Diversity & Inclusion Research

WILEY

RESEARCH ARTICLE OPEN ACCESS

Meanings of Autistic Rituals and Routines: Using Personal Explanations Written by Bloggers to Improve Inclusion

Stephanie Petty | Amy Cantwell

School of Education, Language and Psychology, York St John University, York, UK

Correspondence: Stephanie Petty (s.petty@yorksj.ac.uk)

Received: 5 August 2024 | **Revised:** 19 February 2025 | **Accepted:** 23 March 2025

Funding: The authors received no specific funding for this work.

Keywords: autism | repetitive behaviours | rituals | routines

ABSTRACT

Rituals and routines are used to define autism. However, descriptions that come from diagnostic manuals exclude many people from being recognised as autistic initially, and exclude others from owning a positive autistic identity. Different examples and descriptions of these behaviours are missing from clinical guidelines. Autistic people provide valuable updates to how repetitive behaviours can be understood. This study supplements outdated and stereotyped examples of rituals and routines with personal explanations given by individuals who identify as autistic. A systematic search and mixed methods analysis of blog data was carried out using corpus-based and meta-ethnographic methods. These methods may interest researchers wishing to represent perspectives that are often omitted from research. A systematic search was used to locate qualitative descriptions of rituals and routines in personal narratives in blog data. Blogs were written by 40 adults who reported being autistic. Corpus-based analysis showed illustrative examples of rituals and routines, and meta-ethnography provided a line-of-argument synthesis for how and why these behaviours were used. Importantly, all repetitive behaviours were chosen personally by the autistic authors; they achieved a sense of control over their world. Benefits included in-moment recharging of energy and reliable ways to anticipate and reduce overwhelm. Rituals and routines used were likened to being an island, escape, or traffic light. These qualities underpinned different appearances of behaviours, including using lists, routines, rules, step-by-step guides, and schedules, stimming movements, exercising, dancing, and engagement in interests. Many different repetitive behaviours showed the specific demands placed on these authors in different environments. Underpinning functions of the repetitive behaviours were consistent over changeable times and places. The findings destigmatise autistic identity by recognising meaningful behaviours used as part of everyday life, rather than seeing autistic differences as problematic by default. This understanding can be used to inform assessment decisions and therapeutic supports that affect autistic people.

Using rituals and routines is part of autistic identity. That is determined by the clinical frameworks which define autism (American Psychiatric Association 2013; World Health Organization 2022), as well as personal descriptions of these characteristics given by autistic people (Mackay and Parry 2015). However, it is difficult to find a coherent theory underpinning all of the 'restricted, repetitive patterns of behaviour, interests, or activities' that form part of the diagnostic criteria for autism (Leekam et al. 2011; Collis et al. 2022; Tian et al. 2022): ways of moving the body, use of objects, repetition in speech, sameness in routines, intensity of interests, or ways of managing sensory information can each demonstrate repetitive behaviours (American Psychiatric Association 2013).

1 | Inclusive Descriptions of Autistic Repetitive Behaviours

Qualitative detail provided by 'autistic voices' (Rosen et al. 2021) shows the highly variable personal circumstances surrounding the use of different repetitive behaviours, and their meaningfulness (Collis et al. 2022). Therefore, as understanding of autistic characteristics changes over time, assessment tools that provide examples of repetitive behaviours need to be revised in order to be inclusive (Rosen et al. 2021). Repetitive behaviours used by autistic and non-autistic people alike are used inconsistently in clinical practice to provide supporting evidence of autistic characteristics. The most common examples sought by standardised assessment tools that guide clinicians can include lining up toys in childhood, taking the same route to places, or eating the same foods. Clinicians are asked to use their judgement to enquire about other behaviours, such as somebody showing their sensory interests, or repetitive play, but the questions that clinicians ask vary (Bishop and Lord 2023). Descriptions of repetitive behaviours found in research literature can inform the questions that clinicians ask. For example, clinicians should appreciate the impacts of some behaviours being camouflaged or hidden (Kapp et al. 2019; Pearson and Rose 2021): these influence how visible repetitive behaviours are, which alters what being autistic looks like (Anderson et al. 2020). Camouflaging also has implications for how an autistic person achieves a positive sense of self and belonging, as well as timely diagnosis when this is appropriate (Bradley et al. 2021). It has been suggested that slow updating of clinical assessment tools with such new understandings maintains a 'circular effect on the way that [restricted and repetitive behaviors] have been conceptualized' (Leekam et al. 2011, pp. 568). Only limited examples and descriptions of repetitive behaviours used by autistic people inform who receives a referral, assessment, or diagnosis of autism and who does not (Hull et al. 2020; Lever and Geurts 2016). This is important because some minority groups continue to be excluded from fair representation of being autistic (Petty et al. 2023).

2 | Value Judgements Made About Autistic Repetitive Behaviours

Inconsistent value judgements over which behaviours are 'unusual' or 'excessive' (as required by assessment manuals, American Psychiatric Association 2013; World Health Organization 2022) can contribute to the stigmatisation of being autistic (Botha et al. 2022; Turnock et al. 2022). Autistic people, their families, clinicians and researchers make different value judgements of wide-ranging repetitive behaviours (Kapp et al. 2019; Petty and Ellis 2024). In some contexts, families can borrow medical language and describe repetitive behaviours shown by autistic young people as being symptomatic of a disorder and something to manage, reduce, or treat (Mackay and Parry 2015; Sethi et al. 2019). For example, preferring repetition in choices of food or clothing can be discouraged for reasons relating to perceived negative judgement from other people (Sethi et al. 2019). This literature does not aim to present a person-centred formulation of a particular difficulty, such as concern about a young person's health (National Institute for Health and Care Excellence 2021), but instead, builds an impression that the repetition of behaviour in-and-of-itself is problematic. Influential discourses that say repetitive behaviours are problematic can inform research and healthcare efforts to reduce behaviours shown by autistic people, rather than welcome them or prioritise understanding of their meaningfulness (Leekam et al. 2011). Autistic people can restrict or change behaviours that they perceive will be negatively valued by their surroundings, and do so in response to different environments that vary in how inclusive they are (Ng and Ng 2022; Pearson and Rose 2021). 'Changing behavior, as such, should not be the main goal of clinical research or treatment for autistic people' (Pukki et al. 2022, p. 97). Importantly, different perspectives offer a wealth of complex considerations, such that repetitive behaviours have functions that are not necessarily visible to observers (Collis et al. 2022). This study aims to provide improved understanding of the use of repetitive behaviours – including those which are censored – and the consequences for a person's sense of belonging, positive identity, and mental well-being (Bradley et al. 2021). It is important that a collective understanding of what it means to be autistic reflects pluralistic and updated theoretical understandings (Vivanti and Messinger 2021), including expertise from personal experience (Fletcher-Watson et al. 2019).

