 5-18.

- Kelley JE, Cardon TA and Algeo-Nicols D (2015) DSM-5 Autism Spectrum Disorder Symptomology in Fictional Picture Books. *Education and Training in Autism and Developmental Disabilities* 50(4):408-417.
- Kirchner JC, Schmitz F and Dziobek I (2012) Brief Report: Stereotypes in Autism Revisited. *Journal of Autism and Developmental Disorders* 42(10): 2246-2251.
- Kraus SJ (1995) Attitudes and the Prediction of Behaviour: A Meta-Analysis of the Empirical Literature. *Personality and Social Psychology Bulletin* 21(1):58-75.
- Lamont RA, Swift HJ and Abrams D (2015) A Review and Meta-Analysis of Age-Based Stereotype Threat: Negative Stereotypes, Not Facts, Do the Damage. *Psychology and Ageing* 30(1): 180-193.
- Larkin M, Watts S and Clifton E (2006) Giving voice and making sense in interpretative phenomenological analysis. *Qualitative Research in Psychology* 3 (2): 102-120.
- Lineweaver TT, Roy A and Horth M (2017) Children's stereotypes of older adults: Evaluating contributions of cognitive development and social learning. *Educational Gerontology* 43(6): 300-312.
- Link, BG, Struening, EL, Neese-Todd S, et al. (2001) Stigma as a Barrier to Recovery. The Consequences of Stigma for the Self-Esteem of People with Mental Illnesses. *Psychiatric Services* 52 (12):1621–1626.
- Livingston JD and Boyd JE (2010) Correlates and consequences of internalized stigma for people living with mental illness: A systematic review and meta-analysis. *Social Science and Medicine* 71 (12) 2150-2161.
- Lord C (2011) Epidemiology: How common is autism? *Nature* 474: 166-168.
- Macintosh K and Dissanayake C (2006) A comparative study of the spontaneous social interactions of children with high –functioning autism and children with Asperger's disorder. *Autism: The International Journal of Research & Practice* 10(2): 199-220.

- MacLeod A, Lewis A, Robertson C (2013) 'Why should I be like bloody Rain Man?!' Navigating the autistic identity. *British Journal of Special Education* 40(1): 41-49.
- Macrae CN, Milne AB, Bodenhausen GV (1994) Stereotypes as Energy-Saving Devices: A Peek Inside the Cognitive Toolbox. *Journal of Personality and Social Psychology* 66(1): 37-47.
- Maras K, Mulcahy S and Crane L (2015) Is autism linked to criminality?. *Autism* 19(5):515-516.
- May A L and Stone C (2010) Stereotypes of Individuals with Learning Disabilities: Views of College Students With and Without Learning Disabilities. *Journal of Learning Disabilities* 43(6) 483-499.
- Miles E and Crisp RJ (2014) A Meta-Analytic Test of the Imagined Contact Hypothesis. *Group Processes & Intergroup Relations* 17(1): 3-26.
- Mittal D, Sullivan G, Chekuri L et al. (2012) Empirical Studies of Self-Stigma Reduction Strategies: A Critical Review of the Literature. *Psychiatric Services* 63 (10): 974-981.
- Mogensen L and Mason J (2015) The meaning of a label for teenagers negotiating identity: experiences with autism spectrum disorder. *Sociology of Health & Illness* 37(2): 255-269.
- Nasir NS, Mckinney de Royston M, O'Connor K et al. (2017) Knowing About Racial Stereotypes Versus Believing Them. *Urban Education* 52(4): 491-524.
- Nelson TD (2016) Promoting healthy ageing by confronting ageism. *American Psychologist*, 71(4): 276-282.
- Niwa EY, Boxer P, Dubrow EF et al. (2014) Negative Stereotypes of Ethnic Outgroups: A Longitudinal Examination Among Palestinian, Israeli Jewish, and Israeli Arab Youth. *Journal of Research on Adolescence* 26(1): 166-179.

