

Supporting digital inclusion in diverse populations: Co-located welfare advice in health and community settings

Siew Fung Lee, Laura Austin Croft, Matthew Oultram, Angela Bartley, Michelle Heys, Claire Cameron

Supporting digital inclusion in diverse populations: Co-located welfare advice in health and community settings

Siew Fung Lee ^{1,*}, Laura Austin Croft ², Matthew Oultram ², Angela Bartley ³, Michelle Heys ⁴, and Claire Cameron ⁵

¹UCL Institute of Education (IOE), London, WC1H 0AL, UK

²East London Foundation Trust, National Health Service, London, E1 8DE, UK

³School of Health, Sport and Bioscience, University of East London, London, E15 4NQ, UK

⁴UCL Institute of Child Health, London, WC1N 1EH, UK

⁵UCL Social Research Institute, London, WC1H 0AG, UK

*Corresponding author. UCL Institute of Education (IOE), 20 Bedford Way, London, WC1H 0AL, UK. E-mail: siew.lee@ucl.ac.uk

Abstract

This paper examines how co-located welfare advice services in health and community settings address digital exclusion, that is, the inability to access digital services due to barriers of access and skills, among disadvantaged families in East London, an area with high levels of digital and child poverty (Tower Hamlets: 48%; Newham: 44%). Across three sites, a neuro-disability clinic, children and family centres, and a health-linked community centre, we conducted qualitative analysis of parent interviews ($n = 55$) and stakeholder interviews ($n = 12$), drawing on financial outcome data ($n = 60$) from a larger evaluation. Applying the Candidacy Framework, we identify three analytically distinct mechanisms through which co-located services enable digital inclusion: proactive identification of digitally excluded families by health practitioners; face-to-face application support that addresses both technical and psychological barriers; and sustained relational engagement in trusted settings that build digital confidence over time. Together, these mechanisms provide human

© The Author(s) 2026. Published by Oxford University Press on behalf of
The British Association of Social Workers.

This is an Open Access article distributed under the terms of the Creative Commons Attribution License (<https://creativecommons.org/licenses/by/4.0/>), which permits unrestricted reuse, distribution, and reproduction in any medium, provided the original work is properly cited.

infrastructure that enables, rather than replaces, digital engagement for families experiencing intersecting disadvantages of disability, language barriers, and economic hardship. As welfare systems digitalize, embedding welfare advisors within health and community settings offers a pragmatic and theoretically grounded approach to fostering digital inclusion for diverse and disadvantaged populations.

Keywords: digital inclusion; digital exclusion; welfare benefits; co-located services; candidacy framework.

Accepted: June 2026

Introduction

The move towards digital-first welfare systems in the UK has changed how families access and manage support, especially for those with young and disabled children in areas such as East London, where child poverty rates are among the highest nationally, at 48% in Tower Hamlets and 44% in Newham (JRF 2024: 58). In these areas, disability and linguistic diversity compound these disadvantages (House of Lords 2023). In this context, families with members experiencing long-term mental health conditions face poverty rates of 38%, while Pakistani and Bangladeshi communities have the highest poverty rates in the UK at 51% and 53% (JRF 2024). These overlapping disadvantages make it even harder for families to navigate online welfare services, despite being among the most dependent on financial support.

This paper uses three related terms to frame these challenges. Digital exclusion refers to the inability to access or use digital technologies and services due to barriers in access, skills, motivation, confidence, language, or disability (House of Lords 2023). Digital poverty captures the material dimension of this exclusion, including inadequate devices, connectivity, data, or affordability (British Academy 2022). Digital inclusion describes the supports—practical, relational, and infrastructural—that enable people to engage meaningfully with digital systems (House of Lords 2023). These concepts are interconnected: digital poverty creates the material constraints that underpin digital exclusion, while digital exclusion reflects the lived experience of struggling to navigate digital systems due to limited skills, confidence, accessibility, or linguistic support. Digital inclusion can help address both conditions by reducing material barriers and providing the skills, confidence, and support families need to participate in digital welfare processes.

Although financial support is available, complex systems pose significant barriers to access. The welfare benefits system, meant as a safety net, is increasingly dependent on digital processes. Nationally, £24.1 billion remains unclaimed annually, including £2.35 billion in Carer's Allowance (affecting 553,000 unpaid carers) and £55 million in Healthy Start support (202,000 families with young children) (Policy in Practice 2025). These disability-related

benefit figures exclude Disability Living Allowance due to assessment complexities (Policy in Practice 2025), suggesting that the true scale of unclaimed support for families managing disabilities is considerably higher.

This study examines how co-located welfare advice services in East London support digital inclusion among families facing intersecting forms of disadvantage, drawing on a focused re-analysis of qualitative data from a larger evaluation of this service model. As Steiner (2021: 3361) notes, digitalization has a ‘double face’, where opportunities and risks are ‘simultaneously embedded’ in digital technologies. The challenge for welfare services is to develop systems that support rather than marginalize vulnerable populations. This study applies the Candidacy Framework (CF) to analyse how families’ eligibility for welfare support is negotiated within digitalized systems (Dixon-Woods et al., 2006). We address three questions: (1) How does the growing digitalization of welfare benefits systems affect families managing disabilities and/or language barriers? (2) Through which mechanisms do co-located welfare advice services facilitate digital inclusion for disadvantaged families? (3) How can health and community settings deliver co-located services to support digitally excluded populations?

Digital exclusion in welfare contexts

This section examines how digital exclusion creates barriers within welfare systems, the skills required to navigate digitalized benefits applications, and how the COVID-19 pandemic intensified pre-existing inequalities.