It should be noted that not all autistic people will use rituals or repetitive routines (American Psychiatric Association 2013). Repetitive body movements and sensory processing differences are examples of repetitive behaviours that are arguably better represented in research than rituals and routines. For example, body movements have been reconceptualised by foregrounding perspectives of autistic people, as ways to release energy or express emotions (Kapp et al. 2019; Petty and Ellis 2024). Autistic adults have described the ways in which they make decisions to balance sensory experiences with social participation, meaning that repetitive behaviours relating to sensory information change over time (Krishnan et al. 2024).

Research so far has shown some benefits of using rituals and routines, including being prepared for busier times of day (Daly et al. 2022), or being immersed in a chosen activity for enjoyment and achievement (Jones et al. 2021), however, the meanings of rituals and routines to autistic people have received relatively little attention (Collis et al. 2022). The aim of this study is to share multiple perspectives of what characterises these autistic repetitive behaviours and their variable appearances. This study intends to contribute to an understanding of autism that supports the possibilities of improving well-being for autistic people when shared knowledge includes lived expertise.

3 | Hearing Personal Narratives

Research designs that enable autistic people to participate as they choose to often require researchers to remove barriers from traditional methods (Nicolaidis et al. 2019; Pellicano and den Houting 2022). Online spaces are thought to provide a valuable space for connecting and communicating for some autistic people (Gillespie-Lynch et al. 2014; Seidmann 2021). Blogs that are written by autistic people on topics of their choice, at a time of their choosing, and for an audience that they wish to reach,

minimises gatekeeping of what is represented in research (Seidmann 2021). Women's experiences of autism diagnosis (Harmens et al. 2022), burnout (Mantzalas et al. 2022), and anxiety and depression (Petty et al. 2023) are examples of topics that have been explored through blog research. Whilst there are important ethical considerations for researchers to take seriously (British Psychological Society 2021), personal narratives can minimise a priori assumptions of what being autistic means, which are ingrained in many current research designs (Deakin et al. 2024; Pukki et al. 2022).

This study presents an analysis of how individuals who identify as being autistic write about rituals and routines on their own terms. It provides examples of what rituals and routines look like for different people across different places, and uses ethnographic methods to try to describe some different meanings of these behaviours.

4 | Research Process

4.1 | Design

A mixed methods systematic review located descriptions of repetitive behaviours written by autistic adults on blogsites, which were analysed using corpus-based and ethnographic methods.

4.2 | Search Strategy

Blogs were found using search engines hosted by Autistica, Bing, Google, Metacrawler, and the National Autistic Society, using search words 'autism' and 'blog'. Snowballing found linked blogs. Blogs were retrieved from autism.org.uk, Autism Together, Embrace Autism, NeuroClastic, The Art of Autism, and Thinking Person's Guide to Autism.

Blogs are written by members of a peer community (Seidmann 2021). They present the experiences of some autistic people, and emphasise what is meaningful for each author and the intended audience. Whilst this understanding adds to different perspectives of what it means to be autistic (Vivanti and Messinger 2021), it would be incorrect to assume that the descriptions represent all autistic people.

A total of 23 search terms were used across blogsites: activity/activities; behaviour/behavior; compulsive; cope/coping; daily; fixated; fixed; goal; insist; interest; list; oraganise/organize; order; pattern; predict; problematic; productive; regular; repeat/repetitive; ritual; routine; same; schedule; and structure. Terms were created from reading academic literature, clinical assessment tools, and blogs written by autistic adults. 99 blogs were screened for inclusion. 10% were read in full to expand the search terms, for example, 'daily', 'order, and 'same' were added.

All blogs were written by somebody over 18 years, who identified as autistic. These individuals did not necessarily have a confirmed diagnosis of autism. Blogs were written in the first person, in English, and described personal experiences. Blogs requiring password or membership for access were excluded (British Psychological Society 2021). The search was not restricted by date before March 2023. Full paragraphs in which the search terms appeared were retained along with any text from the fuller blog that provided context. 10% of the highlighted text was read by two independent researchers in attempt to reduce bias introduced by the study authors and to retain as much of the original account as possible. 58 blogs contributed the data set.

4.3 | Corpus-Based Analysis

Corpus-based analysis is used to analyse large samples of text (Baker 2010) by applying quantitative methods to show the frequency of words (keywords) and the patterns in how words occur together (collocates). The analysis is performed using the computer software WordSmith Tools (Scott 2021), which offers a descriptive and objective overview to minimise biases that researchers can introduce (McEnery and Hardie 2011; Partington 2008).

Keywords are single words that occurred in the study data more frequently than in general language use. General language use is determined by the British National Corpus, which contains a representative sample of English language (Baker 2010; Partington 2008). Keywords are those with the highest keyness values (log-likelihood and likelihood ratio values), showing words that are least likely to occur in the data set because of general language use, and therefore illustrate the blog data.

Collocates, or neighbouring words, show which words frequently appeared next to the keywords (within 10 words either side of the keywords), more frequently than by chance or in general language use. Price (2022) gives the example of 'fish' and 'chips' frequently occurring together in general language use, which would not be shown to illustrate the study data if they did appear. The mutual information (MI) score shows a stronger relationship between two words (Scott 2021). An MI score of greater than three suggests a strong relationship to interpret further (Hunston 2002).

4.4 | Meta-Ethnography

Meta-ethnography provided a qualitative synthesis of the data (Noblit and Hare 1988). Ethnography allows researchers to study what people do and say in a certain context (Hammersley 2006). Here it offered a way to learn about what was discussed in online spaces owned by autistic people. 'Meta-' provides a synthesis of multiple perspectives, including analogies or metaphors, which are the simplest accounts of a phenomenon across different perspectives. 'Ethnography' presents how each person's account exists within their culture, and is explored by asking 'how' and 'why' questions. The synthesis was carried out across seven phases (Noblit and Hare 1988). (1) The research question named the interest of the synthesis; (2) the search strategy and inclusion criteria justified which accounts were retrieved; (3) the main researcher repeatedly read

all data and noted concepts, metaphors or themes. Constant discussion with the second researcher was necessary for this phase (Toye et al. 2014). This informed an emerging list of concepts and concept categories. Each blog author's account could contribute data to multiple categories if it offered multiple explanations of repetitive behaviours; (4) relationships between different descriptions were noted, with particular attention given to agreements, disagreements, or the development of new understandings; (5) different accounts were translated, such as saying 'this account is like the this, except that...'; (6) qualitative data were synthesised across authors beyond individual summaries; and (7) the summary provided more than a narrative description. Instead, a line-of-argument synthesis was created through repeated questioning of how descriptions of rituals and routines were explained and refuted by all blog authors. The line-of-argument synthesis is presented as higher order themes.

