Access to Social Farms for People with Dementia Living at Home in England

Bartlett, Ruth; Kaley, Alex; Hussain, Nazmul; Ahmed, Faraz; McKelvie, Sara; Tanner, Denise

Access to Social Farms for People with Dementia Living at Home in England: A mixed methods analysis using Levesque's conceptual framework.

Ruth Bartlett[1], Alex Kaley[2], Nazmul Hussain[3], Faraz Ahmed[4], Sara McKelvie[5], Denise Tanner[6].
[1]School of Health Sciences, University of Southampton, University Road, Southampton, SO17 1BJ R.L.Bartlett@soton.ac.uk (*corresponding author)

[2]School of Social Work, University of East Anglia,
[3] School of Health Sciences, University of Southampton, University Road, Southampton, SO17 1BJ
[4] Division of Health Research, Lancaster University, Bailrigg, Lancaster, LA1 4YW
[5] School of Primary Care Research, Faculty of Medicine, University of Southampton, University Road, Southampton, SO17 1BJ
[6] Department of Social Work and Social Care, University of Birmingham, Edgbaston, Birmingham, B15 2TT

Declaration of interest statement

x☐ The authors declare that they have no known competing financial interests or personal relationships that could have appeared to influence the work reported in this paper.

☒ The authors declare the following financial interests/personal relationships which may be considered as potential competing interests:

Ruth Bartlett reports financial support was provided by National Institute for Health and Care Research Three Schools Dementia programme, award no: 522370. None of the authors have declared that they have no known competing financial interests or personal relationships that could have appeared to influence the work reported in this paper.

Acknowledgments
We wish to acknowledge the assistance of Dementia Adventure with this work and the following undergraduate students who helped us during a summer internship: Emma Hotson, Phoebe Saul, and Kironjot Uppal. We are also grateful to all the participants for taking part in this project.

Article accepted for publication by Health and Social Care in the Community on 18 Oct 2025

Abstract

While much of the care literature has focused on the benefits of social farms for people living with dementia, less research has examined the accessibility of this form of support. Conducted in England between 2023 and 2024, this study examined access to social farms by people living with dementia using the Levesque's conceptual framework of access as a navigational guide. We surveyed 32 social farms managers, held four online focus groups – two with care professionals and two with social farm staff, and conducted 14 single or dyad interviews with people living with dementia and either their family carer or a social farm volunteer. The sample included six non-farm users unaware of farm-based services, all of whom were people living with dementia originally from India, Bangladesh, or Pakistan but now living in England. The inclusion of multiple perspectives provided novel insights about accessibility and the cultural meaning of animals, which has not been reported in farm-based studies before. Overall, we found a wide variation in access to social farms by people living with dementia in England. People who access a social farm are overwhelmingly White British with the means to travel independently to a social farm (i.e., access to a car and/or carer who can drive). The study shows how the Levesque's conceptual framework is a helpful navigational tool for researching access to social care. However, to make the framework more compatible for research on access to social care services, and in particular, forms of 'green care' we recommend that researchers incorporate more detailed consideration of intersectionality and access to specific facilities and activities within a service, beyond access to the service itself.

1. Introduction

Access to services is critical for people with a cognitive disability like dementia to live well. Being able to access a service - that is, having 'the opportunity to reach and obtain appropriate (health) care services in situations of perceived need for care' has the potential to improve health and quality of life (Levesque, Harris, Russell, 2013:8). However, access is a complex notion and the process itself requires knowledge and resources (Souliotis et al., 2016). For a person living with dementia, accessing a service can be challenging due to social and physical barriers, including a lack of professional support following a diagnosis of dementia, and failure to recognise the practical difficulties that a person with dementia might face, such as remembering appointments (Thomas & Milligan, 2018). Family carers may also find it difficult to access support, due to the complexity of the care system (Stephan et al., 2018).

Access to support can be particularly challenging for people living with dementia from Black and Asian ethnic minority communities (All-Party Parliamentary Group on Dementia, 2013). Barriers to accessing care for these communities are multi-faceted and include the stigma still associated with dementia within some cultures, a lack of culturally appropriate tools and approaches, and organisations not knowing what minorities might want and need from a care service (Moriarty et al., 2011, Blakemore et al., 2018). As a result, not everyone with dementia will have the same opportunity to access a service, even though accessibility is a guiding principle of the United Nations Convention of the Rights of Persons with Disabilities (United Nations, 2006) and global priority for researchers (World Health Organisation, 2022).

Dementia is a complex neurological condition and recognized form of disability, affecting approximately 55.2. million people worldwide (World Health Organisation, 2022). Dementia from the perspective of the social model of disability is understood not solely as a condition characterised by cognitive and sensory impairments, but as a multifaceted phenomenon shaped by societal attitudes and disabling environments that fail to recognise or accommodate a person's evolving needs (All-Party Parliamentary Group on Dementia, 2019). Research from a disability perspective has found that 'accessibility is a constantly changing experience' for people with dementia, as public spaces can be daunting and confusing for a person with this cognitive disability if their unique experiences of the environment are not considered (Brorsson et al., 2011: 587). Given the global significance of access, including a call for 'appropriate measures to ensure persons with disabilities have access, on an equal basis with others, to facilities and services open or provided to the public' it is imperative that access to services is investigated (United Nations, 2006, Article 9).

To date, most research involving people living with dementia has focused on access to formal care services such as day care, home care and home help (see for example, Kerpershoek et al., 2019; Stephan et al., 2018). One recent review focused on digital access to post-diagnostic services for people living with dementia (Watson, et. al. 2024). While this work advances understanding of access, there are other sites of care available to people with dementia, which are potentially less stigmatising than formal care provision. One such alternative is 'green care', a collective term for activities that utilise plants, animals, and landscapes to create interventions to improve health and wellbeing (Bragg et al., 2016). These

sites are not care settings in the traditional sense, as they are not located within a hospital or clinic or staffed by care professionals. Instead, they might utilise green spaces such as parks and woodlands and be run by volunteers (Mmako et al., 2020).

