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ARTICLE

'I can actually do it without any help or someone watching over me all the time and giving me constant instruction': Autistic adolescent boys' perspectives on engagement in online video gaming

Georgia Pavlopoulou[1,2] | **Claire Usher**[1] | **Amy Pearson**[3]

[1]Group for Research in Relationships and NeuroDiversity-GRRAND, Department of Psychology and Human Development, Institute of Education, University College London, London, UK

[2]Anna Freud National Centre for Children and Families, London, UK

[3]School of Psychology, Faculty of Health and Wellbeing, University of Sunderland, Sunderland, UK

Correspondence
Amy Pearson, School of Psychology, Faculty of Health Sciences and Wellbeing Sciences, University of Sunderland, Sunderland SR1 3SD, UK.
Email: amy.pearson@sunderland.ac.uk

Abstract

Research into autistic adolescents' engagement in online gaming has so far focused on time spent gaming, or characterizing problematic gaming behaviour and has relied mostly on caregiver report. In the current study, we interviewed 12 autistic adolescent boys, asking about their perspectives on their engagement in online gaming, and their motivations. We analysed the interview data using thematic analysis and identified three key themes in the data, which focused on agency and a sense of belonging, emotion regulation, and acknowledgement of the differing perceptions that the young people and their caregivers had of gaming. Our findings show the need to include the viewpoints of autistic young people in research about their interests and well-being, and provide insights that can help caregivers and professionals to support autistic young people in flourishing.

KEYWORDS
adolescence, autism, gaming, video games, wellbeing

Statement of Contribution

What is already known on this subject?

- Research into autistic adolescents' engagement in online gaming has focused mostly on problematic gaming.
- Autistic adolescents spend more time online gaming than neurotypical peers.

What the present study adds?

- We asked autistic adolescents about gaming, and they gave insightful commentary on how it increases their well-being.
- Gaming provides opportunities for emotion regulation and agency for autistic adolescents.
- Our study emphasizes the importance of considering the first-hand perspectives of autistic young people.

BACKGROUND

Online gaming is an increasingly popular recreational activity among young people, with research suggesting that between 2013 and 2018, the average number of hours that 12–15-year-olds spent gaming per week increased from 10.7 to 13.8 hr (Kienast, 2019). This growth in popularity has led to an emerging focus on the relationship between gaming and well-being (Goh et al., 2019; Halbrook et al., 2019; Lobel et al., 2017), with ongoing debate as to whether online gaming is likely to have a positive or negative impact on young players (Kelly et al., 2021). Gaming has been associated with sensation-seeking behaviours and risk of addiction (Hu et al., 2017), as signalled by the recent addition of Internet Gaming Disorder (IGD) to the ICD-11 (WHO, 2020). However, gaming has also been linked to stress relief (Seok et al., 2018) and increased feelings of social belonging (Kaye & Bryce, 2012), demonstrating the positive impact that engagement with gaming can have on well-being.

Recently, researchers have started to examine gaming engagement in autistic young people. Autism is a form of neurodiversity (den Houting, 2019), currently defined by the presence of differences compared to the neurotypical (NT) population across a range of domains including sensory processing (Robertson & Baron-Cohen, 2017), social communication style (Milton, 2012) and attentional allocation (Murray et al., 2005). Many autistic children and young people (CYP) face significant mental health difficulties (Crane et al., 2019) due to a range of challenges including sleep (Pavlopoulou, 2020), bullying (Fisher & Taylor, 2016) and stigma (Crane et al., 2019). Thus, understanding potential routes to support good mental health outcomes in autistic youth is essential. Online gaming engagement is one potential area of exploration for understanding factors that contribute towards positive well-being in autistic CYP, who spend significantly more time engaging in online gaming than NT peers (Mazurek & Engelhardt, 2013). However, existing research has focused on gaming in autistic young people as problematic (Craig et al., 2021; Kuo et al., 2015) or as a tool for 'social skill intervention' (Ke et al., 2020; Ke & Moon, 2018), as opposed to examining what motivates autistic young people to engage in online gaming, and the positive impact it has on their well-being.