4.5 | Reflexivity

Reflexivity makes explicit the potential for misunderstanding the intended meanings of the people represented in this study, as well as cautioning not to assume that these perspectives represent all autistic people (Trainor and Bundon 2021). This qualitative analysis required the researchers to examine their own experiences and use self-awareness to appreciate their influence in the research process, as is required when conducting a meta-ethnography (Toye et al. 2014). In this study, both authors adopted a critical realist ontology, which offers a way of hearing different and sometimes inconsistent ways of understanding what being autistic means (Kourti 2021). This is particularly important when the researchers have different neurodivergent identities from the people represented in the research. Both researchers agree that research should not stigmatise autistic people and they align with the neurodiversity paradigm.

4.6 | Ethical Considerations

The research was approved by York St John University's Research Ethics Committee. The review considered the British Psychological Society's ethics guidelines for internet-mediated research (British Psychological Society 2021), supported by further ethical reflection used by the study authors (Brydon-Miller et al. 2015). In research using online data, there is a simple distinction between what is private and what is within the public domain, but beyond this simplification, more nuanced consideration of the right to privacy and dignity of individuals is needed (British Psychological Society 2021). Scholars have discussed ways in which research can be conducted without full informed consent of the participants, and ask researchers to learn from prior research, and avoid relying on blanket guidance (Willis 2019; Zimmer 2010). For this study, it was not known whether the blog authors intended these personal accounts to be used for research purposes. Structured ethical reflection was used to ask whether this study prioritised respect for the people it represented. Particularly important in blog research is demonstrating values of authenticity and conscientiousness (Brydon-Miller et al. 2015). In this study, any indication that a blog was for a private audience, through need of password or membership for access, or as suggested by what was written in blog posts, excluded the blog. This study also restricted data-sharing and did not report protected characteristics of the blog authors (Zimmer 2010). Materials used from the blog sites were not edited, sites were credited, and the content was not used for profit, as required by licencing of various webpages. Additional steps, however, can be taken in blog research and were not taken in this study, including contacting blog authors to invite research participation (Bertilsdotter Rosqvist et al. 2013; Seidmann 2021). This is considered in the study limitations. Both study authors are registered psychological practitioners and therefore conducted this study with the motivation of supporting the well-being of autistic people and respectfully hearing pluralistic accounts.

5 | Results

A total of 40 bloggers contributed the study data, with some authors writing multiple blogs.

5.1 | Frequently Occurring Descriptions of Repetitive Behaviours

Keywords are shown in Table 1. 'Routine', 'day', 'rules', and 'rituals' were the most frequent descriptions of repetitive behaviours. Text around keywords showed that 'each' and 'every' frequently occurred alongside 'day', showing the importance of routines to daily life. Routines were mentioned interchangeably with rules, schedules, and structure. 'Change' was the first keyword to illustrate reasons why rituals and routines were meaningful, followed by keywords 'anxiety', 'holiday', 'sameness', 'goals', and 'important'. Interruptions to routines in particular caused anxiety; a more predictable environment reduced anxiety. Stressors and additional demands were discussed alongside most mentions of holidays. 'Neurotypical' in the keyword list demonstrated how authors frequently compared their behaviours with other people's, thus discussion of what differentiated autistic and 'neurotypical' routines was predominant, including what was expected or confusing. Few collocates are shown; this suggests widely variable personal descriptions of repetitive behaviours. This was the main finding of the corpus-based analysis: repetitive behaviours were discussed using widely variable personal language, examples, and contexts.

5.2 | How and Why Rituals and Routines Were Used by the Autistic Bloggers

Themes and subthemes are shown in Table 2 with example quotes. Three themes summarise how and why rituals and routines were used by the autistic blog authors: (1) *an 'island of stability' to rely on and invest in* (subthemes 1.1 an in-moment coping strategy to recharge energy; 1.2 reliable structures for 'one less thing to think about'); (2): *in anticipation of overwhelm* and (3) *defined by subjective qualities* (subthemes 3.1 thriving with personal choice, immersion, and exacting standards; 3.2 when repetitive behaviours are disrupted).

'Ritual' was not a term used to describe personal behaviours. It was used to describe social rituals used by non-autistic people,

TABLE 1 | Keywords in descriptions of repetitive behaviours written by autistic bloggers.

	Keyword	Collocates	Frequency	Log-likelihood (keyness)	Log ratio
1	Autism		120	450	> 1000
2	Day	Productive	102	356	8
3	Routines	Autistic	85	319	> 1000
4	Change		69	259	> 1000
5	Anxiety		34	127	> 1000
6	Rules		39	146	> 1000
7	Life		41	120	5
8	Holiday		31	116	> 1000
9	Family		28	105	> 1000
10	Sameness		26	97	> 1000
11	Special		24	90	> 1000
12	Goals		23	86	> 1000
13	Important		23	86	> 1000
14	Neurotypical	Routine	20	75	> 1000
15	Rituals		20	75	> 1000

Note: Log-likelihood values show the probability of a keyword appearing in the blog data by chance. The probability of all the keywords shown occurring by chance was < 0.01. Log-likelihood ratios show how frequent keywords were. A log ratio of 1 shows that a keyword was twice as frequent in the blog data than in the reference corpus, a log ratio of 2 shows that a keyword was four times as frequent and so on.

which were described as being confusing, meaningless or hollow (B13, B17, B22 and B25). It was also used when bloggers gave brief summarising sentences about repetitive behaviours, such as, '*having Asperger's means I live by lots of routines and rituals*' (B4). In these instances, blog authors did not give further details or examples of rituals. The most illustrative example of the meaning of 'rituals' was, '*much needed escape into ritual, routine and special interests*' (B35).