- Punshon C, Skirrow P and Murphy G (2009) The "Not Guilty Verdict": Psychological Reactions to a Diagnosis of Asperger Syndrome in Adulthood. *Autism* 13(3): 265-283.
- Quinn KA, Macrae N, Bodenhausen GV (2007) Stereotyping and Impression Formation: How Categorical Thinking Shapes Person Perception. In Hogg MA and Cooper J (eds) (2007) *The Sage Handbook of Social Psychology: Concise Student Edition*. London: Sage Publications Ltd, pp. 68-92.
- Rohmer O and Louvet E (2016) Implicit stereotyping against people with disability. *Group Processes & Intergroup Relations* 19 (2): 1-14.
- Rutland, A. & Brown, R. (2001). Stereotypes as justification for prior intergroup discrimination: Studies of Scottish national stereotyping. *European Journal of Social Psychology*, 31, 127-141.
- Schimchowitsch S and Rohmer O (2016) Can We Reduce Our Implicit Prejudice Towards Persons with Disability? The Challenge of Meditation. *International Journal of Disability, Development and Education* 63(6): 641-650.
- Schopler E, Van Bourgondien ME, Wellman G J. et al. (2010). *CARS2: Childhood autism rating scale* (2nd edition). Torrance, CA: Western Psychological Services.
- Schroeder JH, Cappadocia CM, Bebko JM, et al. (2014). Shedding Light on a Pervasive Problem: A Review of Research on Bullying Experiences among Children with Autism Spectrum Disorders. *Journal of Autism and Developmental Disorders* 44(7):1520-1534.
- Sherman, J.W., Stroessner, S.J., Conrey, F.R., & Azam, O.A. (2005). Prejudice and Stereotype Maintenance Processes: Attention, Attribution, and Individuation. *Journal of Personality and Social Psychology*, 89, 607-622.

- Silverman AM and Cohen GL (2014) Stereotypes as Stumbling-Blocks: How Coping With Stereotype Threat Affects Life Outcomes for People With Physical Disabilities. *Personality and Social Psychology Bulletin*, 40 (10), 1330-1340.
- Smith J (2004) Reflecting on the development of interpretative phenomenological analysis and its contribution to qualitative research in psychology. *Qualitative Research in Psychology* 1 (1): 39-54.
- Smith J (2011) Evaluating the contribution of interpretative phenomenological analysis. *Health Psychology Review* 5 (1):9-27.
- Smith J, Flowers P and Larkin M (2009) *Interpretative phenomenological analysis: theory, method and research*. Los Angeles: Sage.
- Spencer SJ, Logel C and Davies PG (2016) Stereotype Threat. *Annual Review of Psychology* 67: 415-437.
- Steele CM, Spencer SJ and Aronson J (2002) Contending with group image: The psychology of stereotype and identity threat. *Advances in Experimental Social Psychology* 34:379-440.
- Tang L and Bie B (2016) The stigma of autism in china: an analysis of newspaper portrayals of autism between 2003 and 2012. *Health communication* 31(4):445-52.
- Tierney S, Burns J and Kilbey E (2016) Looking behind the mask: Social coping strategies of girls on the autistic spectrum. *Research in Autism Spectrum Disorders* 23: 73-83.
- Van Hees V, Moyson T and Roeyers H (2015) Higher education experiences of students with autism spectrum disorder: Challenges, benefits and support needs. *Journal of Autism and Developmental Disorders* 45(6): 1673–1688.
- Verhoeff B (2012) What is this thing called autism? A critical analysis of the tenacious search for autism's essence. *BioSocieties* 7(4): 410-432.

- Verplanken B, Jetten J and Knippenberg AV (1996) Effects of Stereotypicality and Perceived Group Variability on the Use of Attitudinal Information in Impression Formation. *Personality and Social Psychology Bulletin* 22(9): 960-971.
- Vincent J, Potts M, Fletcher D et al. (2017). 'I think autism is like running on Windows while everyone else is a Mac': using a participatory action research approach with students on the autistic spectrum to rearticulate autism and the lived experience of university. *Educational Action Research* 25(2): 300-315.
- West K, Hotchin V and Wood C (2017) Imagined contact can be more effective for participants with stronger initial prejudices. *Journal of Applied Social Psychology* 47(5): 282-292.
- Wheeler SC, Jarvis WG and Petty RE (2001) Think Unto Others: The Self-Destructive Impact of Negative Racial Stereotypes. *Journal of Experimental Social Psychology* 37(2): 173-180.
- White D, Hillier H, Frye A et al. (2016) College Students' Knowledge and Attitudes Towards Students on the Autism Spectrum. *Journal of Autism and Developmental Disorders* 46(5): 1-7.
- Wood C and Freeth M (2016) Students Stereotypes of Autism. *Journal of Educational Issues* 2(2): 131-140.

Table 1 – Demographic information of participants

Participant	Age	Gender	Diagnosis
1	24	Female	Asperger syndrome
2	20	Male	Asperger syndrome
3	25	Female	Autism & Mental Health
4	24	Male	Asperger syndrome
5	39	Female	Asperger syndrome
6	58	Male	Asperger syndrome
7	49	Female	Asperger syndrome**
8	37	Male	Asperger syndrome
9	63	Male	Asperger syndrome
10	53	Male	Asperger syndrome
11	24	Male	Asperger syndrome
12	32	Male	Asperger syndrome

* Participant 3 – This participant self-identified as having autism, and was awaiting formal diagnosis. She also identified as having mental health issues – not specified.

**Participant 7 – This participant had a dual diagnosis of Asperger syndrome and bi-polar disorder.