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“I Forgot My Numbers and the Machine Swallowed It Up”: Adults With Learning Disabilities Share Their Perspectives on the Shift to a Cashless Society

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ABSTRACT

Introduction: This paper examines the experiences of people with learning disabilities in the United Kingdom as society transitions towards cashless transactions and services. It is a significant study because it highlights the need to understand their digital financial experiences.

Methods: This study employed an inclusive, interpretivist approach, focusing on participatory methods. Reflexive thematic analysis was used to analyse data from focus groups including 40 people with learning disabilities across 3 day services. This original study included co-researchers with lived experience of learning disabilities who assisted in data collection and analysis.

Results: Four key themes emerged: heterogeneity of preferences for cash versus digital payments; the urgent need for support and training in digital financial literacy; balancing safeguarding and fostering independence; and accessibility challenges in physical and online banking environments.

Conclusions: The shift to a cashless society poses significant challenges for people with learning disabilities, requiring tailored support and training in digital finance. Financial institutions should be cognisant of these needs, suggesting that systemic changes are required for improved financial inclusion. The study highlights the importance of including people with learning disabilities in the design of digital financial tools and policies, to support their financial autonomy and independence.

1 | Introduction

1.1 | The Shift to a Cashless Society: Implications for Vulnerable Populations

The global financial landscape is rapidly evolving, epitomised by the United Kingdom's trajectory towards a 'cashless society' (Duane 2021; Hall et al. 2022). This transition poses significant challenges, particularly for vulnerable groups such as individuals with learning disabilities (Lupo-Pasini 2021), who

experience cognitive impairments affecting memory, problem-solving and attention. These impairments can impact financial independence and decision-making for the estimated 1.5 million adults with learning disabilities in the United Kingdom (Mencap 2024). The closure of cash machines and banks, refusal of cash in retail and an increase in digital transactions limit access to essential financial services (Caswell et al. 2020; Duane 2021; Lupo-Pasini 2021; Tay, Tai, and Tan 2022). This accelerates concerns over 'digital financial inclusion' (European Central Bank 2023; Tay, Tai, and Tan 2022), underscoring the

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Accessible Summaries

- Our research looks at how people with learning disabilities manage their money in a world where we use less cash and more digital payments like cards and online banking.
- We spoke with individuals with learning disabilities in East London to understand their experiences and challenges with digital money.
- Our findings show that while digital payments can be helpful, they can also be difficult for some people with learning disabilities. They need more support to use these services.
- We suggest that banks and financial services should make their digital tools easier for people with learning disabilities to use. This includes better training and more accessible services.
- This research is important because it helps us know how to support people with learning disabilities in managing their money in a digital world. It is important that everyone, including people with learning disabilities, can use money easily and safely.

need to explore the experiences of those with learning disabilities in a digitalising financial environment.

The ‘Access to Cash Review’ predicts a potential cessation of cash transactions by 2026 (Ceeney 2019). However, the review suggests that while some cash transactions will persist, a significant proportion of the UK population will struggle with declining access to cash transactions and services. The move towards cashless payments, designed with the broader market in mind, often overlooks more marginalised groups, including those with learning disabilities.

1.2 | Challenges of Digital Financial Inclusion for People With Learning Disabilities

For those reliant on cash, the shift to cashless is likely to pose challenges and exacerbate ‘digital financial exclusion’ for people with learning disabilities, significantly increasing their disadvantage (Gill, Sukhvinder, and Linda 2021). People with learning disabilities tend to have a greater dependence on cash transactions, accentuating potential challenges in a rapidly digitalising economy (Kwiatkowska et al. 2023). A lack of accessible information complicates their access to financial help and advice (Abbott and Marriott 2013) and financial institutions still have insufficient knowledge about accessible systems and user-demand for them (Gill, Sukhvinder, and Linda 2021). Therefore, moving to cashless systems without ensuring ‘digital financial inclusion’ is likely to disadvantage those with learning disabilities significantly.