Sites of green care that have expanded rapidly over recent years are social farms (also known as care farms and farm-based services). Social farms 'utilise the whole or part of a farm to provide health, social or educational care services for vulnerable groups of people, providing a supervised, structured programme of farming-related activities' (Bragg, R., Egginton-Metters, I. & H. & Wood, 2014:v). In the UK, it is estimated that the number of social farms has increased in the last decade from 180 to just over 400 - around 20% of which offer support to people living with dementia (Bragg, 2022). Elsewhere, notably Norway (Ibsen & Eriksen, 2021), the Netherlands (DeBruin et al. 2020) and Japan (Okamura, 2021), social farms are a well-established form of green care for people with dementia. Research suggests that people living with dementia value farm-based services because they provide a chance to be in nature, enjoy familiar and traditional activities (such as feeding animals and tending to plants) and experience an everyday (rather than a care) setting (Pedersen et al., 2022). Another benefit is increased levels of physical activity (Garshol et al., 2020).

Although research on farm-based services is growing, there is limited evidence on access to this service. Studies have found that attendees tend to be younger, married men; older widowed women are more likely to use day care (De Bruin et al., 2021; Ibsen & Eriksen, 2021). Also, most social farms are in rural areas, and so people living in deprived urban areas are less able to benefit (Mitchell et al., 2021). Data on ethnicity is unavailable, neither reported in studies nor collected by farm managers; but given the severe ethnic inequalities in access to natural green spaces generally, this is likely to be another inequity (Hamza et al., 2024). It is important that newly expanding services like social farms are accessible, otherwise there is a risk that health inequities are exacerbated.

1.1 Theoretical framework

1.1.1 Levesque's conceptual framework of access

We used Levesque's conceptual framework of access to underpin this research (Levesque, Harris & Russell, 2013). Levesque's conceptual framework is regarded as the most comprehensive tool for investigating access to healthcare; it is based on an extensive review of evidence and considers access from both a systems/provider *and* client perspective (Cu et al., 2021:7). The framework incorporates five dimensions of accessibility with a corresponding ability of people to interact with them. These five dimensions are (1) approachability - people with care needs can identify that some form of services exists, they can be reached, and will have an impact on the health of the individual (2) acceptability – the service is likely to be acceptable to client groups from diverse social and cultural backgrounds (3) availability and accommodation – service can be reached in both a physical and timely manner (4) affordability – the economic capacity for people to spend resources and time on the service (5) appropriateness – the service meets the clients need and is adequate in terms of the way it is provided. The corresponding abilities are (1a) ability to perceive (2a) ability to seek (3a) ability to reach (4a) ability to pay and (5a) ability to engage.

Based on Cu et al's (2021) scoping review, empirical studies that have used this framework have focused on access to a specific healthcare service (e.g., mental health, infectious disease, maternal and childcare). Yet, as these authors conclude: 'healthcare access is a very broad concept where its definitions, dimensions and influencing factors are still continually

debated' (p12). One growing debate in many parts of the world, including the UK, is the need to integrate health and social care (Shaw et al., 2011). Social care is about recognising that care and well-being are relational (as opposed to clinical or medicinal) and located within communities (as opposed to hospitals and clinics, for example) (Needham et al., 2024). The movement to join up health and social care systems necessarily extends conceptualisations of access, which in turn raises questions about the utility of Levesque's conceptual framework for examining access.

Therefore, one of the key contributions of this article is to provide insights into the value of using the Levesque's conceptual framework as a navigational guide to examine access [as defined above] to social care, specifically social farms in England for people living with dementia who live at home. The research question is: *How accessible are social farms in England for diverse groups of people living with dementia who live at home?*

1.1.2 Intersectionality

Levesque's conceptual framework of access, with its five dimensions provides a seemingly comprehensive tool for analysing access to care services. However, given that research involving people living with dementia has been criticized for failing to situate individual experience within the wider sociopolitical context (O'Connor et al., 2010), we considered it prudent to integrate an intersectional approach into this framework to foreground structural matters.

Intersectionality, a concept rooted in Black feminist literature (Shorter-Bourhanou, 2024), helps to understand how overlapping systems of oppression—such as racism, sexism, and classism—uniquely impact individuals based on their various identities, including race, gender, and socioeconomic status (Collins & Bilge, 2020). This concept provides more of a navigational guide (than the Levesque's conceptual framework of access) for researching the diverse identities individuals hold and ways in which oppressive systems might (re)produce health inequalities. This coupling of frameworks is intended to guide a more nuanced understanding of how diverse identities and contextual factors shape experiences of accessing social care services, like social farming, for people living with dementia. Further, it draws attention to those structural inequalities that people living with dementia might be facing (Hodgson et al., 2024). These socio-cultural and contextual factors have yet to be explored in the literature on green care services, like social farming.

2. Methods

2.1 Study design

A concurrent transformative mixed-methods design study was used to collect data (Tashakkori & Teddlie, 2003). Data were collected at the same time using an online survey, in-person individual interviews and online focus groups between May 2023 and November 2023. Data collection questions were formulated around each of the five concepts of access outlined above. These concepts were also used to inform data analysis and integration.

2.2. Setting

Interviewees were recruited from across three study settings in England (community groups, social farms, and local government areas covered by integrated care boards in northern and southeast England). Settings were selected to ensure the sample included people who have

accessed a social farm before and those who have not. This was important to examine accessibility from multiple perspectives.

2.3 Data collection

2.3.1 Online survey

We designed a survey using Qualtrics based on Levesque's conceptual framework for access in collaboration with public contributors. The survey was administered electronically to approximately 100 social farm managers in England listed on the Social Farms and Gardens database, who provide services to people living with dementia. We achieved a response rate of 32% (32 responses). The survey asked questions about the services that social farms provide to people living with dementia (or would like to provide if they could); who currently uses their services, paying particular attention to gender, age, ethnicity; future plans; referral routes and geographical location of farms. To supplement the online survey, we examined data extracted from 127 pages about different social farms listed on the Social Farms and Gardens website. These publicly available pages provided key information such as each farm's postcode and the types of services offered and were used both to help identify farms for recruitment and to provide contextual data on site characteristics. Using the postcode for each farm, we then assigned an Index of Multiple Deprivation (IMD) decile to indicate the relative level of socio-economic deprivation in the area where each farm is located. This approach provides an area-based measure of deprivation for the farm's location, rather than individual-level data for farm users. It aligns with established methods previously applied in health services and population-based research, where the postcode of an organisation (e.g. a general practice, hospital, or service provider) is used to describe the deprivation of the catchment area (see, for example, Ahmed, et al, 2015).

2.3.2 Individual interviews and focus groups.

We interviewed or held focus groups about access to social farms with 46 people. Sample size was based on maximum variation sampling method which recommends a small sample size through which to explore a diversity of perspectives (Flick, 2018). Participants comprised of three different groups (i) people living with dementia and family carers (those who have used a social farm before, and those who have not) (ii) social farm staff (managers and volunteers) (iii) community-based care professionals (e.g., nurses, occupational therapists, and social workers).