UK policy measures digital competence through the Essential Digital Skills Framework (House of Lords 2023, paras 140–145), which categorizes skills into three progressive levels: Foundation (covering eight basic tasks like connecting to WiFi and opening browsers), Life (encompassing twenty-six skills for everyday online activities), and Work (consisting of twenty essential workplace tasks). However, this linear progression model obscures why digitalized systems exclude families managing multiple challenges. Around 10.2 million UK adults (20%) cannot complete all Foundation tasks, 12% lack full Life skills, and even among employed adults, 5.6 million cannot complete all Work tasks (House of Lords 2023). People with disabilities are twice as likely to lack basic digital skills (Policy in Practice 2025), yet they must navigate increasingly digitalized systems. This contrast shows how digital transformation can unintentionally exclude those who need support most. The House of Lords inquiry itself recognized that the framework was ‘not being used consistently across Government’ (House of Lords 2023, para 145), and that formal qualification-based approaches were ‘failing those people’ most in need (para 152). A key question is whether welfare benefit applications such as Universal Credit (UC) and Personal Independence Payment (PIP) require competencies spanning all three framework levels—from managing time-restricted online forms to understanding technical

terminology to navigating secure government portals. This study examines whether such complexity creates barriers for families and how co-located services offering ‘digital skills support in familiar, community settings’ (House of Lords 2023, para 151) might help address them.

The digitalization of welfare services demonstrates how this skills gap translates into immediate exclusion. In the UK, approximately 2.4 million adults are digitally excluded, including 1.7 million households without internet access (House of Lords 2023: 8 & 42). This digitally excluded group overlaps heavily with those needing welfare support due to income, disability, or both (House of Lords 2023: 42), creating a cycle where those most dependent on digital systems are least able to access them. UC applications require online registration with an email address, and only 20% of applicants can verify their identity online without assistance (NAO 2020: 39). Robinson *et al.*’s (2020: 1–2) concept of the ‘digital inequality stack’ explains why such barriers prove insurmountable: disadvantages accumulate rather than exist in isolation. Families without reliable internet cannot begin applications; those lacking digital skills encounter difficulties with multi-stage forms; non-English speakers face compounded hurdles at each stage.

The COVID-19 pandemic accelerated the shift to remote service delivery, intensifying existing digital barriers for vulnerable groups (Reece *et al.*, 2022). Robertshaw *et al.* (2022: 33) note that digital service delivery is less stigmatizing for ‘ideal’ job seekers but challenging for claimants who rely on face-to-face support for reassurance. Many claimants feel ‘pushed out’ by the digital system, confused about navigation and eligibility, leading to calls for ‘human’ help, especially among disadvantaged users, with confusion increasing fraud and abuse risks (Robertshaw *et al.*, 2022: 31–5). Low-income families on benefits like UC found remote support less effective than in-person visits, often failing to meet needs (Scullion *et al.*, 2022). Financial barriers hindered access to essentials like food and heating, whilst mental health issues like depression and PTSD further hindered digital engagement (Scullion *et al.*, 2022: 63–8). Griffiths *et al.* (2022) reported that the lack of internet access delayed UC payments and increased food bank use. In East London, service closures and remote shifts during the pandemic disproportionately affected low-income families facing overcrowding, financial stress, and limited support, hampering their digital engagement (Cameron *et al.*, 2022). These challenges persist in post-pandemic digitalized systems, creating the context in which co-located welfare advice services operate.

Co-located welfare advice in health and community settings

Co-located services describe the physical integration of welfare advice within health and community settings, enabling shared spaces and coordinated referrals (Woodhead *et al.*, 2017). This section reviews the evidence

on the effectiveness of co-located welfare advice, examines the specific mechanisms through which it may support digital inclusion, and identifies the research gap this study addresses.

Co-located services in familiar environments improve accessibility and reduce anxiety compared to standalone offices (Reece et al., 2022), potentially supporting digital inclusion through several interconnected mechanisms: personalized support addressing individual skill gaps; adapted service delivery responsive to language and literacy needs; flexible scheduling in trusted settings that mitigates time constraints (ONS 2019); integration enabling proactive identification of need by health practitioners (Woodhead et al., 2017); and face-to-face assistance with online applications that builds both technical skills and confidence. However, finding suitable areas to discuss health, finances, and benefits remains challenging due to limited space in health settings. For example, health practitioners can identify patients' digital support needs during routine visits, facilitating direct referrals to advisors (Woodhead et al., 2017) and addressing the social determinants of health, as well as the connection between digital exclusion and overall well-being.

Co-located digital support requires adequate resources, including suitable physical space and strong IT infrastructure for successful implementation. Graham's (2024) evaluation of welfare rights advice in Hackney health settings provides timely UK evidence on implementation factors. It highlights the need for 'substantial experience and expertise' in delivering these services effectively.

The House of Lords (2023) notes that individuals often benefit more from trusted local organizations than from large institutions, as these local organizations have established relationships that help engage digitally excluded people. These tensions between digital systems and families navigating complex realities highlight broader issues in social work practice. Pascoe's (2022: 3276–80) pandemic research found that although digital contact seemed more efficient, the quality of interactions was greatly diminished, with service users at risk of being 'left behind'. As Steiner (2021: 3366) contends, such problems stem from system design that overlooks users' realities rather than from digitalization itself. The question is whether co-located welfare advice services can address these tensions for families navigating digitalized welfare systems.

Study contribution and theoretical framework

Whilst existing research establishes co-located welfare advice as effective for improving benefits uptake and financial outcomes (Woodhead et al., 2017; Beardon 2022; Reece et al., 2022; Graham 2024), a critical gap remains: no studies have specifically examined how co-located services enable digital inclusion for families navigating increasingly digitalized systems.

This gap is particularly significant given three developments: welfare digitalization, with UC and PIP now requiring online submission; documented challenges for families managing intersecting disadvantages (disability, language barriers, digital poverty); and the NHS Long Term Plan's (NHS England 2019) simultaneous commitments to integrated health and social care services and to a 'digital-first' agenda.

The CF (Dixon-Woods *et al.*, 2006), which examines how eligibility for services is jointly negotiated between individuals and service providers, offers a lens to understand how co-located services can address the mismatch between digitalized systems' assumptions (the 'ideal' claimant with English proficiency and digital literacy) and families' lived realities. By applying this framework specifically to digital inclusion, this study addresses both an empirical gap in understanding digital enablement mechanisms and a theoretical gap by using 'candidacy' to explain access to digital welfare.