1.3 | Legislative and Societal Context

The European Accessibility Act has established legal requirements for the inclusivity and accessibility of digital

products, including banking services and cash machines by 2025 (European Accessibility Act 2019). However, it is uncertain how this legislation will affect the design and delivery of digital financial services, and the extent to which universal design principles will be applied to the range of digital financial products and services (Steinfeld and Maisel 2012). Further research is needed to understand the experiences of people with learning disabilities and how current and future practices and legislation may affect their preferences and perceptions related to the accessibility of financial products and services.

The digital financial shift may also expose people with learning disabilities to additional risks including fraud and financial exploitation (Lupo-Pasini 2021). For example, a study on the impact of a cashless debit card initiative in Australia (Bielefeld and Beaupert 2019) found that people with disabilities may often need to entrust a payment card to another party to facilitate purchases on their behalf, thereby revealing their personal identification number (PIN) or other sensitive information. Such practices could increase their vulnerability to novel forms of financial exploitation (Caton and Landman 2022). However, it could also be argued that accessing digital financial services can help people with learning disabilities gain greater independence and control over their finances, potentially reducing the risk of financial exploitation as they would not be relying on other people to gatekeep their finances or assist them with purchases.

1.4 | Summary of Current Evidence and Research Gaps

Research on barriers to digital financial inclusion for people with learning disabilities is scarce. As societal reliance on internet-enabled technologies grows and everyday tasks, including financial services, move online, digital inclusion becomes crucial for social inclusion (Danker et al. 2023; Robinson et al. 2015). Many people with learning disabilities remain digitally excluded due to systemic inaccessibility, legal concerns and protective gatekeeping (Engwall 2023). However, barriers to digital inclusion extend beyond access, encompassing cost, skills and confidence with new digital tools (Ågren, Hemmingsson, and Kjellberg 2023). These barriers could also hinder access to digital financial services, underscoring the importance of involving people with learning disabilities in designing digital financial tools (Danker et al. 2023; Safari, Wass, and Thygesen 2023).

Conder and Mirfin-Veitch (2020) revealed the complexity of financial management for the participants of their qualitative study, highlighting their pride in budgeting skills but also their need for tailored support to handle financial complexities effectively. The study highlighted challenges such as living on limited budgets and struggling to afford basic needs like healthcare and leisure activities. Another study (Bielefeld and Beaupert 2019) noted the impact of limited payment options, particularly where digital financial services are not always accessible or suitable for people with learning disabilities, thus restricting their financial autonomy and ability to make cost-effective purchases.

It is crucial to balance safeguarding and promoting independence for individuals with learning disabilities in the context of digital financial inclusion (Potten 2017). Digital financial services also offer opportunities for greater independence and control over personal finances. Understanding the experiences of people with learning disabilities is essential to strike a balance between the need for safeguarding, their right to take risks (Faulkner 2012), empowerment and independence (MacIntyre, Stewart, and McCusker 2018; Potten 2017). This understanding will help develop more nuanced strategies that respect the need for autonomy and safety in an increasingly digital financial world.

Digital financial inclusion is particularly relevant for those with lived experience of learning disabilities alongside economic deprivation (Delobel-Ayoub et al. 2015). Despite only 6% of people with learning disabilities being in paid employment, they may face higher daily expenses due to needs like purchasing preprepared meals or managing dietary restrictions from medication or associated conditions. Additionally, where retailer choice is limited by nonacceptance of cash, their ability to procure essential items at reasonable costs may also be restricted (Bielefeld and Beaupert 2019). This challenge is prominent in East London boroughs, where many experience economic deprivation (Office for National Statistics 2023) and many with learning disabilities receive support with financial products and services from local organisations. Their experiences, challenges and needs must be central to research and strategies in this domain to ensure a genuinely inclusive digital financial future.

1.5 | Aims and Research Question

Drawing on the existing literature and identified gaps in knowledge, the current study explored the perspectives of people with learning disabilities regarding digital financial exclusion. The importance of this issue for people with learning disabilities has been asserted, about both practical and human rights concerns. The primary research question was therefore: How do people with learning disabilities feel about a cashless society?