For participants living with dementia, we conducted fourteen interviews with participants with dementia all living in northern England. These were conducted either as single interviews – just with the person with dementia (n2) or as a dyad interview – person with dementia and a family carer or volunteer (n12+12) depending on participant's preference. Dyad interviews, interviewing two participants together, has been shown to be a beneficial approach to data collection for people living with dementia (Kvalsvik & Øgaard, 2021) and has been used in previous research exploring access to services (Brannelly & Bartlett, 2020).

Eight of these interviewees were conducted with people living with dementia who used a social farm, and interviews took place on the farm during their visit (see Table 1). Six interviews were conducted with people living with dementia unaware of farm-based services, all of whom were people living with dementia originally from India, Bangladesh, or Pakistan but now living in England. We consciously targeted people from non-White British backgrounds to explore access from multiple perspectives. Five of these interviews were conducted in person in the participant's home, one (with Jahangir) was conducted online (see Table 2). Participants living with dementia and their carers who had not used farm-based services before were invited to watch a short video about social farms prior to their interview. This video was created by a member of the research team, to help spark conversations about what people think and feel about this form of support. All interviews were conducted by NH, a male researcher from Bangladesh, fluent in Bangla, Urdu, Hindi and English, and with experience of conducting research with people living with dementia of this heritage; those conducted on a social farm were carried out with support from the social farm manager.

Table 1. Profile of interviewees who use a social farm.

Name*	**Age Group**	**Gender**	**Ethnicity**	**Dyad/Single**	**Language**
Sarah	60-65	Female	British White	Dyad	English
Tom	70-75	Male	British White	Dyad	English
Phil	76-80	Male	British White	Dyad	English
Harry	76-80	Male	British White	Dyad	English
Joe	76-80	Male	British White	Dyad	English
David	76-80	Male	British White	Single	English
Peter	81-85	Male	British White	Dyad	English
Martin	81-85	Male	British White	Dyad	English

Table 2. Profile of interviewees who do not use a social farm

Name*	**Age Group**	**Gender**	**Ethnicity**	**Dyad/Single**	**Language**
Jahangir	65-70	Male	Bangladeshi	Dyad	English/Bangla
Shukumar	70-75	Male	Indian-Panjabi	Dyad	English/Punjabi

Fatima	65-70	Female	Pakistani-Panjabi	Dyad	English/Panjabi
Krishna	65-70	Male	Indian-Panjabi	Single	English
Hasan	75-80	Male	Indian-Ugandan ethnicity	Dyad	English
Montu	80-85	Male	Indian-Punjabi	Dyad	English/Panjabi

*To protect participant anonymity all names are pseudonyms (this includes quotes from professional staff involved in the focus groups).

For health and social care professionals and social farm staff, we conducted four online focus groups, two with health and social care professionals (comprising a mix of senior and newly qualified staff, n10; female n9; male n1; white British n9; British Pakistani n1) and two with social farm staff (comprising a mix of farm staff and volunteers, n9; female n5; male n4; all white British). Online focus group were conducted either by AK or SM with support from NH.

2.4. Analysis: Mixed Methods approach

We employed a mixed methods triangulation protocol to investigate and analyse access to social farms (O'Cathain, 2010). After examining survey and interview data separately (see below) we combined results using Levesque's conceptual framework of access as an organising structure. This process of studying access to social farms using different methods allowed us to gain a more complete picture of accessibility.

2.4.1 Survey data analysis

Given the small sample size, we considered elementary descriptive statistics to summarise and present the context from the perspective of the farms (online survey) and what was advertised to the general public (i.e. the Social Farms and Gardens website). The quantitative data were imported, cleaned, and analysed in Stata 18.

2.4.2 Qualitative data analysis

Abductive analysis was used as the technique to analyse qualitative data in this study (Timmermans & Tavory, 2012). The technique is grounded in pragmatism and aimed at theory construction. Abduction refers to the process of producing theoretical hunches for unexpected research findings and then developing these speculative theories with a systematic analysis of variation across a study (Timmermans & Tavory, 2012).

2.5 Patient and public involvement

Participant-centric approaches are important in dementia research, including mixed methods research (Robinson et al., 2011).In this project, Dementia Adventure (DA) was tasked with ensuring the involvement of individuals with dementia, their carers and social farm staff in the project. They leveraged their expertise in supporting people living with dementia, including family carers, in areas such as co-production and the development of dementia support services. Prior to data collection, RB and AK visited two care farms separately and

spoke with approximately 40 people, including people with dementia and their family carers, social farm managers, and volunteers, about their experiences. These visits helped us to hone the proposal, as it was clear that people valued going to a farm, but access may be an issue for some people (with limited mobility, for example). During data collection, DA worked with FA and NH to facilitate further involvement from a support service for diverse communities based in northern England. This relationship highlighted priorities concerning access and transportation, emphasising the importance of culturally sensitive approaches to engagement and inclusion. In addition, two engagement events were held at a care farm in the Midlands with people living with dementia and their family carers. These events provided an opportunity for people to provide their perspective on the access framework we were using and our plans for researching the topic. Throughout the project, DA provided advice to the research team about involving people living with dementia in data collection and knowledge mobilisation activities.

3 Ethics

Ethical approval to conduct the research was gained from the University of Southampton's ethics committees. Team members were guided by the UK Policy Framework for Health and Social Care Research and their institutional policies on research governance. The research involved minimal risk or discomfort; indeed, it was intended to be beneficial for those participating. Ethical issues mainly arose from the nature of the population involved, namely people living with dementia. In line with legal and evidence-based recommendations, people living with dementia were assumed to have capacity to consent unless established otherwise (Thorogood et al., 2018). If it was established that a person lacked capacity to give informed consent, they were excluded from the study as it was felt that we would be able to gain sufficient data from people with capacity. All participants with dementia were offered support by an advocate to make their own decisions about research involvement and data sharing.

4 Results

4.1. Approachability (ability to perceive)

With the Levesque framework, health and social care services are considered approachable when populations with a health need can identify that some form of service exists and can be reached. Overall, our study found there to be a general lack of awareness about social farming amongst care professionals, as well as people living with dementia and their carers. Focus group participants reported that many care staff are not aware of this service as an alternative form of social care provision.