The lack of research focusing on the perspectives of autistic CYP on their own well-being can be attributed to the dominant paradigms present in the autism literature. Autism has long been framed as a 'disorder', characterized by 'deficits' in social communication and imagination, and repetitive and restricted interests (APA, 2013). Thus, the majority of literature has viewed any autistic interest as either potentially pathological or a source of potential therapeutic intervention (Lam et al., 2021). In a review of the literature on well-being in autistic adults, Lam et al. (2021) argue that most research in this area has focused on 'objective' measurements of (normative) constructions of well-being, rather than on how

autistic people subjectively understand and achieve well-being in their own lives. Thus, there has been very little focus on enjoyment for enjoyment's sake, and what kinds of intrinsic motivation that autistic people (particularly CYP) may get from their hobbies and interests.

One approach to understanding the impact of gaming on well-being in CYP from their own perspective is through the Lifeworld Framework (Pavlopoulou, 2020; Pavlopoulou & Dimitriou, 2019). The lifeworld framework is an epistemological framework which emphasizes the importance of a collaborative approach to understanding a young person's personal strengths, challenges and aspirations. The framework draws together eight dimensions of human experience (insiderness, agency, uniqueness, sense making, personal journey, sense of place, embodiment and togetherness), placing a person at the centre of their own 'lifeworld' to acknowledge and validate them as the expert of their own experiences. This epistemological approach shifts our understanding of autistic well-being away from a deficit-focused, medical narrative and towards meaningful engagement with what brings joy to young people and genuinely enriches their lives. Here, we discuss current literature on video game use and its relation to well-being in autistic CYP before we outline the focus of the current study, which aims to address gaps in the literature whilst validating the experiences and perspectives of autistic CYP.

Online gaming engagement

A systematic review from Stiller and Mößle (2018) examined screen and media use in autistic CYP and found that gaming was a favoured pastime across the 47 studies reported. Several studies have suggested that autistic CYP engage in gaming more frequently than non-autistic CYP (Mazurek & Engelhardt, 2013; Mazurek & Wenstrup, 2012; Shane & Albert, 2008). Kuo et al. (2014) found that autistic CYP mostly played video games alone; however, around one-quarter of their sample played with peers, using messaging and chats to communicate during gaming. The authors also found that CYP who used computers for social purposes reported more positive friendships. Engelhardt et al. (2013) found that autistic boys with access to a computer or games console in their bedroom slept fewer hours per night than those without access. They also found that those who spent more hours per day gaming slept less. However, a self-report study from Pavlopoulou (2020) examining sleep and well-being in autistic CYP found that engaging in video games prior to bedtime could help young people to unwind as part of their regular nightly routine.

Increased video gaming in autistic CYP has been linked to 'problematic game use' (i.e. poor mood, difficulty disengaging from the game, displaying addictive tendencies) and 'problematic behaviour' (i.e. inattention, hyperactivity, defiance), particularly in CYP who play 'first person shooter' type games (Coutelle et al., 2021; Craig et al., 2021; Kuo et al., 2015). Similar research from MacMullin et al. (2016), also found that parents of autistic boys were more likely to report problematic gaming than parents of non-autistic children. However, the measures in these studies were all parent reports. Interestingly, Kuo et al. (2015) found that parents of autistic CYP were more likely to employ restrictive and instructive mediation strategies in regard to their child's media use. Their qualitative data suggested that parents often did not see the value of gaming, and preferred their child to be involved in more 'social' activities. The disagreement between what parents saw as 'valuable' activities, and what CYP preferred to do caused stress and conflict. These findings suggest that previous research into gaming behaviour in autistic CYP might reflect parental bias in perceptions of their child's gaming behaviour. It is unclear whether gaming is actually 'problematic', or simply reflects the parents' desire for the child to engage in alternative activities.

Intervention

In addition to gaming behaviour in autistic CYP, the use of video gaming as a potential focus for intervention has been widely examined. A meta-analysis from Grynszpan et al. (2014) suggested that

technology-based interventions focused on improving 'social skills' had limited efficacy. Fernandes et al. (2010) offered the use of child-selected computer games during language therapy sessions, which they argued led to increased eye contact and number of verbalizations towards the therapist. However, children had no interest in playing the games after the session was finished. The authors argue that this may be an indicator of a lack of interest in gaming in children, not considering that the CYP in the study lack interest specifically in engaging in therapy-focused tasks when not in therapy. Hopkins et al. (2011) found that autistic CYP displayed increased eye gaze and emotional recognition after engaging with *FaceSay*, a computer-based training program. There is a lack of evidence as to how beneficial the CYP themselves rate these 'social skills' to be, and how they relate to their own personal well-being. In regard to personal well-being outcomes, Zayeni et al. (2020) conducted a systematic review to examine the use of video games as a therapeutic support with autistic CYP. They found that commercially available video games can support young people in developing their emotion regulation skills, and to reduce anxiety. However, there is a lack of longitudinal research to help us understand the long-term outcomes of such gaming.