2 | Methods

2.1 | Overview of the Methodological Approach

As we have noted, there is a dearth of literature about digital financial inclusion and people with learning disabilities. This study, therefore, uses an interpretivist approach to explore the perspectives and meaning-making of people with learning disabilities regarding the use of cash, digital financial services and an approaching ‘cashless society’. The interpretivist approach employed in this study focuses on understanding the subjective experiences and meanings that participants assign to their interactions with digital financial services, recognising that these experiences are influenced by their unique personal and social contexts. The direct involvement of people with learning disabilities as part of the research team not only enriched the research process by embedding authentic, lived experiences into

our methodology but also significantly shaped the findings by highlighting critical insights and nuanced understanding that might otherwise have been overlooked (Nind and Vinha 2014). As it is clear from the literature that people with learning disabilities face challenges from multiple factors, we will analyse our findings using a multi-factorial socio-ecological lens that views people’s well-being as influenced by a combination of individual, interpersonal, community and structural-level factors (Simplican et al. 2015). Therefore, not only will we consider some of the cognitive and psycho-social implications of living with learning disabilities, but we will also interrogate systemic and relational factors that might impact life experience (Lomas, Hefferon, and Ivtzan 2014). Furthermore, we have employed the concept of ‘inclusive research’ (Johnson and Walmsley 2003) as our research team consisted of experienced researchers, undergraduate and postgraduate students and co-researchers with learning disabilities. We use the ‘co’ to describe the latter group in the way that Walmsley and colleagues use it in research with people with learning disabilities to suggest an ‘equal but different’ contribution and to imply the idea of collaboration as well as acknowledging the unique expertise that they were offering (Walmsley, Strnadová, and Johnson 2018). We further followed their advice in our research design, in that we included opportunities for co-researchers (and student researchers) to experience research training, and we were able to offer payment for their services. Moreover, we were researching an area that people with learning disabilities and our co-researchers had identified as an important area to research that affected their lives (Nind 2017). Therefore, our research team supported all stages of the study from design to analysis and dissemination of findings.

2.2 | Setting and Population

The study was conducted in three boroughs of East London identified by the Office for National Statistics as having high levels of economic deprivation (Office for National Statistics 2023). We worked with three local organisations that support people with lived experience of learning disabilities in day settings. These included a Local Authority day service and two not-for-profit organisations. We intentionally selected services supporting a diverse spectrum of individuals with learning disabilities to facilitate increased participation from people with various needs and levels of disabilities. To mitigate potential biases in participant selection, we actively encouraged organisations to involve a mix of individuals, including those who may not be currently engaged in digital finance activities, to ensure a broader representation of experiences and perspectives. Additionally, we included participants from multiple service providers and emphasised the importance of diversity in participant profiles during the recruitment process. This approach helped us achieve a more comprehensive understanding of the range of experiences within this population.

2.3 | Participants and Sampling

The participants for these focus groups were 40 community members with learning disabilities who attended day centres in

East London. The organisations selected members of their service who they believed would be able to take part in the study. Inclusion criteria therefore included the ability to share thoughts with others in a group setting. Some participants brought paid assistants who were able to support them in communicating their views successfully. Participants' first-hand experiences and insights were deemed essential for understanding the barriers and potential solutions to digital financial inclusion (Milner and Frawley 2019). After agreeing on a convenient time and date with each organisation, our research team visited each one to carry out the focus group.

2.4 | Data Collection

After receiving ethical approval from the UEL research ethics committee (Reference: ETH2223-0066), four focus groups were conducted in collaboration with our partner organisations in March and April 2023. These focus groups were organised and facilitated by our team of student researchers, co-researchers with learning disabilities and our partner organisations, with the support and supervision of senior researchers. Before the data collection, these teams participated in active learning workshops aimed at understanding the purposes and processes involved in collecting data in focus groups as well as creating 'Easy Read' supporting materials that would aid in the facilitation of the sessions (Chinn and Homeyard 2017). Moreover, questions for the focus groups were co-produced by the student researchers and co-researchers to ensure relevance and comprehensiveness. All focus groups were video recorded, and each recording was transcribed verbatim by members of the research team. Informed consent was obtained from all participants before the start of the focus groups.