Theoretical lens: the CF

The CF provides an analytical lens for understanding how co-located services improve digital inclusion by examining the interplay of individual, professional, and systemic factors affecting families experiencing health, disability, and socio-economic disadvantages. The term 'candidacy' is defined as 'how people's eligibility for medical attention and intervention is jointly negotiated between individuals and health services' (Dixon-Woods *et al.*, 2006: 7). Table 1 illustrates the seven components of the CF that can be utilized to evaluate how co-location can alleviate issues of digital access in increasingly digital environments. This insight can inform the design and delivery of more responsive and adaptable services that better meet the needs of digitally excluded individuals.

Study design

This paper employs a qualitative design to investigate mechanisms through which co-located advice services enable digital inclusion for families experiencing digital barriers. The research draws on data collected as part of a larger evaluation of co-located advice services across three East London sites between 2022 and 2023, which generated 174 client referrals at the primary site and secured £476,023 in financial outcomes for 60 families overall.

A companion paper (Lee *et al.*, 2026) reports these quantitative financial outcomes and examines implementation factors, including feasibility, acceptability, and cross-site variations in service delivery. It establishes that co-located welfare advice is effective in securing financial support for disadvantaged families. Although the wider evaluation included quantitative monitoring of financial outcomes, the present study is a qualitative

Table 1. The candidacy framework for understanding digital access.

Candidacy component	Description	Application to digital inclusion in co-located services (Dixon-Woods et al. 2006; Graham 2024)
1. Identification of candidacy	How needs are identified and recognized by services and individuals	Practitioners proactively identify digital support needs during routine appointments; advisors recognize when families need help accessing online systems.
2. Navigation	How people find support and access appropriate services and resources	Co-locating advice within familiar health settings reduces obstacles and integrates digital support into environments that families trust and regularly attend
3. Permeability	Ease of access to services includes flexible appointment scheduling	Face-to-face support in familiar environments can eliminate digital barriers, making it more effective than purely digital assistance by tackling stigma and language challenges
4. Appearances	Attending services requires social confidence and effective communication to express needs	Accessing advice in trusted settings where patients already attend promotes accessibility and comfort, encouraging open discussions about digital needs whilst reducing stigma
5. Adjudications	Professional judgments influence individuals' access to attention and interventions	Co-located services allow professionals to evaluate needs and offer support based on health and social circumstances
6. Offers and resistance	Offers of care may be accepted or refused depending on how they are presented and by whom	Digital participation is complex, with some individuals preferring a blend of digital and face-to-face support for emotional and practical assistance
7. Operating conditions	Local candidacy depends on the resources and capacity required for service delivery	Key conditions for co-located digital support services include available resources, staff skills, and digital connectivity

analysis of interview data. The present paper makes a distinct contribution by investigating how and why co-located services specifically enable digital inclusion. While the companion paper documents service outcomes and implementation challenges, this paper focuses exclusively on qualitative data from fifty-five parent interviews and twelve professional stakeholder interviews to understand how face-to-face support in trusted settings addresses digital exclusion. We apply the CF as our analytical lens, a theoretical approach not employed in the companion paper, and focus on digital inclusion as a separate phenomenon requiring specific analysis.

Both papers analyse interview data from the same participants; however, the data were reanalysed for this study, with explicit attention to digital inclusion themes that emerged but were not fully explored in the initial analysis, which focused on financial outcomes and implementation.

This focused re-analysis enables us to understand the specific mechanisms through which co-location enables digital access, complementing the companion paper's demonstration of service effectiveness.

For the intervention setup, we were guided by [Beardon's \(2022\)](#) framework for 'Health Justice Partnerships', which focused on service quality, accessibility, and collaborative partnerships. In one site, we employed the NHS Quality Improvement methodology, which emphasized active monitoring and the generation and implementation of change ideas to maintain momentum in uptake and referrals.

Sites

Site 1 was a large specialist clinic for children and young people with disabilities, where project funding secured a welfare advisor one day per week. Clinicians utilized an online referral system incorporating a screening question about money worries. The advisor conducted client meetings in a dedicated room and shared outcomes data with clients' consent, generating 174 client referrals. Site 2 comprised two children and family centres where the local authority welfare advice service sought to expand services. Despite promotional efforts through leaflets, targeted letters and a summer 2023 campaign, these centres achieved only twenty referrals. Whilst the centres' online benefits calculator offers information on entitlements, it cannot provide hands-on, face-to-face assistance with completing applications or tracking financial outcomes. Site 3 was a community centre connected to a health centre, which operated an established welfare service through social prescribing and advice teams.

Data collection

Interviews were conducted via phone with fifty-five parents who met the eligibility criteria of having attended at least one advice appointment at one of the three sites, and having either a disabled child or a child under the age of two. In Site 1, twenty-seven participants consented to interviews from 174 referrals. Site 2 generated only twenty referrals total, of which ten parents consented to interviews. To address data limitations, eighteen parents were recruited from 170 clients at Site 3 through purposive sampling of those with children under two who had engaged with the welfare team in 2023. Selection prioritized diversity in language backgrounds and benefit types claimed (including UC, PIP, Child Benefit, Fuel grants, and Food vouchers) to ensure breadth of experiences across different digital systems. [Table 2](#) sets out the parent participants' health issues and their children's needs. Participants were from diverse ethnic backgrounds

Table 2. Participant parents' health issues and children's needs.

Health issues and needs	Site 1 (<i>n</i> = 27)	Site 2 (<i>n</i> = 10)	Site 3 (<i>n</i> = 18)
Health issues of parents	Sciatica, spinal stenosis, depression and anxiety, bereavement, fall injuries, mobility problems	Maternal stress related to infant care	Recovering from C-section/ sleeping on the floor, ovarian cysts, prolapsed uterus, back pain from C-section, chronic pain due to bursitis
Children's needs	Severe disabilities, language and communication difficulties, Down's syndrome, mobility problems, wheelchair users, severe autism, feeding and sleeping issues, cerebral palsy	Infant sleep difficulties	Asthma-related to housing quality, Speech delay requiring constant attention, ADHD, autism, non-verbal child

Data from the current study: table format adapted from [Lee et al. \(2026\)](#).

reflecting East London communities: white British (3); European (6); South Asian (27); and African/Black Caribbean (19).