A prominent issue with these studies is that they do not examine *why* autistic CYP enjoy engaging in gaming. There are a small number of studies that have examined personal motivations for gaming in autistic people, although these have been focused on the experiences of young adults (16–24 years). Mazurek et al. (2015) found that video game play offered relief from stress and anxiety experienced in daily life and provided an opportunity for autistic people to momentarily escape from these emotions. This positive impact of gaming on mood is consistent with research from Villani et al. (2018) who identified emotional regulation (ER) as a positive outcome during gaming. They also found that fun and entertainment were highlighted as a major motivator for video game play, which linked to specific game features contributing to the level of enjoyment, for example, achievement and challenge. Similarly, Finke et al. (2018) found that forming and maintaining friendships, emotional regulation, skill development and escapism were key motivators in the gaming engagement of autistic young (mostly male) adults. The participants described gaming as positively impacting their well-being in multiple ways, and providing a therapeutic way to disengage from the stressors of everyday life.

Gallup et al. (2016) found that online games provide a space for autistic young men to socialize with people who share interests, and work together with others to complete quests. These studies highlight the benefits of gaming in autistic young adults from their own perspective. However, as with the majority of literature on gaming in autistic people, these studies framed the social skills and experiences of autistic people through a medical lens. Here, the experiences of autistic people were interpreted through neuronormative expectations. Finke et al. (2018) emphasized that the positive aspects of gaming could be used to assist therapists in developing the language, social and communication skills of autistic people, whilst Gallup et al. (2016) emphasized how online gaming could teach autistic people 'social rules' to be used in face-to-face settings. This focus on intervention and normativity detracts from the importance of the overall message from the participants themselves. Their testimony demonstrated that gaming has a positive impact on the subjective well-being of autistic people, and may provide valuable insights into the ways in which autistic people manage their own mental health needs (Lam et al., 2021).

Thus, the aim of the current study was to understand how game play relates to well-being in autistic CYP, through exploring motivations for video game engagement, and benefits of playing from their own perspective using a qualitative approach.

METHOD

Participants

Twelve families responded to an online advertisement placed on social media (i.e. local parent support groups) which said we were interested in speaking to autistic young people about their experiences of online gaming. To take part, participants had to : (i) be aged 11–18 years (ii) have an autism

diagnosis obtained from a National Health Service developmental team (iii) attend a mainstream school, or be in a specialized unit (iv) be able to respond to verbal directions; (iv) be able to consent to participate in the study. Our sample comprised 12 autistic adolescent males from the North London area, aged 13–15 years (M = 13.75 years, SD = 0.60). Eleven of the participants were White, and one was Black. All of the participants had a diagnosis of autism as confirmed by a caregiver (see Table 1) and were in full-time education. All participants also had an additional diagnosed specific learning difficulty (spLD, e.g. dyslexia or dyspraxia), and three of the participants had an additional diagnosis of attention-deficit hyperactivity disorder (ADHD). Data on demographics including diagnostic details were obtained from caregivers, who also completed a family background questionnaire, and provided information about their young person's gaming behaviour. All participants had been gaming for a minimum of two years, and their gaming routine consisted of a minimum of 2 hr per week playing computer or console games. The study received ethical approval from University College London ethics board.

Data collection and procedure

Prior to the study, we provided participants and their parents with a written explanation of the study and the aims, using modified CYP-friendly versions of the information sheet for the participants to ensure accessibility. Both parents and the young person themselves provided consent, and the participants were advised that all responses were confidential and that they could stop or withdraw at any stage during the study without having to provide justification. We used semi-structured interviews (see Appendix) to create a flexible, two-way dialogue between the researcher and the participant. We developed the interview schedule on the basis of recommendations provided by Cridland et al. (2015) to maximize accessibility for the participants. Particular attention was given to the steps involved in their recommendations on interview piloting, obtaining informed and voluntary consent/assent and conducting effective interviews. The questions were designed to tap into participants' experiences, feelings and beliefs (Welman & Kruger, 2001) and questions focused on several domains (e.g. patterns of gaming, perceived effects of play) examined in previous literature. The questions were piloted with one autistic adolescent and their parent, who recommended extra time to answer and flexibility in the interview structure. The interviews took place at the family home to provide confidentiality and the space for participants to reflect on their responses, and lasted between 30 and 60 min. After the interviews were finished, the interviewer debriefed the participants and thanked them for their time.