To ensure meaningful engagement and understanding of our co-researchers throughout the research process we have used a Rix Wiki (<https://www.rixwiki.org/>), a collaborative digital platform designed to support people with learning disabilities to self-advocate, to document and facilitate the involvement of our co-researchers throughout the study. The Rix Wiki allowed us to capture their engagement, experiences and learning outcomes, and to coproduce accessible 'easy read' information. This included materials on the research process, methods for reviewing literature and a coproduced 'jargon buster' that simplified complex research terminology to enhance understanding and inclusivity. The Wiki was used to capture the whole research process and to document our progress and findings as we went along, enabling us to practice truly inclusive research (Johnson and Walmsley 2003).

2.5 | Data Analysis

Data was analysed through Reflexive Thematic Analysis (Braun and Clarke 2019), incorporating a nuanced approach that prioritises researcher reflexivity throughout the analytic process. This method emphasises the active role of the research team and a deeper level of reflexivity, where researchers constantly reflect on their assumptions,

interpretations and interactions with the data in an iterative process. Firstly, all recordings were transcribed, followed by individual and collective engagement with the data to foster a deep, reflective understanding. Researchers and student researchers immersed themselves in reading the transcripts, while co-researchers with disabilities engaged through a guided viewing of the video-recorded focus groups and discussion using a workshop-based approach. Researchers with lived experience of learning disabilities often find it challenging to read transcripts, which is why we have engaged them in video reflective sessions. In this approach, we watched the video recordings of the focus groups together and discussed each point separately. This method ensures that our co-researchers are actively involved in every stage of the research project, fosters deeper personal reflections and enhances the overall inclusivity and richness of the analysis. Subsequently, a collaborative review of data insights facilitated the identification and coding of significant themes and subthemes, emphasising an iterative, reflective dialogue among team members. The final step involved a collective agreement on the thematic framework when the team agreed and named the themes, creating a grid to include themes and sub-themes as a basis for writing the paper. Including our co-researchers in all research steps was essential to ensure the insights and perspectives of community members with learning disabilities were kept at the forefront (Walmsley, Strnadová, and Johnson 2018). All participant names have been changed to preserve anonymisation.

3 | Results

The study was conducted with a total of 40 participants in three different day services for people with learning disabilities. Four key themes emerged from the data: (1) Heterogeneity of Preferences; (2) Who You Gonna Call? Support with digital financial proficiency; (3) Safeguarding versus Independence and (4) Lack of Accessibility in Physical and Online Spaces.

3.1 | Theme 1: Heterogeneity of Preferences

The preference for cash or card among participants was not uniform, reflecting a range of experiences and needs. Sammy, for example, preferred using cards, saying, 'I prefer cards because I always forget to go to the cashpoint'. Maria struggled with the logistics of handling cash, noting, 'For me, it's like working out the change to get back, and that's my downfall'. Maria's experience reflects the cognitive challenges faced by many with learning disabilities, particularly in tasks that require numeracy and mental calculation.

Some participants, such as Lianne, found cash easier for managing their budgets. Lianne shared, 'It's easier to budget when you're using cash instead of a card', which illustrates a common challenge for those with learning disabilities in managing digital transactions.

Some of the participants went further and felt that being able to use cash was a right:

If I couldn't use cash...I would feel sick, I would say to them, it's my right, my decision, I want to buy clothes and enjoy myself using my money.

(Devi)

This highlights a strong emotional connection to cash usage, where its availability is perceived not just as a convenience but as a fundamental right tied to autonomy and personal freedom. Others reported feeling shocked, angry and upset when they were not able to use cash. However, not everyone preferred using cash. At least three participants were quite proficient at using their mobile phones to pay for things, and reported it was much easier than remembering to get cash out.

These contrasting experiences underscore the need for flexibility in financial options, ensuring that both cash and digital payment methods are available to accommodate different preferences and capabilities, acknowledging that a one-size-fits-all solution may not be feasible.

3.2 | Theme 2: Who You Gonna Call? Support With Digital Financial Proficiency

Many participants expressed a lack of confidence and fear around digital banking. Several participants shared worries about their ability to remember key pieces of information making them feel vulnerable and exposed to other people, or not knowing what to do when things went wrong. For example, Stuart told the group about a time when he was at the bank and: 'I forgot my numbers and the machine swallowed it up'. This example captures the broader anxiety many participants felt about navigating digital banking independently, highlighting the need for tailored support and accessible training to foster digital financial inclusion.