Semi-structured interview schedules were designed for stakeholders (hosts, clinicians, welfare advisors) and parents. The schedules examined families' needs, digital skills and confidence, language and literacy barriers, experiences with navigating online benefit systems, and how co-located advice supported digital inclusion. [Table 3](#) shows example questions from both schedules, illustrating how the topic guides covered these areas without being restricted to them. Questions were adapted to participants' English proficiency and the complexity of their welfare. Interview guides are available from the corresponding author on request.

We conducted phone interviews with twelve professional stakeholders involved in delivering, hosting, or referring to the welfare advice in their settings. These included community paediatricians, matron and transition nurses, occupational and speech and language therapists, the clinical lead for health visiting, general manager, debt and benefits team leader, and advisors. We conducted stakeholder interviews near the end of the project, focusing on implementation processes: setup, referrals, and access.

We also conducted parent interviews by telephone three months after the initial welfare advice appointments, using a semi-structured topic guide that covered: family background; work and financial situation; experiences with advisors; experiences with digital technologies and online applications; perceived barriers and facilitators to accessing benefits; and impacts on family wellbeing. Challenges during interviews included parental non-responsiveness, scheduling difficulties, and language barriers, with some participants using family members as translators. Participants received a £25 shopping voucher as a thank you for completing the interview. Parent interviews lasted 30–60 minutes, depending on English proficiency,

Table 3. Sample key interview questions and topic areas.

Group	Sample key questions	Topic areas
Stakeholders	What do you see as the most important needs for families in your area? Why might families be reluctant to seek financial support? Are there any difficulties with the referral process?	Digital poverty, disability, language barriers, and limited access to online systems Stigma, cultural norms, and digital barriers to engaging with welfare systems Set up processes, digital referral pathways and time burden
Parents	Is co-locating financial advice in health or community settings useful for families? How confident are you using a computer or filling in online forms for benefits? What languages do you speak, and/or read, and/or write? How comfortable did you feel receiving money advice in SCYPS? Did you feel you had adequate support—for example, help filling in online forms?	Accessibility, familiarity and structural aspects of seeking help Digital exclusion and the extent of digital confidence To understand linguistic barriers affecting digital form-filling Acceptability and burden of co-location To understand the advisors' role in enabling digital inclusion

welfare complexity, and comfort with the phone format. Stakeholder interviews ranged from 45 to 75 minutes.

Data analysis

We conducted reflexive thematic analysis following [Braun and Clarke \(2006\)](#), adapted to incorporate the CF as a theoretical lens. Audio recordings were transcribed verbatim and managed using Word and Excel. The multidisciplinary research team included expertise in health services research, social work, early childhood, and public health. The researcher (S.F.L.) and project lead (C.C.) collaboratively developed an initial coding framework after reviewing sample transcripts, then met regularly to review and refine codes and themes. The researcher mapped findings to the CF's seven components ([Table 1](#)) and generated thematic maps to illustrate and compare codes, definitions, and supporting examples across participant groups (parents, welfare advisors, health practitioners).

Several measures ensured analytical rigour. Regular reflexive discussions ensured interpretations remained grounded in participants' experiences. The research team addressed potential biases arising from partnership with healthcare and welfare advice providers, who may have preferentially referred families with positive experiences, through triangulation across

stakeholder perspectives, systematic attention to negative cases and implementation challenges, and regular discussion of contradictory evidence. We achieved thematic saturation after approximately forty-five parent interviews, with the final ten interviews confirming and deepening existing themes without generating new insights.

Ethics

The study received ethical approval from UCL IOE Research Ethics Committee (REC1757) and NHS ELFT's Governance and Ethics Committee (GECSE G2302d). To maintain anonymity, all interview participants were assigned pseudonyms using a simple sequential system: P1-P55 for parents, W1-W4 for welfare advisors, and R1-R8 for health and community staff who referred families to services.

Findings

Findings are organized into three analytically distinct yet interconnected themes that move from identifying digital exclusion, to mediating digital barriers, and ultimately to enabling sustained digital inclusion through co-located welfare advice. Theme 1 examines how digital welfare systems create barriers for families with disabilities, language barriers, and health conditions. Themes 2 and 3 examine the mechanisms through which co-located services address these conditions at two different levels. Theme 2 analyses practical and technical mechanisms: how advisors enable digital engagement through direct application support, error mitigation, and document navigation. Theme 3 examines relational and structural mechanisms: how co-location in trusted, familiar settings builds digital confidence over time, shifting families from anxious avoidance to sustainable agency. Together, these themes map onto the CF's understanding that access is not a single event but a multi-level process shaped by structural conditions, service design, and relational practice. The themes are sequenced to reflect this: understanding what excludes (Theme 1) is necessary to understanding why the specific mechanisms of inclusion in Themes 2 and 3 matter and how they work.

Theme 1: increasing digitalization of the benefits system and digital barriers

The digitalization of welfare systems creates multiple, intersecting barriers for families in this study. Non-English speakers encounter difficulties with technical vocabulary, whilst parents with disabilities face physical challenges accessing online platforms: 'I can't sit for a long time. I can't even

bend my legs' (P27); another stated, 'I have headaches and body pains. I've experienced many sleepless nights worrying about UC' (P25). Families reported that access to advisors helped simplify online applications and complex forms, easing digital engagement and promoting inclusion.