TABLE 1 Participant demographics and pseudonym

Participant pseudonym	Age (years)	Diagnoses	Ethnicity
Luke	13	Autism, ADHD	White British
Harry	14	Autism	White British
Lenny	14	Autism	White British
Henry	14	Autism	White British
Aaron	13	Autism	White British
Alfie	15	Autism	White British
Toby	13	Autism, ADHD	Black British
Christopher	13	Autism	White British
Alex	14	Autism	White British
Sonny	14	Autism	White British
Freddie	14	Autism	White British
Tommy	14	Autism, ADHD	White British

Methodological approach and data analysis

We took an interpretivist approach with our epistemology underpinned by the Lifeworld Framework (Pavlopoulou & Dimitriou, 2019). We analysed the data using an inductive, reflexive thematic analysis (TA), following Braun and Clarke (2006, 2020). We selected TA for multiple reasons. First, it provides a flexible approach to the analysis and interpretation of a qualitative data set. Second, reflexive TA emphasizes staying aware of our own subjectivity during the research process. Reflexive TA encourages acknowledgement of how our epistemology, experience and the power dynamic between researcher and participant may influence our interpretations (Braun & Clarke, 2020). This aligns with our epistemological framework, where our interpretations aim to centre and validate the young person's perspective.

The second author (CU) audio-recorded all interviews and transcribed them verbatim, then verified transcripts against the recording for precision. CU familiarized themselves with the data by reading through the transcripts multiple times, making notes throughout. They used these notes to code interviews at the semantic level, which involved identifying salient constructs in each data set (e.g. example codes for theme 2 were escapism and immersion). These codes were organized into themes by all three authors (one of whom is an autistic adult), and these themes were refined and named, using thematic maps throughout the process to ensure that context and detail were fully captured (Bryman, 2016).

RESULTS

We identified three major themes from the interview data (see Figure 1), which captured the motivations for online gaming, and the impact that this has on the lives of the young people. We discuss each in turn.