1. *An 'island of stability' to rely on and invest in*

   1.1 An in-moment coping strategy to recharge energy. Repetitive movements were described frequently and included stimming, humming, moving backwards and forwards, exercising, and dancing (B2, B3, B28, B31, B48, B53, and B56). Movement achieved many immediate, in-moment benefits: repetitive movements could be '*coping methods we have discovered over the years'* (B3), to manage sensory demands, focus or clear the mind, feel in control, sooth, and escape; to '*refresh our depleted energy*' (B53). '*Give yourself a moment to reset. Perhaps some soothing weighted blankets, some sensory-intense movement, some exercise, some dancing around might help. Us neurodivergent folks know what it is like to need to self-soothe when the world is too much*' (B28). Repetitive movements could be a way to strengthen connection with a sense of self: '*Let us stim. Let us be lost; when we seem lost to you, we are only finding ourselves*' (B2).

   1.2 Reliable structures for 'one less thing to think about'. Metaphors that helped to explain how and why routines were used included them providing '*an island of stability*' (B56), whereby a routine, schedule, list, rule, or structure offered both a positive and reliable experience. Knowing what to expect was likened to '*feel[ing] calm and centered*' (B19) and providing '*areas of comfort*' (B22). This was an alternative experience to feeling uncertain or unsettled, which was felt by some blog authors when they said they did not know what to expect in new situations or when there were invisible or unspoken expectations. '*Your NT may never have experienced that cavernous darkness of the future which we face every day. Without a clear routine, a feeling of perpetual repetition, we struggle to picture the future and that blankness terrifies us*' (B3). This blogger was describing their feelings in response to uncertainties they felt '*most of the time*' in the workplace and in response to social invitations. Routines were also likened to a '*traffic light*' (B5), which takes some of the flexible thinking demands away from a given situation; it is '*one less thing to think about*' (B5, B56). '*...it can be particularly comforting to know that you can take a break from having to try, by just falling into a familiar pattern. We get to focus on just one thing, getting through the routine, step by step, seeing it through to completion'* (B56).

2. *In anticipation of overwhelm*

   This theme offers an explanation for why repetitive behaviours were used. When describing contexts where repetitive behaviours and routines were used, many authors said they experience an unpredictable world (B5, B19, B27, B37, B47, and B56), described by one author as a '*dangerously chaotic world*' (B35). Social expectations in particular could be stressful and '*confusing*' (B22) due to having to '*perform happiness*' (B17). Expectations to communicate in some specific ways could be '*impose[d]*' and feel '*unbalancing*' (B48). One author talked about leaving their job because of frequent changes to working hours and disruptions to their daily routine (B39). Social interactions and workplace performances said to be based on expectations of non-autistic people were two particularly demanding contexts. Blog authors

TABLE 2 | Themes and subthemes from a meta-ethnography analysis of descriptions of rituals and routines by autistic bloggers.

Themes, subthemes and example quotes
1 An 'island of stability' to rely on and invest in
1.1 An in-moment coping strategy to recharge energy *'We have been trying to tune out the constant distractions and interruptions of the world since childhood. Let us remind them of some of the coping methods we have discovered over the years: Noise cancelling ear phones. Predictable routine. Rocking in a corner... Best yet, you could encourage them to stim'* (B3). *'Unmask and refresh with stimming. We use a ton of energy masking by camouflaging our autistic quarks, filtering our thoughts, and mimicking neurotypical behaviours. Masking leads to exhaustion. Stimming can refresh our depleted energy'* (B53).
1.2 Reliable structures for 'one less thing to think about' '*As such, rules provide structure, just as routines provide structure. It is one less thing to think about, just as the traffic light gives you one less thing to think about*' (B5). '*It is unsettling for anyone when they think they know what to expect, but then things turn out very differently. It feels like having something snatched away, and for autistic people, it can feel like a crisis. We may spend much of our lives in a state of uncertainty about what comes next, so routines can feel like an island of stability in all that. We get to have a nice, simple model in our heads of what is supposed to happen. The more secure we feel in it, the more we invest in it*' (B56).
2 In anticipation of overwhelm
"Insistence on sameness" and "inflexibility to changes" are terms thrown about by professionals all the time. Unless you are autistic, I think it is hard to fully grasp just what this actually means. I love my circle of family. It sustains me, but changes in routine still crack me like an egg. I do not wish this to be true, but it is... For me, routine and sameness are my life preservers, helping me to feel afloat and safe in a world which is always unpredictable, confusing, everchanging. Methodical unvarying routine is a soothing balm for anxiety' (B35).
3 Defined by subjective qualities
3.1 Thriving with personal choice, immersion, and exacting standards *'If you have heard one thing about autistics, it is that we love a routine... Cue the transition items, social stories, timers, and prompts... But, I realised something... autistic routines are based on flow and sensory experience... Routines, for me, are based on the experience of something. The completion of something. The beginning of something'* (B2).
3.2 When repetitive behaviours are disrupted *'Routine is created by us in order to minimise sensory experiences and avoid overstimulation in the day-to-day experiences that non-autistic people find normal. If our routine is disturbed everything feels precarious, like the floor dropping out from under us. This can result in us being quite rigid about our routines and yet at the same time, we can feel imprisoned by our routine'* (B8).

sought ways to prepare ahead of feeling overwhelmed by using repetitive behaviours and routines where they were able to.

One author said, '*For me, routine and sameness are my life preservers*' (B35). Routines in particular were used to make sense of and prepare ahead of times when authors expected to feel overwhelmed. '*We know what's supposed to happen next; we can prepare for it; we don't have to make too many decisions, don't have to weigh up too many factors, don't have to put in too much mental work*' (B56). If there were going to be changes to an expected routine, one blog author asked to be able to adjust with a transition, describing these as '*Autumn or Spring moments... time to adjust to the switching of one task to another*' (B35).

3. *Defined by subjective qualities*

3.1 Thriving with personal choice, immersion and exacting standards. Repetitive behaviours and routines were consistently motivated by their personal meaning. Things that qualified repetitive behaviours and routines as meaningful included them being chosen personally, involving immersion and meeting subjective standards.

Some authors said that a predictable sequence, routine, or list helped them to work towards meaningful goals (B1, B37, and B51). For example, insistence on sameness could help with commitment to important tasks relating to healthy eating, exercise, or career objectives (B37). Routines or sameness supported one blogger to '*thrive... This big, bad [insistence on sameness] monster is actually one of the best parts of my life*' (B39). Authors said that they only followed rules or habits that made sense to them (B5, B29). Goals had to be set by them personally (B37). When routines were imposed by other people they were described as being '*irrational*' or '*illogical*' or '*unreasonable*' and were said to '*do more harm than good*' (B56). There was discussion of how professional interventions must align with whatever supports somebody to feel in control of their world (B2).