The integrated approach enables health staff to identify and support struggling families before they feel overwhelmed: 'I work with single mothers who lack the confidence to navigate services' (R2). A clinician noted, 'This online referral process aims to simplify things for families instead of adding another task for them to manage' (R3). Parents progressed from feeling overwhelmed to gaining confidence and agency: 'Where to find help gave me confidence in what to do now and what to do next' (P54). For isolated families with limited English proficiency and difficult circumstances, navigating online systems can pose a cumulative digital disadvantage. The assistance, when accessed, can be life-changing, as illustrated by a single mother with limited English and debilitating health conditions, raising six young children in temporary housing:

"[The advisor] helped with council tax, housing benefits, and some discretionary payments, along with PIP and Healthy Start vouchers. It was very difficult before this support. My ex-husband controlled everything—my money, my bank card, everything." (P18, translated by son)

Digital obstacles occur when advice services rely on visual materials and QR codes for benefits access. Health staff and families often overlook these materials; for example, a practitioner (R2) had not seen welfare promotion posters even after six months in the environment. Families focused on their children's health may miss these materials as they are anxious during visits (P3). While QR codes aim to improve access, poor WiFi and a lack of digital confidence hinder their use. Non-English speakers face additional challenges, as one son noted his mother uses her phone in Bengali, not English (P6). This assumption of digital access overlooks populations managing multiple challenges, with one clinician (R2) remarking that 'the most vulnerable are really not getting what they should be'. However, integrating face-to-face support is effective in overcoming these digital barriers when health staff proactively guide families to materials. Health staff R6 describes how they physically point out resources on display to families who might otherwise miss them, 'When I asked the families, have you seen that? It's just outside there? They said, No, we didn't see. I said, It's just out there—I come out and point, this is the poster'. Combining digital tools with human-centred support in a trusted setting helps overcome practical and psychological barriers, especially for those who face digital technology or language limitations. These structural and experiential barriers establish why generic or digital-only responses are insufficient; what follows examines the specific mechanisms through which co-located face-to-face support addresses them.

Theme 2: the impact of face-to-face support in enabling digital inclusion

Building on the barriers identified in Theme 1, Theme 2 explores how advisors provide hands-on digital support that directly addresses these challenges. Face-to-face advisor support mitigates both practical and psychological barriers to digital engagement, from password recovery to navigating the anxiety of ‘getting it wrong’. One advisor noted, ‘People worry that applying for something new could jeopardize their current support if they mess with claiming something else. Although they’re struggling now, they are anxious about rocking the boat and having all of their finances re-looked at’ (W3). Another advisor highlighted the practical support required to access their UC account: ‘They didn’t know their passwords. It took us 45 minutes to get in. I encourage them to log in daily to improve their understanding and ease their fears, making it less scary’ (W4).

A 17-year-old son expressed his concerns about translating online applications for his mother: ‘She asked me to do it—I said no because I don’t want to make mistakes’. (P43) His fear comes from the notion that ‘things need to be done in a very specific way’ (W4). An advisor explained, ‘If your child receives disability benefits, you are entitled to more UC elements. However, simply reporting the child’s disability is insufficient; it must be done accurately and with the correct details in the journal. [DWP] will not follow up to explain you’ve not done that correctly’ (W4). Parent P7 added, ‘I’m not confident because I haven’t done this before, and sometimes I don’t understand what they (DWP) are asking for’. The pressure to complete time-restricted online forms increases stress for individuals with reading difficulties or disabilities, as parent P55, diagnosed with dyslexia, explains:

“They give you 20 minutes to read. They don’t consider that I have to type. I had to fill in a form and another form that took forever. But I’m diagnosed as dyslexic. After a while on the computer, I don’t know how to save the form to get back to it later, so to avoid it, I just get a paper version.” (P55)

In-person support services effectively addressed challenges by providing empathetic flexibility to users. Advisors were dedicated, often spending extra time to ensure understanding and reassurance for parents. For example, one parent recounted, ‘[The advisor] stayed with me for an hour and a half, trying to explain everything’. (P11). Advisors also aided in navigating the complex processes of applying for benefits by breaking them down into manageable steps: ‘Once we had an appointment, she gave us a list to prepare documents, and then she applied for us’. (P36). This organized method helped families collect necessary documentation before online submissions, as noted by parent P35: ‘She said, bring this letter from your GP and collect the other documents’. One parent expressed relief at the

support received, saying, 'I'm terrible with filling in forms ... she took that anxiety away'. (P54).

The advisors provided support beyond just form completion; they actively advocated for families in their communications with authorities. One parent (P54) noted, 'They helped me fill out the form and negotiate with the council. I was struggling'. This advocacy is crucial, especially for families facing difficulties in expressing their needs. Another parent (P22) mentioned, 'Many parents aren't aware of available resources, leaving those with special-needs children at a disadvantage'. The advisors effectively connect documentation to digital systems while considering families' practical challenges, providing vital support that helps them access important benefits they might otherwise miss. Whilst face-to-face technical support is necessary, it is not sufficient: sustained digital inclusion requires a relational infrastructure of trust that enables families to engage with digital systems beyond a single supported episode.

Theme 3: co-location in trusted and familiar settings with a relational approach

Building on the analysis of practical support in Theme 2, Theme 3 explores how the relational and structural aspects of co-location established the conditions for ongoing digital inclusion. Co-location in trusted settings transformed how families engage with digital welfare systems, creating relationships that build confidence alongside technical capability: 'When it's an NHS location, it feels legitimate ... it puts people at ease' (P36), resulting in 'nine out of 10' families accepting appointments (W2). Concerns about online security and legitimacy often compound anxiety, 'There are many scams going on as well, I am probably thinking, is what I'm doing right?' (P4).

The presence of advisors provided support that digital channels alone cannot, particularly for families with disabled children who benefit from a secure and safe environment (R6) and help families navigate both physical and digital barriers to accessing benefits, 'If they've got their child with them, they know that it's a very child-friendly place' (R8). Advisors played a crucial role in understanding families' practical challenges, 'of leaving the house, getting ready for an appointment ... sometimes I've got to go back and change [child]. There was a time when I had to pack three lots of clothes for [child]' (P55). This awareness significantly impacts how support is delivered, especially for families with children with special needs. The service built trusted relationships through extended support over weeks or months, moving beyond one-off technical help: 'None of the cases is ever once and done ... there will be full casework that will go on for a few weeks, and some will be months' (W4). Advisors maintained regular contact through calls and texts, becoming advocates who understand

families' challenges. This creates a reliable safety net where parents confidently seek help, changing their digital technology engagement.

The relational approach changed how parents interact with digital systems: 'I'm not very confident with computers. I'll try things, but sometimes it doesn't go according to plan' (P4). Co-location enabled technical support through shared understanding: 'It's like I met a new friend. Sometimes you just need someone who can feel what you feel'. (P11), and emotional support: 'Before Oh it was so bad, so bad, my life was so bad ... Now I control myself and my life'. (P50) This combination of practical assistance and ongoing relational support enables not just access to benefits but also fundamental shifts in families' sense of agency and control—a transformation from powerlessness to self-determination (P50). The personal connection made digital engagement more approachable, as support comes from someone who understands families' circumstances. This helped parents acquire skills for long-term digital inclusion while knowing they can return for guidance. 'There is some help to go before I get to despair' (P55).