> *"Me, I haven't heard of it before" (Amanda/care professional/focus group)*

> *"People aren't fully aware of these opportunities, and the benefit and value of them, so I think that's something which probably needs to do more"* (Musharraf/care professional/focus group).

Furthermore, 52% of social farm managers who responded to the online survey said that a lack of awareness of the service was a significant barrier to access.

Our online survey found that people living with dementia often find out about the service via informal routes, such as word of mouth (72%), the internet or social media (47%) or community organisations (44%). These findings are supported by the qualitative data, which cited family carers as an important source of information.

> *"Most of ours don't come through social services. Most of our men come through their wives, through the community, through information being put in local magazines, in pubs, in Post Offices, wherever. Doctor's surgeries. So, most of our men come through their carers bringing them out, or care homes getting to know and bringing men out that's in the care home"* (Isabella/social farm manager/focus group).

Overall, knowledge about the service is 'patchy' and there is much variation across England in terms of how people living with dementia find out about social farming. For example, social farm managers who participated in the focus groups described how awareness of the service was perceived as 'down to luck' and largely depending on where a farm was based in the country.

> *"Here in [county], the social prescribers have been amazing. We started with two, just one at three doctors' surgeries, and now, I think there's six doctors' surgeries we operate from, and each one of those doctor surgeries has two social prescribers, we are inundated with people all the time. And they've been amazing, actually. We'll send them down your way for a bit*" (James/social farm manager/focus group).

> "*Wow ours has been terrible…Totally, [county] just didn't get it with the social prescribing. I don't know why but they just didn't get it"* (Charlotte/social farm manager/focus group).

Farm managers reflected on the need for stronger links between social farms and relevant care professionals (e.g., doctors, social workers, and social prescribers) to ensure that people living with dementia who might benefit from this service can be reached.

Care professionals described how awareness of the service could be especially difficult to achieve for people who are more isolated or who do not engage with other services. For example, people living with dementia of India, Bangladesh, and Pakistan heritage might be cared for by family, or they prefer to organise their own supportive arrangements (e.g. family meals). What is more, a historic lack of engagement between health and social care services and minoritised ethnic communities could make it harder for people from these communities to find out about, and access, social farming services.

> *"Certainly, if people are quite isolated and they maybe aren't engaging with other services, then yes, how are they going to know about it? It's just trying to get it out there and accessing groups. I know through research, obviously, you know, we often, we have difficulties engaging those groups of people"* (Carissa/care professional/focus group).

> *"We struggled to engage with people from some of the different cultures. So, we've quite often struggled to access people from our local Indian community and things like that.*

Part of that is because they tend to look after people within their family" (Margaret/care professional/focus group).

Participants living with dementia originally from India, Bangladesh and Pakistan but now living in England reported that they had never heard of social farming, despite often having a farming background.

"*I was a farm owner in Bangladesh before. I had animals. I know about farms. However, I never heard what social farm is really" (*Jahangir).

The findings from our online survey also show that those people living with dementia from minoritised ethnic communities were underrepresented with regards the demographic profile of social farm users according to farm managers and these quantitative accounts (see table 3).

Table 3. Survey Data

Data were provided by social farm managers and refer specifically to people living with dementia who attend their farm. Although carers or supporters may be present during activities, they were not the focus of this question.	**Mean**	**Range**		**# Obs***
		Min	**Max**	
Proportion (%) who are older than 60 years	85.0%	50	100	20
Proportion (%) who identify as women	41.7%	0	90	18
Proportion (%) who identify as being from a minoritised ethnic group	8.6%	0	30	14
Proportion (%) who identify as being from wheelchair user	20.6%	0	70	17

**Number of farms that reported on this variable. Values represent mean percentages reported by individual farms, summarising farm-level estimates for people living with dementia who attend the site. The mean was used to describe overall patterns across farms, rather than individual-level variation.*

In the focus groups with social farm managers, participants said that one of the reasons for this is because the areas in which their social farms are based, lack diversity:

''In Dorset, we're not very representative" (Isabella/Social Farm Manager/focus group).

There's not a lot of people who probably- From different ethnic backgrounds anyway, to draw from, if you see what I mean. And I think looking at our- If they were interested- Say there was somebody, and they looked at our website, I think they might be put off by the lack of ethnic minorities that are represented in there (Joseph/social farm manager/focus group).

4.2 Acceptability (ability to seek)

Access to care varies by acceptability in the Levesque framework according to the social and cultural factors which determine provider and clients' attitudes concerning the suitability of the service. Perceptions about the acceptability of the service by health and social care providers reflected beliefs around traditional gender roles and norms. While some focus

group participants acknowledged the benefits of providing opportunities for people living with dementia to engage in physical activities, some believed that this type of service might be particularly appealing to men.

> *"This sounds, to me, something that a man would really enjoy. Because it's something physical, it's something that they would be able to use their skills. So, you know, even though somebody might have very poor cognition or poor speech, they may well, very well be able to remember how to do some of the physical things and would get an enormous sense of self-worth from that"* (Margaret/professional/focus group).

Significantly, we found divergence in the data regarding gender and perceived suitability of social farming services. While perceptions often frame social farming as a male-orientated activity, our online survey revealed that approximately 41.7% of attendees were women. This suggests that, despite prevailing assumptions, social farming is considered acceptable and potentially beneficial by a substantial number of women. This finding challenges gendered stereotypes and indicates that women maybe engaging with the service in ways that are not always visible or acknowledged.

However, our qualitative data presents a contrasting picture: only one woman participated in our sample of eight participants. This underrepresentation raises questions about sampling, recruitment methods, and the visibility of women's experiences in social farm research. For example, it is possible that the farms studied in the qualitative phase were particularly male dominated. Previous studies have similarly found that attendees of social farms tend to be men, but few have interrogated the underlying reasons for this trend.

Cultural considerations further shape acceptability. For example, for people living with dementia from Pakistan, Indian and Bangladesh, language barriers, religious practices and dietary needs were highlighted as crucial factors influencing the accessibility of social farming for these communities. Suggestions for accommodating cultural needs, included providing prayer facilities and halal food.

> *"If there's a group of people go together, they can help each other and speak same language. but if there's just one person going that doesn't speak the language or doesn't understand then people might not go there. Language is very important"* (Jahangir's daughter).

> *"There should be a prayer mat in any room, and maybe they can do ablution [...] So, those people who want to pray can also pray during their prayer time. And if there is any food, halal food should be there. And there is no issue; they say they would love it*" (Jahangir's daughter).