One author described repetitive behaviours as being *'one of the most beautiful, immersive aspects of being autistic'*, where they could lose themselves for hours or appreciate endless pattern (B2). There was joy in behaviours that had a single focus (B7). Other authors spoke of meaningful repetitive behaviours having exacting clarity (B39) or perfect standards (B5, B7, and B38). Routines could outline exactly what would happen. '*There is a comfort I get in having things be correct and "perfect"*' (B5).

3.2 When repetitive behaviours are disrupted. When repetitive behaviours or routines could not be performed, authors described negative experiences. As well as providing joy (B7), or comfort (B5, B38), there were tensions when high personal standards could not be met. '*Absolute accuracy is the most comfortable place to be, however challenging in everyday practice*' (B38) and '*the process of pedantic rule-following causes me stress as well*' (B5). Routines were described with possible negative judgement on two further occasions: '*We train and practice behaviors that will keep us safe, and we become... almost robotic*'

(B42) and '*This can result in us being quite rigid about our routines and yet at the same time, we can feel imprisoned by our routine*' (B8). Both descriptions were associated with the authors having amplified sensory experiences and planning to '*survive*' the day (B42), using routines to '*avoid overstimulation*' (B8).

Disruption to a routine was described as feeling like '*having something snatched away, and for autistic people, it can feel like a crisis... it's like trying to execute a sharp turn with a heavily laden shopping trolley*' (B56). Disruption to a person's routine was described as being '*painful*' (B2) and causing fear: '*If I am not done with the experience, and you rip it from me, I become fearful*' (B2). '*If our routine is disturbed everything feels precarious, like the floor dropping out from under us*' (B8). Therefore, unintended negative consequences were balanced with benefits provided by repetitive behaviours and routines.

6 | Discussion

These findings indicate that repetitive behaviours and routines were viewed as well-being strategies by the featured blog authors. Descriptions taken from the writings of autistic authors can help clinicians to recognise the different possible appearances of repetitive behaviours and their place in everyday life, as described in this study. The findings can serve as prompts to open-up conversations with autistic clients and their families, to tailor standardised assessments to each individual (Bishop and Lord 2023; National Institute for Health and Care Excellence 2021). This has implications for who gets to be represented as being autistic, and the supports designed for them (Botha et al. 2022; Petty et al. 2023). The implications extend to the understanding held by all people in society about what it means to be autistic. Whilst this small study does not cover the meanings of repetitive behaviours for all autistic people, the findings illustrate why it is important to ask for personal narratives and be open to hearing the reasons why repetitive behaviours are used.

Repetitive behaviours seemed to provide a subjective sense of being in control of overwhelming demands that can be experienced by autistic people. These blog authors said that their rituals and routines were designed personally and achieved individual, exacting standards. They were described as reliable coping strategies, and were used when they were needed, to recharge energy levels and reduce demands ahead of time. Much as a traffic light manages demands, lists, sequences, rules, structure, or routines were said to sort what needs focus and what can be 'one less thing to think about'. In a previous study where autistic adults were asked about their use of different types of repetitive behaviours, these valuable functions of managing overwhelm and attentional demands, and increasing personal control, were also described (Collis et al. 2022). The blog authors said that professional interventions should align with what supports somebody to feel in control of their world.

Particularly demanding contexts for autistic people are expected to arise from neurotypical social expectations, sensory processing demands, and difficulties with flexible thinking (Dwyer 2022). This underpinning rational recognises the importance of contexts in determining the variability of autistic behaviours. It is much like the conceptualisation of wearing ear plugs, preferred clothing, or moving away from stressful stimuli that can be ways for autistic individuals to manage sensory experiences (Bogdashina 2016). Rituals and routines seem to be ways for autistic individuals to manage their experiences in appropriate ways for them. An understanding of flow states can further describe the value of activities that provide immersion, momentum, and inertia (Rapaport et al. 2023; McDonnell and Milton 2014; Murray 2018). Collectively, research suggests that repetitive behaviours alleviate discomforts and increase positive experiences for autistic people.

Therapeutic interventions should recognise autistic differences without negative judgement (Pellicano and den Houting 2022). This is part of an essential understanding from which support for improving well-being for autistic people should be designed (Pukki et al. 2022), which should be reflected in clinical practice and policy intentions. Interventions that recognise the need for reprieve from sensory, social, and flexible thinking demands – an 'island of stability' – and recognise the benefits of meaningful repetitive behaviours, would promote and destigmatise their use. This is an alternative goal to censoring repetitive behaviours or encouraging camouflaging of them (Pantazakos and Vanaken 2023). Developing appropriate therapeutic interventions is a priority research topic for autistic people, including the empowering potential of 'self-help activities' (Pukki et al. 2022). A question for future research is whether repetitive behaviours can be understood as such self-help activities, consistent with what was described in this study. Examples of personally chosen repetitive behaviours for further consideration include stimming, humming, moving backwards and forwards, exercising, dancing, sensory-intense movements, using schedules and lists, rule-following, using step-by-step guides, a predictable sequence or habit, or falling into a familiar pattern.

The findings, together with prior research discussed, appreciate that repetitive behaviours have been described by autistic people as valuable and used in response to demanding contexts. The workplace was one demanding context where repetitive behaviours were not always supported by employers. Difficulties finding a good workplace fit for autistic people are well reported (Davies et al. 2022). There is a balance between autistic characteristics contributing to well-being when they are supported, and some problematic impacts when they are not welcomed (Field et al. 2024; Pearson and Rose 2021). Using repetitive behaviours as well-being strategies can also be effortful and require self-monitoring. Their use can attract varying degrees of negative judgement (Petty and Ellis 2024; Turnock et al. 2022). Importantly, autistic people in this study said that the meaningful use of repetitive behaviours outweighed the negative consequences of not using them. When repetitive behaviours and routines could not be performed, the bloggers described feeling rigid, robotic and imprisoned by them. A difference in the blog data presented in this study when compared with alternative research designs was the emphasis on positive autistic representation. When repetitive behaviours have been explored with autistic people in a prior interview study, more emphasis was placed on the negative impacts of repetitive behaviours, including self-censorship and possible detrimental impacts including self-injury caused by picking, scratching, or biting, and interrupted sleep (Collis et al. 2022).

In this study, the authors were likely demonstrating advocacy and support for autistic peers (Seidmann 2021). Repetitive behaviours were said to contribute to joy, a positive sense of identity, and thriving when they supported somebody to work to their strengths and achieve their goals.