Concerns about security and the risk of financial exploitation were prevalent among participants. Devy's fear was evident when he mentioned: 'A lot of people who does it (use bank cards) and then like they misplace their phone and then another person goes into their bank and then takes their money out of that, even though that is not theirs'. Such statements reflect the perceived risks of digital transactions and underscore the necessity for enhanced security measures and education to build trust in digital financial tools.

Likewise, both Sharon and Linda were very nervous about remembering their PIN, both stressing how they would need support to do this. The participants who used cards talked about people who had supported them initially or who continued to support them now. For many, it was their parents. Devi talked about how important his father was in helping him to do online banking:

And luckily, I have my Dad with me, cause he's more experienced in it. He doesn't work in banking, but he's got a Nationwide card as well. So, me and him, we've got a joint card.

Similarly, Omari talked about how he relied on his parents for support and how their encouragement helped him to have the confidence to use a bank card:

My parents always say to me, you should give it a go, if they are not around any longer than it will be down to me... I would like to learn; it's gaining the confidence to do it on my own.

Another example of scaffolding support was given by Stephen. He said that his Mum supported him to work out his finances with his carer rather than just rely on her:

My mum helps me when I go to the bank, we have a set day to go and I use the money with my carer.

(Stephen)

While these examples illustrate how parental support can enable financial learning, they also reveal how it can limit independence. Some parents were fearful about their adult children's ability to become financially independent, either did their shopping for them or actively discouraged them from using online banking. For example, in the case of Naveed who told us 'I only go shopping with my Mum, she pays for everything' and Muhammed who reported 'I've never used any cards. My Mum and Dad take me shopping and they use their cards'. In such cases, opportunities for financial independence are significantly curtailed and it was difficult to see how they could develop skills to become financially independent.

Sarah's mother stopped her from learning about digital banking, because of her own past stressful experiences:

My Mother has had her credit card cloned and stolen, so she will not show me how to use a hole in the wall.

These findings show that while parents can be key enablers in developing digital financial skills, they can also unintentionally hinder their adult children's autonomy due to their own fears or past experiences. For people who did not live at home with their parents, the chance of learning digital finance skills appeared even more precarious. David, who lived in a supported living accommodation told us:

I haven't got any parents now to come through and learn from them. And now banks have closed down and I can't get information from them and talk to them, even locally. So, I haven't got any access to it except for the post office. And they don't give a monkey's uncle.

This illustrates how a lack of accessible support outside the family setting can further marginalise individuals in their financial management efforts.

All focus groups discussed the need for training in all aspects of digital finance to be able to use online banking confidently, and most participants shared that this had not been offered to them. Notwithstanding parental input, there appeared to be no recognised training within the social care system to enable people with learning disabilities to feel more confident about their money. Two participants shared that they had attended weekly workshops on digital finance skills several years ago at the day service which they had benefited from. However,

these had stopped once the particular staff member had moved on. This suggests that the training was not fully embedded within the structure of the organisation or seen as a priority. Furthermore, others argued that services should also offer financial training in other languages as well as English.

3.3 | Theme 3: Safeguarding Versus Independence

Several of the participants lived in Supported Housing where staff were responsible for their finances. Linda told us about her experience of using her bank card:

‘I used to go to the shop every day, I used all my credit card up, I couldn’t believe I used it all, I just spent, spent spent...’ Linda says that to prevent further issues, the care staff implemented a daily spending limit to help her manage her finances more effectively and avoid overspending.

Another participant, Sara, reported that she had spent £300 on her card when she only intended to spend £30. She recalls that because of this her father was very angry and insisted that the social care staff take control of her bank card. Sara explains that this is well organised but means that every time she wants to spend money, she must ask the carer and they record it in her book. While this approach ensured financial safety, it also limited Sara’s autonomy, as she had to seek permission for every transaction.

These examples highlight a critical tension between safeguarding and promoting independence for people with learning disabilities. On the one hand, measures like setting spending limits and assigning financial control to caregivers help protect individuals from financial harm and prevent situations of overspending or exploitation. On the other hand, such protective strategies can also restrict their financial freedom and decision-making autonomy, potentially reinforcing dependence on others for everyday financial choices. This illustrates the need for a balanced approach that provides necessary safeguards while also empowering individuals to make their own financial decisions.