Care farm managers reflected on how social farming services could be adapted to meet these needs; for example, one farm manager commented on the flexibility of spaces; they said (with social farms) *'you're not just tied with one space. You've got other indoor spaces as well as large outdoor spaces* (Benjamin/social farm manager/focus group)." However, accommodating cultural needs does not appear to be something that services currently offer, which might therefore influence perceptions concerning the suitability of the service. Some care farm managers felt that such adaptations were not always feasible without additional support from local communities.

> *"If people from different ethnic backgrounds started coming […] for me, anyway, it would be a case of trying to learn from them what would help them to feel part of the group […]But I'd be- I'm not sure how much I'd be prepared to do in order to try and generate interest from ethnic minorities. Because my time is so finite, I don't know. Maybe in a project with somebody else to help with that, but I don't think on my own I would realistically have the time to do that"* (Joseph/social farm manager/focus group)

Publicly available data indicates that around half (49%) of all social farms in England have livestock on their farm, including pigs (29%) cows (9%) and dogs (9%). Participants living with dementia and their family carers who currently attended a farm reflected on the significance of animals for enhancing the social farming experience. For example, when asked which animal he liked the most, Peter said '*I think I like the pigs'*. The role of animals as non-judgemental and therapeutic companions was discussed in the focus group with social farm managers; here, participants spoke of the importance of creating opportunities for people to interact with different animals: "*We bring hens and ducks to people, we bring piglets to people, we bring lambs to people. So, we do bring things to people if they can't access it*" (Charlotte/social farm manager/focus group).

In contrast, participants from Pakistan, Indian and Bangladesh highlighted the cultural significance of animals. In these interview data, we found that certain animals have certain cultural meanings. For example, as one of the participants explained: *''In Hindu culture because Krishna was our lord. He loves cows. God will be happy if we look after cows… People will love to visit social farms if it was available locally and they could feed cows* (Shukumar). A point echoed by another participant: "*If a cow walks in the middle of the street, we let it walk in the middle of the street. We would never eat a cow, you know, the cow's meat because, like I say, it is a sacred animal for us, so yes, it's symbolic"* (Krishna). Conversely, it was felt that dogs were often disliked or feared by many people from Pakistan, Indian and Bangladesh and could therefore present a barrier in terms of access for people living with dementia who might otherwise benefit from using the service.

A person's background and experience clearly play a role in shaping perceptions of acceptability. Previous experience of farming, as well as a familiarity with outdoor lifestyles were highlighted as factors that may influence an individual's receptiveness to social farming. This is what one family carer said, for instance, when asked if she thought her husband would like to visit a social farm: *"He used to grow vegetables and crops when we were in India. He had big agricultural lands and lots of animals"* (Montu's wife). Conversely, previous experiences of racial discrimination within rural settings might dissuade people from minoritised ethnic backgrounds from using this service. For example, the quote below describes the experiences of a participant living with dementia and their family upon moving to a rural area in northern England.

> "*What my dad is saying is before they moved in they didn't know we were brown and after we moved in we got a letter saying, 'If we'd known you weren't white we wouldn't have let you buy this place"* (Hasan's son).

Care professionals and social farm managers reflected on the fact the there is a currently lack of diversity in terms of the social farm workforce, which means that people from minoritised ethnic communities might feel underrepresented, thereby perpetuating the perception that this service is predominately aimed at white people.

4.3. Availability and accommodation (ability to reach)

Availability, according to the Levesque framework, refers to the physical existence of the service with sufficient capacity, and that can be reached in a timely manner. In terms of hours of operation, it was felt that it was important to consider flexibility in timing to accommodate diverse needs. Our survey found that opening hours vary and depend on resources and the season. Survey results show that 7% of farms were open once a week, 22% were open two to three times a week, 26% were open four to five times a week, 7% were open more than five times a week, and 19% were openly seasonally or at specific times.

Care professionals discussed the importance of offering morning and afternoon sessions to cater to individual preferences, and a range of health conditions. Flexibility in terms of timing was highlighted as important for people living with dementia and their family carers, allowing for a smoother and less rushed experience.

> *"I would just be flexible, just because, you know, some people don't sleep very well, so mornings would be terrible; they are better in an afternoon. Certainly, daytime because, you know, we know from some recent dementia research that often people have sleep problems with dementia because they don't get enough daylight. So, that is a real positive, isn't it, to try and capture as much daylight as possible? So, you'd have to be flexible"* (Anya/care professional/focus group).

Issues such as a lack of public transport, geographical isolation and mobility limitations were identified as barriers to accessing social farm services, in terms of availability. Social farms are generally located in rural areas, and our survey found that the commonest mode of transport to get to a farm was via private car (79%) followed by a taxi service (9%). The accessibility of this service, in terms of availability, therefore, has implications for people living with dementia who do not have the means to travel independently to a social farm.

> "*People can't access by public transport, unless they get a taxi, so it is not- I wouldn't say it's elitist because it's not, that's not the right word, but it is only open to a certain small number of people who can get there themselves, who are prepared to pay for it themselves"* (Victoria/care professional/focus group).

Quantitative data was convergent as we found that majority of the farms were in the least deprived areas - only 18.8% of the farms were in IMD deciles 4 or less (see Table 4).

Table 4. The distribution of social farms across the Index of Multiple Deprivation (IMD)

IMD* Decile rank	Number of farms	Percentage (%)	Cumulative %
(Most Deprived) 1	5	3.9	3.9
2	2	1.6	5.5
3	4	3.1	8.6
4	13	10.2	18.8
5	12	9.4	28.2
6	20	15.7	43.9
7	16	12.6	56.5
8	24	18.9	75.4

9	7	5.5	80.9
(Least Deprived) 10	6	4.7	85.6
Not reported	18	14.2	99.8
Total	127		

*IMD scores were assigned using the postcode of each farm to provide an area-based measure of deprivation for the site location.

4.4. Affordability (ability to pay)

Affordability reflects the economic capacity for people to spend resources and time to use appropriate services. We found that socio-economic status has a role in determining whether this service was financially feasible for people living with dementia, and that some communities may find this service more affordable than others depending on their economic circumstances and access to financial support, such as direct payments.

> *"If they have had a financial assessment through the local authority, it can usually be commissioned as part of their care package. So, it is one option for people, especially those with a lower income"* (Amanda/care professional/focus group).