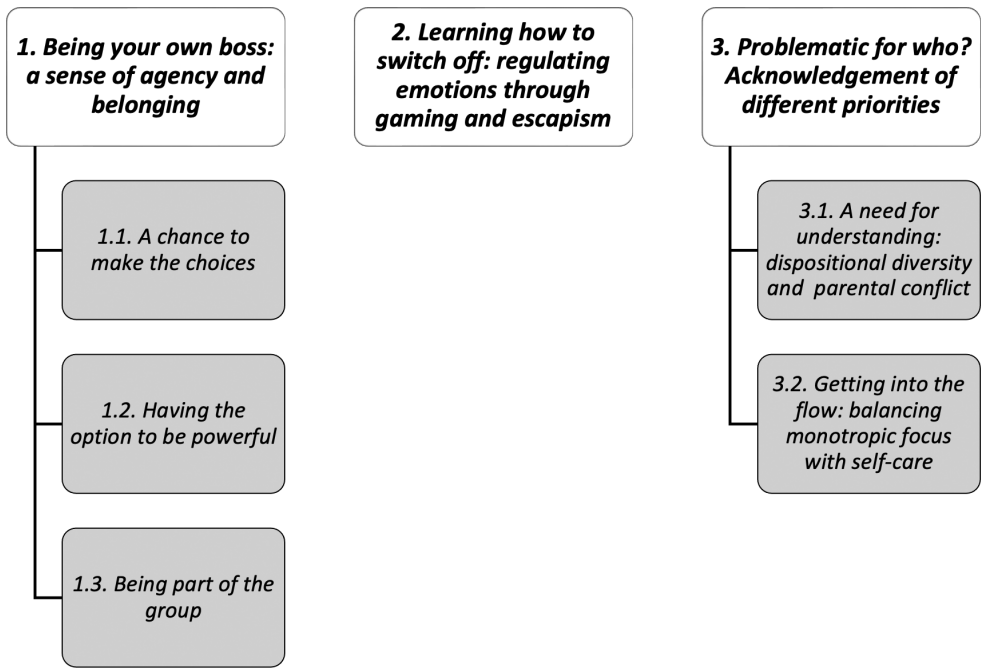

FIGURE 1 Key themes and sub-themes identified from the interview data

Being your own boss: a sense of agency and belonging

One of the key motivations for engagement with online gaming was the sense of autonomy and belonging that it fostered in the young people. It provided them with the opportunity to make decisions and have control over an aspect of their life, as well as providing the opportunity to 'try out' different roles that might be ordinarily inaccessible.

A chance to make the choices

The ability to manipulate game features and exert control over players was a consistent theme for many participants. They explained how having opportunities to successfully influence how the narrative unfolds throughout the game appeared fulfilling and satisfying. Participants noted that games were, 'more fun than the real world because you are in control' (Aaron) and 'you can be the boss' (Luke). The interactive and creative nature of game design allows for dimensions to be fine-tuned to reflect the players' thoughts and choices:

> You have control over how the game goes. Change the character, change your team, change your weapon. Whatever you want. You make the choices. You decide. Even if you make a choice and test it out and don't like it. You can change again. Be exactly what you want.
>
> (Christopher)

The level of agency the participant felt they had within a game was often associated with positive feelings of enjoyment, 'when I get to tell everyone what to do, it's great,' and 'I feel good. No one tells you what to do. I do' (Toby).

Having the option to be powerful

The ability to take on different identities and become immersed in a fantasy world where you could be and do anything you liked was something the young people in this study found particularly appealing. Specifically, the opportunity to test multiple new identities and attribute their desired characteristics such as strength, power and social status provided a level of fulfilment and satisfaction as they engage with that character:

> You can change your characters all the time too. So, then I can become the actual people and experience it for real through their actual eyes. You can't do that anywhere else. You can't fly or fight people in real life like they do but I can experience it just how it would actually be.
>
> (Harry).

Participants also reported that the experiences that they were provided with were not achievable in real life, 'I get to be a powerful person. Walk, talk like them which I couldn't do in real life,' (Tommy) and 'You don't experience it anywhere else. It's all new and a challenge' (Sonny).

The challenge of building up a powerful character, and developing skill during gameplay was something that the young people also found intrinsically motivating, giving them the opportunity to acquire skill and knowledge and be recognized as an expert. 'You get more money when you win to buy better weapons or like a car. It gives you options to be powerful. (Henry).

Being part of the group

Whilst not all participants reported social interaction as a motivator, several mentioned how gaming facilitated communication and the development of friendships, 'Easier to talk to friends online,' (Alex) and 'I don't really like talking face to face but online is ok' (Aaron). Others indicated how it gave them a shared area of interest to enjoy with friends and a sense of belonging to a larger group:

> We like the same thing so we can chat about the game and then you feel like you are in the group because you all like the same thing… We don't have to think about something to talk about and if we don't want to talk then we can just mute our headset. But if we want to talk we can.
>
> (Henry)

> My friends at school are playing too so I can talk to them about it at school. If you don't play, then what are you going to talk about?
>
> (Aaron)

A few participants also said that it was easier to approach peers in the playground whom they had gamed with. They explained that the experiences that they were provided with during video interactions created intimate moments '…we had something in common to share if we need to talk,' (Tommy) and 'I know something is connecting us and I can be around them' (Tobby).

Learning how to switch off: regulating emotions through gaming and escapism

The young people cited escape from the stressors of everyday life, and the impact it had on their emotional well-being as a strong motivator to engage in online gaming, 'It isn't real life so I can transport my brain there and forget about things' (Tommy). Gaming provided a safe place, and a distraction from their fears and struggles, 'I can forget about the things that scare me and buzz around my brain' (Toby). The need for time away from outside pressures was also a common experience, 'People around me make me frustrated. If I don't want to do something they keep going on and on,' (Luke). Henry specifically mentioned the pressures they faced within the school and how gaming provided the opportunity to switch off from it all while still developing new skills:

> School is hard. I don't know how to do all this stuff but when I play games, I still learn skills but not with all the constant nagging. Its pressure all the time. I can just get a moment of not having that.