This study provides a line-of-argument for how and why repetitive behaviours and routines were used by some autistic adults, the qualities that underpinned their widely variable appearances, and the contexts within which they were more visible. This builds a growing body of research that foregrounds personal experiences of autistic people in order to conceptualise autistic characteristics (Kourti 2021). This understanding can be used to create change across contexts, including higher education (Hamilton and Petty 2023) and employment settings (Maras et al. 2021); it promotes recognition of what helps neurodivergent people work to their strengths. It can provide clinical practitioners with appropriate tools for fair assessment and support planning for autistic people by supplementing brief examples and descriptions with qualitative detail (e.g. Bearss et al. 2016; Parry et al. 2023). Improved understanding of the *meaningfulness* of autistic repetitive behaviours should reduce stigma that can be associated with being autistic, inform the design of appropriate assessments and therapeutic supports and help autistic individuals to feel confident in their identity. These applications are in their infancy.

6.1 | Limitations

This review represents only some people, who identified as being autistic and who opted to write about their experiences in online blogs (Kim and Bottema-Beutel 2019). It only included English-language accounts. This study design did not offer a comparison of different views held by people other than blog authors, who were writing for a community of peers (Seidmann 2021). Therefore, it is challenging to describe biases that exist within these descriptions. The perspectives of the blog authors are presented with acknowledgment that multiple realities exist and the findings may not apply to other contexts or people (Noble and Smith 2015). The functions of repetitive behaviours may be different for autistic people who are not represented in this study. Individuals with different communication skills from these blog authors, or who are different ages, should also have their say. This is something for future research to consider. Blogs were accessed following recommendations for conducting internet-mediated research and ethical review (British Psychological Society 2021), but increased participation was not part of the design (Fletcher-Watson et al. 2019). It was not known whether the blog authors intended these accounts to be used for research purposes. There was no interaction with bloggers to check their meaning or representation in this summary. The findings could be expanded upon by using them as a framework for more in-depth explorations of these repetitive behaviours with autistic people.

Author Contributions

Stephanie Petty: conceptualisation, validation, supervision, project administration, writing – review and editing, methodology. **Amy Cantwell:** conceptualisation, methodology, data curation, formal analysis, writing – original draft, writing – review and editing.

Ethics Statement

The research was approved by York St John University's Research Ethics Committee.

Conflicts of Interest

The authors declare no conflicts of interest.

Data Availability Statement

The data that support the findings of this study are available on request from the corresponding author. The data are not publicly available due to privacy or ethical restrictions.

References

American Psychiatric Association. 2013. *Diagnostic and Statistical Manual of Mental Disorders*. American Psychiatric Association. 5th ed.

Anderson, J., C. Marley, K. Gillespie-Smith, L. Carter, and K. MacMahon. 2020. "When the Mask Comes Off: Mothers' Experiences of Parenting a Daughter With Autism Spectrum Condition." *Autism* 24, no. 6: 1546–1556. https://doi.org/10.1177/1362361320913668.

Baker, P. 2010. *Sociolinguistics and Corpus Linguistics*. Edinburgh University Press.

Bearss, K., C. A. Taylor, and M. G. Aman, et al. 2016. "Using Qualitative Methods to Guide Scale Development for Anxiety in Youth With Autism Spectrum Disorder." *Autism* 20, no. 6: 663–672. https://doi.org/10.1177/1362361315601012.

Bertilsdotter Rosqvist, H., C. Brownlow, and L. O'Dell, 2013. "Mapping the Social Geographies of Autism-Online and Off-Line Narratives of Neuro-Shared and Separate Spaces." *Disability & Society* 28, no. 3: 367–379. https://doi.org/10.1080/09687599.2012.714257.

Bishop, S. L., and C. Lord. 2023. "Commentary: Best Practices and Processes for Assessment of Autism Spectrum Disorder – The Intended Role of Standardized Diagnostic Instruments." *Journal of Child Psychology and Psychiatry* 64, no. 5: 834–838. https://doi.org/10.1111/jcpp.13802.

Bogdashina, O. 2016. *Sensory Perceptual Issues in Autism and Asperger's Syndrome: Different Sesiony Experiences – Different Perceptual Worlds*. Jessica Kingsley Publishers.

Botha, M., B. Dibb, and D. M. Frost. 2022. "'Autism Is Me': An Investigation of How Autistic Individuals Make Sense of Autism and Stigma." *Disability & Society* 37, no. 3: 427–453. https://doi.org/10.1080/09687599.2020.1822782.

Bradley, L., R. Shaw, S. Baron-Cohen, and S. Cassidy. 2021. "Autistic Adults' Experiences of Camouflaging and Its Perceived Impact on Mental Health." *Autism in Adulthood* 3, no. 4: 320–329. https://doi.org/10.1089/aut.2020.0071.

British Psychological Society. 2021. *Ethics Guidelines for Internet-Mediated Research*. British Psychological Society.

Brydon-Miller, M., A. Rector Aranda, and D. M. Stevens. 2015. "Widening the Circle: Ethical Reflection in Action Research and the Practice of Structured Ethical Reflection." In *The SAGE Handbook of Action Research*, edited by H. Bradbury, 596–607. SAGE Publications Ltd.

Collis, E., J. Gavin, A. Russell, and M. Brosnan. 2022. "Autistic Adults' Experience of Restricted Repetitive Behaviours." *Research in Autism Spectrum Disorders* 90, no. 101895: 1–13. https://doi.org/10.1016/j.rasd.2021.101895.

Daly, G., J. Jackson, and H. Lynch. 2022. "Family Life and Autistic Children With Sensory Processing Differences: A Qualitative Evidence

Synthesis of Occupational Participation." *Frontiers in Psychology* 13, no. 940478. https://doi.org/10.3389/fpsyg.2022.940478.

Davies, J., B. Heasman, A. Livesey, A. Walker, E. Pellicano, and A. Remington. 2022. "Autistic Adults' Views and Experiences of Requesting and Receiving Workplace Adjustments in the UK." *PLoS One* 17, no. 8: e0272420. https://doi.org/10.1371/journal.pone.0272420.

Deakin, M., S. Petty, B. Heasman, and L. G. Hamilton. 2024. "A Critical Reflection on Definitions of Autistic Wellbeing." *Brain and Behavior* 14, no. 7: 1–3. https://doi.org/10.1002/brb3.3572.