Survey results show that 76% of people living with dementia had to pay for the service, but for 24% of people living with dementia the service was free (this is because the farm has secured a grant). Of those who pay for the service, costs varied considerably from £7 to £125 a day, or from £20 to £50 an hour. Additional charges were sometimes applied for food and assistance.

This demonstrates the diverse funding mechanisms that enable access to this service, and sheds light on the financial implications for people living with dementia and their families, especially for those with limited budgets highlighting the potential barriers posed by high costs.

Affordability intersects with the geographical location/s of farms, as many are situated in affluent regions, and thus potentially exacerbating health inequalities amongst more socio-economically disadvantaged groups.

> *"Most [people] have got nice big houses as well, you know, it's very white area, and they tend to be people with their own transport or family members have got transport or a neighbour, they do not tend to be people that have particular financial issues"* (Charlotte/social farm manager/focus group)

Of course, older people can be asset rich but income poor (Marcinkiewicz & Chybalski, 2024). Nonetheless it is important to consider wealth in the context of access to social farms. Indeed, some participants discussed how people living with dementia may be more inclined to seek activities that did not have a cost associated with them. This was especially relevant

for people living with dementia from Pakistan, Indian and Bangladesh, who tended to rely on family or wider social networks within their communities for support.

> *"We are here sort of alone so every Monday evening we meet, we either have a meal together here and then we see this social group has no boundaries, the purpose is just to catch up and to chat and chat and chat […] sometimes we go there sometimes we go to restaurants. this is very, very easy and cheapest way of forming social group, a little group and it works"* (Hasan's son/ carer of a person with dementia).

4.5. Appropriateness (ability to engage)

Appropriateness refers to the fit between services and the needs of service users, in our case, the fit between social farming as a form of social care support, and the needs of people living with dementia from diverse backgrounds.

Focus group participants described how social farming offers a different approach to other forms of social care, emphasising the importance of purposeful activities, engagement with nature and the opportunity for people living with dementia to contribute to the running of a farm in meaningful ways. To this end, social farming was observed as having the potential to provide people living with dementia with a sense of purpose within a supportive environment, and opportunities for social connection. Additionally, social farm mangers described the benefits of being on a farm, through being able to engage in 'hands-on' activities, such as gardening and cooking, or petting and feeding animals. Such benefits were observed by the research team when they were with people living with dementia on a farm.

Seasonality, and weather may be a barrier to the perceived appropriateness of the service at certain times of year. Rain and snow can pose hazards and cause discomfort, especially for people with certain health conditions or poor mobility. However, this can be compensated for by other (indoor) activities. The importance of providing warm indoor spaces for activities during winter months and offering lots of cake and tea was noted.

Participants who volunteered on a social farm discussed practical adaptations made to farm spaces to enhance accessibility for people with varying needs; for example, creating higher benches for those who cannot bend down easily, clear signposting around the farm to aid memory, creating walkways to promote wheelchair access around the farm and bringing animals and activities directly to individuals with limited mobility. The challenges of balancing accessibility with the natural landscape and layout of a farm were noted, but also the need for flexibility to enable farms to adapt to the different needs and preferences of people wanting to use the service.

In terms of ability to engage, 52% of the social farm managers we surveyed said that people living with dementia could attend by themselves, 32% said they could attend at specific times, 30% said a person with dementia must be accompanied (by a carer or friend), and 26% had other criteria. Some participants described their inability to engage with a social farm due to the absence of a caregiver to support their visit. This highlights the disadvantage faced by individuals who require a care partner to access this service.

5 Discussion and conclusion

The study contributes to scholarship on access to care by examining the accessibility of social farms for people with dementia, including people from India, Bangladesh, and Pakistan, using Levesque's conceptual framework. The main strengths of the study are the elicitation of multiple perspectives, including farm managers, care professionals, people living with dementia and their family carers, and analysis of both numerical and meaning-rich data.

Our conceptual framework ensured that we investigated access to social farms from both a systems/provider and client perspective in a structured way. Overall, findings show a wide variation in access to social farms by people living with dementia. People living with dementia who access a social farm are overwhelmingly White British with the means to travel independently to a social farm (i.e. have access to a car and/or carer who can drive). Further, findings suggest a lack of both diversity in the social farm workforce and consideration by social farm managers of the needs of minorities. Recognising the potential value of social farms to all communities and the apparently exclusive nature of social farms presents an opportunity to improve access to this service for people from black and ethnic minority backgrounds, who might derive benefit from this service

We know from previous research that inequalities in access to nature are related to income, age, and disability, but are particularly severe when it comes to race (The Countryside Charity, 2021: 2). Results from this study expand this work by showing how access to social farms is inequitable for people from Pakistan, Indian and Bangladesh who live with a disability like dementia. Even though many of these participants had a farming background and regarded cows as sacred they were not aware of farm-based services. Focus group participants reported that awareness of the service was perceived as 'down to luck' and largely dependent on where a farm was based in the country. Quantitative results show that most social farms are in the least deprived areas of England, which are generally rural. Clearly there is a need for more 'urban models' of farm-based services (Mitchell et al., 2021: 11). We would add that any new models need to be developed in collaboration with local people living with dementia from diverse ethnic backgrounds.

The study advances our understanding of accessibility to social farms by uncovering differing perceptions among participants about the acceptability and appropriateness of the service. For example, family carers reportedly perceiving the service as someone 'being put to work' whereas others might perceive it as something a 'man would enjoy'. Similarly, social farm managers expressed some concerns about their capacity to attract people from black and ethnic minorities and accommodate different cultural needs; for example, one manager reflected on the lack of diversity in the county in which their farm was situated. Another seemed to perceive equality as an optional extra - 'not sure how much I'd be prepared to do to try and generate interest from ethnic minorities' - rather than a duty or obligation. These data show the value of bringing an intersectional lens to analysis, as they are not about dementia per se, but rather a person's other identities, in these cases - gender and ethnicity, and how these also influence access.

Gender, cultural norms, ethnicity, and socio-economic background are all considered in Levesque's framework of access, but the links between them are not. By using the lens of intersectionality, it has been possible to situate people's experiences of access in a much broader socio-cultural context (O'Connor et al., 2010). For example, participants from Pakistan, Indian and Bangladesh who had experienced racism in the past, spoke of making

their own support arrangements (rather than accessing a service). Intersectionality also aids in recognising how different identities might shape what is deemed appropriate or meaningful in relation to farm-based activities. For example, as discussed earlier in relation to animals, Hindu and Sikh people admire cows as sacred beings whereas for people of Islamic faith, there may be apprehension or fear associated with dogs and pigs due to religious beliefs. Animal symbolism emerges as a key point of difference between white and non-white participants, reflecting how identity and cultural experiences inform interactions with the farm setting.