Discussion

This study identified how co-located advice services enable digital inclusion through three interconnected mechanisms: proactive identification by practitioners, face-to-face support, and sustained relational engagement in trusted settings. Applying the CF reveals how co-located services address multiple components of access simultaneously, extending analysis beyond documenting service effectiveness to explaining how digital engagement is enabled for disadvantaged families.

However, these findings should not be interpreted as opposing digitalization itself. Rather, they suggest that co-located advice provides what [Steiner \(2021: 3366\)](#) terms 'human infrastructure' that 'supports, rather than replaces, digital infrastructure'. This conceptualization explains why face-to-face support becomes more critical as welfare systems digitalize, not to avoid digital engagement, but to enable it for families needing support. As established earlier ('Introduction' section), digitalized systems implicitly construct an 'ideal' claimant who is digitally literate, English-fluent, and has reliable connectivity, which excludes vulnerable families ([Robertshaw et al., 2022](#)). The CF provides a systematic understanding of how these mechanisms operate across seven components of access.

Understanding digital inclusion using the CF

Applying the CF (Theoretical lens: the CF and [Table 1](#)) to our findings reveals how co-located services address the seven components of access. Success requires sufficient resources, including adequate physical space,

robust IT infrastructure, and sustained institutional support. These findings resonate with foundational social work principles of advocacy, empowerment, and addressing structural inequalities. Welfare advisors build trusted family relationships, focusing on strengths like resourcefulness and knowledge of children's needs while developing digital skills.

Co-located services addressed multiple CF components simultaneously. When health staff identified struggling families during routine appointments (**identification**): 'single mothers who lack the confidence to navigate services' (R2), they immediately connected them to advisors (**navigation**), eliminating the need to locate services independently. The trusted NHS setting reduced anxiety about accessing support (**permeability**). The dyslexic participant P55 illustrates this integration: advisor support with timed online forms (**appearances at services**) simultaneously provided technical assistance, accommodated disability through flexible timing (**adjudication**), and built confidence through ongoing relationships, easing families' anxiety about form completion (**offers and resistance**). Parents benefited from advisors who 'gave us a list to prepare documents, and then she applied for us' (P36), combining practical help with the legitimacy of trusted settings. This effectiveness required adequate physical space, IT infrastructure, and institutional commitment (**operating conditions**) that enabled the vast majority of families to accept appointments (W2).

The CF helps explain why face-to-face support is vital for families with disabled children claiming Carer's Allowance, as this benefit's rules are strict: families get full payments or none, with small income changes causing ineligibility. From 2018/19 to 2023/24, the DWP recorded up to 60,800 annual overpayments, mainly from carers who were slightly above the earnings threshold ([Policy in Practice 2025](#): 28). This encourages fears like 'applying for something new could jeopardise current support' (W3). These findings extend [Woodhead et al.'s \(2017\)](#) study, suggesting specifically how co-location enables digital inclusion, not merely general benefits access. [Graham's \(2024\)](#) evaluation similarly found that co-located services improved accessibility and engagement. However, our study provides deeper insight into the mechanisms through which face-to-face support specifically enables digital engagement for families navigating complex welfare systems.

The co-located model addresses the loss of relational elements when services rely solely on digital delivery. As [Pascoe \(2022: 3276\)](#) documented in social work practice during the pandemic, remote-only working constrained rapport-building and eliminated informal opportunities to build trust. As the section 'Theme 2: the impact of face-to-face support in enabling digital inclusion' indicated, advisors address these digital engagement barriers through technical assistance, emotional support, and sustained relationships. The connection between digital exclusion and vulnerability is reflected in [Robertshaw et al.'s \(2022: 35\)](#) research, which states that 'those with the greatest support needs could also experience most difficulties in

accessing support', aligning with our data about families managing health conditions, limited English proficiency, and restricted digital access. Similarly, Robertshaw et al. (2022) found that benefit seekers wanted face-to-face reassurance, timely feedback and clear guidance about their claims. Our findings suggest that co-location in familiar, trusted environments appears to reduce anxiety and stigma whilst enabling families to access both practical support and digital systems, extending understanding of how face-to-face support specifically facilitates digital inclusion for populations facing multiple challenges.

However, our cross-site comparison demonstrates that simply co-locating services does not automatically ensure digital inclusion. The varied implementation across different sites highlights the significance of service design and collaborative working (Beardon 2022); fostering strong partnerships between referrers, host providers, and advice teams greatly influences success. Site 1's higher engagement stemmed from systematic integration: an online referral system with screening questions, a dedicated advisor space, and sustained NHS QI methodology. In contrast, Site 2's lower uptake despite promotional efforts indicates that well-designed referral pathways and institutional support are essential, specifically, advisors must be integrated into practice teams rather than treated as outsiders (Woodhead et al., 2017).

Strengths and limitations

The study's focus on families with young children and disabilities addresses a critical gap in digital inclusion research. The study's strengths include an in-depth qualitative approach, drawing on fifty-five parent and twelve stakeholder interviews across three diverse, multi-ethnic, and high-need sites in East London, offering interpretive insights into the processes of digital inclusion that complement the quantitative findings of the companion paper. Applying the CF provided a theoretically grounded lens for analysing how access to digital welfare support is shaped through interactions between individuals, professionals, and service structures.

Comparing results across three different settings offers valuable implementation insights; however, limitations with the data management systems at Sites 2 and 3 significantly restricted comparative financial assessments. A further limitation concerns differential interview-to-referral ratios: 27 from 174 at Site 1 (15.5%), 10 from 20 at Site 2 (50%), and 18 from 170 at Site 3 (10.6%). Specifically, Site 1 was a specialist clinic with an embedded referral pathway and high referral volume, Site 2 was a community setting with lower uptake despite outreach efforts, and Site 3 involved purposive recruitment from an established welfare service. The lower rates at Sites 1 and 3 risk over-representing families who engaged readily with follow-up contact. At Site 3, purposive sampling prioritized diversity in language background and benefit type among families with

young children, mitigating but not eliminating this bias. These differences reflect variations in service maturity, referral pathways, and staff capacity rather than participant refusal alone. Findings should therefore be interpreted as illustrative of mechanisms rather than representative of all families accessing co-located advice.