Dwyer, P. 2022. "The Neurodiversity Approach(es): What Are They and What Do They Mean for Researchers?" *Human Development* 66, no. 2: 73–92. https://doi.org/10.1159/000523723.

Field, S. L., M. O. Williams, C. R. G. Jones, and J. R. E. Fox. 2024. "A Meta-Ethnography of Autistic People's Experiences of Social Camouflaging and Its Relationship With Mental Health." *Autism* 28: 1328–1343. https://doi.org/10.1177/1362361323122303.

Fletcher-Watson, S., J. Adams, and K. Brook, et al. 2019. "Making the Future Together: Shaping Autism Research Through Meaningful Participation." *Autism* 23, no. 4: 943–953. https://doi.org/10.1177/1362361318786721.

Gillespie-Lynch, K., S. K. Kapp, C. Shane-Simpson, D. S. Smith, and T. Hutman. 2014. "Intersections Between the Autism Spectrum and the Internet: Perceived Benefits and Preferred Functions of Computer-Mediated Communication." *Intellectual and Developmental Disabilities* 52, no. 6: 456–469. https://doi.org/10.1352/1934-9556-52.6.456.

Hamilton, L. G., and S. Petty. 2023. "Compassionate Pedagogy for Neurodiversity in Higher Education: A Conceptual Analysis." *Frontiers in Psychology* 14: 1–9. https://doi.org/10.3389/fpsyg.2023.1093290.

Hammersley, M. 2006. "Ethnography: Problems and Prospects." *Ethnography and Education* 1, no. 1: 3–14. https://doi.org/10.1080/17457820500512697.

Harmens, M., F. Sedgewick, and H. Hobson. 2022. "The Quest for Acceptance: A Blog-Based Study of Autistic Women's Experiences and Well-Being During Autism Identification and Diagnosis." *Autism in Adulthood* 4, no. 1: 42–51. https://doi.org/10.1089/aut.2021.0016.

Hull, L., K. V. Petrides, and W. Mandy. 2020. "The Female Autism Phenotype and Camouflaging: A Narrative Review." *Review Journal of Autism and Developmental Disorders* 7: 306–317. https://doi.org/10.1007/s40489-020-00197-9.

Hunston, S. 2002. *Corpora in Applied Linguistics*. Cambridge University Press.

Jones, M., M. Falkmer, B. Milbourn, T. Tan, S. Bölte, and S. Girdler. 2021. "Identifying the Essential Components of Strength-Based Technology Clubs for Adolescents With Autism Spectrum Disorder." *Developmental Neurorehabilitation* 24, no. 5: 323–336. https://doi.org/10.1080/17518423.2021.1886192.

Kapp, S. K., R. Steward, L. Crane, et al. 2019. "'People Should Be Allowed to Do What They Like': Autistic Adults' Views and Experiences of Stimming." *Autism* 23, no. 7: 1782–1792. https://doi.org/10.1177/1362361319829628.

Kim, S. Y., and K. Bottema-Beutel. 2019. "Negotiation of Individual and Collective Identities in the Online Discourse of Autistic Adults." *Autism in Adulthood* 1, no. 1: 69–78. https://doi.org/10.1089/aut.2018.0029.

Kourti, M. 2021. "A Critical Realist Approach on Autism: Ontological and Epistemological Implications for Knowledge Production in Autism Research." *Frontiers in Psychology* 12, no. 713423: 1–15. https://doi.org/10.3389/fpsyg.2021.713423.

Krishnan, S. G., E. S. Cohn, and G. I. Orsmond. 2024. "The Transactional Nature of Autistic Young Adults' Sensory and Social Experiences: Negotiating Young Adulthood." *Autism in Adulthood*: 1–11, ahead of print, October 28. https://doi.org/10.1089/aut.2024.018.

Leekam, S. R., M. R. Prior, and M. Uljarevic. 2011. "Restricted and Repetitive Behaviors in Autism Spectrum Disorders: A Review of Research in the Last Decade." *Psychological Bulletin* 137, no. 4: 562–593. https://doi.org/10.1037/a0023341.

Lever, A. G., and H. M. Geurts. 2016. "Psychiatric Co-Occurring Symptoms and Disorders in Young, Middle-Aged, and Older Adults With Autism Spectrum Disorder." *Journal of Autism and Developmental Disorders* 46: 1916–1930. https://doi.org/10.1007/s10803-016-2722-8.

Mackay, S. J., and O. Parry. 2015. "Two World Views: Perspectives on Autistic Behaviours." *Journal of Health Psychology* 20, no. 11: 1416–1426. https://doi.org/10.1177/1359105313512515.

Mantzalas, J., A. L. Richdale, A. Adikari, J. Lowe, and C. Dissanayake. 2022. "What Is Autistic Burnout? A Thematic Analysis of Posts on Two Online Platforms." *Autism in Adulthood* 4, no. 1: 52–65. https://doi.org/10.1089/aut.2021.0021.

Maras, K., J. E. Norris, J. Nicholson, B. Heasman, A. Remington, and L. Crane. 2021. "Ameliorating the Disadvantage for Autistic Job Seekers: An Initial Evaluation of Adapted Employment Interview Questions." *Autism* 25, no. 4: 1060–1075. https://doi.org/10.1177/1362361320981319.

McDonnell, A., and D. Milton. 2014. "Going With the Flow: Reconsidering 'Repetitive Behaviour' Through the Concept of 'Flow States'." In *Good Autism Practice: Autism, Happiness and Wellbeing*, edited by G. Jones and E. Hurley, 38–47. BILD.

McEnery, T., and A. Hardie. 2011. *Corpus Linguistics: Method, Theory and Practice*. Cambridge University Press.

Murray, D. 2018. "Monotropism – An Interest Based Account of Autism." *Encyclopedia of Autism Spectrum Disorders* 10: 978–981. https://doi.org/10.1007/978-1-4614-6435-8_102269-1.

National Institute for Health and Care Excellence. 2021. "Autism Spectrum Disorder in Adults: Diagnosis and Management [CG142]." https://www.nice.org.uk/guidance/cg142.

Ng, C. S. M., and S. S. L. Ng. 2022. "A Qualitative Study on the Experience of Stigma for Chinese Parents of Children With Autism Spectrum Disorder." *Scientific Reports* 12, no. 19550: 1–13. https://doi.org/10.1038/s41598-022-23978-0.

Nicolaidis, C., D. Raymaker, and S. K. Kapp, et al. 2019. "The Aaspire Practice-Based Guidelines for the Inclusion of Autistic Adults in Research as Co-Researchers and Study Participants." *Autism* 23, no. 8: 2007–2019. https://doi.org/10.1177/1362361319830523.