Support for people living with dementia is often inequitable, especially for ethnic minorities. These inequities are poorly described and accounted for, and mitigating strategies are lacking to provide optimal care for all (World Health Organisation, 2022). This study has shown how intersections of age, disability (including dementia), race, religion and gender can impact on different dimensions of accessibility. We recommend that when applying the Levesque's model's different dimensions of access to plan and evaluate care provision, careful attention is given to the impact of the intersection of protected characteristics such as age, sex, race, religion and disability. By coupling the Levesque framework with an intersectional lens, we have been able to offer a detailed description of accessibility to social farms, which might have relevance for cognate sectors (e.g., community-based support groups) and other countries where access to post-diagnostic support can be particularly challenging, such as Brazil and Kenya (Alzheimer's Disease International, 2022).

There are limitations to the study. It was a relatively small survey sample and so there is the possibility of bias. It is likely, for example, that those who completed the survey had a vested (even commercial) interest in providing a service to people living with dementia. Therefore, they may have emphasised the benefits.

In conclusion, although this study focuses on access to social farms in England, the approach is relevant for non-statutory care services more broadly and globally. Our study shows how the Levesque conceptual framework, originally developed to analyse access to healthcare, can be used as a navigational tool for researching access to social care services. However, some extensions to the model are required. Our research challenges the Levesque framework's assumption that access to a care service necessarily implies access to (and therefore potential benefit from) the support it provides. For example, someone may be able to access a social farm but not all the outdoor spaces and facilities it offers. Social care is more likely than health services to comprise multiple elements or types of intervention within one service as received by an individual. For instance, a range of activities may be undertaken within traditional day care provision. To make the framework more compatible for research on access to social care services, and in particular, forms of 'green care' we recommend that researchers incorporate more detailed consideration of access to and benefit from specific activities within a service, beyond access to the service itself. Finally, our findings suggest a need for more gender-sensitive research and practice, including efforts to make social farming more inclusive and accessible to women. This could involve targeted outreach, gender-aware referral practices, and the development of farm activities that appeal to a broader range of interests and needs.

6 Data availability

Data has been deposited into PURE at (insert HEI after peer review) and will be kept for 10 years after the study has finished. Personal data has been destroyed, in line with the General Data Protection Regulation (GDPR).

References

Ahmed, F., Abel, G.A., Lloyd, C.E. *et al.* (2015) Does the availability of a South Asian language in practices improve reports of doctor-patient communication from South Asian patients? Cross sectional analysis of a national patient survey in English general practices. *BMC Family Practice* **16**, 55 https://doi.org/10.1186/s12875-015-0270-5

All-Party Parliamentary Group on Dementia. (2013). *Dementia does not discriminate: The experiences of black, Asian and ethnic minority communities*.

All-Party Parliamentary Group on Dementia. (2019). *Hidden no more: Dementia and disability*.

Blakemore, A., Kenning, C., Mirza, N., Daker-White, G., Panagioti, M., & Waheed, W. (2018). Dementia in UK South Asians: A scoping review of the literature. In *BMJ Open* (Vol. 8, Issue 4). BMJ Publishing Group. https://doi.org/10.1136/bmjopen-2017-020290

Bragg, R. (2022). *Annual care farming and green care survey 2021: Full report*.

Bragg, R., Egginton-Metters, I., E., & H. & Wood, C. (2014). *Care farming: Defining the 'offer' in England.* Natural England Commissioned Report NECR155. Natural England.

Brannelly, T., & Bartlett, R. (2020). Using Walking Interviews to Enhance Research Relations with People with Dementia: Methodological Insights From an Empirical Study Conducted in England. *Ethics and Social Welfare*, *14* (4), 432–442. https://doi.org/10.1080/17496535.2020.1839115

Brorsson, A., Öhman, A., Lundberg, S., & Nygård, L. (2011). Accessibility in public space as perceived by people with Alzheimer's disease. *Dementia*, *10* (4), 587–602. https://doi.org/10.1177/1471301211415314

Cu, A., Meister, S., Lefebvre, B., & Ridde, V. (2021). Assessing healthcare access using the Levesque's conceptual framework– a scoping review. *International Journal for Equity in Health*, 20 (1), 1–14. https://doi.org/10.1186/s12939-021-01416-3

De Bruin, S. R., Buist, Y., Hassink, J., & Vaandrager, L. (2021). I want to make myself useful: The value of nature-based adult day services in urban areas for people with dementia and their family carers. *Ageing and Society*, *41* (3), 582–604. https://doi.org/10.1017/S0144686X19001168

Flick, U. (2018). *Doing Triangulation and Mixed Methods*. Sage Publications.

Garshol, B. F., Ellingsen-Dalskau, L. H., & Pedersen, I. (2020). Physical activity in people with dementia attending farm-based dementia day care – a comparative actigraphy study. *BMC Geriatrics*, *20* (1). https://doi.org/10.1186/S12877-020-01618-4

Hamza, M., Edwards, R. C., Beaumont, J. D., De Pretto, L., & Torn, A. (2024). Access to natural green spaces and their associations with psychological wellbeing for South Asian

people in the UK: A systematic literature review. *Social Science and Medicine*, *359* (August), 117265. https://doi.org/10.1016/j.socscimed.2024.117265

Hodgson, S., Hayes, H., Cubi-Molla, P., & Garau, M. (2024). Evidence Review in England, Wales and Northern Ireland. https://www.ohe.org/publications/inequalities-in-dementia

Ibsen, T. L., & Eriksen, S. (2021). The experience of attending a farm-based day care service from the perspective of people with dementia: A qualitative study. *Dementia*, *20* (4), 1356–1374. https://doi.org/10.1177/1471301220940107

Kerpershoek, L., Wolfs, C., Verhey, F., Jelley, H., Woods, B., Bieber, A., Bartoszek, G., Stephan, A., Selbaek, G., Eriksen, S., Sjölund, B. M., Hopper, L., Irving, K., Marques, M. J., Gonçalves-Pereira, M., Portolani, D., Zanetti, O., & Vugt, M. (2019). Optimizing access to and use of formal dementia care: Qualitative findings from the European Actifcare study. *Health and Social Care in the Community*, *27* (5), e814–e823. https://doi.org/10.1111/hsc.12804