The ability to escape these outside pressures led to increased feelings of positivity and joy for the young people:

> I have my own space when I'm playing and that's what I like. It's peaceful and calm
>
> (Alex).

> I can actually do it without any help or someone watching over me all the time and giving me constant instruction… 'do this, do that'. Constant voices. I can just hear myself when I play. It's peaceful and quiet. I know what I'm doing anyway. It's much better
>
> (Sonny).

In addition to providing somewhere to relax and unwind, some young people reported how gaming also provided a way to deal with negative emotions. Online gaming was sometimes used as a distraction from less appealing activities which participants found frustrating or boring: 'Sometimes I have homework but I don't have time to do it every night. Homework is boring anyway and pointless. I meet my friends online instead,' (Alex) and 'I always play instead of doing my homework. I can't do it anyway so what's the point.' (Luke). Gaming also provided a means of effectively managing negative emotions like stress and anger. For some, this was through sheer engagement in something that they enjoy, 'Sometimes when I start, I'm angry about something but during the game I am happier because it's what I want to do. It helps your mind and makes it better.' (Toby). For others, the immersion into the character's abilities also provided an opportunity to release negative emotions in a safe and controlled environment:

> When you are shooting at like a character you release your anger without hurting someone. You get that feeling out so you can feel better.
>
> (Christopher).

Mood management was reported to be successfully achieved post game play with participants stating they felt, 'relaxed,' 'calm' and 'better,' because they could, 'just switch off.' In particular Freddie noted, 'I need it to help me deal with a bad day or when someone annoys me.'

Problematic for who? Acknowledgement of different priorities

Although the young people in this study had a strong motivation to engage in gaming and could identify the positive way that it impacted their personal well-being, they also recognized that their engagement with online gaming could impact negatively other areas of home life, such as the relationship with their parents, and other aspects of their routine.

A need for understanding: dispositional diversity and parental conflict

Participants expressed their awareness of their parent's expectations regarding the amount of time they played for, 'I know they think I play too much' (Christopher) and 'Usually we argue about it (time spent)' (Henry). However, the young people related this to their parent's lack of understanding of their need to engage, and the positive role that video game play has on their well-being, 'She doesn't understand,' (Luke) and 'If she asks me about my day, I get annoyed. I need to switch off first. Be calm. Then I'll be ok' (Henry).

A major issue had been negotiating homework time and playtime with parents. This often resulted in moments of conflict. Additionally, some parents express that gaming is potentially harmful, which led to friction about what the young person and their caregiver thought was best for them:

> Usually we argue about it. She doesn't want me to play. She thinks I get in a bad mood if I play too long. She makes me in a bad mood though. Always telling me to turn it off. That's what makes me get angry
>
> (Henry)

It was also clear that gaming helped the young people to unwind and provided the space they needed to engage with family life, though this wasn't always clear to caregivers. Freddie described how gaming allowed him to 'switch off' in order to make that transition between the demands of school and home: My mum usually knows when I come home from school, I play it straight away. If she asks me about my day, I'll just get annoyed. I need to switch off first.

Getting into the flow: Balancing monotropic focus with self-care

The young people explained their reluctance to engage in everyday activities associated with self-care or homework when they had not achieved a particular goal in the game (e.g. 'levelling up'). Some of the young people noted that their immersion within a game could make it difficult to disengage, and that this might lead to staying up late playing instead of going to sleep:

> Sometimes I got to bed at like 1am because I'm trying to complete a level. I just want to get to the end before I stop but it can go on and on. It's ok if it's the weekend because I'll sleep until like lunch time but if I have to get up early then I can't (Alfie).

Alex noted it affecting his eating habits, I would probably keep playing because I'm not actually hungry. I just have dinner because I have to.

DISCUSSION

The current study aimed to explore the motivations of online video game play from the perspective of autistic teenagers, being mindful not to interpret their statements through a neuronormative lens. Whilst enjoyment is as good a reason as any to engage in hobbies and leisure activities, the insights provided by the young people here suggest that gaming provides a function that goes beyond sheer enjoyment, providing opportunities for skill development (i.e. decision making) and improving emotional well-being. The data painted a rich picture of the benefits and satisfaction that online gaming can bring to the lives of autistic CYP, and are consistent with previous research exploring the perspectives of autistic young adults in relation to gaming. Here, we discuss our findings in further detail.