Noble, H., and J. Smith. 2015. "Issues of Validity and Reliability in Qualitative Research." *Evidence Based Nursing* 18: 34–35. https://doi.org/10.1136/eb-2015-102054.

Noblit, G. W., and R. D. Hare. 1988. *Meta-Ethnography: Synthesizing Qualitative Studies*. SAGE Publishing.

Pantazakos, T., and G. J. Vanaken. 2023. "Addressing the Autism Mental Health Crisis: The Potential of Phenomenology in Neurodiversity-Affirming Clinical Practices." *Frontiers in Psychology* 14: 1–15. https://doi.org/10.3389/fpsyg.2023.1225152.

Parry, J. A., T. Newton, C. Linehan, and C. Ryan. 2023. "Dental Visits for Autistic Children: A Qualitative Focus Group Study of Parental Perceptions." *JDR Clinical & Translational Research* 8, no. 1: 36–47. https://doi.org/10.1177/23800844211049404.

Partington, A. 2008. "The Armchair and the Machine: Corpus-Assisted Discourse Research." In *Corpora for University Language Teachers*, edited by C. T. Torsello, K. Ackerley and E. Castello, 95–118. Die Deutshe Bibliothek.

Pearson, A., and K. Rose. 2021. "A Conceptual Analysis of Autistic Masking: Understanding the Narrative of Stigma and the Illusion of Choice." *Autism in Adulthood* 3, no. 1: 52–60. https://doi.org/10.1089/aut.2020.0043.

Pellicano, E., and J. den Houting. 2022. "Annual Research Review: Shifting From 'Normal Science' to Neurodiversity in Autism Science." *Journal of Child Psychology and Psychiatry* 63, no. 4: 381–396. https://doi.org/10.1111/jcpp.13534.

Petty, S., and A. Ellis. 2024. "The Meaning of Autistic Movements." *Autism* 28: 3015–3020. https://doi.org/10.1177/13623613241262151.

Petty, S., L. Hamilton, B. Heasman, and N. Fiberesima. 2023. "Social Justice Informed Therapy and Neurodiversity." In *The SAGE Handbook of Social Justice in the Psychological Therapies: Power, Politics and Change*, edited by D. Charura and L. Winter, 114–125. SAGE Publishing Ltd.

Petty, S., S. Lambarth, and L. G. Hamilton. 2023. "Rethinking Anxiety and Depression for Autistic Adults Through Personal Narratives: Mixed-Method Analysis of Blog Data." *Counselling and Psychotherapy Research*: 1–13. https://doi.org/10.1002/capr.12729.

Price, H. 2022. *The Language of Mental Illness: Corpus Linguistics and the Construction of Mental Illness in the Press*. Cambridge University Press.

Pukki, H., J. Bettin, A. G. Outlaw, et al. 2022. "Autistic Perspectives on the Future of Clinical Autism Research." *Autism in Adulthood* 4, no. 2: 93–101. https://doi.org/10.1089/aut.2022.0017.

Rapaport, H., H. Clapham, J. Adams, W. Lawson, K. Porayska-Pomsta, and E. Pellicano. 2023. "'In a State of Flow': A Qualitative Examination of Autistic Adults' Phenomenological Experiences of Task Immersion." *Autism in Adulthood* 6, no. 3: 362–373. https://doi.org/10.1089/aut.2023.0032.

Rosen, N. E., C. Lord, and F. R. Volkmar. 2021. "The Diagnosis of Autism: From Kanner to DSM-III to DSM-5 and Beyond." *Journal of Autism and Developmental Disorders* 51: 4253–4270. https://doi.org/10.1007/s10803-021-04904-1.

Scott, M. 2021. *WordSmith Tools Version 8.0. Windows Software for Finding Word Patterns*. http://www.lexically.net/wordsmith/downloads/.

Seidmann, V. 2021. "On Blogs, Autistic Bloggers, and Autistic Space." *Information, Communication & Society* 24, no. 15: 2277–2292. https://doi.org/10.1080/1369118X.2020.1754878.

Sethi, C., C. Harrop, W. Zhang, J. Pritchett, A. Whitten, and B. A. Boyd. 2019. "Parent and Professional Perspectives on Behavioral Inflexibility in Autism Spectrum Disorders: A Qualitative Study." *Autism* 23, no. 5: 1236–1248. https://doi.org/10.1177/1362361318810217.

Tian, J., X. Gao, and L. Yang. 2022. "Repetitive Restricted Behaviors in Autism Spectrum Disorder: From Mechanism to Development of Therapeutics." *Frontiers in Neuroscience* 16: 780407. https://doi.org/10.3389/fnins.2022.780407.

Toye, F., K. Seers, N. Allcock, M. Briggs, E. Carr, and K. Barker. 2014. "Meta-Ethnography 25 Years On: Challenges and Insights for Synthesising a Large Number of Qualitative Studies." *BMC Medical Research Methodology* 14, no. 1: 80–93. https://doi.org/10.1186/1471-2288-14-80.

Trainor, L. R., and A. Bundon. 2021. "Developing the Craft: Reflexive Accounts of Doing Reflexive Thematic Analysis." *Qualitative Research in Sport, Exercise and Health* 13, no. 5: 705–726. https://doi.org/10.1080/2159676X.2020.1840423.

Turnock, A., K. Langley, and C. R. G. Jones. 2022. "Understanding Stigma in Autism: A Narrative Review and Theoretical Model." *Autism in Adulthood* 4, no. 1: 76–91. https://doi.org/10.1089/aut.2021.0005.

Vivanti, G., and D. S. Messinger. 2021. "Theories of Autism and Autism Treatment From the DSM III Through the Present and Beyond: Impact on Research and Practice." *Journal of Autism and Developmental Disorders* 51: 4309–4320. https://doi.org/10.1007/s10803-021-04887-z.

Willis, R. 2019. "Observations Online: Finding the Ethical Boundaries of Facebook Research." *Research Ethics* 15, no. 1: 1–17. https://doi.org/10.1177/1747016117740176.

World Health Organization. 2022. *International Classification of Diseases, Eleventh Revision (ICD-11)*. World Health Organization.

Zimmer, M. 2010. "But the Data Is Already Public: On the Ethics of Research in Facebook." *Ethics and Information Technology* 12: 313–325. https://doi.org/10.1007/s10676-010-9227-5.