Kvalsvik, F., & Øgaard, T. (2021). Dyadic interviews versus in-depth individual interviews in exploring food choices of norwegian older adults: A comparison of two qualitative methods. *Foods*, *10* (6). https://doi.org/10.3390/foods10061199

Levesque, Jean Frederic Harris, M.F., Russell, G. (2013). Patient-centred access to health care: conceptualising access at the interface of health systems and populations. *International Journal for Equity in Health*, *12* (18), 3262–3265. https://doi.org/10.1002/cber.189502803178

Marcinkiewicz, E., & Chybalski, F. (2024). Income-poor, asset-rich? The role of homeownership in shaping the welfare position of the elderly. *International Journal of Social Welfare*, *33* (2), 531–545. https://doi.org/10.1111/ijsw.12623

Mitchell, L. M., Houston, L., Hardman, M., Howarth, M. L., & Cook, P. A. (2021). Enabling Urban Social Farming: the need for radical green infrastructure in the city. *Cogent Social Sciences*, *7*(1). https://doi.org/10.1080/23311886.2021.1976481

Ministry of Housing, Communities and Local Government (2019) English indices of deprivation 2019: mapping resources. Gov.UK

Mmako, N. J., Courtney-Pratt, H., & Marsh, P. (2020). Green spaces, dementia and a meaningful life in the community: A mixed studies review. *Health and Place*, *63*. https://doi.org/10.1016/j.healthplace.2020.102344

Moriarty, B. J., Sharif, N., & Robinson, J. (2011). SCIE Research Briefing 35: Black and minority ethnic people with dementia and their access to support and services. Social Care Institute for Excellence.

Nations, U. (2006). *United Nations Organization. (2006). UN Convention on the rights of people with disabilities and optional protocol.* https://www.un.org/development/desa/disabilities/convention-on-the-rights-of-persons-with-disabilities.html

Needham, C., Morris, H., Miller, R., Ayton, D., O'Connor, M., Hall, K., & Skouteris, H. (2024). Social care: time for a name change? *International Journal of Care and Caring*, *8* (3), 1–6. https://doi.org/10.1332/23978821y2024d000000023

O'Cathain A, M. E. N. J. (2010). Three techniques for integrating data in mixed methods studies. *British Medical Journal*, *341*.

O'Connor, D., Phinney, A., & Hulko, W. (2010). Dementia at the Intersections: A unique case study exploring social location. *Journal of Aging Studies*, *24* (1), 30–39. https://doi.org/10.1016/j.jaging.2008.08.001

Pedersen, I., Ellingsen-Dalskau, L., & Patil, G. (2022). Characteristics of farm-based day care services for people with dementia – mapping the stakeholders' views. *Wellbeing, Space and Society*, *3*, 100073. https://doi.org/10.1016/J.WSS.2022.100073

Robinson, A. L., Emden, C. G., Croft, T. D., Vosper, G. C., Elder, J. A., Stirling, C., & Vickers, J. C. (2011). Mixed methods data collection in dementia research: A "progressive engagement" approach. *Journal of Mixed Methods Research*, *5* (4), 330–344. https://doi.org/10.1177/1558689811416940

Shaw, S., Rosen, R., & Rumbold, B. (2011). What is integrated care? *Nuffield Trust*, *June*, 1–3. https://doi.org/10.3109/09540261.2014.964189

Souliotis, K., Hasardzhiev, S., & Agapidaki, E. (2016). A Conceptual Framework of Mapping Access to Health Care across EU Countries: The Patient Access Initiative. *Public Health Genomics*, *19* (3), 153–159. https://doi.org/10.1159/000446533

Stephan, A., Bieber, A., Hopper, L., Joyce, R., Irving, K., Zanetti, O., Portolani, E., Kerpershoek, L., Verhey, F., De Vugt, M., Wolfs, C., Eriksen, S., Røsvik, J., Marques, M. J., Gonçalves-Pereira, M., Sjölund, B. M., Jelley, H., Woods, B., Meyer, G., … Machado, A. (2018a). Barriers and facilitators to the access to and use of formal dementia care: Findings of a focus group study with people with dementia, informal carers and health and social care professionals in eight European countries. *BMC Geriatrics*, *18* (1). https://doi.org/10.1186/s12877-018-0816-1

Stephan, A., Bieber, A., Hopper, L., Joyce, R., Irving, K., Zanetti, O., Portolani, E., Kerpershoek, L., Verhey, F., De Vugt, M., Wolfs, C., Eriksen, S., Røsvik, J., Marques, M. J., Gonçalves-Pereira, M., Sjölund, B. M., Jelley, H., Woods, B., Meyer, G., Machado, A. (2018b). Barriers and facilitators to the access to and use of formal dementia care: Findings of a focus group study with people with dementia, informal carers and health and social care professionals in eight European countries. *BMC Geriatrics*, *18*(1), 1–16. https://doi.org/10.1186/s12877-018-0816-1

Tashakkori A. and Teddlie C. (2003). Mixed methods designs. Creswell et al. (2003) in (eds.) Handbook of Mixed Methods in Social and Behavioral Research, p. 224. Thousand Oaks, California: Sage Publications. In *Handbook of Mixed Methods in Social and Behavioral Research*. Sage Publications.

The Countryside Charity. (2021). *Access to nature in the English countryside*. *August*. The Countryside Charity.

Thomas, C., & Milligan, C. (2018). Dementia , disability rights and disablism: understanding the social position of people living with dementia. *Disability & Society*, *7599*, 1–17. https://doi.org/10.1080/09687599.2017.1379952

Thorogood, A., M€ Aki-Pet€ Aj€ A-Leinonen, A., Brodaty, H., Dalp, G., Gastmans, C., Gauthier, S., Gove, D., Harding, R., Knoppers, M., Rossor, M., & Bobrow, M. (n.d.). *Perspective Consent recommendations for research and international data sharing involving persons with dementia Ageing and Dementia Task Team 1*. https://doi.org/10.1016/j.jalz.2018.05.011

Timmermans, S., & Tavory, I. (2012). Theory Construction in Qualitative Research: From Grounded Theory to Abductive Analysis. *Sociological Theory*, *30* (3), 167–186. https://doi.org/10.1177/0735275112457914

World Health Organisation. (2022). *A blueprint for dementia research*. World Health Organization.