The importance of autonomy

Participants highlighted a desire for autonomy and opportunities for agency as a strong motivator for engaging in online video gaming. The pervasive nature of these comments indicated that the young people felt like they had little control over most of their daily lives. This was reinforced by their reflections on the use of gaming to de-stress, where many of the young people spoke of feeling pressured by the demands of others. The young people in this study were also engaging with gaming in a way that promoted their agency and decision-making skills which are instrumental in self-advocacy across the lifespan (Pavlopoulou, 2020). Gaming may be one way that young people are able to 'try out' more adult or responsible roles in a safe environment and help them to develop their decision-making skills.

This desire to try out different aspects of identity was also explicitly highlighted by the young people as something they found enjoyable about game-play, particularly the chance to make their own decisions, and to be 'powerful'. Many autistic young people experience social stigma (Crane et al., 2019), peer victimization (Fisher & Taylor, 2016), social exclusion (Kloosterman et al., 2013) and an increase in personal restrictions in comparisons to non-autistic peers (MacMullin et al., 2016). The opportunity to experience life as a powerful person may provide the opportunity to roleplay a more idealized version of themselves.

Power and autonomy, however, were not the only aspects of identity-switching that participants enjoyed. The young people talked about the creative and fantastical aspects of gaming (such as flying, and character customization) as well as the opportunity to see the world through someone else's eyes. These statements highlight the creativity and perspective-taking skills of autistic young people, which can often be overlooked.

Self-regulation

Video games provided the young people in this study with an outlet for daily stress, and worked as both a way to distract from, and deal with negative emotions as well as increasing feelings of positive well-being and happiness. This is consistent with previous research showing that gaming can provide opportunities for emotion regulation (Reinecke et al., 2012; Villani et al., 2018) and stress release, a key motivation for gaming highlighted by autistic adults (Finke et al., 2018). The participants in the current study demonstrated insights into their own emotional needs and the strategies they use for managing their emotional well-being. These insights can provide caregivers with an understanding of how to support their young people in managing their own well-being. Additionally, they can help caregivers to see *why* a young person might appear to be prioritizing gaming over other responsibilities (i.e. doing their homework). This information may provide caregivers with the opportunity to find ways to promote agency, for example, encouraging their young person to manage their own emotions in positive ways but also to seek help when struggling instead of avoiding the problem altogether.

Social opportunities

Some of the young people in this study identified the social opportunities provided by online video gaming as a positive benefit. Interacting with friends online instead of face to face facilitated communication and helped to make the young people feel more at ease by providing a platform to communicate on their own terms. The young people also reflected on how online gaming could foster a sense of belonging, through talking to friends with shared interests. These findings are consistent with research into the benefits of online gaming in autistic adults (Gallup et al., 2016), who have highlighted the importance of gaming spaces to share interests with like-minded others. They are also consistent with research which suggests that the communication styles of autistic people may differ from those of non-autistic people (Crompton et al., 2020; Milton, 2012), and that alternative methods of communication may be beneficial for some (Howard & Sedgewick, 2021). Future research should focus on how engagement in hobbies that include a social aspect can (a) foster a sense of belonging and well-being for autistic young people and (b) might encourage them to recognize and advocate for their own communication needs in adolescence.

Dispositional diversity and parental conflict

Despite online gaming providing a wealth of benefits to the young people in this study, they recognized that their parents were not always understanding of their motivations for their engagement with gaming. Milton (2014) highlighted how the concept of 'dispositional diversity' (the variation in disposition across different people) can lead to conflict, when mutual misunderstandings arise from a lack of insight into the other's perspective. The participants expressed how disagreements over what constitutes 'too much' gaming could lead to strained relationships with their parents. The majority of studies examining 'problematic gaming' in autistic young people typically rely on parent report (Craig et al., 2021). Our findings suggest that what might be labelled as problematic gaming in autistic young people is not necessarily due to 'excessive' gaming, but might be due to a disparity in what is classified as excessive by parents (particularly those who do not see the value in gaming as a pastime) and young people. This disparity is important to address, given that parents who see their autistic children as engaging in what they classify as excessive gaming tend to enforce stricter restrictions than they would for siblings (MacMullin et al., 2016; Mazurek & Wenstrup, 2012). These restrictions could lead to the removal of important self-regulation strategies used by autistic young people to modulate their own mood and well-being. The current study provides valuable knowledge to support a sensitive approach from parents and professionals, which acknowledges the needs, experiences and priorities of autistic young people. It

is important that we recognize the positive impact that engagement with hobbies can bring to autistic young people, whilst also stressing the need for balancing this engagement with other aspects of their daily routine and responsibilities.