While the study's use of telephone interviews provided geographical coverage and flexibility for parents, it may have excluded families facing severe language and digital barriers, potentially underreporting their experiences. Some participants relied on family members as translators to facilitate their participation. While family translation facilitated participation, we recognize that it may have hindered discussion of sensitive financial issues and constitutes a limitation of the study. The welfare benefits system underwent significant changes during the study period, including ongoing digitalization of UC and adjustments to eligibility criteria, which may have affected families' experiences and the study results. Additionally, the limited study timeframe raised questions about the long-term sustainability of services that provide digital and face-to-face support.

Conclusion

This study examined how co-located welfare advice services enable digital inclusion for disadvantaged families navigating digitalized welfare systems. Through qualitative analysis across three East London sites, we identified three interconnected yet analytically separable mechanisms: proactive identification of digitally excluded families by health practitioners; face-to-face application support that addresses both technical and psychological barriers; and sustained relational engagement in trusted settings that builds digital confidence and agency over time. Together, these mechanisms constitute the human infrastructure that enables, rather than replaces, digital engagement for families experiencing intersecting disadvantages.

Applying the CF to digital inclusion advances theoretical understanding of how access barriers operate simultaneously across multiple levels. Dixon-Woods *et al.*'s (2006) framework proves generative beyond healthcare: digitalized welfare systems, like health services, construct assumptions about 'ideal' users who are digitally literate, English-fluent, and reliably connected, that systematically exclude families managing complex realities. Our findings demonstrate how co-located services address multiple CF components simultaneously, extending existing research (Graham 2024; Woodhead *et al.*, 2017) by explaining the specific mechanisms by which co-location enables digital access.

Cross-site comparison shows that implementation quality is highly influential. Site 1's systematic integration: online referral system, dedicated advisor space, NHS QI methodology, achieved 174 referrals; Site 2's promotional approach without structural integration generated only twenty. Effective co-

location requires investment in referral pathways, dedicated space, IT infrastructure, and institutional commitment, not merely advisor posts.

For practice, these findings indicate that proactive identification during routine appointments is crucial; digital exclusion is not always apparent. Co-locating advisors within health and community teams creates the trust and legitimacy that enables families to engage. Relationship-based practice is not incidental to digital inclusion but central to it; advisors require adequate time, space, and IT resources for sustained casework. Future research should investigate optimal staffing ratios across different settings, monitor the longitudinal development of digital confidence, and examine participatory approaches to welfare system redesign with service users as co-designers.

As welfare systems worldwide digitalize, this study demonstrates that human infrastructure is not secondary to digital transformation but essential to its equitable success. The challenge for social work and health services is not choosing between digital and face-to-face provision, but building integrated systems in which both work together—delivering digital efficiency without sacrificing human inclusivity.

Acknowledgements

The project team thanks the London Borough of Tower Hamlets, Tower Hamlets Council (Public Health and Early Help & Children and Families Service), East London Foundation Trust Charity, Our Newham Money, LB Tower Hamlets Resident Support Service/Tackling Poverty Team, and Bromley by Bow Centre for funding and providing welfare advice services. We also thank the NHS staff of Specialist Children & Young People's Services in Newham for sharing their experiences and all parents and practitioners who contributed.

Conflicts of interest: The authors declare no competing interests.

Funding

Study funding was provided by Tower Hamlets Council (Public Health and Early Help) and East London NHS Foundation Trust Charity. This work was supported by the ActEarly programme, itself supported by the UK Prevention Research Partnership (MR/S037527/1), funded by the British Heart Foundation, Cancer Research UK, Chief Scientist Office of the Scottish Government Health and Social Care Directorates, Engineering and Physical Sciences Research Council, Economic and Social Research Council, Health and Social Care Research and Development Division (Welsh Government), Medical Research Council, National Institute for Health Research, Natural Environment Research Council, Public Health Agency (Northern Ireland), The Health Foundation and Wellcome. The

funders had no role in study design, data collection and analysis, decision to publish, or preparation of the manuscript.

Data availability

The qualitative interview data that support the findings of this study are not publicly available due to ethical restrictions. The data contain sensitive information about families' financial circumstances, children's disabilities, and health conditions, and participants were assured of confidentiality. Anonymized data may be available from the corresponding author upon reasonable request and subject to approval from UCL Research Ethics Committee (REC1757) and NHS ELFT's Governance and Ethics Committee (GECSE G2302d).

References

- Beardon, S. (2022) *Health Justice Partnerships in England: A Study of Implementation Success*. England: NIHR School for Public Health Research.
- Braun, V., and Clarke, V. (2006) 'Using Thematic Analysis in Psychology', *Qualitative Research in Psychology*, 3: 77–101.
- British Academy (2022) *Understanding Digital Poverty and Inequality in the UK: Executive Summary Briefing*. https://www.thebritishacademy.ac.uk/documents/4428/Executive_Summary_Briefing_Understanding_Digital_Poverty_and_Inequality_in_the_UK.pdf, accessed 12 Nov. 2025.
- Cameron, C., Hauari, H., Heys, M., Hollingworth, K., O'Brien, M., O'Toole, S., and Whitaker, L. (2022) 'A Tale of Two Cities in London's East End: Impacts of COVID-19 on Low- and High-Income Families with Young Children and Pregnant Women', in K. Garthwaite, R. Patrick, M. Power, A. Tarrant and R. Warnock (eds) *COVID-19 Collaborations: Researching Poverty and Low-Income Family Life during the Pandemic*, pp. 88–105. Bristol: Policy Press. <https://policy.bristoluniversitypress.co.uk/covid-19-collaborations>, accessed 1 Oct. 2025.
- Dixon-Woods, M., Cavers, D., Agarwal, S., Annandale, E., Arthur, A., Harvey, J., Hsu, R., Katbamna, S., Olsen, R., Smith, L., Riley, R., and Sutton, A. J. (2006) 'Conducting a Critical Interpretive Synthesis of the Literature on Access to Healthcare by Vulnerable Groups', *BMC Medical Research Methodology*, 6:35. <https://doi.org/10.1186/1471-2288-6-35>
- Graham, B. (2024) *Evaluation of the Hackney Welfare Rights Advice in Health Settings Programme. Independent Research Report*. City and Hackney Public Health.
- Griffiths, R., Wood, M., Bennett, F., and Millar, J. (2022) 'Families navigating Universal Credit in the COVID-19 pandemic', in K. Garthwaite, R. Patrick, M. Power, A. Tarrant and R. Warnock (eds) *COVID-19 Collaborations: Researching Poverty and Low-Income Family Life during the Pandemic*, pp. 44–55. Bristol: Policy Press. <https://policy.bristoluniversitypress.co.uk/covid-19-collaborations>, accessed 1 Oct. 2025.
- House of Lords. (2023) *Communications and Digital Committee, Digital Exclusion (3rd Report of Session 2022–23, HL Paper 219)*. London: Authority of the House of Lords.