3.4 | Theme 4: Lack of Accessibility in Physical and Online Spaces

Banks themselves (those that still exist in physical spaces) can often be inaccessible for disabled people. For example, one participant who was a wheelchair user reported that she either could not get into some buildings, and when she did, the cash points were often at the wrong height for her wheelchair. This lack of physical accessibility is compounded by the perception of being excluded from adequate support, as participants felt that many bank staff were not aware of their specific needs. Some participants reported how staff had been rude to them, and the idea of having a consistent figure in the bank to speak to was discussed in all the focus groups. Zainab reported her frustration with this saying:

Every time you go to a bank, even if it's at the same time there is a different person dealing with you and I have to say exactly the same thing, sometimes it's so annoying.

However, while participants recognised that it may not always be possible to have the same staff member available, they stressed the importance of training all bank staff on how to inclusively support people with learning disabilities. Although it could be anticipated that online banking might alleviate some of these barriers, participants reported that many accessibility challenges persisted in the digital realm. David reported (about using a card machine):

It is very difficult indeed because I'm partially sighted, I can't see what the hell I'm doing. He went on to say:

I don't like it; I can't see very well. I can't see where to put the card in the machine, I won't be able to see what I am pressing for example, if they want you to put numbers in for your bank account, I couldn't see the buttons to press, I would have to tell someone my password if I want my money.

David’s experience illustrates the continued barriers that visually impaired individuals encounter, even with digital tools designed to increase accessibility. Moreover, Aysa highlighted challenges when using card machines: ‘you need to be able to use the machines and know what you’re paying for’.

These findings suggest that significant barriers remain in both physical and online banking environments, highlighting a need for more inclusive design and better staff training to meet the needs of people with disabilities effectively.

4 | Discussion

4.1 | Summary of Main Findings

The themes that have emerged from our analyses of focus groups conducted with 40 participants with learning disabilities can be interpreted using a social-ecological framework (Simplican et al. 2015). The social-ecological model provides a nuanced perspective to understand behaviour and experiences as influenced by both individual, interpersonal, community and structural factors. At the *individual-level*, our study revealed diverse preferences in digital financial inclusion, which directly reflects the broader transition to a cashless society as outlined by Duane (2021) and Hall et al. (2022). Many participants, like Devi, who expressed a strong preference for cash, exemplify the challenges identified by Lupo-Pasini (2021) for vulnerable communities in adapting to this shift. The varied preferences of participants underscore the importance of tailoring support to meet the diverse needs of individuals (Abbott and Marriott 2013; Hall 2011) and the critical need for financial services to develop using universal design principles that are inclusive and cognitively accessible.

Others reported the cognitive stress involved in handling cash, including demands on numeracy and mental calculation. These findings align with previous research suggesting that people

with learning disabilities make financial decisions similarly to nondisabled people, requiring an understanding of the relevant information and the ability to act on it (Suto et al. 2005, 2006). Suto et al. (2006) concluded therefore that cognitive abilities only had an indirect impact on the financial ability of people with learning disabilities. However, the preference for cash over digital methods due to a lack of confidence in digital proficiency underscores the need for personalised support in digital financial literacy.

Additionally, the emotional impact of being denied the use of cash in various settings was significant, with participants experiencing frustration and exclusion (Ceeney 2019). Concerns about the safety of digital financial transactions, particularly regarding online banking on mobile devices, were also evident. This highlights the urgency of implementing the European Accessibility Act (2019). The act's focus on universal design could mitigate some of these challenges, but as Gill, Sukhvinder and Linda (2021) noted, financial institutions' current knowledge gaps in accessible systems may hinder progress. There is clearly a need to accelerate educational efforts and system redesigns to align with accessibility standards.

At the *interpersonal-level*, findings underscored the crucial role of relationships, especially with family members, in enabling or hindering digital banking experiences. These findings echo the complexity of financial management challenges described by Conder and Mirfin-Veitch (2020). Literature has established the need for increased safeguarding measures to protect vulnerable people from the risks of financial mismanagement or exploitation, but this must be balanced by adopting a positive and proactive approach to promoting and protecting autonomy (Parker and Galpin 2012).