Monotropism and flow states

The young people in this study did acknowledge that it could be difficult to disengage from gaming when they were immersed in completing a particular task, and that this might cause difficulty in other aspects of their daily routine (i.e. remembering to go to sleep, or eat dinner). This increase in immersion can be explained by the monotropic attentional style theorized to be a core feature of autistic cognition (Murray et al., 2005). Monotropism is characterized by a more singular attentional allocation (as opposed to spreading attention across stimuli, in a polytropic manner) and can lead to increased flow states (McDonnell & Milton, 2014), where complete absorption in an enjoyable task can make it more challenging to track the passing of time (Csikszentmihalyi, 1990) and disengage from one task to move on to another. Finding ways to balance engagement in leisure activities with other responsibilities is something many people (autistic or not) have to learn to develop as they transition into adulthood and as responsibilities increase. Placing strict restrictions on gaming time is unlikely to help young people to develop this balance effectively. Instead, caregivers may want to work with their young person to figure out ways to help them transition more smoothly from one activity to another, and learn about the potential impact of neglecting self-care (i.e. being too tired the next day from staying up too late online gaming). Future research should examine how we can support autistic young people to balance their leisure time with other daily responsibilities, with a focus on personal autonomy that will aid in the development of independence.

Limitations

Although the aim of qualitative research is not generalizability, the current sample was small and relatively homogenous (participants were all males aged 13–15 and the majority were White). The homogeneity of the sample was not intentional and is representative of who volunteered to participate (i.e. we did not deliberately exclude participants of other genders). The majority of research on gaming in autistic CYP has been limited to male participants, and young people of other genders may have different experiences of online gaming. These experiences will be important to explore in future research.

Although we did gather information from caregivers about their young person's gaming habits, we did not ask about their perceptions of their young person's gaming. Future research might focus on both the experience of the caregiver and young person in order to more closely address discrepancies in perception of gaming behaviour, and how to smooth tensions around gaming.

CONCLUSION

Overall, the findings of this research were consistent with previous studies showing that gaming provides a positive outlet for autistic people. However, unlike previous studies, we did not focus on how this testimony could be used to encourage normative social skills. Instead, our findings highlight the need to acknowledge and validate the viewpoints and experiences of autistic young people in research about their interests and well-being. The young people in this study demonstrated a complex understanding of their own interests, emotional needs, outsider perceptions (i.e. parental disagreements) and challenges in balancing responsibilities with leisure time. We recommend that instead of focusing on the use of autistic CYP interests as a way to develop skills that we think they may find challenging, we should recognize that autistic CYP may already be developing these skills

(e.g. autonomy) in ways that adults may not expect. Helping caregivers and educators to recognize the insights that young people have into their own needs, and supporting young people to 'invite them in' can lead to further self-development opportunities for young people to find their own methods for self-regulation and skill development.

AUTHOR CONTRIBUTIONS

Georgia Pavlopoulou: Conceptualization; formal analysis; methodology; project administration; resources; supervision; writing – review and editing. **Claire Usher:** Conceptualization; data curation; formal analysis; investigation; methodology; writing – original draft. **Amy Pearson:** Formal analysis; writing – review and editing.

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CONFLICT OF INTEREST

There are no conflict of interest to declare.

DATA AVAILABILITY STATEMENT

Research data are not shared due to privacy/ethical restrictions.

ORCID

Georgia Pavlopoulou https://orcid.org/0000-0002-0205-8332
Amy Pearson https://orcid.org/0000-0001-7089-6103

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APPENDIX

Interview schedule.

1. Can you tell me about the games you like to play?
2. What's important/exciting/fun/frustrating/motivating about gaming?
3. What is happening before, during and/ or after you play games?
4. Is gaming changing in any way what the rest of your day will be like?
5. How do you think your family/brother/sister feels about this – is it important to them as well? (If relevant)
6. Do you think other people know how you feel about gaming?
7. Is there anything you'd want your parents, teachers or friends to understand about gaming that they may not already know?