- <https://publications.parliament.uk/pa/ld5803/ldselect/ldcomm/219/21902.htm>, accessed 1 Oct. 2025.
- Joseph Rowntree Foundation (2024) *UK Poverty 2024*. York: Joseph Rowntree Foundation.
- Lee, S. F., Austin Croft, L., Oultram, M., Bartley, A., Heys, M., and Cameron, C. (2026) (In press). 'Mitigating the Impact of Child Poverty in a Highly Diverse Population: Views of Parents/Carers and Professional Stakeholders about Co-located Welfare Benefits Advice in Healthcare and Community Settings', *Wellcome Open Research*.
- National Audit Office (2020) *Universal Credit: Getting to First Payment (Session 2019–2020)*. London: National Audit Office.
- NHS England (2019) *The NHS Long Term Plan*. <https://www.longtermplan.nhs.uk/publication/nhs-long-term-plan/>, accessed 5 Oct. 2025.
- Office for National Statistics, ONS (2019). *Exploring the UK's Digital Divide*. <https://www.ons.gov.uk/peoplepopulationandcommunity/householdcharacteristics/homeinternetandsocialmediausage/articles/exploringtheuksdigitaldivide/2019-03-04>, accessed 1 Oct. 2025.
- Pascoe, K. M. (2022) 'Remote Service Delivery During the COVID-19 Pandemic: Questioning the Impact of Technology on Relationship-based Social Work Practice', *The British Journal of Social Work*, 52: 3268–87. <https://doi.org/10.1093/bjsw/bcab242>
- Policy in Practice. (2025) *Missing Out 2025: £24.1 Billion Is Unclaimed*. Policy in Practice. <https://policyinpractice.co.uk/publication/missing-out-2025/>, accessed 1 Nov. 2025.
- Reece, S., Sheldon, T. A., Dickerson, J., and Pickett, K. E. (2022) 'A Review of the Effectiveness and Experiences of Welfare Advice Services Co-located in Health Settings: A Critical Narrative Systematic Review', *Social Science & Medicine*, 296. 114746.
- Robertshaw, D., Summers, K., Scullion, L., Edmiston, D., Gibbons, A., Ingold, J., Baumberge Geiger, B., and de Vries, R. (2022) 'Welfare at a (Social) Distance: Accessing Social Security and Employment Support During COVID-19 and its Aftermath', in K. Garthwaite, R. Patrick, M. Power, A. Tarrant and R. Warnock (eds) *COVID-19 Collaborations: Researching Poverty and Low-Income Family Life during the Pandemic*, Bristol: Policy Press, pp. 30–43. <https://policy.bristoluniversitypress.co.uk/covid-19-collaborations>, accessed 1 Oct. 2025.
- Robinson, L., Schulz, J., Blank, G., Ragnedda, M., Ono, H., Hogan, B., Mesch, G. S., Cotten, S. R., Kretchmer, S. B., Hale, T. M., Drabowicz, T., Yan, P., Wellman, B., Harper, M.-G., Quan-Haase, A., Dunn, H. S., Casilli, A. A., Tubaro, P., Carvath, R., Chen, W., Wiest, J. B., Dodel, M., Stern, M. J., Ball, C., Huang, K.-T., and Khilnani, A. (2020) 'Digital Inequalities 2.0: Legacy Inequalities in the Information Age', *First Monday*, 25. <https://doi.org/10.5210/fm.v25i7.10842>
- Scullion, L., Gibbons, A., Pardoe, J., Connors, C. and Beck, D. (2022) 'Complex Lives: Exploring Experiences of Universal Credit Claimants in Salford during COVID-19', in K. Garthwaite, R. Patrick, M. Power, A. Tarrant and R. Warnock (eds) *COVID-19 Collaborations: Researching Poverty and Low-Income Family Life during the Pandemic*, pp. 56–70. Bristol: Policy Press. <https://policy.bristoluniversitypress.co.uk/covid-19-collaborations>, accessed 1 Oct. 2025.
- Steiner, O. (2021) 'Social Work in the Digital Era: Theoretical, Ethical and Practical Considerations', *The British Journal of Social Work*, 51: 3358–74. <https://doi.org/10.1093/bjsw/bcaa160>
- Woodhead, C., Collins, H., Lomas, R. and Raine, R. (2017) 'Co-Located Welfare Advice in General Practice: A Realist Qualitative Study', *Health & Social Care in the Community*, 25: 1794–804. <https://doi.org/10.1111/hsc.12453>

© The Author(s) 2026. Published by Oxford University Press on behalf of The British Association of Social Workers.

This is an Open Access article distributed under the terms of the Creative Commons Attribution License (<https://creativecommons.org/licenses/by/4.0/>), which permits unrestricted reuse, distribution, and reproduction in any medium, provided the original work is properly cited.

British Journal of Social Work, 2026, 00, 1–21

<https://doi.org/10.1093/bjsw/bcag133>

Original article