Participants often relied on parents and carers for financial transactions and management, a reliance that could both facilitate and limit their financial autonomy, indicating the need for tailored support and education for both individuals with learning disabilities and their caregivers. Negative banking experiences of family members, for instance, sometimes led to hesitancy in teaching digital finance skills. The apprehension regarding the safety of online banking reflects the broader concerns about increased risks of fraud and financial exploitation in a cashless society (Bielefeld and Beaupert 2019; Lupo-Pasini 2021). Findings also showed how dependent people with learning disabilities can be on institutions such as the Post Office. As numbers of Post Offices continue to decline (Clark and Booth 2024) it is concerning where people will find supportive staff to help them access their money.

Participants' experiences of feeling vulnerable when conducting digital transactions echo the need for enhanced security measures and financial education to protect individuals with learning disabilities.

At the *community-level*, the importance of support from local organisations and community groups in offering digital literacy was highlighted. Participants identified a gap in training for digital financial tools, emphasising the need for structured support in this area. Workshops in day services emerged as a potentially valuable resource for enhancing digital financial

inclusion. At the *structural-level*, our findings touched upon broader systemic issues such as the tension between the desire for financial independence and the need for safeguarding. Overspending was a significant concern, particularly among those with less oversight over their finances. Structural challenges, like inconsistencies in bank personnel and difficulties using ATMs due to visual impairments, further complicated these circumstances. Our findings on the crucial role of community support for digital literacy resonate with the literature's identification of barriers to digital financial inclusion (Danker et al. 2023; Robinson et al. 2015).

4.2 | Implications for Policy and Practice

The strong preference for cash among some participants and the emotional impact of being denied cash transactions highlight the adverse effect of declining cash accessibility, as forecasted by the Access to Cash Review (Ceeney 2019). This trend towards cashless without adequate inclusive alternatives threatens to deepen digital financial exclusion for people with learning disabilities. The lack of accessible physical and online banking services added to these challenges, suggesting a need for systemic changes to improve financial accessibility for individuals with learning disabilities.

The findings from our study suggest several key considerations for policy and practice in enhancing financial inclusion for people with learning disabilities. These considerations span across various levels, from individual accommodations to systemic changes in financial institutions and education. The systemic changes and individual experiences identified in our study contribute to the discourse on digital financial inclusion, addressing gaps highlighted in the literature (Potten 2017; Faulkner 2012). Financial institutions could benefit from being more attuned to the needs of people with learning disabilities. This might involve ensuring physical accessibility and adopting approaches that are cognitively considerate. The presence of consistent staff or dedicated personnel in banks to assist clients with learning disabilities could facilitate better banking experiences. Familiar faces and understanding of individual needs can help build a more trusting and effective banking environment. As has been advocated for the design and delivery of social care provision, tailored, personalised interventions that emphasise choice and control could also be beneficial (Power et al. 2022). Implementing mechanisms like daily spending limits might help individuals with learning disabilities manage their finances more effectively, balancing independence with safeguards against overspending (Potten 2017). Additionally, communication tools, such as cards detailing individual preferences and needs, could assist in making interactions between bank staff and clients clearer and more efficient.

Accessible financial education is another important area of focus. Programmes designed to improve understanding of digital financial tools and concepts should be straightforward and available in various languages to cater to a diverse clientele (Melo, Silveira-Maia, and Ribeiro 2023). These educational initiatives could be integrated into community services, ensuring they reach a wider audience. Policy considerations might also include the design and regulation of digital financial platforms.

Ensuring these platforms are accessible and user-friendly for individuals with learning disabilities could involve simplified user interfaces, clear instructions and alternative formats for information presentation. In essence, enhancing digital financial inclusion for people with learning disabilities involves a multifaceted approach. It requires collaboration between financial institutions, policymakers, community groups and educators to create an environment that is both inclusive and conducive to the financial empowerment of individuals with learning disabilities.

4.3 | Strengths and Limitations

The strength of our study lies in our methodological inclusivity. Adopting inclusive research practice, as advocated by Nind (2017) and Walmsley, Strnadová and Johnson (2018), our study not only illuminates the specific challenges faced by individuals with learning disabilities in the digital financial domain but also emphasises the value of their active participation in research (Nind 2017). By involving community members with lived experience of learning disabilities as co-researchers, we ensured that the authentic perspectives and insights gathered were deeply rooted in the real-world experiences of our target population. This approach aligns with the principles of inclusive research, as outlined by Walmsley, Strnadová and Johnson (2018), emphasising collaboration and valuing the unique expertise of individuals with learning disabilities. Furthermore, the qualitative nature of our data collection provided rich, nuanced insights into the experiences and challenges faced by the participants. The collaboration with local organisations was also instrumental in grounding our understanding of the context and needs of the population. These partnerships not only facilitated access to participants but also ensured that the research was relevant and responsive to the local community's needs.

Our study also has some limitations that must be acknowledged such as the limited geographical scope of the study, which focused exclusively on East London boroughs. This geographic concentration may limit the generalisability of our findings to other regions or communities with different socioeconomic, social and structural contexts. Another limitation is the potential for selection bias in our participant sample. The individuals who participated in our focus groups were selected by the organisations we partnered with and may represent those more willing or able to share their experiences. This selection process could potentially exclude the voices and experiences of individuals who are less engaged or have different perspectives on the issues discussed. Furthermore, while we found that focus groups were effective in capturing a range of perspectives and providing insights into shared experiences, individual interviews might have offered deeper, more personal insights. Additionally, diary methods could be a useful addition to future research, offering detailed, day-to-day insights into participants' interactions with digital finance over time.

4.4 | Implications for Future Research

In this study, we did not collect detailed information on the specific numbers of participants engaged in different types of

digital finance activities. While this limits our ability to provide this context to our participant's experiences, it highlights an important area for future research. Specifically, future studies could be used to gauge the prevalence of the challenges identified in our study. Quantitative research could provide data on the scale of these issues, offering a broader perspective on how widespread these challenges are among people with learning disabilities. This approach would complement our qualitative findings and could inform policy and practice on a larger scale. Furthermore, research on the design, feasibility and effectiveness of different interventions is also crucial. Specifically, studies assessing the impact of financial education programs tailored for people with learning disabilities would be valuable. Such research could explore various formats and content of financial education, evaluating their effectiveness in enhancing financial literacy and independence among this population.

Studies focusing on the role of caregivers are also important. Our research highlighted the significant influence of family members and carers in the financial lives of individuals with learning disabilities. Future studies could delve deeper into how caregiver involvement shapes financial behaviours and preferences. This could include examining the dynamics of caregiver support, the impact of their financial literacy and their attitudes towards digital finance on the financial decision-making and autonomy of people with learning disabilities. In addition to these areas, future research might also consider the impact of technological advancements and policy changes on digital financial inclusion. As digital finance evolves, it is crucial to continuously assess its accessibility and suitability for people with learning disabilities, ensuring that advances in technology do not widen existing inclusion gaps (Lupo-Pasini 2021).

5 | Conclusions

Our study on digital financial inclusion for people with learning disabilities has revealed diverse individual preferences and highlighted the importance of family and community support. We identified systemic challenges, such as the tension between financial independence and safeguarding. These findings imply a need for financial institutions to adapt more to the needs of people with learning disabilities, promote consistent staff support and research, and implement personalised interventions like financial education programmes. Future research should assess the feasibility and effectiveness of delivering these interventions in a range of contexts.

Author Contributions

Study conception and funding were secured by Gosia Kwiatkowska, Paul Watts and Janet Hoskin. Data collection and analysis were conducted by all authors. The manuscript was drafted by Gosia Kwiatkowska, Paul Watts and Janet Hoskin. All authors reviewed and approved the final manuscript.

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Ethics Statement

Ethical approval for the study was granted by the UEL research ethics committee (Reference: ETH2223-0066). Informed consent was obtained from all focus group participants before the start of the focus groups.

Conflicts of Interest

The authors declare no conflicts of interest.

Data Availability Statement

Anonymised data from this study can be made available on request.

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